As confidentially submitted to the Securities and Exchange Commission on May 24, 2021

Registration No. 333-

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-1
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

XILIO THERAPEUTICS, INC.
(Exact name of registrant as specified in its charter)

Delaware	**2834**	**85-1623397**
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

828 Winter Street
Waltham, Massachusetts 02451
(617) 430-4680
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

René Russo
President and Chief Executive Officer
828 Winter Street
Waltham, Massachusetts 02451
(617) 430-4680
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Cynthia T. Mazareas **Molly W. Fox** **Wilmer Cutler Pickering Hale and Dorr LLP** **60 State Street** **Boston, Massachusetts 02109** **(617) 526-6000**	**Chris Frankenfield** **General Counsel** **Xilio Therapeutics, Inc.** **828 Winter Street** **Waltham, Massachusetts 02451** **(617) 430-4680**	**Divakar Gupta** **Richard C. Segal** **Cooley LLP** **55 Hudson Yards** **New York, New York 10001** **(212) 479-6000**

Approximate date of commencement of proposed sale to the public: As soon as practicable after this Registration Statement is declared effective.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ☐

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐	Accelerated filer ☐
Non-accelerated filer ☒	Smaller reporting company ☐
	Emerging growth company ☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to Be Registered	**Proposed Maximum Aggregate Offering Price[(1)]**	**Amount of Registration Fee[(2)]**
Common stock, par value $0.0001 per share	$	$

(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended.

(2) Includes the offering price of shares that the underwriters may purchase pursuant to an option to purchase additional shares.

(3) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price.

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment that specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

SUBJECT TO COMPLETION, DATED , 2021

PRELIMINARY PROSPECTUS

Shares

Common Stock

We are offering shares of our common stock. This is our initial public offering, and no public market currently exists for our common stock. We expect the initial public offering price to be between $ and $ per share. We intend to list our common stock on the Nasdaq Global Market under the symbol "XLO."

We are an "emerging growth company" as defined under the U.S. federal securities laws and will be subject to reduced public company reporting requirements for this prospectus and future filings. See "Prospectus Summary—Implications of Being an Emerging Growth Company."

Investing in our common stock involves risks. See "Risk Factors" beginning on page 16 of this prospectus.

	Per share	*Total*
Initial public offering price	*$*	*$*
Underwriting discounts and commissions[(1)]	*$*	*$*
Proceeds, before expenses	*$*	*$*

(1) See "Underwriters" beginning on page 199 of this prospectus for additional information regarding underwriter compensation.

We have granted the underwriters an option for a period of 30 days from the date of this prospectus to purchase an additional shares of common stock.

The underwriters expect to deliver the shares of common stock against payment in New York, New York on or about , 2021.

Joint Book Running Managers

MORGAN STANLEY ***COWEN*** ***GUGGENHEIM SECURITIES***

Lead Manager

RAYMOND JAMES

Prospectus dated , 2021

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Neither we nor the underwriters have authorized anyone to provide you with any information other than that contained in this prospectus, any amendment or supplement to this prospectus or in any free writing prospectus we may authorize to be delivered or made available to you. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of shares of our common stock. Our business, financial condition, results of operations and prospects may have changed since that date.

For investors outside the United States, we have not, and the underwriters have not, done anything that would permit this offering or possession or distribution of this prospectus in any jurisdiction where action for that purpose is required, other than in the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside the United States.

The market data and certain other statistical information used throughout this prospectus are based on independent industry publications, governmental publications, reports by market research firms, or other independent sources that we believe to be reliable sources. Industry publications and third-party research, surveys, and studies generally indicate that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. We are responsible for all of the disclosure contained in this prospectus, and we believe that these sources are reliable; however, we have not independently verified the information contained in such publications. While we are not aware of any misstatements regarding any third-party information presented in this prospectus, their estimates, in particular, as they relate to projections, involve numerous assumptions, are subject to risks and uncertainties, and are subject to change based on various factors, including those discussed under the section entitled "Risk Factors" and elsewhere in this prospectus. Some data are also based on our good faith estimates.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our common stock, you should carefully read this entire prospectus, including our consolidated financial statements and the related notes thereto and the information set forth in the sections titled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations." Unless the context otherwise requires, we use the terms "company," "we," "us" and "our" in this prospectus to refer to Xilio Therapeutics, Inc. and our subsidiaries.

Overview

We are a biotechnology company focused on harnessing the immune system to achieve deep and durable clinical responses to improve the lives of patients with cancer. We have built our geographically precise solutions, or GPS, platform to rapidly engineer novel molecules, including cytokines and other biologics, that are designed to optimize their therapeutic index. Current immuno-oncology, or I-O, therapies have curative potential for patients with cancer; however, their potential is significantly curtailed by systemic toxicity that results from activity of the therapeutic molecule outside the tumor microenvironment, or TME. Our molecules are engineered to localize activity within the TME without systemic effect, resulting in the potential to achieve enhanced anti-tumor activity. We are advancing a number of geographically precise, or tumor-selective, agents through various stages of development. Our most advanced cytokine product candidate is XTX202, an interleukin 2, or IL-2, therapy currently in investigational new drug application, or IND, enabling studies. We plan to submit an IND to the U.S. Food and Drug Administration, or FDA, in to evaluate XTX202 in patients with solid tumors. Our checkpoint inhibitor product candidate is XTX101, an anti-cytotoxic T-lymphocyte-associated protein 4, or anti-CTLA-4, monoclonal antibody for which we recently submitted an IND to the FDA. If the IND is cleared, we plan to initiate a Phase 1 clinical trial in to evaluate XTX101 in patients with solid tumors. In addition, we are advancing our tumor-selective IL-12 and IL-15 molecules, XTX301 and XTX401, through preclinical development.

Our focus is to improve upon two of the foundational mechanisms of I-O: cytokines and checkpoint inhibitors. Since the 1980s, cytokines have been explored as a cancer therapy due to their ability to carry messages between cells and serve as master regulators of the body's response to inflammation and immune attack. Although cytokines have demonstrated the ability to generate sustained complete responses, or CRs, and compelling clinical efficacy in certain tumors, their use is limited by severe systemic toxicity. Similar to cytokines, checkpoint inhibitors have shown the potential to provide meaningful improvements in survival for patients with cancer, but the utilization of these therapies, beyond those that target the immune proteins PD-1 or PD-L1, is also limited largely by toxicity.

Our goal is to overcome the limitations of current I-O therapies by developing products with an improved efficacy-to-toxicity ratio, or therapeutic index. The toxicities for cytokines and checkpoint inhibitors stem from their activity outside of the TME. Our GPS platform is designed to overcome these systemic toxicities by creating tumor-selective molecules and unleashing the potential of cytokines and checkpoint inhibitors in the TME. These molecules are intended to be inactive until they reach the TME, where they are activated, resulting in localized clinical activity without dose-limiting toxicities, or DLTs. To achieve this tumor selectivity, we apply our GPS platform, which includes engineered features and a proprietary protein masking technology that render our molecules inactive until reaching the tumor. Our GPS platform also enables regulated pharmacokinetics, or PK, and protease-dependent activation, resulting in geographically localized anti-tumor activity. The engineered features are designed to ensure that our product candidates are stable molecules with well-understood properties and a reproducible manufacturing approach.

Our Pipeline

Leveraging our GPS platform, we are building a pipeline of tumor-selective cytokine and checkpoint inhibitor programs. We have worldwide development and commercialization rights to all of our product candidates.

The following chart summarizes our product candidates and anticipated upcoming milestones.

Our most advanced cytokine is XTX202, an engineered form of IL-2 designed to overcome the mechanism's historical challenges and realize its full therapeutic potential. The power of IL-2 to activate the immune system as a cancer therapeutic is promising, but it has been greatly reduced due to toxicities. When administered locally, IL-2 has been shown to be clinically active and well-tolerated, shrinking local cancerous lesions and reducing malignant effusions; however, when administered systemically, treatment with IL-2 has been shown to induce severe toxicities. Because IL-2 anti-tumor activity and toxicity are both dependent on the amount of IL-2 administered, we believe engineering a form of IL-2 that can minimize the systemic effects and direct the activity locally to the TME would be an optimal way to improve patient outcomes. As a result, we applied our GPS platform to engineer XTX202 masked with a protein domain to prevent binding activity until cleaved off by TME-associated proteases. In preclinical studies, we observed that XTX202 was activated in a protease-dependent manner, exhibited tumor growth inhibition and was well-tolerated. We plan to submit an IND to the FDA in to evaluate XTX202 in patients with solid tumors and, if cleared, promptly initiate a Phase 1/2 clinical trial in multiple tumor types. We plan to explore the therapeutic utility of XTX202 for the treatment of solid tumor indications. In addition, assuming we successfully complete the Phase 1 trial and determine the recommended Phase 2 dose, or RP2D, for XTX202, we plan to initiate clinical trials of combinations with standard-of-care agents to assess the ability to optimally dose XTX202 in combination with a therapeutic dose of standard-of-care treatments.

Leveraging our experience with XTX202, we are applying our GPS platform to known cytokines that we believe have attractive therapeutic potential but that have been unable to achieve regulatory approval to date. The next cytokine product candidates we are developing are XTX301 and XTX401, which are engineered tumor-selective IL-12 and IL-15 molecules, respectively. These molecules were engineered with the goal of ensuring local activity within the TME and showing tolerability by having little or no activity in non-tumor tissue. In preclinical models, both product candidates exhibited tumor-selective activity with minimal peripheral effects. Notably, XTX301 showed tumor growth inhibition in mouse models and was well-tolerated in multi-dose studies in non-human primate, or NHP, models. We are advancing XTX301 and XTX401 through preclinical development.

Beyond our cytokine programs, we are developing XTX101, a Phase 1-ready tumor-selective anti-CTLA-4 monoclonal antibody, or mAb, that is designed to improve upon the therapeutic index of existing anti-CTLA-4 therapies. Using our GPS platform, we have engineered XTX101 to enhance the desirable features of an anti-CTLA-4 antibody while limiting liabilities associated with checkpoint inhibitors. We recently submitted an IND for the initiation of a Phase 1 clinical trial. Our planned Phase 1 dose-escalation trial in the monotherapy and anti-PD-1 combination settings will assess the tolerability of XTX101 at the target dose

with the goal of establishing an RP2D both as a monotherapy and in combination with an anti-PD-1. Given the significant size of the opportunity and the trials required to develop XTX101, we plan to seek collaboration opportunities with a company developing an anti-PD-1 during our Phase 1 clinical trial and develop XTX101 with that collaborator.

We intend to develop a number of product candidates that mimic or modify the activity of critical I-O therapies to improve both their therapeutic activity and their tolerability, with the goal of achieving a clinically meaningful improvement in their therapeutic index. We also plan to evaluate opportunities for better tolerated and more efficacious combination therapies, using product candidates from across our portfolio with other cancer therapies, to increase the potential for curative regimens in oncology. Beyond oncology, we also plan to apply our GPS platform to other disease areas in which the immune system is dysregulated.

Our GPS Platform

We believe that geographic localization of the activity of I-O agents to the TME can overcome DLTs historically associated with these therapies and enable maximal therapeutic benefit for patients. Using our GPS platform, we have engineered molecules that are designed to be turned on selectively in the TME, thereby reducing potential toxicities and improving their therapeutic index.

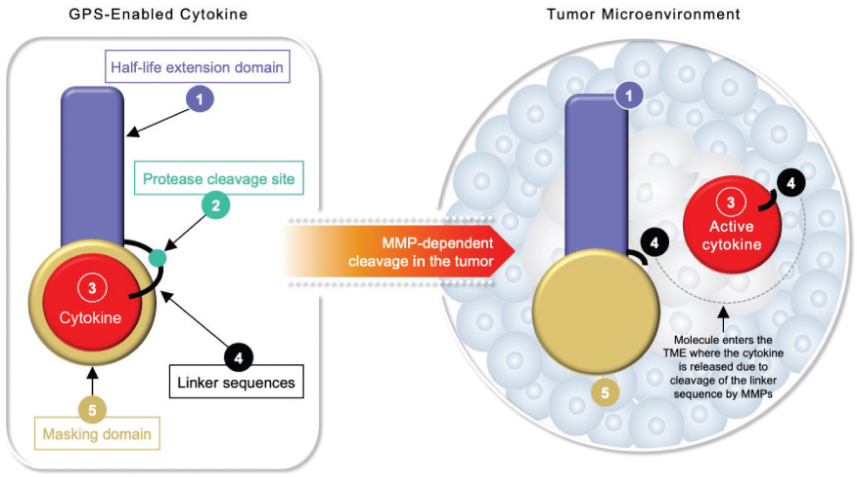
Matrix metalloproteases, or MMPs, are enzymes involved in protein degradation that are essential for tumor growth and metastasis because they regulate key processes within the TME, including growth, survival, angiogenesis, invasion and metastasis. MMPs are preferentially active in the TME by comparison to non-tumor organs or tissues. As a result, MMP activity can be leveraged to activate molecules within the TME that remain inactive outside the TME.

Our GPS platform enables us to engineer a broad range of immune-modulatory molecules, including cytokines and antibodies, that contain masking domains that render these molecules inactive outside of the TME. The molecules are then designed to be turned on selectively in the TME where they are activated by the unique conditions in the TME, including the preferential activity of MMPs.

Key features of our tumor-selective molecules exemplify the engineering approach that underpins our GPS platform. The general architecture of a GPS-enabled molecule contains the following features: a masking domain, a half-life extension domain, linker sequences, a protease cleavage site and the active engineered molecule. Each of these features works in concert to enable our molecules' potential ability to induce tumor selective biological activity and tumor growth inhibition without toxicity outside of the TME.

In the graphic below, an illustrative cytokine product candidate on the left contains a masking domain that is released by protease cleavage. The half-life extension domain is shown in blue, the masking domain in tan and the active cytokine in red. When the linker sequences, shown in black, which contain a protease-cleavage site, shown in green, are cleaved by proteases, the masking domain is released, allowing the cytokine to bind to the target receptors. Before cleavage by the MMP in the TME, the cytokine is inactive outside the TME. Specifically, there is no binding to target receptors and the molecule has a long half-life outside the TME. After cleavage in the TME, the cytokine is locally activated and has a short half-life. These design features also enhance intrinsic stability of the molecule and facilitate manufacturing.

Key Features of Our GPS-Enabled Cytokines



We believe that the characteristics of our GPS platform enable the following key advantages for cytokines:

- masking that takes advantage of multiple intra-molecular interactions, minimizing the risk of activity outside of the TME and therefore the risk of toxicity;
- half-life extending inactive molecules to support administration to patients on a schedule consistent with other biologics agents;
- locally activating cytokine molecules that have a short half-life in the TME, which reduces the risk of the released cytokine exhibiting activity outside of the TME and, therefore, further reduces the risk of toxicity;
- engineering the active molecule such that unmasking in the TME promotes a potent anti-tumor immune response; and
- early consideration and incorporation of manufacturing and development aspects into the design of molecules to facilitate production of high-quality drug product for clinical use.

In addition to utilizing proprietary engineering that is broadly applicable to structurally diverse cytokines to realize the full potential of multiple cytokines for cancer therapy, we believe our GPS platform enables diverse applications to multiple biologic modalities, including mAbs, and has the potential to be applied to multiple therapeutic areas, including autoimmune diseases.

Our History and Team

We have attracted a diverse executive leadership team comprised of industry professionals and scientists with extensive expertise in building and leading successful biotech companies. Our executive leadership collectively has over 110 years of experience and has worked at leading pharmaceutical companies and academic institutions, including Abbvie, Inc., Bristol-Myers Squibb Company, Cubist Pharmaceuticals, Inc. F. Hoffman-La Roche AG, Janssen Biotech, Inc., Magenta Therapeutics, Inc., Merck & Co., Inc., Tesaro, Inc. and the University of Texas M.D. Anderson Cancer Center.

Furthermore, collectively, members of our executive team have contributed significantly to the filing of over 40 INDs and over 30 new drug applications, or NDAs, supplemental NDAs and biologics license applications, including for ground-breaking cancer treatments such as pembrolizumab, tivozanib, dostarlimab, niraparib, olaparib, lenvatinib, docetaxel and trastuzumab.

Since our founding, we have raised over $225 million in capital from premier venture capital funds, healthcare-dedicated funds and other leading investors that share our vision of transforming the lives of patients with cancer, including Atlas Venture, Bain Capital Life Sciences, Deerfield Management Company, F-Prime Capital, MRL Ventures Fund, RA Capital Management, RiverVest Venture Partners, Rock Springs Capital, SV Health Investors and Takeda Ventures.

Our Strategy

Our vision is to transform the lives of patients with cancer by harnessing the power of highly potent, tumor-selective I-O therapies that deliver deep and durable clinical responses. By leveraging our GPS platform, we aim to discover, develop and, ultimately, commercialize I-O therapies that overcome the known limitations of today's approaches and provide effective, tolerable and durable therapeutic options for patients and their physicians. In order to achieve our goal, the key elements of our strategy are to:

- **Efficiently advance our most advanced cytokine product candidate, XTX202, through clinical development for multiple cancer indications as both a monotherapy and a combination agent.** Using our GPS platform, we engineered and are developing XTX202, a novel, modified form of IL-2 that is masked with a protein domain to prevent binding activity until cleaved off by TME-associated proteases. In preclinical mouse models, XTX202 was observed to have comparable tumor growth inhibition to aldesleukin, an FDA-approved IL-2, and non-masked IL-2, while avoiding mortality and body weight loss. Due to its mechanism of action and opportunity to deliver tumor-directed activity while minimizing the risk of off-tumor effects, we plan to explore the therapeutic utility of XTX202 for the treatment of solid tumor indications. We plan to submit an IND to the FDA in to evaluate XTX202 in patients with solid tumors and, if cleared, promptly initiate a Phase 1/2 clinical trial in multiple tumor types. We plan to focus on establishing safety and efficacy of XTX202 as a monotherapy prior to advancing it in further development in combination with standard-of-care agents. If we receive positive findings from the Phase 1/2 trial, and subject to discussions with regulatory authorities, we intend to efficiently advance XTX202 into registration-enabling clinical trials both as a monotherapy and as a combination therapy initially for the treatment of renal cell carcinoma, or RCC, and melanoma prior to potential expansion into additional cancer indications.
- **Progress our preclinical cytokine product candidates, XTX301 and XTX401, into and through clinical development.** Leveraging our experience with XTX202, we are applying our GPS platform to known cytokines that we believe have attractive therapeutic potential but that have been unable to achieve regulatory approval to date. As part of our strategy, we are developing XTX301 and XTX401, which are engineered tumor-selective IL-12 and IL-15 molecules, respectively. In preclinical models, both product candidates exhibited tumor-selective activity with minimal peripheral effects. Notably, XTX301 showed tumor growth inhibition in mouse models and was well-tolerated in multi-dose studies in NHP models. Based on the strength of our existing preclinical data, we are advancing XTX301 with the goal of submitting an IND in and are pursuing IND-enabling studies of XTX401.
- **Broadly expand our portfolio by applying the versatility and reproducibility of our GPS platform to develop novel therapies.** We have prioritized efforts to develop novel cytokine therapies based on the therapeutic activity of cytokines established in other clinical trials, while recognizing that the benefit of these cytokines has been historically hampered by issues of short half-life, poor bioavailability and significant toxicity. By leveraging the insights and capabilities of our platform and our leadership team, we aim to systematically create novel molecules, including cytokines and other biologics, that overcome these challenges to safely localize their potent activity to the TME. We believe that our GPS platform, which enables us to develop molecules with the potential to trigger anti-tumor immunity, while limiting systemic exposure to improve tolerability, is broadly applicable in oncology. As a result, we intend to develop additional product candidates that mimic or modify the activity of critical I-O therapies to improve both their therapeutic activity and tolerability. We plan to continue to invest in our innovative GPS platform and in our team to further expand our capabilities to engineer, manufacture and develop potentially more effective and less toxic therapies.
- **Realize the full potential of our checkpoint inhibitor product candidate, XTX101.** Our tumor-selective anti-CTLA-4 antibody, XTX101, is designed to improve upon the therapeutic index of existing anti-CTLA-4 therapies. In order to achieve this, we use a complementarity determining region, or CDR,

mask to impose tumor-localization upon enhanced antibody binding. In preclinical models, we observed tumor-selective activity and tumor growth inhibition superior to that of an ipilimumab analog. Based on our preclinical studies, we believe that XTX101 could be an attractive combination candidate with an anti-PD-1 agent and may require a broad clinical program. We recently submitted an IND to the FDA to evaluate XTX101 in patients with solid tumors. If the IND is cleared, we plan to initiate a Phase 1 clinical trial in . We also plan to explore opportunities for a potential collaboration that could expedite late-stage development of XTX101 and support its future commercialization, if approved.

- **Build a fully integrated immuno-oncology company by independently commercializing approved products in indications and key geographies where we believe we can maximize our product candidates' value.** We currently own all worldwide development and commercial rights to our product candidates and programs, which we believe have been optimally selected based on our extensive preclinical data, including data with disease-specific animal models and biomarkers, supporting their potential for clinical success. To maximize the full potential and value of our pipeline, we intend to retain key development and commercialization rights for our product candidates in indications and geographies that we believe we can ultimately commercialize successfully on our own, if approved.
- **Leverage the broad applicability of our GPS platform through strategic collaborations.** We believe the collective components of our GPS platform and the reproducibility it enables in our drug discovery and development efforts, present a meaningful opportunity for us to leverage our GPS platform in multiple therapeutic areas. Accordingly, we plan to explore strategic collaborations that would enable us to accelerate the development of additional product candidates or programs as well as expand our capabilities, pipeline opportunities and product offerings in cancer and other therapeutic areas, particularly where a collaborator may have synergistic or additive capabilities to our own.

Risks Associated with Our Business

Our business is subject to a number of risks of which you should be aware before making an investment decision. These risks are discussed more fully in the "Risk Factors" section of this prospectus. These risks include, but are not limited to, the following:

- Even if this offering is successful, we will need to obtain substantial additional funding to finance our operations and complete the development and any commercialization of any current or future product candidates.
- Our business is highly dependent on the success of our current product candidates, which are in the early stages of development and will require significant additional preclinical and clinical development before we can seek regulatory approval for and commercially launch a product.
- Our approach to the discovery and development of product candidates based on our technological approaches is unproven, and we do not know whether we will be able to develop any products of commercial value.
- Preclinical development is uncertain. Our preclinical programs may experience delays or may never advance to clinical trials, which would adversely affect our ability to obtain regulatory approvals or commercialize these programs on a timely basis or at all, which would have an adverse effect on our business.
- We may encounter substantial delays in the commencement or completion, or termination or suspension, of our clinical trials, which could result in increased costs to us, delay or limit our ability to generate revenue and adversely affect our commercial prospects.
- Our product candidates may cause undesirable or unexpectedly severe side effects that could delay or prevent their regulatory approval, limit the commercial profile of an approved label, or result in significant negative consequences following marketing approval, if any.
- Interim top-line and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data become available and are subject to audit and verification procedures that could result in material changes in the final data.

- We expect to develop certain of our product candidates in combination with third-party drugs and we will have limited or no control over the safety, supply, regulatory status or regulatory approval of such drugs.
- The manufacture of biologics is complex. We may experience manufacturing problems that result in delays in our development or commercialization programs.
- We face risk related to our reliance on our current and any future third-party contract manufacturers, or CMOs. For example, the CMOs on which we rely may not continue to meet regulatory requirements, may have limited capacity and may experience interruptions in supply, any of which could adversely affect our development and commercialization plans for our product candidates.
- We expect to rely on third parties to conduct, supervise and monitor IND-enabling studies and clinical trials, and if these third parties perform in an unsatisfactory manner, it may harm our business, reputation and results of operations.
- We face substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than we do.
- If we are unable to obtain and maintain patent protection for any product candidates we develop or for other proprietary technologies we may develop, or if the scope of the patent protection obtained is not sufficiently broad, our competitors could develop and commercialize product candidates and technology similar or identical to our product candidates and technology, and our ability to successfully commercialize any product candidates we may develop, and our technology may be adversely affected.
- We rely on in-license agreements for patent rights with respect to our product candidates and may in the future acquire additional third-party intellectual property rights on which we may similarly rely. We face risks with respect to such reliance, including the risk that we could lose these rights that are important to our business if we fail to comply with our obligations under these licenses.
- The COVID-19 pandemic may affect our ability to initiate and complete preclinical studies, delay the initiation of our planned and any future clinical trials, disrupt regulatory activities, or have other adverse effects on our business and operations. In addition, this pandemic has caused substantial disruption in the financial markets and may adversely impact economies worldwide, each of which could result in adverse effects on our business, on raising capital and on our operations.

Reorganization

We are a Delaware corporation that was incorporated on June 18, 2020 under the name Xilio Therapeutics, Inc. On June 30, 2020, we completed a series of transactions, which we refer to as the "Reorganization," pursuant to which Xilio Therapeutics LLC, or Xilio LLC, became a direct, wholly owned subsidiary of Xilio Therapeutics, Inc., and all of the outstanding equity securities of Xilio LLC were exchanged for equity securities of Xilio Therapeutics, Inc. The purpose of the Reorganization was to reorganize our corporate structure so that our existing investors would own capital stock in a corporation rather than equity interests in a limited liability company. As part of the Reorganization:

- holders of Xilio LLC's outstanding Series A preferred units received one share of our Series A convertible preferred stock for each Series A preferred unit held immediately prior to the Reorganization, with an aggregate of 7,500,000 shares of our Series A convertible preferred stock issued in the Reorganization;
- holders of Xilio LLC's outstanding Series A-1 preferred units received one share of our Series A-1 preferred stock for each Series A-1 preferred unit held immediately prior to the Reorganization, with an aggregate of 19,565,216 shares of our Series A-1 convertible preferred stock issued in the Reorganization;
- holders of Xilio LLC's outstanding Series B preferred units received one share of our Series B convertible preferred stock for each Series B preferred unit held immediately prior to the Reorganization, with an aggregate of 39,723,312 shares of our Series B convertible preferred stock issued in the Reorganization;

- holders of Xilio LLC's outstanding common units received one share of our common stock for each common unit held immediately prior to the Reorganization, with an aggregate of 3,888,443 shares of our common stock exchanged for common units in the Reorganization; and
- holders of Xilio LLC's outstanding incentive units received shares of our restricted common stock in an amount equal in value to the value of such incentive units as determined by the applicable provisions of the Xilio LLC operating agreement in effect immediately prior to the Reorganization, with an aggregate of 5,249,596 shares of our restricted common stock issued in the Reorganization.

In addition, on , 2021, Xilio LLC merged with and into Xilio Therapeutics, Inc., with Xilio Therapeutics, Inc. continuing as the surviving corporation.

Except as otherwise indicated herein or as the context otherwise requires, all information in this prospectus is presented after giving effect to the Reorganization.

Company and Corporate Information

Our principal executive offices are located at 828 Winter Street, Waltham, Massachusetts 02451, and our telephone number is (617) 430-4680. Our website address is www.xiliotx.com. The information contained on, or that can be accessed through, our website is not a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

The Xilio Therapeutics name is our trademark. We own or have rights to, or have applied for, trademarks, service marks and trade names that we use in connection with the operation of our business, including our corporate name, logos and website names. Other trademarks, service marks and trade names appearing in this prospectus are the property of their respective owners. Solely for convenience, some of the trademarks, service marks and trade names referred to in this prospectus are listed without the ® and ™ symbols, but we will assert, to the fullest extent under applicable law, our rights to our trademarks, service marks and trade names.

Implications of Being an Emerging Growth Company

We are an "emerging growth company" as defined by U.S. federal securities laws. As a result, we are able to take advantage of certain reduced reporting requirements that are otherwise applicable to public companies, including delaying auditor attestation of internal control over financial reporting, providing only two years of audited financial statements and related Management's Discussion and Analysis of Financial Condition and Results of Operations and reduced executive compensation disclosures.

We may remain an emerging growth company until the end of 2026. However, if certain events occur prior to the end of 2026, including if we become a "large accelerated filer" under SEC rules, our annual gross revenue exceeds $1.07 billion, or we issue more than $1 billion of non-convertible debt in any three-year period, we will cease to be an emerging growth company prior to the end of 2026.

We have elected to take advantage of certain of the reduced disclosure obligations in the registration statement of which this prospectus is a part and may elect to take advantage of other reduced reporting requirements in future filings. In particular, in this prospectus, we have provided only two years of audited financial statements and have not included all of the executive compensation related information that would be required if we were not an emerging growth company. As a result, the information that we provide to our stockholders may be different than what you might receive from other public reporting companies in which you hold equity interests. In addition, the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. We have elected not to "opt out" of such extended transition period, which means that when a standard is issued or revised and it has different application dates for public or private companies, we can adopt the new or revised standard at the time private companies adopt the new or revised standard and may do so until such time that we either (1) irrevocably elect to "opt out" of such extended transition period or (2) no longer qualify as an emerging growth company.

THE OFFERING

This summary highlights information presented in greater detail elsewhere in this prospectus. This summary is not complete and does not contain all the information you should consider before investing in our common stock. You should carefully read this entire prospectus before investing in our common stock including "Risk Factors" and our financial statements.

Common stock offered by us	shares
Common stock to be outstanding immediately following this offering	shares
Option to purchase additional shares offered by us	shares
Use of proceeds	We estimate that the net proceeds from this offering will be approximately $ million (or approximately $ million if the underwriters exercise their option to purchase additional shares in full), based on an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use the net proceeds from this offering, together with our existing cash and cash equivalents, to advance the development of XTX202 through Phase 1 dose escalation and Phase 2 efficacy cohorts of our planned Phase 1/2 clinical trial in patients with solid tumors; to advance the development of XTX301 through IND-enabling studies, submission of an IND to the FDA and into initial Phase 1 clinical development; to advance the development of XTX101 through our planned Phase 1 clinical trial; and to continue to advance XTX401 in preclinical development and advance our discovery efforts, and for working capital and other general corporate purposes. See "Use of Proceeds."
Risk factors	See "Risk Factors" and other information included in this prospectus for a discussion of factors to consider before deciding to invest in our common stock.
Proposed Nasdaq Global Market symbol	"XLO"

The number of shares of our common stock to be outstanding after this offering is based on 8,722,676 shares of our common stock outstanding as of April 30, 2021, which includes 1,771,303 shares of unvested restricted common stock subject to forfeiture, and gives effect to the automatic conversion of all outstanding shares of our convertible preferred stock into 174,783,481 shares of our common stock upon the closing of this offering.

The number of shares of our common stock to be outstanding after this offering excludes:

- 28,007,438 shares of common stock issuable upon exercise of stock options outstanding as of April 30, 2021 at a weighted average exercise price of $0.63 per share;
- 872,632 shares of common stock reserved for future issuance under our 2020 Stock Incentive Plan, as amended, or the 2020 Plan, as of April 30, 2021; and
- and additional shares of our common stock that will become available for future issuance under our 2021 Stock Incentive Plan and our 2021 Employee Stock Purchase Plan,

respectively, each of which will become effective immediately prior to the effectiveness of the registration statement of which this prospectus is a part, as well as any automatic increases in the number of shares of common stock reserved for future issuance under these plans.

Unless otherwise indicated, all information in this prospectus assumes:

- the automatic conversion of all outstanding shares of our convertible preferred stock into an aggregate of 174,783,481 shares of our common stock upon the closing of this offering;
- the outstanding warrant to purchase shares of Series A convertible preferred stock becoming a warrant to purchase shares of common stock upon the closing of this offering;
- no exercise of the outstanding options described above;
- no exercise by the underwriters of their option to purchase additional shares of our common stock; and
- the filing and effectiveness of our restated certificate of incorporation and the adoption of our amended and restated bylaws upon the closing of this offering.

SUMMARY CONSOLIDATED FINANCIAL DATA

The following summary consolidated financial data should be read in conjunction with our consolidated financial statements and the related notes appearing elsewhere in this prospectus and the "Selected Consolidated Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" sections of this prospectus. We have derived the consolidated statement of operations data for the years ended December 31, 2019 and 2020 from our audited consolidated financial statements appearing elsewhere in this prospectus. The consolidated statement of operations data for the three months ended March 31, 2020 and 2021 and the consolidated balance sheet data as of March 31, 2021 have been derived from our unaudited condensed consolidated financial statements appearing elsewhere in this prospectus and have been prepared on the same basis as the audited consolidated financial statements. In the opinion of management, the unaudited data reflects all adjustments, consisting only of normal, recurring adjustments, necessary for a fair statement of the financial information in those statements. Our historical results are not necessarily indicative of the results that may be expected in the future, and our interim results are not necessarily indicative of results to be expected for a full fiscal year or any other interim period.

	Year Ended December 31,		Three Months Ended March 31,	
	2019	2020	2020	2021
	(in thousands, except unit and share and per unit and per share data)			
Consolidated Statement of Operations Data:				
Operating expenses:				
Research and development	$ 14,256	$ 43,910	$ 5,636	$ 11,621
General and administrative	4,771	10,653	2,262	4,899
Total operating expenses	19,027	54,563	7,898	16,520
Loss from operations	(19,027)	(54,563)	(7,898)	(16,520)
Gain on tranche rights	1,739	—	—	—
Other expense, net	(23)	(656)	(220)	(147)
Net loss	$ (17,311)	$ (55,219)	$ (8,118)	$ (16,667)
Net loss per unit, basic and diluted[1]	$ (4.45)		$ (2.09)	
Net loss per share, basic and diluted[1]		$ (11.10)		$ (2.48)
Weighted-average common units outstanding, basic and diluted[1]	3,888,443		3,888,443	
Weighted average common shares outstanding, basic and diluted[1]		4,976,138		6,728,945
Pro forma net loss per share, basic and diluted (unaudited)[2]		$ (0.79)		$ (0.13)
Pro forma weighted average number of common shares outstanding used in net loss per share, basic and diluted (unaudited)[2]		70,576,735		132,921,982

(1) See Note 15 to our annual consolidated financial statements and Note 10 to our unaudited interim condensed consolidated financial statements appearing elsewhere in this prospectus for details on the calculation of basic and diluted net loss per unit or per share.

(2) The unaudited pro forma basic and diluted net loss per share for the year ended December 31, 2020 and three months ended March 31, 2021 were computed using the weighted-average number of shares of common stock outstanding, including the pro forma effect of the automatic conversion of all outstanding shares of convertible preferred stock into shares of common stock on the later of January 1, 2020 or the date the equity instruments were issued. The unaudited pro forma net loss used in the calculation of unaudited pro forma basic and diluted net loss per share for the year ended December 31, 2020 and three months ended March 31, 2021 include (i) adjustments to the equity-based compensation expense related to certain stock option awards with vesting conditions that are contingent upon the closing of this offering, (ii) adjustments to other expense related to historical fair value adjustments recorded to our warrant liability which is replaced by an equity warrant upon the closing of this offering, and (iii) adjustments to other expense to record additional expense related to the contingent payments payable upon the closing of this

offering. The unaudited pro forma basic and diluted net loss per share does not include the shares sold in or related proceeds received from this offering.

	As of March 31, 2021		
	Actual	Pro Forma[1]	Pro Forma As Adjusted[2]
		(in thousands)	
Consolidated Balance Sheet Data:			
Cash and cash equivalents	$ 141,222	$ 141,222	
Working capital[3]	126,328	125,328	
Total assets	158,344	158,344	
Notes payable, current and noncurrent	9,781	9,781	
Convertible preferred stock	222,888	—	
Total stockholders' equity (deficit)	(99,135)	123,594	

(1) The pro forma balance sheet data give effect to (i) the automatic conversion of all outstanding shares of our convertible preferred stock into an aggregate of 174,783,481 shares of our common stock upon the closing of this offering, (ii) the automatic conversion of the outstanding warrant to purchase shares of Series A convertible preferred stock into a warrant to purchase shares of common stock and the resulting reclassification of the warrant liability to additional paid-in capital, (iii) the vesting of performance-based stock option awards with vesting conditions that are contingent upon the closing of this offering and the resulting recognition of equity-based compensation expense, and (iv) the increase in other expense related to contingent payments payable upon the closing of this offering and the reclassification of such payables to current liabilities.

(2) The pro forma as adjusted balance sheet data give further effect to our issuance and sale of shares of our common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

(3) We define working capital as current assets less current liabilities. See our consolidated financial statements and related notes appearing elsewhere in this prospectus for further details regarding our current assets and current liabilities.

The pro forma as adjusted information discussed above is illustrative only and will change based on the actual initial public offering price and other terms of this offering determined at pricing. A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents, working capital, total assets and total stockholders' equity by $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. An increase (decrease) of 1,000,000 shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents, working capital, total assets and total stockholders' equity by $ million, assuming no change in the assumed initial public offering price per share and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

RISK FACTORS

Investing in our common stock is speculative and involves a high degree of risk. Before investing in our common stock, you should carefully consider the risks described below, as well as the other information in this prospectus, including our financial statements and the related notes and "Management's Discussion and Analysis of Financial Condition and Results of Operations." The occurrence of any of the events or developments described below could materially and adversely affect our business, financial condition, results of operations and future growth prospects. In such an event, the market price of our common stock could decline and you may lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations. This prospectus also contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of a number of factors, including the risks described below. See "Cautionary Note Regarding Forward-Looking Statements and Industry Data."

Risks Related to Our Limited Operating History, Financial Position and Capital Requirements

We have incurred significant operating losses since our inception and expect to incur significant losses for the foreseeable future.

We have incurred significant operating losses since our inception and have not yet generated any revenue. If our product candidates are not successfully developed and approved, we may never generate any revenue. Our net losses were $17.3 million and $55.2 million for the years ended December 31, 2019 and 2020, respectively, and $16.7 million for the three months ended March 31, 2021. As of March 31, 2021, we had an accumulated deficit of $101.8 million. To date, we have funded our operations primarily through proceeds from the sale of preferred units and convertible preferred stock and a debt financing. We have devoted substantially all of our financial resources and efforts to research and development. We are still in the early stages of development of our product candidates, and we have not commenced or completed clinical development. We have not generated any revenue from product sales to date. We expect to continue to incur significant expenses and operating losses over the next several years. Our operating expenses and net losses may fluctuate significantly from quarter to quarter and year to year. We anticipate that our expenses will increase significantly in connection with our ongoing activities, particularly as we:

- continue to advance our current research programs and conduct additional research programs;
- advance our current product candidates and any future product candidates we may develop into preclinical and clinical development;
- seek marketing approvals for any product candidates that successfully complete clinical trials;
- obtain, expand, maintain, defend and enforce our intellectual property;
- hire additional research, clinical, regulatory, quality, manufacturing and general and administrative personnel;
- establish a commercial and distribution infrastructure to commercialize any products for which we may obtain marketing approval;
- continue to discover, validate and develop additional product candidates;
- continue to manufacture increasing quantities of our current or future product candidates for use in preclinical studies, clinical trials and for any potential commercialization;
- acquire or in-license other product candidates, technologies or intellectual property; and
- incur additional costs associated with current and future research, development and commercialization efforts and operations as a public company.

Even if we successfully complete clinical trials and obtain regulatory approval for one or more of our product candidates, our product candidates may not be commercially successful. In addition, we will continue to incur substantial research and development and other expenditures to develop and market additional product candidates. We may encounter unforeseen expenses, difficulties, complications, delays and other unknown factors that may adversely affect our business. We may not achieve profitability soon after generating product

sales, if ever. If we are unable to generate revenue, we will not become profitable and may be unable to continue operations without continued funding.

We have no products approved for commercial sale and have not generated any revenue from product sales. We may never generate any revenue or become profitable and, if we achieve profitability, we may not be able to sustain it.

To date, we have not generated any revenue from our product candidates or product sales, we do not expect to generate any revenue from the sale of products for a number of years, and we may never generate revenue from the sale of products. Our ability to generate product revenue depends on a number of factors, including our ability to:

- successfully complete our ongoing and planned preclinical studies;
- successfully submit our INDs to the FDA for XTX202 and any other current or future product candidates;
- successfully initiate clinical trials for XTX202 and XTX101 and any other current or future product candidates;
- initiate and successfully complete all safety and efficacy studies to obtain U.S. and foreign regulatory approval for our product candidates;
- establish clinical and commercial manufacturing capabilities or make arrangements with third party manufacturers for clinical supply and commercial manufacturing;
- launch commercial sales of our products, if and when approved, whether alone or in collaboration with others;
- obtain and maintain acceptance of the products, if and when approved, by patients, the medical community and third-party payors;
- effectively compete with other therapies;
- obtain and maintain healthcare coverage and adequate reimbursement;
- maintain a continued acceptable safety profile of our products following approval; and
- enforce and defend intellectual property rights and claims.

Because of the numerous risks and uncertainties associated with biopharmaceutical product development, we are unable to accurately predict the timing or amount of expenses we may incur in connection with these activities prior to generating product revenue. In addition, we may never succeed in these activities, and, even if we do, may never generate revenues that are significant enough to achieve profitability. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. Our failure to become and remain profitable would depress the value of our company and could impair our ability to raise capital, expand our business, maintain our research and development efforts, diversify our product candidates or even continue our operations. A decline in the value of our company could also cause you to lose all or part of your investment.

Even if this offering is successful, we will need to obtain substantial additional funding to finance our operations and complete the development and any commercialization of any current or future product candidates. If we are unable to raise this capital when needed, we may be forced to delay, reduce or eliminate one or more of our research and development programs or other operations.

We expect to incur increasing expenses and operating losses over the next several years in connection with our ongoing research and development activities, particularly as we pursue clinical development of our product candidates, expand research efforts and preclinical activities associated with our other existing programs and discovery platform and implement the additional infrastructure necessary to support our operations as a public reporting company. Our revenue, if any, will be derived from sales of products that we do not expect to be commercially available for a number of years, if at all. If we obtain marketing approval for any current or future product candidates that we develop, we expect to incur significant commercialization expenses related

to product sales, marketing, distribution and manufacturing. Some of these expenses may be incurred in advance of marketing approval and could be substantial.

As of March 31, 2021, we had cash and cash equivalents of $141.2 million. We believe that the net proceeds from this offering, together with our existing cash and cash equivalents, will enable us to fund our operating expenses, debt repayment obligations and capital expenditure requirements into . In particular, we expect that the net proceeds from this offering will allow us to .

The net proceeds of this offering, together with our existing cash and cash equivalents, will not be sufficient to complete development of any current or future product candidate. Accordingly, we will be required to obtain further funding through public or private equity offerings, debt financings, collaborations, licensing arrangements or other sources. Adequate additional financing may not be available to us on acceptable terms, or at all. Our failure to raise capital as and when needed, on attractive terms or at all, would have a negative effect on our financial condition and our ability to develop and commercialize our current and any future product candidates, and otherwise pursue our business strategy and we may be forced to delay, reduce or eliminate our research and development programs or future commercialization efforts.

In addition, our cash forecasts are based on assumptions that may prove to be wrong, and we could use our available capital resources earlier than we currently expect. Changing circumstances could cause us to consume capital significantly faster than we currently anticipate, and we may need to seek additional financing sooner than planned. In addition, we may seek additional capital due to favorable market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans.

Our future capital requirements, both short-term and long-term, will depend on many factors, including:

- the scope, progress, results and costs of research and development for our current and future product candidates, including our planned clinical trials for our most advanced product candidates, XTX202 and XTX101, and ongoing preclinical development for our product candidates XTX301 and XTX401;
- the scope, prioritization and number of our research and development programs;
- the scope, costs, timing and outcome of regulatory review of our product candidates;
- the costs of securing manufacturing materials for use in preclinical studies, clinical trials and, for any product candidates for which we receive regulatory approval, use as commercial supply;
- our ability to seek, establish and maintain a collaboration to develop XTX101 with a collaborator, including the financial terms and any cost-sharing arrangements of any such collaboration;
- the costs and timing of future commercialization activities for any of our product candidates for which we receive regulatory approval;
- the amount and timing of revenue, if any, received from commercial sales of any product candidates for which we receive regulatory approval;
- the costs and timing of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property and proprietary rights and defending any intellectual property-related claims;
- the extent to which we may acquire or in-license other products, product candidates, technologies or intellectual property, as well as the terms of any such arrangements;
- the impacts of the COVID-19 pandemic; and
- the costs of continuing to expand our operations and operating as a public company.

We do not currently have any committed external source of funds and adequate additional financing may not be available to us on acceptable terms, or at all. In addition, our ability to raise additional capital may be adversely impacted by potential worsening global economic conditions resulting from the ongoing COVID-19 pandemic and any disruptions to, or volatility in, the credit and financial markets in the United States and worldwide that arise from the pandemic. Our failure to raise capital as and when needed or on acceptable terms would have a negative impact on our financial condition and our ability to pursue our business strategy,

and we may have to delay, reduce the scope of, suspend or eliminate one or more of our research-stage programs, clinical trials or future commercialization efforts or other operations.

Raising additional capital may cause dilution to our stockholders, including purchasers of shares in this offering, restrict our operations or require us to relinquish rights to product candidates or our technology.

Unless and until we can generate a substantial amount of product revenue, we expect to seek additional capital through a combination of public or private equity offerings, debt financings, collaborations, licensing arrangements or other sources. Our issuance of additional securities, whether equity or debt, or the possibility of such issuance, may cause the market price of our common stock to decline, and our stockholders may not agree with our financing plans or the terms of such financings. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a stockholder. To the extent that we incur additional indebtedness, we would become obligated to make payments to repay the loan balance with interest. The incurrence of any additional indebtedness would result in additional payment obligations. Under our loan and security agreement with Pacific Western Bank, we are required to comply with certain restrictive covenants, such as limitations on our ability to incur additional debt, limitations on our ability to declare dividends, limitations on our ability to sell or dispose any part of our business or property and other operating restrictions that could adversely impact our ability to conduct our business, and any agreements governing any other indebtedness that we may incur could require us to comply with additional covenants. If we raise funds through collaborations and licensing arrangements with third parties, we may have to relinquish valuable rights, partially or fully, to our technologies, future revenue streams, research programs or product candidates or grant licenses on terms unfavorable to us. In addition, securing additional financing would require a substantial amount of time and attention from our management and may divert a disproportionate amount of their attention away from day-to-day activities, which may adversely affect our management's ability to oversee the development of our product candidates.

Our limited operating history may make it difficult for you to evaluate the success of our business to date and to assess our future viability.

We are an early-stage biopharmaceutical company with a limited operating history upon which you can evaluate our business and prospects. Since inception, we have devoted substantially all of our financial resources and efforts to performing research and development activities. Our approach to the discovery and development of product candidates using our geographically precise solutions, or GPS, platform is unproven, and we do not know whether we will be able to develop any approved products of commercial value. In addition, none of our product candidates has entered clinical development, and all of our other development programs are in discovery stages. We have not yet demonstrated an ability to successfully complete any clinical trials, obtain regulatory approvals, manufacture a commercial-scale product, or arrange for a third party to do so on our behalf, or conduct the sales and marketing activities necessary for successful product commercialization. Consequently, any predictions made about our future success or viability may not be as accurate as they could be if we had a history of successfully developing and commercializing biopharmaceutical products.

Our ability to utilize our net operating loss carryforwards and certain other tax attributes may be limited.

We have incurred substantial losses during our history. As of December 31, 2020, we had federal and state net operating loss, or NOL, carryforwards of $78.0 million and $69.6 million, respectively. We do not anticipate generating revenue from sales of products for the foreseeable future, if ever, and we do not know whether or when we will generate taxable income necessary to utilize our NOLs.

In general, under Section 382 of the Internal Revenue Code of 1986, as amended, or the Code, and corresponding provisions of state law, if a corporation undergoes an "ownership change" (generally defined as a greater than 50 percentage point change (by value) in the ownership of its equity by certain stockholders over a three-year period), the corporation's ability to use its pre-change net operating loss carryforwards and other pre-change tax attributes to offset its post-change income is subject to limitations. We have not yet completed a detailed study of our inception to date ownership change activity under Section 382 of the Code. As a result of our prior private placement financings or other transactions, we may have experienced such

ownership changes in the past, and we may experience such ownership changes in the future as a result of this offering or other subsequent changes in our stock ownership, some of which are outside our control. As a result, if we earn net taxable income, our ability to use our pre-change net operating loss carryforwards and other pre-change tax attributes to offset such taxable income may be subject to limitations, which could result in increased future tax liability to us and could have an adverse effect on our future results of operations.

There is also a risk that due to regulatory changes, such as suspensions on the use of NOLs, or other unforeseen reasons, our existing NOLs could expire or otherwise become unavailable to offset future income tax liabilities. As described below in "Risks Related to this Offering, Ownership of Our Common Stock and Our Status as a Public Company—Changes in tax laws or in their implementation or interpretation may adversely affect our business and financial condition," the Tax Cuts and Jobs Act of 2017, or Tax Act, as amended by the Coronavirus Aid, Relief, and Economic Security Act, or CARES Act, includes changes to U.S. federal tax rates and the rules governing NOL carryforwards that may significantly impact our ability to utilize our NOLs to offset taxable income in the future. In addition, state NOLs generated in one state cannot be used to offset income generated in another state. For these reasons, even if we attain profitability, we may be unable to use a material portion of our NOLs and other tax attributes.

Risks Related to the Discovery and Development of Our Product Candidates

Our business is highly dependent on the success of our current product candidates, which are in the early stages of development and will require significant additional preclinical and clinical development before we can seek regulatory approval for and commercially launch a product.

Our business and future success is highly dependent on our ability to obtain regulatory approval of, and the successful launch and commercialize of, our current product candidates, including our most advanced product candidates, XTX202 and XTX101, each of which is in preclinical development. We recently submitted an investigational new drug application, or IND, to the U.S. Food and Drug Administration, or FDA, for XTX101, and we expect to submit an IND for XTX202 in . Additionally, we have a portfolio of programs, including those described in the "Business—Our Pipeline" section of this prospectus, that are in even earlier stages of preclinical development and may never advance to clinical-stage development.

Commencing clinical trials in the United States is subject to acceptance by the FDA of an IND and finalizing the trial design based on discussions with the FDA and other regulatory authorities. In the event that the FDA requires us to complete additional preclinical studies or we are required to satisfy other FDA requests prior to commencing clinical trials, the start of our first clinical trials may be delayed. Even after we receive and incorporate guidance from these regulatory authorities, the FDA or other regulatory authorities could disagree that we have satisfied their requirements to commence any clinical trial or change their position on the acceptability of our trial design or the clinical endpoints selected, which may require us to complete additional preclinical studies or clinical trials or impose stricter approval conditions than we currently expect. There are equivalent processes and risks applicable to clinical trial applications in other countries, including countries in the European Union.

To date, we have only had limited interactions with the FDA regarding our clinical development plans. We may experience issues surrounding preliminary trial execution, such as delays in FDA acceptance of our planned INDs, revisions in trial design and finalization of trial protocols, difficulties with patient recruitment and enrollment, quality and provision of clinical supplies, or early safety signals.

We are not permitted to market any biological product in the United States until we receive approval of a Biologics License Application, or BLA, from the FDA. We have not previously submitted a BLA to the FDA, or similar marketing application to comparable foreign regulatory authorities. A BLA must include extensive preclinical and clinical data and supporting information to establish that the product candidate is safe, pure and potent for each desired indication. A BLA must also include significant information regarding the chemistry, manufacturing and controls for the product, and the manufacturing facilities must complete a successful pre-license inspection.

FDA approval of a BLA is not guaranteed, and the review and approval process is expensive, uncertain and may take several years. The FDA also has substantial discretion in the approval process. The number and types of preclinical studies and clinical trials that will be required for BLA approval varies depending on the product

candidate, the disease or the condition that the product candidate is designed to treat and the regulations applicable to any particular product candidate. Despite the time and expense associated with preclinical studies and clinical trials, failure can occur at any stage.

The FDA may also require a panel of experts, referred to as an Advisory Committee, to deliberate on the adequacy of the safety and efficacy data to support approval. The opinion of the Advisory Committee, although not binding, may have a significant impact on our ability to obtain approval of any product candidate that we develop based on the completed clinical trials.

Generally, public concern regarding the safety of biopharmaceutical products could delay or limit our ability to obtain regulatory approval, result in the inclusion of unfavorable information in our labeling or require us to undertake other activities that may entail additional costs. We have not obtained FDA approval for any product. This lack of experience may impede our ability to obtain FDA approval in a timely manner, if at all, for any current or future product candidates.

The success of our business, including our ability to finance our company and generate any revenue in the future, will primarily depend on the successful development, regulatory approval and commercialization of our current and any future product candidates, which may never occur. However, given our early stage of development, it will be years before we are able to demonstrate the safety and efficacy of a treatment sufficient to warrant approval for commercialization, and we may never be able to do so. If we are unable to develop, or obtain regulatory approval for, or, if approved, successfully commercialize our current or any future product candidates, we may not be able to generate sufficient revenue to continue our business.

Preclinical development is uncertain. Our preclinical programs may experience delays or may never advance to clinical trials, which would adversely affect our ability to obtain regulatory approvals or commercialize these programs on a timely basis or at all, which would have an adverse effect on our business.

Although we recently submitted an IND for XTX101, all of our product candidates are still in the preclinical stage, and their risk of failure is high. Before we can commence clinical trials for a product candidate, we must complete extensive preclinical testing and studies that support our planned INDs in the United States, or similar applications in other jurisdictions. We cannot be certain of the timely completion or outcome of our preclinical testing and studies and cannot predict if the FDA or other regulatory authorities will accept our proposed clinical programs or if the outcome of our preclinical testing and studies will ultimately support the further development of our programs. As a result, we cannot be sure that we will be able to submit INDs or similar applications for our preclinical programs beyond XTX101 on the timelines we expect, if at all, and we cannot be sure that submission of INDs or similar applications will result in the FDA or other regulatory authorities allowing clinical trials to begin.

Preclinical studies and clinical trials are expensive, time-consuming and difficult to design and implement, and involve uncertain outcomes. Furthermore, results of earlier preclinical studies and clinical trials may not be predictive of results of future preclinical studies or clinical trials.

The risk of failure for our current and any future product candidates is high. It is impossible to predict when or if any of our product candidates will successfully complete preclinical studies or clinical trials evaluating their safety and effectiveness in humans or will ultimately receive regulatory approval. To obtain the requisite regulatory approvals to market and sell any of our product candidates, we must demonstrate through extensive preclinical studies and clinical trials that our product candidates are safe and effective in humans for use in each target indication. To date, we have never advanced a product candidate into a clinical trial. Preclinical and clinical testing is expensive and can take many years to complete, and the outcome is inherently uncertain. Failure can occur at any time during the preclinical or clinical trial process. The outcome of preclinical testing and early clinical trials may not be predictive of the results of later clinical trials, and interim results of a clinical trial do not necessarily predict final results. In particular, while we have conducted certain preclinical studies of XTX202 and XTX101, we do not know whether either of these product candidates will perform in our planned clinical trials as it has performed in these prior preclinical studies. Many companies in the biopharmaceutical and biotechnology industries have suffered significant setbacks in late-stage clinical trials after achieving positive results in early-stage development and we cannot be certain that we will not face similar setbacks. These setbacks have been caused by, among other things, preclinical findings made while clinical trials were underway, or safety or efficacy observations made in preclinical studies and clinical trials,

including previously unreported adverse events. Moreover, preclinical and clinical data are often susceptible to varying interpretations and analyses, and many companies that have believed their product candidates performed satisfactorily in preclinical studies and clinical trials have nonetheless failed to obtain marketing approval of their products.

In some instances, there can be significant variability in safety or efficacy results between different clinical trials of the same product candidate due to numerous factors, including changes in clinical trial procedures set forth in protocols, differences in the size and type of the patient populations, adherence to the dosing regimen and other clinical trial protocols, and the rate of dropout among clinical trial participants. If we fail to produce positive results in our planned preclinical studies or clinical trials of any of our product candidates, the development timeline and regulatory approval and commercialization prospects for our product candidates, and, correspondingly, our business and financial prospects, would be materially and adversely affected.

We may encounter substantial delays in the commencement or completion, or termination or suspension, of our clinical trials, which could result in increased costs to us, delay or limit our ability to generate revenue and adversely affect our commercial prospects.

Before obtaining marketing approval from regulatory authorities for the sale of our product candidates, we must conduct extensive clinical trials to demonstrate the safety and efficacy of the product candidate for its intended indications. We cannot guarantee that any clinical trials will be conducted as planned or completed on schedule, if at all. We may experience numerous unforeseen events during or as a result of clinical trials that could delay or prevent our ability to receive marketing approval or commercialize our product candidates, including:

- we may be unable to generate sufficient preclinical, toxicology, or other *in vivo* or *in vitro* data to obtain regulatory authorizations to commence a clinical trial;
- we may experience issues in reaching a consensus with regulatory authorities on trial design;
- regulators or institutional review boards, or IRBs, or ethics committees may not authorize us or our investigators to commence a clinical trial or conduct a clinical trial at a prospective trial site;
- we may experience delays in reaching, or fail to reach, agreement on acceptable terms with prospective trial sites and prospective contract research organizations, or CROs, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;
- clinical trial sites may deviate from a trial protocol or drop out of a trial or fail to conduct the trial in accordance with regulatory requirements;
- the number of subjects required for clinical trials of our product candidates may be larger than we anticipate or subjects may fail to enroll or remain in clinical trials at the rate we expect;
- subjects that enroll in our studies may misrepresent their eligibility or may otherwise not comply with the clinical trial protocol, resulting in the need to drop the subject from the trial, increase the needed enrollment size for the clinical trial or extend its duration;
- subjects may choose an alternative treatment for the indication for which we are developing our product candidates, or participate in competing clinical trials;
- subjects may experience severe or unexpected drug-related adverse effects;
- clinical trials of our product candidates may produce unfavorable, inconclusive, or clinically insignificant results;
- we may decide to, or regulators or IRBs or ethics committees may require us to, make changes to a clinical trial protocol or conduct additional preclinical studies or clinical trials, or we may decide to abandon product development programs;
- we may need to add new or additional clinical trial sites;
- our third-party contractors, including those manufacturing our product candidates or conducting clinical trials on our behalf, may fail to comply with regulatory requirements or meet their contractual obligations to us in a timely manner, or at all;

- we may experience manufacturing delays, and any changes to manufacturing processes or third party contractors that may be necessary or desired could result in other delays;
- we or our third party contractors may experience delays due to complications associated with the continuing COVID-19 pandemic;
- the cost of preclinical testing and studies and clinical trials of any product candidates may be greater than we anticipate or greater than our available financial resources;
- the supply or quality of our product candidates or other materials necessary to conduct clinical trials of our product candidates may be insufficient or inadequate or we may not be able to obtain sufficient quantities of combination therapies for use in clinical trials;
- reports may arise from preclinical or clinical testing of other cancer therapies that raise safety or efficacy concerns about our product candidates; and
- regulators may revise the requirements for approving our product candidates, or such requirements may not be as we anticipate.

If we are required to conduct additional clinical trials or other testing of our product candidates beyond the clinical trials and testing that we contemplate, if we are unable to successfully complete clinical trials or other testing of our product candidates, if the results of these clinical trials or tests are unfavorable or are only modestly favorable or if there are safety concerns associated with any of product candidates, we may:

- incur additional unplanned costs;
- be required to suspend or terminate ongoing clinical trials;
- be delayed in obtaining marketing approval, if at all;
- obtain approval for indications or patient populations that are not as broad as intended or desired;
- obtain approval with labeling that includes significant use or distribution restrictions or safety warnings;
- be subject to additional post-marketing testing or other requirements;
- be required to perform additional clinical trials to support approval;
- have regulatory authorities withdraw, or suspend, their approval of the drug or impose restrictions on its distribution in the form of a modified risk evaluation and mitigation strategy, or REMS;
- be subject to the addition of labeling statements, such as warnings or contraindications;
- have the product removed from the market after obtaining marketing approval;
- be subject to lawsuits; or
- experience damage to our reputation.

Conducting clinical trials in foreign countries, as we may do for our product candidates, presents additional risks that may delay completion of our clinical trials. These risks include the failure of enrolled patients in foreign countries to adhere to clinical protocols as a result of differences in healthcare services or cultural customs, managing additional administrative burdens associated with foreign regulatory schemes, as well as political and economic risks relevant to such foreign countries.

Moreover, principal investigators for our clinical trials may serve as scientific advisors or consultants to us from time to time and receive compensation in connection with such services. Under certain circumstances, we may be required to report some of these relationships to the FDA or comparable foreign regulatory authorities. The FDA or comparable foreign regulatory authority may conclude that a financial relationship between us and a principal investigator has created a conflict of interest or otherwise affected interpretation of the trial. The FDA or comparable foreign regulatory authority may therefore question the integrity of the data generated at the applicable clinical trial site and the utility of the clinical trial itself may be jeopardized. This could result in a delay in approval, or rejection, of our marketing applications by the FDA or comparable foreign regulatory authorities, as the case may be, and may ultimately lead to the denial of marketing approval of one or more of our product candidates.

In addition to the factors above, we may make formulation or manufacturing changes to our product candidates, in which case we may need to conduct additional preclinical studies to bridge our modified product candidates to earlier versions, which may be costly, time consuming and may not be successful at all.

Our failure to successfully initiate and complete clinical trials of our product candidates and to demonstrate the efficacy and safety necessary to obtain regulatory approval to market any of our product candidates would significantly harm our business. We cannot assure you that our clinical trials will begin as planned or be completed on schedule, if at all, or that we will not need to restructure our clinical trials. Significant preclinical study or clinical trial delays could also shorten any periods during which we may have the exclusive right to commercialize our product candidates or allow our competitors to bring products to market before we do and impair our ability to successfully commercialize our product candidates, which may harm our business and results of operations. In addition, many of the factors that cause, or lead to, delays of clinical trials may ultimately lead to the denial of regulatory approval of our product candidates.

If we experience delays or difficulties in the enrollment of patients in clinical trials, our clinical development activities could be delayed or otherwise adversely affected.

We may experience difficulties in patient enrollment in our clinical trials for a variety of reasons. The timely completion of clinical trials in accordance with their protocols depends, among other things, on our ability to enroll a sufficient number of patients who remain in the study until its conclusion. We may experience difficulties in patient enrollment in our clinical trials for a variety of reasons. The enrollment of patients depends on many factors, including:

- clinicians' and patients' perceptions as to the potential advantages of the product candidate being studied in relation to other available therapies, including any new products that may be approved for the indications we are investigating;
- the severity of the disease under investigation;
- the patient eligibility and the inclusion and exclusion criteria defined in the protocol;
- adverse events in our clinical trials and in third-party clinical trials of agents similar to our product candidates;
- the size and health of the patient population required for analysis of the trial's primary endpoints;
- the proximity of patients to trial sites;
- the design of the trial;
- our ability to recruit clinical trial investigators with the appropriate competencies and experience;
- our ability to obtain and maintain patient consents;
- our ability to monitor patients adequately during and after treatment;
- the risk that patients enrolled in clinical trials will drop out of the trials before completion; and
- factors we may not be able to control, including the impacts of the COVID-19 pandemic, that may limit the availability of patients, principal investigators or staff or clinical sites.

In addition, our clinical trials will compete with other clinical trials for product candidates that are in the same therapeutic areas as our product candidates, and this competition will reduce the number and types of patients available to us, because some patients who might have opted to enroll in our trials may instead opt to enroll in a trial being conducted by one of our competitors. Since the number of qualified clinical investigators is limited, we expect to conduct some of our clinical trials at the same clinical trial sites that some of our competitors use, which will reduce the number of patients who are available for our clinical trials at such clinical trial site.

Our inability to enroll a sufficient number of patients for our clinical trials would result in significant delays or might require us to abandon one or more clinical trials altogether. Enrollment delays in our clinical trials may result in increased development costs for our product candidates, slow down or halt our product candidate development and approval process and jeopardize our ability to seek and obtain the marketing approval

required to commence product sales and generate revenue, which would cause the value of our company to decline and limit our ability to obtain additional financing, if needed.

Our product candidates may cause undesirable or unexpectedly severe side effects that could delay or prevent their regulatory approval, limit the commercial profile of an approved label, or result in significant negative consequences following marketing approval, if any.

Undesirable or unexpectedly severe side effects caused by our product candidates could cause us to interrupt, delay or halt preclinical studies or could cause us or regulatory authorities to interrupt, delay or halt clinical trials and could result in a more restrictive label or the delay or denial of regulatory approval by the FDA or comparable foreign regulatory authorities. Traditional cytokine therapies and checkpoint inhibitors have long been associated with severe toxicities, which can be life-threatening or fatal, that have resulted in the need to dose-reduce, dose-interrupt and discontinue many patients from treatment. We have not yet initiated clinical trials for any of our novel product candidates and it is possible that, as has been the case with traditional I-O treatments for cancer, there may be side effects associated with their use. Results of our trials could reveal a high and unacceptable severity and prevalence of these or other side effects. In such an event, our trials could be suspended or terminated, and the FDA or comparable foreign regulatory authorities could order us to cease further development of or deny approval of our product candidates for any or all targeted indications. Treatment-related side effects could also affect patient recruitment or the ability of enrolled patients to complete the trial or result in potential product liability claims. Any of these occurrences may harm our business, financial condition and prospects significantly.

In addition, clinical trials rely on a sample of the potential patient population. With a limited number of patients and limited duration of exposure, rare and severe side effects of our product candidates may only be uncovered when a significantly larger number of patients is exposed to the product candidate. If our product candidates receive marketing approval and we or others identify undesirable side effects caused by such product candidates after such approval, a number of potentially significant negative consequences could result, including:

- regulatory authorities may require the addition of labeling statements, such as a “black box” warning or a contraindication;
- we may be required to create a medication guide outlining the risks of such side effects for distribution to patients;
- regulatory authorities may require a REMS plan to mitigate risks, which could include medication guides, physician communication plans, or elements to assure safe use, such as restricted distribution methods, patient registries and other risk minimization tools;
- we may be required to change the way such product candidates are distributed or administered, conduct additional clinical trials or change the labeling of the product candidates;
- we may be subject to regulatory investigations and government enforcement actions;
- regulatory authorities may withdraw or limit their approval of such product candidates;
- we may decide to remove such product candidates from the marketplace;
- we could be sued and held liable for injury caused to individuals exposed to or taking our product candidates; and
- we may suffer reputational harm.

Any of these events could prevent us from achieving or maintaining market acceptance of the particular product candidate, if approved, and could significantly harm our business, results of operations and prospects.

Interim top-line and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data become available and are subject to audit and verification procedures that could result in material changes in the final data.

From time to time, we may publish interim top-line or preliminary data from our clinical trials. Interim data from clinical trials that we may complete are subject to the risk that one or more of the clinical outcomes may

materially change as patient enrollment continues and more patient data become available. Preliminary or "top-line" data also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data previously published. As a result, interim and preliminary data should be viewed with caution until the final data are available. Adverse differences between preliminary or interim data and final data could significantly harm our business prospects.

We expect to develop certain of our product candidates in combination with third-party drugs and we will have limited or no control over the safety, supply, regulatory status or regulatory approval of such drugs.

We intend to develop XTX202 and XTX101, and likely other future product candidates, in combination with third-party cancer drugs, which may be either approved or unapproved. For example, we plan to conduct clinical trials of XTX202 both as monotherapy and in combination with other agents including, but not limited to, anti-PD1 and tyrosine kinase inhibitors, or TKIs, and we plan to conduct clinical trials of XTX101 both as a monotherapy and in combination with an anti-PD1 agent. Our ability to develop and ultimately commercialize our current product candidates, and any future product candidates, used in combination with third-party drugs will depend on our ability to access such drugs on commercially reasonable terms for clinical trials and their availability for use with our commercialized product, if approved. We cannot be certain that current or potential future commercial relationships will provide us with a steady supply of such drugs on commercially reasonable terms or at all. Any failure to maintain or enter into new successful commercial relationships, or the expense of purchasing such third-party drugs in the market, may delay our development timelines, increase our costs and jeopardize our ability to develop our current product candidates and any future product candidates as commercially viable therapies. If any of these occur, our business, financial condition, operating results, or prospects may be materially harmed.

Moreover, the development of product candidates for use in combination with another product or product candidate may present challenges that are not faced for single agent product candidates. For example, our planned clinical trials for XTX202 in combination with other agents including, but not limited to, anti-PD1 and TKIs may result in adverse events based on the combination therapy that may negatively impact the reported safety profile of the monotherapy in such clinical trials. In addition, the FDA or comparable foreign regulatory authorities may require us to use more complex clinical trial designs in order to evaluate the contribution of each product and product candidate to any observed effects. It is possible that the results of such trials could show that any positive previous trial results are attributable to the third-party drug and not our product candidate. Developments related to the third-party drug may also impact our clinical trials for the combination as well as our commercial prospects should we receive regulatory approval. Such developments may include changes to the third-party drug's safety or efficacy profile, changes to the availability of the third-party drug, quality, and manufacturing and supply issues with respect to the third-party drug.

If we are able to obtain marketing approval, the FDA or comparable foreign regulatory authorities may require that products used in conjunction with each other be cross labeled for combined use. To the extent that we do not have rights to the third-party drug, this may require us to work with such third party to satisfy such a requirement. We would also continue to be subject to the risks that the FDA or comparable foreign regulatory authorities could revoke approval of the third-party drug used in combination with our product candidate or that safety, efficacy, manufacturing or supply issues could arise with such drug. Similarly, if the third-party drugs we use in combination with our product candidates are replaced as the standard of care for the indications we choose for any of our product candidates, the FDA or comparable foreign regulatory authorities may require us to conduct additional clinical trials. The occurrence of any of these risks could result in our own products, if approved, being removed from the market or being less successful commercially.

We may not be successful in our efforts to use our GPS platform to enable the development of a pipeline of product candidates.

A key element of our strategy is to use our novel GPS platform to engineer and develop molecules with the potential to trigger anti-tumor immunity with minimal systemic toxicity in order to build a pipeline of product candidates. We may not be able to continue to identify and develop novel immuno-oncology therapies. Even if we are successful in continuing to build our pipeline, the potential product candidates that we identify may not be suitable for clinical development. For example, potential product candidates may be shown to have harmful side effects or other characteristics that indicate that they are unlikely to or will not be drugs that will receive

marketing approval and achieve market acceptance. If we do not successfully develop and commercialize product candidates based upon our GPS platform approach or take longer to do so than anticipated, we will not or may not be able to obtain drug revenues in future periods, which likely would result in significant harm to our financial position and adversely affect our stock price.

We may not be successful in our efforts to identify or discover additional product candidates.

Although we intend to explore other therapeutic opportunities in addition to the product candidates that we are currently developing, we may fail to identify or discover viable new product candidates for clinical development for a number of reasons. If we fail to identify additional potential product candidates, our business could be materially harmed.

Research programs to pursue the development of our existing and planned product candidates for additional indications and to identify new product candidates and disease targets require substantial technical, financial and human resources whether or not they are ultimately successful. We may in the future rely on third parties for certain research, and we will not have complete control over their performance and ability to successfully develop product candidates. Our research programs may initially show promise in identifying potential indications and/or product candidates, yet fail to yield results for clinical development for a number of reasons, including:

- the research methodology used may not be successful in identifying potential indications and/or product candidates;
- potential product candidates may, after further study, be shown to have harmful adverse effects or other characteristics that indicate they are unlikely to be effective drugs; and
- it may take greater human and financial resources than we will possess to identify additional therapeutic opportunities for our product candidates or to develop suitable potential product candidates through internal research programs, thereby limiting our ability to develop, diversify and expand our product portfolio.

Accordingly, there can be no assurance that we will ever be able to identify additional therapeutic opportunities for our current product candidates or to develop suitable additional product candidates through internal research programs, which could materially adversely affect our future growth and prospects.

Our approach to the discovery and development of product candidates based on our technological approaches is unproven, and we do not know whether we will be able to develop any products of commercial value.

The success of our business depends primarily upon our ability to discover, develop and commercialize products based on our technological approaches. While we have had favorable preclinical study results related to XTX202 and XTX101, we have not yet succeeded and may not succeed in demonstrating efficacy and safety for any product candidates in clinical trials or in obtaining marketing approval thereafter. We rely on matrix metalloproteases, or MMPs, to activate our molecules within the tumor microenvironment. If MMP activity in human tumors is not sufficient to cleave the masking protein domain, the potential efficacy of our product candidates would be limited. We have no assurance that our product candidates will successfully progress from preclinical studies into clinical development and ultimately marketing approval. We have invested substantially all of our efforts and financial resources in developing our initial product candidates and our future success is highly dependent on the continued successful development of our technology and product candidates.

In addition, the clinical trial requirements of the FDA and other regulatory agencies and the criteria these regulators use to determine the safety and efficacy of a product candidate may vary according to the type, complexity, novelty and intended use and market of the potential products. The regulatory approval process for novel product candidates can be more expensive and take longer than for other, better known or extensively studied pharmaceutical or other product candidates. As a result, we may face a greater regulatory burden to initiate clinical trials or to obtain regulatory approval of our product candidates as compared to product candidates based on more established technology. In addition, any product candidates for which we may be able to obtain marketing approval may be subject to extensive post-approval regulatory requirements,

including requirements pertaining to manufacturing, distribution and promotion. We may need to devote significant time and resources to compliance with these requirements.

We may expend our limited resources to pursue a particular product candidate or indication and fail to capitalize on product candidates or indications that may be more profitable or for which there is a greater likelihood of success.

We have chosen to initially develop our lead product candidates, XTX202 and XTX101, for the treatment of solid tumors. Nevertheless, our development efforts will be limited to a small number of cancer types and we may forego or delay pursuit of opportunities in other cancer types that may prove to have greater potential. Likewise, we may forego or delay the pursuit of opportunities with other potential product candidates that may prove to have greater commercial potential.

Our resource allocation decisions may cause us to fail to capitalize on viable commercial products or profitable market opportunities. Our spending on current and future research and development programs and product candidates for specific indications may not yield any commercially viable product candidates. If we do not accurately evaluate the commercial potential or target market for a particular product candidate, we may relinquish valuable rights to that product candidate through collaboration, licensing or other similar arrangements in cases in which it would have been more advantageous for us to retain sole development and commercialization rights to the product candidate.

We may become exposed to costly and damaging liability claims, either when testing our product candidates in the clinic or following commercial sale, and any product liability insurance we may obtain may not cover all damages from such claims.

We are exposed to potential product liability risks that are inherent in the research, development, manufacturing, marketing and use of biopharmaceutical products. The use of product candidates by us in clinical trials, and any sale of approved products in the future, may expose us to liability claims. For example, we may be sued if our product candidates cause or are perceived to cause injury or are found to be otherwise unsuitable during clinical trials, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability or a breach of warranties. Claims could also be asserted under state consumer protection acts.

Although the clinical trial process is designed to identify and assess potential side effects, it is always possible that a drug, even after regulatory approval, may exhibit unforeseen side effects. If any of our product candidates were to cause adverse side effects during clinical trials or after approval thereof, we may be exposed to substantial liabilities. Physicians and patients may not comply with any warnings that identify known potential adverse effects and patients who should not use our product candidates. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit or cease the development or commercialization of our product candidates or any products for which we may have received marketing approval. Even a successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- delay or termination of clinical trials;
- decreased demand for any product candidates or products that we may develop;
- injury to our reputation and significant negative media and social media attention;
- withdrawal of clinical trial participants or difficulties in recruiting new trial participants;
- initiation of investigations by regulators;
- costs to defend or settle the related litigation;
- a diversion of management’s time and our resources;
- substantial monetary awards to trial participants or patients;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;

- significant negative financial impact; and
- the inability to commercialize any of our product candidates, if approved.

Although we will seek to procure and maintain product liability insurance coverage, we may be unable to secure such insurance and the insurance coverage may not be adequate to cover all liabilities that we may incur. We may need to increase our insurance coverage each time we commence a clinical trial and if we successfully commercialize any product candidate. As the expense of insurance coverage is increasing, we may not be able to maintain insurance coverage at a reasonable cost or in an amount adequate to satisfy any liability that may arise. If a successful product liability claim or series of claims is brought against us for uninsured liabilities or in excess of insured liabilities, our assets may not be sufficient to cover such claims and our business operations could be materially harmed.

Risks Relating to Manufacturing and Supply

The manufacture of biologics is complex. We may experience manufacturing problems that result in delays in our development or commercialization programs.

The manufacturing of biologics is complex and difficult and we may experience production issues or interruptions for our product candidates, including raw material or starting material variability in terms of quality, cell line viability, productivity or stability issues, shortages of any kind, shipping, distribution, storage and supply chain failures, growth media contamination, equipment malfunctions, operator errors, facility contamination, labor problems, natural disasters, disruption in utility services, terrorist activities, or acts of god that are beyond our or our CMO's control.

Given the nature of biologics manufacturing, there is a risk of contamination during manufacturing. Any contamination could materially harm our ability to produce product candidates on schedule and could harm our results of operations and cause reputational damage. Some of the raw materials that we anticipate will be required in our manufacturing process are derived from biologic sources. Such raw materials may be difficult to procure and may be subject to contamination or recall.

Problems with the manufacturing process, even minor deviations from the normal process, could result in product defects or manufacturing failures that result in lot failures, product recalls, product liability claims, insufficient inventory or potentially delay progression of our preclinical or clinical development of any product candidates we may develop. If we successfully develop product candidates, we may encounter problems achieving adequate quantities and quality that meet FDA, European Medicines Agency, or EMA, or other comparable applicable foreign standards or specifications with consistent and acceptable production yields and costs. The ability to scale our manufacturing and maintain the manufacturing process at the same levels of quality and efficacy that we are currently manufacturing is yet to be tested. If we or our third-party contract manufacturers, or CMOs, are unable to scale our manufacturing at the same levels of quality and efficiency, we may not be able to supply the required number of doses for clinical trials or commercial supply. A material shortage, contamination or manufacturing failure in the manufacture of any product candidates we may develop or other adverse impact or disruption in the commercial manufacturing or the production of clinical material could materially harm our development timelines and our business, financial condition, results of operations and prospects.

We face risk related to our reliance on our current and any future CMOs. For example, and our CMOs are subject to significant regulation with respect to manufacturing our products. The manufacturing facilities CMOs on which we rely may not continue to meet regulatory requirements, and may have limited capacity and may experience interruptions in supply, any of which could adversely affect our development and commercialization plans for our product candidates. All entities involved in the preparation of therapeutics for clinical trials or commercial sale, including any CMOs of any product candidates we may develop, are subject to extensive regulation. Components of a finished therapeutic product approved for commercial sale or used in clinical trials must be manufactured in accordance with clinical Good Manufacturing Practices, or cGMP. These regulations govern manufacturing processes and procedures (including record keeping) and the implementation and operation of quality systems to control and assure the quality of investigational products and products approved for sale. Poor control of production processes can lead to the introduction of adventitious agents or other contaminants or to inadvertent changes in the properties or stability of our

product candidates that may not be detectable in final product testing. We or our CMO must supply all necessary documentation in support of a BLA on a timely basis and must adhere to the FDA's current Good Laboratory Practices and current Good Manufacturing Practices regulations enforced through its facilities inspection program. Our facilities and quality systems and the facilities and quality systems of our CMOs must pass a pre-approval inspection for compliance with the applicable regulations as a condition of regulatory approval of any product candidates we may develop or any of our other potential products. In addition, the regulatory authorities may, at any time, audit or inspect a manufacturing facility involved with the preparation of our product candidates or our other potential products or the associated quality systems for compliance with the regulations applicable to the activities being conducted. If these facilities do not pass a pre-approval plant inspection, FDA approval of the products will not be granted.

The regulatory authorities also may, at any time following approval of a product for sale, audit our manufacturing facilities or those of our CMOs. If any such inspection or audit identifies a failure to comply with applicable regulations or if a violation of our product specifications or applicable regulations occurs independent of such an inspection or audit, we or the relevant regulatory authority may require remedial measures that may be costly and/or time-consuming for us or a third party to implement and that may include the temporary or permanent suspension of a clinical study or commercial sales or the temporary or permanent closure of a facility. Any such remedial measures imposed upon us or third parties with whom we contract could materially harm our business.

If we or any CMO with which we contract for manufacturing and supply fails to maintain regulatory compliance, the FDA can impose regulatory sanctions including, among other things, refusal to approve a pending application for a new drug product or biologic product, or revocation of a pre-existing approval. As a result, our business, financial condition and results of operations may be materially harmed.

Currently, we depend on a single manufacturer for the manufacturing processes required to develop our product candidates. We cannot ensure that this manufacturer will remain in business or have sufficient capacity or supply to meet our needs. Our use of a single manufacturer exposes us to several risks, including price increases or manufacturing delays beyond our control. Moreover, reliance on third-party manufacturers generally entails risks to which we would not be subject if we manufactured the product candidates ourselves, including:

- the inability to negotiate manufacturing agreements with third parties under commercially reasonable terms or at all, particularly if they are affiliated with our competitors;
- reduced control as a result of using third-party manufacturers for all aspects of manufacturing activities, particularly if they are under contract with our competitors;
- termination or nonrenewal of manufacturing agreements with third parties in a manner or at a time that is costly or damaging to us;
- disruptions to the operations of our third-party manufacturers or suppliers caused by conditions unrelated to our business or operations, including the bankruptcy of the manufacturer or supplier;
- the inability to obtain components or materials from alternate sources at acceptable prices in a timely manner; and
- substantial delays or difficulties related to the establishment of replacement manufacturers who meet regulatory requirements.

Any of these events could lead to clinical trial delays or failure to obtain regulatory approval or impact our ability to successfully commercialize future products. Some of these events could be the basis for FDA action, including injunction, recall, seizure or total or partial suspension of production.

Additionally, if supply from one approved manufacturer is interrupted, such as could be the case with our current CMO, there could be a significant disruption in supply. While we believe there are alternate manufacturers who can provide the manufacturing processes required to develop our product candidates, if we have to switch to a replacement manufacturer, the manufacture and delivery of our product candidates could be interrupted for an extended period, which could adversely affect our business. Furthermore, an alternative manufacturer would need to be qualified through a BLA supplement which could result in further delay. The regulatory agencies may also require additional studies or trials if a new manufacturer is relied upon

for commercial production. Switching manufacturers may involve substantial costs and is likely to result in a delay in our desired clinical and commercial timelines.

These factors could cause the delay of clinical trials, regulatory submissions, required approvals or commercialization of our product candidates, cause us to incur higher costs and prevent us from commercializing our products successfully. Furthermore, if our suppliers fail to meet contractual requirements, and we are unable to secure one or more replacement suppliers capable of production at a substantially equivalent cost, our clinical trials may be delayed or we could lose potential revenue.

If we or any CMOs and suppliers we engage fail to comply with environmental, health, and safety laws and regulations, we could become subject to fines or penalties or incur costs that could have a material adverse effect on the success of our business.

We and any CMOs and suppliers we engage are subject to numerous federal, state and local environmental, health, and safety laws, regulations and permitting requirements, including those governing laboratory procedures; the generation, handling, use, storage, treatment and disposal of hazardous and regulated materials and wastes; the emission and discharge of hazardous materials into the ground, air and water; and employee health and safety. Our operations involve the use of hazardous and flammable materials, including chemicals and biological and radioactive materials. Our operations also produce hazardous waste. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. Under certain environmental laws, we could be held responsible for costs relating to any contamination at third-party facilities. We also could incur significant costs associated with civil or criminal fines and penalties.

Compliance with applicable environmental laws and regulations may be expensive, and current or future environmental laws and regulations may impair our research and product development efforts. In addition, we cannot entirely eliminate the risk of accidental injury or contamination from these materials or wastes. Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials, this insurance may not provide adequate coverage against potential liabilities. We do not carry specific biological or hazardous waste insurance coverage, and our property, casualty and general liability insurance policies specifically exclude coverage for damages and fines arising from biological or hazardous waste exposure or contamination. Accordingly, in the event of contamination or injury, we could be held liable for damages or be penalized with fines in an amount exceeding our resources, and our clinical trials or regulatory approvals could be suspended, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws, regulations and permitting requirements. These current or future laws, regulations and permitting requirements may impair our research, development or production efforts. Failure to comply with these laws, regulations and permitting requirements also may result in substantial fines, penalties or other sanctions or business disruption, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Any third-party CMOs and suppliers we engage will also be subject to these and other environmental, health and safety laws and regulations. Liabilities they incur pursuant to these laws and regulations could result in significant costs or an interruption in operations, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Risks Related to our Dependence on Third Parties

We expect to rely on third parties to conduct, supervise and monitor IND-enabling studies and clinical trials, and if these third parties perform in an unsatisfactory manner, it may harm our business, reputation and results of operations.

We expect to rely on CROs and research and clinical trial sites to ensure our IND-enabling studies and clinical trials are conducted properly and on time, and we expect to rely in the future on CROs for additional research

programs. While we will have agreements governing their activities, we will have limited influence over their actual performance. We will control only certain aspects of our CROs' activities. Nevertheless, we will be responsible for ensuring that each of these studies is conducted in accordance with the applicable protocol, legal, regulatory and scientific standards, and our reliance on the CROs does not relieve us of our regulatory responsibilities.

We and our CROs will be required to comply with the FDA's Good Clinical Practices, or GCPs, for conducting, recording and reporting the results of IND-enabling studies and clinical trials to assure that the data and reported results are credible and accurate and that the rights, integrity and confidentiality of clinical trial participants are protected. The FDA enforces these GCPs through periodic inspections of study sponsors, principal investigators and clinical trial sites. If we or our CROs fail to comply with applicable GCPs, the preclinical and clinical data generated in our studies may be deemed unreliable and the FDA may require us to perform additional studies before approving any marketing applications. Upon inspection, the FDA may determine that our studies did not comply with GCPs.

Our CROs are not our employees, and we are therefore unable to directly monitor whether or not they devote sufficient time and resources to our clinical and nonclinical programs. These CROs may also have relationships with other commercial entities, including our competitors, for whom they may also be conducting clinical trials or other drug development activities that could harm our competitive position. If our CROs do not successfully carry out their contractual duties or obligations, fail to meet expected deadlines, or if the quality or accuracy of the data they obtain is compromised due to the failure to adhere to our protocols or regulatory requirements, or for any other reasons, our studies may be extended, delayed or terminated, and we may not be able to obtain regulatory approval for, or successfully commercialize any product candidates we may develop. As a result, our financial results and commercial prospects would be harmed, our costs could increase, and our ability to generate revenues could be delayed.

We may enter into collaborations, licenses or similar arrangements with third parties for the research, development and commercialization of certain of our current or future product candidates. If any such arrangements are not successful, we may not be able to capitalize on the market potential of those product candidates.

We may seek third-party collaborators or licensors for the research, development and commercialization of certain of our current or future product candidates. If we enter into any such arrangements with any third parties, we will likely have limited control over the amount and timing of resources that our collaborators dedicate to the development or commercialization of any product candidates we may seek to develop with them. Our ability to generate revenues from these arrangements will depend on our collaborators' abilities to successfully perform the functions assigned to them in these arrangements. We cannot predict the success of any collaboration that we enter into.

Collaborations, licenses or similar arrangements involving our research programs or any product candidates pose numerous risks to us, including the following:

- collaborators or licensors have significant discretion in determining the efforts and resources that they will apply to these arrangements;
- collaborators or licensors may not pursue development and commercialization of our product candidates or may elect not to continue or renew development or commercialization programs based on clinical trial results, changes in the such third party's strategic focus or available funding or external factors such as an acquisition that diverts resources or creates competing priorities;
- collaborators or licensors may delay programs, preclinical studies or clinical trials, provide insufficient funding for programs, preclinical studies or clinical trials, stop a preclinical study or clinical trial or abandon a product candidate, repeat or conduct new clinical trials or require a new formulation of a product candidate for clinical testing;
- collaborators or licensors could independently develop, or develop with third parties, products that compete directly or indirectly with our product candidates if the collaborators believe that competitive products are more likely to be successfully developed or can be commercialized under terms that are more economically attractive than ours;

- collaborators or licenses may be acquired by a third party having competitive products or different priorities;
- collaborators or licensors with marketing and distribution rights to one or more product candidates may not commit sufficient resources to the marketing and distribution of such product candidate(s);
- collaborators or licensors may not properly obtain, maintain, enforce or defend our intellectual property or proprietary rights or may use our proprietary information in such a way as to invite litigation that could jeopardize or invalidate our proprietary information or expose us to potential litigation;
- disputes may arise between the collaborators or licensors and us that result in the delay or termination of the research, development, or commercialization of our product candidates or any of our product candidates or that result in costly litigation or arbitration that diverts management attention and resources;
- we may lose certain valuable rights under certain circumstances, including if we undergo a change of control;
- collaborations or licenses may be terminated and, if terminated, may result in a need for additional capital to pursue further development or commercialization of the applicable product candidates; and
- collaborations or license agreements may not lead to development or commercialization of product candidates in the most efficient manner or at all. If a present or future collaborator or licensor of ours were to be involved in a business combination, the continued pursuit and emphasis on our product development or commercialization program under such collaboration could be delayed, diminished or terminated.

If our collaborations, licenses or similar transactions do not result in the successful development and commercialization of product candidates, or if one of our collaborators or licensors terminates its agreement with us, we may not receive any future research funding or milestone or royalty payments under such agreement. If we do not receive the funding we expect under these agreements, our development of product candidates could be delayed, and we may need additional resources to develop product candidates. In addition, if one of our collaborators terminates its agreement with us, we may find it more difficult to find a suitable replacement collaborator or licensor or for us to attract new collaborators or licensors, and our development programs may be delayed or the perception of us in the business and financial communities could be adversely affected. All of the risks relating to product development, regulatory approval and commercialization described in this prospectus apply to the activities of our collaborators or licensors.

These relationships, or those like them, may require us to incur non-recurring and other charges, increase our near- and long-term expenditures, issue securities that dilute our existing stockholders, or disrupt our management and business. In addition, we could face significant competition in seeking appropriate collaborators, and the negotiation process is time-consuming and complex. Our ability to reach a definitive collaboration or license agreement will depend, among other things, upon our assessment of the resources and expertise of such third-party collaborator or licensor and the terms and conditions of the proposed collaboration or license. Further, if we license rights for use in any product candidates we or our collaborators may develop, we may not be able to realize the benefit of such transactions if we are unable to successfully integrate them with our existing operations and company culture.

If we are not able to establish collaborations on commercially reasonable terms, we may have to alter our development and commercialization plans.

Our product development and research programs and the potential commercialization of any product candidates we may develop will require substantial additional cash to fund expenses. For some of the product candidates we may develop, we may decide to collaborate with other pharmaceutical and biotechnology companies for the development and potential commercialization of those product candidates. For example, as part of our development strategy, we plan to seek a potential collaborator for XTX101.

We face significant competition in seeking appropriate collaborators. Whether we reach a definitive agreement for a collaboration will depend, among other things, upon our assessment of the collaborator's resources and

expertise, the terms and conditions of the proposed collaboration, and the proposed collaborator's evaluation of a number of factors. Those factors may include the design or results of clinical trials, the likelihood of approval by the FDA, the EMA or similar regulatory authorities outside the United States, the potential market for the subject product candidate, the costs and complexities of manufacturing and delivering such product candidate to patients, the potential of competing products, the existence of uncertainty with respect to our ownership of technology, which can exist if there is a challenge to such ownership without regard to the merits of the challenge, and industry and market conditions generally. The collaborator may also consider alternative product candidates or technologies for similar indications that may be available to collaborate on and whether such a collaboration could be more attractive than the one with us.

Collaborations are complex and time-consuming to negotiate and document. In addition, there have been a significant number of recent business combinations among large pharmaceutical companies that have resulted in a reduced number of potential future collaborators.

We may not be able to negotiate collaborations on a timely basis, on acceptable terms, or at all. If we are unable to do so, we may have to curtail the development of the product candidate for which we are seeking to collaborate, reduce or delay its development program or one or more of our other development programs, delay its potential commercialization, reduce the scope of any sales or marketing activities, or increase our own expenditures on the development of the product candidate.

Certain of our research and development and manufacturing activities take place in China through third-party CROs, collaborators or manufacturers. A significant disruption in the operation of those CROs, collaborators or manufacturers could materially adversely affect our business, financial condition and results of operations.

We have relied on certain third parties located in China to manufacture and supply certain raw materials used in our product candidates, and we expect to continue to use such third-party manufacturers for such purposes. A natural disaster, epidemic or pandemic, including the recent COVID-19 pandemic, trade war, political unrest, economic conditions, changes in legislation, including the passage of the People's Republic of China Biosecurity law, which became effective on April 15, 2021, or other events in China could disrupt the business or operations of CROs, collaborators, manufacturers or other third parties with whom we conduct business now or in the future. Any disruption in China that significantly impacts such third parties, including services provided by CROs for our research and development programs, or our manufacturers' ability to produce raw materials in adequate quantities to meet our needs could impair our ability to operate our business on a day-to-day basis and impede, delay, limit or prevent the research, development or commercialization of our current and future products or product candidates. In addition, for any activities conducted in China, we are exposed to the possibility of product supply disruption and increased costs in the event of changes in the policies of the U.S. or Chinese governments, political unrest or unstable economic conditions including sanctions in China, and we may be exposed to fluctuations in the value of the local currency in China for goods and services. Our costs for any of these services or activities could also increase as a result of future appreciation of the local currency in China or increased labor costs if the demand for skilled laborers increases and/or the availability of skilled labor declines in China.

Risks Related to Commercialization

We have never commercialized a product candidate and we may lack the necessary expertise, personnel and resources to successfully commercialize any products that receive regulatory approval, either on our own or together with collaborators.

We have never commercialized a product candidate. We currently have no sales force or marketing or distribution capabilities. To achieve commercial success of our product candidates, if any are approved, we will have to develop our own sales, marketing and supply capabilities or outsource these activities to one or more third parties.

Factors that may affect our ability to commercialize our product candidates on our own include our ability to recruit and retain adequate numbers of effective sales and marketing personnel and obtain access to or persuade adequate numbers of physicians to prescribe our product candidates, as well as any unforeseen costs we may incur in connection with creating an independent sales and marketing organization. Developing a sales and marketing organization requires significant investment and substantial amount of time and attention

from our management and may divert a disproportionate amount of their attention away from day-to-day activities, which could delay the launch of our product candidates. We may not be able to build an effective sales and marketing organization in the United States, the European Union or other key global markets. To the extent we need to rely upon one or more third parties, we may have little or no control over the marketing and sales efforts of those third parties and our revenue from product sales may be lower than if we had commercialized our product candidates ourselves. We will also face competition in any search for third parties to assist us with sales and marketing efforts for our product candidates. If we are unable to build our own distribution and marketing capabilities or to find suitable partners for the commercialization of our product candidates, we may have difficulties generating revenue from them.

We face substantial competition, which may result in others discovering, developing or commercializing products before or more successfully than we do.

The development and commercialization of new products is highly competitive. We face competition with respect to our current product candidates and will face competition with respect to any product candidates that we may seek to develop or commercialize in the future, from major pharmaceutical, specialty pharmaceutical and biotechnology companies among others. We compete in the segments of the pharmaceutical, biotechnology and other related markets that develop immunotherapies for the treatment of cancer. There are other companies working to develop immunotherapies for the treatment of cancer including divisions of pharmaceutical and biotechnology companies of various sizes. Some of these competitive therapies are based on scientific approaches that are the same as or similar to our approach, and others are based on entirely different approaches. Potential competitors also include academic institutions, government agencies and other public and private research organizations that conduct research, seek patent protection and establish collaborative arrangements for research, development, manufacturing and commercialization.

We are developing our initial product candidates for the treatment of cancer and have not commenced clinical trials of or received marketing approval for any of our product candidates. There are already a variety of available therapies marketed for cancer and some of the currently approved therapies are branded and subject to patent protection, and others are available on a generic basis. Many of these approved therapies are well-established and widely accepted by physicians, patients and third-party payors. Insurers and other third-party payors may also encourage the use of generic products. We expect that if our product candidates are approved, they will be priced at a significant premium over competitive generic products. This may make it difficult for us to achieve our business strategy of using our product candidates in combination with existing therapies or replacing existing therapies with our product candidates. Competition may further increase with advances in the commercial applicability of technologies and greater availability of capital for investment in these industries.

We are aware of a number of companies that are developing cytokines as immunotherapies, as well as different modalities, including monoclonal antibodies, cell therapies, oncolytic viruses and vaccines.

Our lead product candidate, XTX202, if approved, may face competition from other IL-2-based cancer therapies. For example, Proleukin (aldesleukin), a synthetic protein very similar to IL-2, is approved and marketed for the treatment of metastatic renal cell carcinoma and melanoma. In addition, we are aware that a number of other companies have modified or low-dose IL-2 programs in development for the treatment of cancer, including Alkermes plc, Nektar Therapeutics Inc., Neoleukin Therapeutics Inc., Roche AG, Sanofi, Trutino Biosciences Inc. and Werewolf Therapeutics Inc.

There are no approved IL-12 therapies currently on the market for the treatment of cancer; however, we are aware of several other companies that have modified IL-12 or intra-tumoral IL-12 delivery programs for the treatment of cancer in development, including Cullinan Management Inc., DragonFly Therapeutics Inc., EMD Serono Inc., Philogen S.p.A., Werewolf Therapeutics Inc. and Xencor Inc.

There are no approved IL-15 therapies currently on the market for the treatment of cancer; however, we are aware of several other companies that have IL-15 based cancer therapies that are in development, including Jiangsu Hengrui Medicine Company Ltd., Kadmon Therapeutics Inc., Nantworks LLC, Sanofi and Xencor Inc.

Our second lead product candidate, XTX101, if approved, may face competition from other anti-CTLA-4 based therapies. For example, Yervoy (ipilimumab), an anti-CTLA-4, is approved to treat melanoma, renal

cell carcinoma and certain cancers of the large intestine. In addition, we are aware that several companies have anti-CTLA-4 programs in development, including Adagene, Inc., Agenus Inc., AstraZeneca plc, Bioatla Inc., Bristol-Myers Squibb Inc., CytomX Therapeutics Inc. and MacroGenics Inc.

Our competitors may succeed in developing, acquiring or licensing, on an exclusive basis, products that are safer, more effective, have fewer or less severe side effects, are more convenient or are less expensive than any products that we may develop. We also compete with these organizations in establishing clinical trial sites and patient registration for clinical trials, as well as in recruiting and retaining qualified scientific and management personnel, which could negatively affect our level of expertise and our ability to execute our business plan.

Many of our competitors, either alone or with their collaborators, have significantly greater financial resources and expertise in research and development, manufacturing, preclinical and clinical testing, obtaining regulatory approvals and reimbursement and marketing approved products than we do. Established pharmaceutical companies may invest heavily to accelerate discovery and development of novel product candidates or to in-license novel product candidates that could make our product candidates less competitive or obsolete. Smaller or early-stage companies may also prove to be significant competitors, including through collaborative arrangements with large and established companies. In addition, any new product that competes with an approved product must demonstrate compelling advantages in efficacy, convenience, tolerability and safety in order to overcome price competition and to be commercially successful. The availability of competing products could limit the demand and the price we are able to charge for product candidates we commercialize, if any. The inability to compete with existing or subsequently introduced products would harm our business, financial condition and results of operations.

If we do not achieve our projected development and commercialization goals in the timeframes we announce and expect, the commercialization of any of our product candidates may be delayed, and our business could be harmed.

For planning purposes, we sometimes estimate the timing of the accomplishment of various scientific, clinical, regulatory and other product development objectives. These milestones may include our expectations regarding the commencement or completion of scientific studies and clinical trials, the submission of regulatory filings or commercialization objectives. From time to time, we may publicly announce the expected timing of some of these milestones, such as the completion of an ongoing clinical trial, the initiation of other clinical trials, receipt of regulatory approval or the commercial launch of a product. The achievement of many of these milestones may be outside of our control. All of these milestones are based on a variety of assumptions which may cause the timing of achievement of the milestones to vary considerably from our estimates, including:

- our available capital resources or capital constraints we experience;
- the rate of progress, costs and results of our clinical trials and research and development activities, including the extent of scheduling conflicts with participating clinicians and collaborators;
- our ability to identify and enroll patients who meet clinical trial eligibility criteria;
- our receipt of approvals by the FDA, EMA and comparable regulatory authorities in other jurisdictions, and the timing thereof;
- other actions, decisions or rules issued by regulators;
- our ability to access sufficient, reliable and affordable supplies of materials used in the manufacture of our product candidates;
- our ability to manufacture and supply clinical trial materials to our clinical sites on a timely basis;
- the efforts of our collaborators with respect to the commercialization of our products; and
- the securing of, costs related to, and timing issues associated with, commercial product manufacturing as well as sales and marketing activities.

If we fail to achieve announced milestones in the timeframes we expect, the commercialization of any of our product candidates may be delayed, and our business, results of operations, financial condition and prospects may be adversely affected.

If approved, our product candidates that are regulated as biological products, or biologics, may face competition from biosimilars approved through an abbreviated regulatory pathway.

The Biologics Price Competition and Innovation Act of 2009, or BPCIA, was enacted as part of the Patient Protection and Affordable Care Act, as amended by the Health Care and Education Reconciliation Act of 2010, or collectively the ACA, to establish an abbreviated pathway for the approval of biosimilar and interchangeable with an FDA-licensed reference biologic product. The regulatory pathway establishes legal authority for the FDA to review and approve biosimilar biologics, including the possible designation of a biosimilar as "interchangeable" based on its similarity to an approved biologic. Under the BPCIA, reference biological product is granted 12 years of non-patent data exclusivity from the time of first licensure of the product, and the FDA will not accept an application for a biosimilar or interchangeable product based on the reference biological product until four years after the date of first licensure of the reference product. In addition, the approval of a biosimilar product may not be made effective by the FDA until 12 years from the date on which the reference product was first licensed. During this 12-year period of exclusivity, another company may still develop and receive approval of a competing biologic, so long as their BLA does not rely on the reference product or sponsor's data or submit the application as a biosimilar application. The law is complex and is still being interpreted and implemented by the FDA. As a result, its ultimate impact, implementation and meaning are subject to uncertainty, and any new policies or processes adopted by the FDA could have a material adverse effect on the future commercial prospects for our biological products.

We believe that any of the product candidates we develop that is approved in the United States as a biological product under a BLA should qualify for the 12-year period of exclusivity. However, there is a risk that this exclusivity could be shortened due to congressional action or otherwise, or that the FDA will not consider the subject product candidate to be a reference product for competing products, potentially creating the opportunity for biosimilar competition sooner than anticipated. Moreover, the extent to which a biosimilar, once approved, will be substituted for any one of the reference products in a way that is similar to traditional generic substitution for non-biological products is not yet clear, and will depend on a number of marketplace and regulatory factors that are still developing. The approval of a biosimilar of our product candidates could have a material adverse impact on our business due to increased competition and pricing pressure.

If competitors are able to obtain regulatory approval for biosimilars referencing our product candidates, our product candidates may become subject to competition from such biosimilars, with the attendant competitive pressure and consequences.

The sizes of the potential markets for our product candidates are difficult to estimate and, if any of our assumptions are inaccurate, the actual markets for our product candidates may be smaller than our estimates.

The potential market opportunities for our product candidates are difficult to estimate and, if our product candidates are approved, will ultimately depend on, among other things, the indications for which our product candidates are approved for sale, any products with which our product candidates are co-administered, the success of competing therapies and therapeutic approaches, acceptance by the medical community, patient access, product pricing, reimbursement and our ability to create meaningful value propositions for patients, prescribers and payors. Our estimates of the potential market opportunities for our product candidates are predicated on many assumptions, which may include industry knowledge and publications, third-party research reports and other surveys. Although we believe that our internal assumptions are reasonable, these assumptions involve the exercise of significant judgment on the part of our management, are inherently uncertain, and their reasonableness has not been assessed by an independent source. If any of the assumptions proves to be inaccurate, the actual markets for our product candidates could be smaller than our estimates of the potential market opportunities.

The successful commercialization of our product candidates will depend in part on the extent to which we obtain and maintain favorable insurance coverage, adequate reimbursement levels and cost-effective pricing policies with third party payors.

The availability and adequacy of coverage and reimbursement by third-party payors, including governmental healthcare programs such as Medicare and Medicaid, managed care organizations, and private health insurers, are essential for most patients to be able to afford prescription medications such as our product candidates, if approved. Our ability to achieve acceptable levels of coverage and reimbursement for products by third-party

payors will have an effect on our ability to successfully commercialize our product candidates. We cannot be sure that coverage and reimbursement in the United States, the European Union or elsewhere will be available for our product candidates, if approved, or any product that we may develop, and any reimbursement that may become available may be decreased or eliminated in the future.

Third-party payors increasingly are challenging prices charged for pharmaceutical products and services, and many third-party payors may refuse to provide coverage and reimbursement for particular drugs or biologics when an equivalent generic drug, biosimilar or a less expensive therapy is available. It is possible that a third-party payor may consider our product candidates as substitutable and only offer to reimburse patients for the less expensive product. Even if we show improved efficacy or improved convenience of administration with our product candidates, pricing of existing third-party therapeutics may limit the amount we will be able to charge for our product candidates. These payors may deny or revoke the reimbursement status of a given product or establish prices for new or existing marketed products at levels that are too low to enable us to realize an appropriate return on our investment in our product candidates, if approved. Even if our product candidates are approved and we obtain coverage for our product candidates by a third-party payor, such products may not be considered cost-effective and/or the resulting reimbursement payment rates may be insufficient or may require co-payments that patients find unacceptably high. Interim reimbursement levels for new medicines, if applicable, may also not be sufficient to cover our costs and may not be made permanent. Net prices for medicines may be reduced by mandatory discounts or rebates required by government healthcare programs or private payors and by any future relaxation of laws that presently restrict imports of medicines from countries where they may be sold at lower prices than in the United States. If reimbursement is not available or is available only at limited levels, we may not be able to successfully commercialize our product candidates, if approved, and may not be able to obtain a satisfactory financial return on our product candidates.

There is significant uncertainty related to the insurance coverage and reimbursement of newly approved products. The regulations that govern marketing approvals, pricing and reimbursement for new medicines vary widely from country to country. In the United States, third-party payors play an important role in determining the extent to which new drugs and biologics will be covered. The Medicare and Medicaid programs increasingly are used as models in the United States for how third-party payors develop their coverage and reimbursement policies for drugs and biologics. Some third-party payors may require pre-approval of coverage for new or innovative devices or drug therapies before they will reimburse healthcare providers who use such therapies. We cannot predict at this time what third-party payors will decide with respect to the coverage and reimbursement for our product candidates, if approved.

No uniform policy for coverage and reimbursement for products exists among third-party payors in the United States and coverage and reimbursement for products can therefore differ significantly from payor to payor and coverage and reimbursement by one payor does not guarantee coverage and reimbursement by another payor. As a result, the coverage determination process is often a time-consuming and costly process that will require us to provide scientific and clinical support for the use of our product candidates to each payor separately, with no assurance that coverage and adequate reimbursement will be applied consistently or obtained in the first instance. Our ability to demonstrate to these third-party payors that any of our approved product candidates creates a meaningful value proposition for patients, prescribers and payors will be important to gaining market access and reimbursement and there is no guarantee that we will be successful in doing so. Furthermore, rules and regulations regarding reimbursement change frequently, in some cases on short notice, and we believe that changes in these rules and regulations are likely.

Even if a product candidate we develop receives marketing approval, it may fail to achieve the degree of market acceptance by physicians, patients, hospitals, cancer treatment centers, third-party payors and others in the medical community necessary for commercial success.

If any product candidate we develop receives marketing approval, whether as a single agent or in combination with other therapies, it may nonetheless fail to gain sufficient market acceptance by physicians, patients, hospitals, cancer treatment centers, third-party payors, and others in the medical community. For example, cancer treatments like chemotherapy, radiation therapy and certain existing immunotherapies are well established in the medical community, and doctors may continue to rely on these therapies. If the product candidates we develop do not achieve an adequate level of acceptance, we may not generate significant product revenues and we may not become profitable.

The degree of market acceptance of any product, if approved for commercial sale, will depend on a number of factors, including:

- the product's efficacy, safety and potential advantages compared to alternative treatments;
- the prevalence and severity of any side effects;
- the product's convenience and ease of administration compared to alternative treatments;
- the clinical indications for which the product is approved;
- the willingness of the target patient population to try a novel treatment and of physicians to prescribe such treatments;
- the recommendations with respect to the product in guidelines published by scientific organizations;
- the ability to obtain sufficient third-party insurance coverage and adequate reimbursement, including, if applicable, with respect to the use of the product as a combination therapy;
- the strength of marketing, sales and distribution support;
- the effectiveness of our sales and marketing efforts;
- the approval of other new products for the same indications; and
- our ability to offer the product for sale at competitive prices.

If we obtain marketing approval for a product but such product does not achieve an adequate level of market acceptance, we may not generate or derive significant revenue from that product and our business, financial condition and results of operations may be adversely affected.

Risks Related to Our Intellectual Property

If we are unable to obtain and maintain patent protection for any product candidates we develop or for other proprietary technologies we may develop, or if the scope of the patent protection obtained is not sufficiently broad, our competitors could develop and commercialize product candidates and technology similar or identical to our product candidates and technology, and our ability to successfully commercialize any product candidates we may develop, and our technology may be adversely affected.

Our success depends in large part on our ability to obtain and maintain patent protection in the United States and other countries with respect to our product candidates, their respective components, formulations, combination therapies, methods used to manufacture them and methods of treatment and development that are important to our business. If we do not adequately protect our intellectual property rights, competitors may be able to erode or negate any competitive advantage we may have, which could harm our business and ability to achieve profitability. To protect our proprietary position, we file patent applications in the United States and abroad related to our product candidates that are important to our business; we also license and may in the future license or purchase additional patents and patent applications filed by others. If we are unable to secure or maintain patent protection with respect to our product candidates and any proprietary products and technology we develop, our business, financial condition, results of operations and prospects could be materially harmed.

If the scope of the patent protection we or our potential licensors obtain is not sufficiently broad, we may not be able to prevent others from developing and commercializing technology and products similar or identical to ours. The degree of patent protection we require to successfully compete in the marketplace may be unavailable or severely limited in some cases and may not adequately protect our rights or permit us to gain or keep any competitive advantage. We cannot provide any assurances that any of our patents have, or that any of our pending patent applications that mature into issued patents will include, claims with a scope sufficient to protect our current and future product candidates or otherwise provide any competitive advantage. In addition, to the extent that we license intellectual property in the future, we cannot assure you that those licenses will remain in force. In addition, the laws of foreign countries may not protect our rights to the same extent as the laws of the United States. Furthermore, patents have a limited lifespan. In the United States, the natural expiration of a patent is generally 20 years after it is filed. Various extensions may be available; however,

the life of a patent, and the protection it affords, is limited. Given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized.

Our patents and pending patent applications, if issued, may not provide us with any meaningful protection or prevent competitors from designing around our patent claims to circumvent our patents by developing similar or alternative technologies or therapeutics in a non-infringing manner. For example, a third party may develop a competitive therapy that provides benefits similar to one or more of our product candidates but that uses a formulation and/or a device that falls outside the scope of our patent protection. If the patent protection provided by the patents and patent applications we hold or pursue with respect to our product candidates is not sufficiently broad to impede such competition, our ability to successfully commercialize our product candidates could be negatively affected, which would harm our business.

Patent positions of life sciences companies can be uncertain and involve complex factual and legal questions and has in recent years been the subject of much litigation. No consistent policy governing the scope of claims allowable in the field of engineered therapeutic proteins has emerged in the United States. The scope of patent protection in jurisdictions outside of the United States is also uncertain. Changes in either the patent laws or their interpretation in any jurisdiction that we seek patent protection may diminish our ability to protect our inventions, maintain and enforce our intellectual property rights; and, more generally, may affect the value of our intellectual property, including the narrowing of the scope of our patents and any that we may license. Under the America Invents Act enacted in 2011, or the AIA, the United States moved to a first-to-file system in early 2013 (whereby, assuming the other requirements for patentability are met, the first to file a patent application is entitled to the patent), from the previous system under which the first to make a claimed invention was entitled to the patent. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Therefore, we cannot be certain that we were the first to make the inventions claimed in our patents or pending patent applications, or that we were the first to file for patent protection of such inventions.

The patent prosecution process is complex, expensive, time-consuming and inconsistent across jurisdictions. We may not be able to file, prosecute, maintain, enforce, or license all necessary or desirable patent rights at a commercially reasonable cost or in a timely manner. In addition, we may not pursue or obtain patent protection in all relevant markets. It is possible that we will fail to identify important patentable aspects of our research and development efforts in time to obtain appropriate or any patent protection. While we enter into non-disclosure and confidentiality agreements with parties who have access to confidential or patentable aspects of our research and development efforts, including for example, our employees, external academic scientific collaborators, CROs, CMOs, consultants, advisors and other third parties, any of these parties may breach the agreements and disclose our confidential or proprietary information before a patent application is filed, thereby endangering our ability to seek patent protection. In addition, publications of discoveries in the scientific and scholarly literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until 18 months after filing, or in some cases not at all. Consequently, we cannot be certain that we were the first to file for patent protection on the inventions claimed in our patents or pending patent applications.

The issuance, scope, validity, enforceability and commercial value of our patent rights are highly uncertain. Pending patent applications cannot be enforced against third parties unless, and until, patents issue from such applications, and then only to the extent the issued claims cover the technology. There can be no assurance that our patent applications or any patent applications that we may license in the future will result in patents being issued. Further, the scope of the invention claimed in a patent application can be significantly reduced before the patent is issued, and this scope can be reinterpreted after issuance. Even if patent applications we currently own or that we may license in the future issue as patents, they may not issue in a form that will provide us with adequate protection to prevent competitors or other third parties from competing with us, or otherwise provide us with a competitive advantage. Any patents that eventually issue may be challenged, narrowed or invalidated by third parties. Consequently, we do not know whether any of our product candidates will be protectable or remain protected by valid and enforceable patent rights. Our competitors or other third parties may be able to evade our patent rights by developing new products that are similar to our product candidates, biosimilars of our product candidates, or alternative technologies or products in a non-infringing manner.

The issuance or grant of a patent is not irrefutable as to its inventorship, scope, validity or enforceability, and our patents may be challenged in the courts or patent offices in the United States and abroad. There may be prior art of which we are not aware that may affect the validity or enforceability of a patent claim. There also may be prior art of which we are aware, but which we do not believe affects the validity or enforceability of a claim, which may, nonetheless, ultimately be found to affect the validity or enforceability of a claim. We may in the future, become subject to a third-party pre-issuance submission of prior art, pre- or post-issuance opposition, derivation, revocation, re-examination, post-grant and *inter partes* review, or interference proceeding and other similar proceedings challenging our patent rights or the patent rights of others in the U.S. Patent and Trademark Office, or USPTO, or other foreign patent office. An unfavorable determination in any such submission, proceeding or litigation could reduce the scope of, or invalidate, our patent rights, allow third parties to commercialize our technology or products and compete directly with us, without payment to us, or extinguish our ability to manufacture or commercialize products without infringing third-party patent rights.

In addition, given the amount of time required for the development, testing and regulatory review of new product candidates, patents protecting such candidates might expire before or shortly after such candidates are commercialized. As a result, our intellectual property may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours. Moreover, some of our owned and in-licensed patents and patent applications may in the future be co-owned with third parties. If we are unable to obtain an exclusive license to any such third-party co-owners' interest in such patents or patent applications, such co-owners may be able to license their rights to other third parties, including our competitors, and our competitors could market competing products and technology. In addition, we or our licensors may need the cooperation of any such co-owners of our owned and in-licensed patents in order to enforce such patents against third parties, and such cooperation may not be provided to us or our licensors. Any of the foregoing could have a material adverse effect on our competitive position, business, financial conditions, results of operations and prospects.

We rely on in-license agreements for patent rights with respect to our product candidates and may in the future acquire additional third-party intellectual property rights on which we may similarly rely. We face risks with respect to such reliance, including the risk that we could lose these rights that are important to our business if we fail to comply with our obligations under these licenses.

We rely on third-party license agreements pursuant to which we have non-exclusive and exclusive rights to technology that is incorporated into our development programs and product candidates. For example, under our cross-license agreement with AskGene, we have exclusively in-licensed patent rights relating to our IL-2 program, and we also have the option to obtain exclusive licenses to patent rights relating to our IL-15 program. In addition, under our license agreement with City of Hope, we have exclusively in-licensed certain patent rights that cover our anti-CTLA-4 antibody. We also have a license agreement with WuXi Biologics (Hong Kong) Limited, or WuXi Biologics, pursuant to which we received an exclusive worldwide license to specified monoclonal antibodies, or mAbs, and patent rights and know-how controlled by WuXi Biologics, including certain patent rights related to our anti-CTLA-4 mAb program. These license agreements impose diligence, milestone payment, royalty payment and other obligations on us. For more information regarding our in-license agreements with AskGene, City of Hope and WuXi Biologics, see "Business—License Agreements."

Moreover, the growth of our business may depend in part on our ability to acquire, in-license or use additional third-party intellectual property rights. The licensing and acquisition of third-party intellectual property rights is a competitive area, and a number of more established companies are also pursuing strategies to license or acquire third-party intellectual property rights that we may consider attractive. These established companies may have a competitive advantage over us due to their size, cash resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us. Licenses to additional third-party intellectual property, technology and materials that may be required for the development and commercialization of our product candidates or technology may not be available at all or on commercially reasonable terms. In that event, we may be required to expend significant time and resources to redesign our product candidates or to develop or license replacement technology, all of which may not be feasible on a technical or commercial basis. If we are unable

to do so, we may be unable to develop or commercialize our future product candidates or technologies, which could materially harm our business, financial condition, results of operations and growth prospects.

Under our agreement with City of Hope, we are responsible for the achievement of certain diligence milestones, and our failure to timely achieve such milestones could result in City of Hope's termination of the agreement or conversion of our exclusive licenses under the licensed patents to non-exclusive licenses. If City of Hope terminates the agreement or converts our licenses to non-exclusive licenses as a result of our failure to meet these diligence milestones, then our ability to commercialize products comprising our anti-CTLA-4 antibody may be impaired or we may face increased competition in the commercialization of anti-CTLA-4 antibody products. Furthermore, our agreement with City of Hope is subject to, and we expect our future license agreements may also be subject to, a reservation of rights by one or more third parties, including the licensor.

AskGene retained co-exclusive rights to exploit antigen-binding IL-2 and IL-15 products under our agreement with AskGene. Therefore, AskGene could develop and commercialize one or more antigen-binding IL-2 or IL-15 products on a more timely basis than us, if we ever develop such a product, or that are more effective or have more commercial success than products that we may develop. Additionally, AskGene is responsible for prosecution and maintenance of the licensed patents under the agreement and any future third party from whom we may license patent rights may similarly be responsible for prosecution and maintenance of such patents. We have limited control over the activities that are the responsibility of AskGene and would have limited control over the activities that are the responsibility of any future licensor, and it is possible that prosecution and maintenance of licensed patents by AskGene or any future licensor may be less vigorous than had we conducted such activities ourselves. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, or increase what we believe to be our financial or other obligations under the relevant agreement, either of which could have a material adverse effect on our business, financial condition, results of operations and growth prospects.

Disputes may arise regarding intellectual property subject to our current or any future license agreements of ours, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- our or our licensor's ability to defend intellectual property and to enforce intellectual property rights against third parties;
- the extent to which our technology, product candidates and processes infringe, misappropriate or otherwise violate any intellectual property of the licensor that is not subject to the licensing agreement;
- the sublicensing of patent and other rights under the license agreement;
- our diligence obligations under the license agreement and what activities satisfy those diligence obligations;
- the inventorship and ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensors and us and any partners of ours; and
- the priority of invention of patented technology.

If disputes over intellectual property that we have licensed prevent or impair our ability to maintain our licensing arrangements on acceptable terms, we may be unable to successfully develop and commercialize the affected product candidates. We are generally also subject to all of the same risks described in this prospectus with respect to protection of intellectual property that we license as we are for intellectual property that we own. If we or our licensors fail to adequately protect this intellectual property, our ability to commercialize products could suffer.

Our current and any potential future licensors might conclude that we have materially breached our license agreements and might therefore terminate the relevant license agreements, thereby removing our ability to develop and commercialize products and technology covered by such license agreements. If any of our current or future inbound license agreements are terminated, or if the underlying patents fail to provide the intended exclusivity, competitors would have the freedom to seek regulatory approval of, and to market, products that

are covered by such license agreements and underlying patents, which might be identical to our products or product candidates. This could have a material adverse effect on our competitive position, business, financial conditions, results of operations and growth prospects. Our business also would suffer if any current or future licensors fail to abide by the terms of the license or fail to enforce licensed patents against infringing third parties, if the licensed patents or other rights are found to be invalid or unenforceable, or if we are unable to enter into necessary licenses on acceptable terms. Moreover, our licensors may own or control intellectual property that has not been licensed to us and, as a result, we may be subject to claims, regardless of their merit, that we are infringing or otherwise violating the licensor's rights.

Any licensor of ours may have relied on third-party consultants or collaborators or on funds from third parties, such as the United States government, such that such licensor is not the sole and exclusive owners of the patents we in-licensed. If other third parties have ownership rights or other rights to our in-licensed patents, they may be able to license such patents to our competitors, and our competitors could market competing products and technology. This could have a material adverse effect on our competitive position, business, financial conditions, results of operations, and prospects.

In addition, while we cannot currently determine the amount of the royalty obligations we would be required to pay on sales of future products, if any, the amounts may be significant. The amount of our future royalty obligations will depend on the technology and intellectual property we use in products that we successfully develop and commercialize, if any. Therefore, even if we successfully develop and commercialize products, we may be unable to achieve or maintain profitability.

If our efforts to protect the proprietary nature of the intellectual property related to our technologies and product candidates are not adequate, we may not be able to compete effectively in our market.

Biotechnology and pharmaceutical companies generally, and we in particular, compete in a crowded competitive space characterized by rapidly evolving technologies and aggressive defense of intellectual property. The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other provisions during the patent process. Our or our licensor's failure to comply with all such provisions during the patent process could result in abandonment or lapse of a patent or patent application that we own or license, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, competitors might be able to enter the market and compete with us earlier than would otherwise have been the case.

We rely upon a combination of patents, confidentiality agreements, trade secret protection and license agreements to protect the intellectual property related to our technologies and our product candidates. Any disclosure to or misappropriation by third parties of our confidential proprietary information could enable competitors to quickly duplicate or surpass our technological achievements and product candidates, thus eroding our competitive position in our market. We, or any future partners, collaborators, or licensees, may fail to identify patentable aspects of inventions made in the course of development and commercialization activities before it is too late to obtain patent protection on them. Therefore, we may miss potential opportunities to strengthen our patent position.

It is possible that defects of form in the preparation or filing of our patents or patent applications may exist, or may arise in the future, for example with respect to proper priority claims, inventorship, claim scope, or requests for patent term adjustments. If we or our partners, collaborators, licensees or licensors fail to establish, maintain or protect such patents and other intellectual property rights, such rights may be reduced or eliminated. If our partners, collaborators, licensees or licensors are not fully cooperative or disagree with us as to the prosecution, maintenance or enforcement of any patent rights, such patent rights could be compromised. If there are material defects in the form, preparation, prosecution, or enforcement of our patents or patent applications, such patents may be invalid and/or unenforceable, and such applications may never result in valid, enforceable patents. Any of these outcomes could impair our ability to prevent competition from third parties, which may have an adverse impact on our business.

We seek or plan to seek patent protection for our product candidates by filing and prosecuting patent applications in the United States and other countries as appropriate. However, we cannot predict:

- if and when patents will issue;

- if patents will issue with claims that cover our product candidates;
- the degree and range of protection any issued patents will afford us against competitors including whether third parties will find ways to invalidate or otherwise circumvent our patents;
- whether foreign jurisdictions will adequately uphold patent protections;
- whether any of our intellectual property will provide any competitive advantage;
- whether any of our patents that may be issued may be challenged, invalidated, modified, revoked, circumvented, found to be unenforceable or otherwise may not provide any competitive advantage;
- whether or not others will obtain patents claiming aspects similar to those covered by our patents and patent applications; or
- whether we will need to initiate or defend litigation or administrative proceedings which may be costly regardless of whether we win or lose.

Additionally, we cannot be certain that the claims in our pending patent applications covering our product candidates and research programs will be considered patentable by the USPTO, or by patent offices in foreign countries, or that the claims in any of our issued patents will be considered valid by courts in the United States or foreign countries.

The strength of patents in the biotechnology and pharmaceutical field involves complex legal and scientific questions and can be uncertain. The patent applications that we own or in-license may fail to result in issued patents with claims that cover our product candidates or technology or uses thereof in the United States or in other foreign countries. Even if patents do successfully issue, third parties may challenge the validity, enforceability or scope thereof, which may result in such patents being narrowed, invalidated or held unenforceable. Furthermore, even if they are unchallenged, our patents and patent applications may not adequately protect our intellectual property or prevent others from designing around our claims. If the breadth or strength of protection provided by the patents and patent applications we hold with respect to our product candidates or technology is threatened, it could dissuade companies from collaborating with us to develop, and threaten our ability to commercialize, our product candidates. Further, if we encounter delays in our clinical trials, the period of time during which we could market our product candidates under patent protection would be reduced. Since patent applications in the United States and most other countries are confidential for a period of time after filing, we cannot be certain that we were the first to file any patent application related to our product candidates. Furthermore, for U.S. applications in which all claims are entitled to a priority date before March 16, 2013, an interference proceeding can be provoked by a third-party or instituted by the USPTO to determine who was the first to invent any of the subject matter covered by the patent claims of our applications. We cannot be certain that we are the first to invent the inventions covered by pending patent applications and, if we are not, we may be subject to priority disputes. We may be required to disclaim part or all of the term of certain patents or all of the term of certain patent applications. Various post-grant review proceedings, such as *inter partes* review, post-grant review and derivation proceedings, are available and may be pursued by any interested third party in the USPTO to challenge the patentability of claims issued in patents to us or our licensors. No assurance can be given as to the outcome of any such post-grant review proceedings. No assurance can be given that if challenged, our patents would be declared by a court to be valid or enforceable or that even if found valid and enforceable, a competitor's technology or product would be found by a court to infringe our patents. We may analyze patents or patent applications of our competitors that we believe are relevant to our activities, and consider that we are free to operate in relation to our product candidates, but our competitors may achieve issued claims, including in patents we consider to be unrelated, which block our efforts or may potentially result in our product candidates or our activities infringing such claims. The possibility exists that others will develop products which have the same effect as our products on an independent basis which do not infringe our patents or other intellectual property rights, or will design around the claims of patents that we have had issued that cover our products.

Recent or future patent reform legislation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents. In March 2013, under the Leahy-Smith America Invents Act, or America Invents Act, the United States moved from a "first to invent" to a "first-to-file" system. Under a "first-to-file" system, assuming the other requirements for patentability are met, the first inventor to file a patent application generally will be entitled to a patent on the

invention regardless of whether another inventor had made the invention earlier. The America Invents Act includes a number of other significant changes to U.S. patent law, including provisions that affect the way patent applications are prosecuted, redefine prior art and establish a USPTO-administered post-grant review system that has affected patent litigation. The America Invents Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business and financial condition.

The degree of future protection for our proprietary rights is uncertain because legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep our competitive advantage. For example:

- others may be able to make or use polypeptides or nucleic acids that are similar to our product candidates or components of our product candidates but that are not covered by the claims of our patents;
- the active biological ingredients in our current product candidates will eventually become commercially available in biosimilar drug products, and no patent protection may be available with regard to formulation or method of use;
- we or our licensors, as the case may be, may fail to meet our obligations to the U.S. government in regards to any patents and patent applications funded by U.S. government grants, leading to the loss of patent rights;
- we or our licensors, as the case may be, might not have been the first to file patent applications for these inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies;
- it is possible that our pending patent applications will not result in issued patents;
- it is possible that there are prior public disclosures that could invalidate our or our licensors' patents, as the case may be, or parts of our or their patents;
- it is possible that others may circumvent our owned or in-licensed patents;
- it is possible that there are unpublished applications or patent applications maintained in secrecy that may later issue with claims covering our products or technology similar to ours;
- the laws of foreign countries may not protect our or our licensors', as the case may be, proprietary rights to the same extent as the laws of the United States;
- the claims of our owned or in-licensed issued patents or patent applications, if and when issued, may not cover our product candidates or technology;
- our owned or in-licensed issued patents may not provide us with any competitive advantages, may be narrowed in scope, or be held invalid or unenforceable as a result of legal challenges by third parties;
- the inventors of our owned or in-licensed patents or patent applications may become involved with competitors, develop products or processes which design around our patents, or become hostile to us or the patents or patent applications on which they are named as inventors;
- it is possible that our owned or in-licensed patents or patent applications omit individual(s) that should be listed as inventor(s) or include individual(s) that should not be listed as inventor(s), which may cause these patents or patents issuing from these patent applications to be held invalid or unenforceable;
- we have engaged in scientific collaborations in the past and will continue to do so in the future, and such collaborators may develop adjacent or competing products to ours that are outside the scope of our patents;
- we may not develop additional proprietary technologies for which we can obtain patent protection;
- it is possible that product candidates or technology we develop may be covered by third parties' patents or other exclusive rights; or

- the patents of others may have an adverse effect on our business.

Our proprietary position depends upon patents that are manufacturing, formulation or method-of-use patents, which may not prevent a competitor or other third party from using the same product candidate for another use.

Composition of matter patents for biological and pharmaceutical products are generally considered to be the strongest form of intellectual property protection for those types of products, as such patents provide protection without regard to any method of making or method of use. We cannot be certain, however, that the claims in our pending patent applications, including those claims covering the composition of matter of our product candidates, will be considered patentable by the USPTO or by patent offices in foreign countries, or that the claims in any of our patents that have issued or may issue will be considered valid and enforceable by courts in the United States or foreign countries. Furthermore, in some cases, we may not be able to obtain issued claims covering compositions of matter relating to our product candidates, and instead may need to rely on filing patent applications with claims covering a method of use and/or method of manufacture. Method of use patents protect a specified method of using a product, such as a method of use for treating a particular medical indication. This type of patent does not prevent a competitor from making and marketing a product that is identical to our product for an indication that is outside the scope of the patented method. Moreover, even if competitors do not actively promote their products for our targeted indications, physicians may prescribe these products “off-label” for those uses that are covered by our method of use patents. Although off-label prescriptions may infringe or contribute to the infringement of method of use patents, the practice is common and such infringement is difficult to prevent by enforcing patent rights or otherwise. There can be no assurance that any such patent applications will issue as granted patents, and even if they do issue, such patent claims may be insufficient to prevent third parties, such as our competitors, from utilizing our technology. Any failure to obtain or maintain patent protection with respect to our product candidates could have a material adverse effect on our business, financial condition, results of operations, and prospects.

If we are unable to protect the confidentiality of our trade secrets, our business and competitive position would be harmed.

In addition to the protection afforded by patents, we seek to rely on trade secret protection, confidentiality agreements, and license and other agreements to protect proprietary know-how that is not patentable, processes for which patents are difficult to enforce and any other elements of our product discovery and development processes that involve proprietary know-how, information, or technology that is not covered by patents. We cannot be certain that our trade secrets and other confidential proprietary information will not be disclosed or that competitors will not otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. Furthermore, the laws of some foreign countries do not protect proprietary rights to the same extent or in the same manner as the laws of the United States. As a result, we may encounter significant problems in protecting and defending our intellectual property both in the United States and abroad. If we are unable to prevent unauthorized material disclosure of our intellectual property to third parties, we will not be able to establish or maintain a competitive advantage in our market, which could materially adversely affect our business, operating results and financial condition.

Courts outside the United States are sometimes less willing to protect trade secrets. If we choose to go to court to stop a third party from using any of our trade secrets, we may incur substantial costs. These lawsuits may consume our time and other resources even if we are successful. For example, significant elements of our product candidates, including aspects of sample preparation, methods of manufacturing, cell culturing conditions and related processes are based on unpatented trade secrets that are not publicly disclosed. Although we take steps to protect our proprietary information and trade secrets, including through contractual means with our employees and consultants, third parties may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose our technology.

Thus, we may not be able to meaningfully protect our trade secrets. It is our policy to require our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors to execute confidentiality agreements upon the commencement of employment or consulting relationships with us. These agreements provide that all confidential information concerning our business or financial affairs developed or made known to the individual or entity during the course of the party’s relationship with us is to be kept

confidential and not disclosed to third parties except in specific circumstances. In the case of employees, the agreements provide that all inventions conceived by the individual, and which are related to our current or planned business or research and development or made during normal working hours, on our premises or using our equipment or proprietary information, are our exclusive property. In addition, we take other appropriate precautions, such as physical and technological security measures, to guard against misappropriation of our proprietary technology by third parties. We have also adopted policies and conduct training that provides guidance on our expectations, and our advice for best practices, in protecting our trade secrets. However, we cannot provide assurance that these agreements and policies will not be breached by our employees, consultants, outside scientific collaborators, sponsored researchers and other advisors and that our trade secrets and other proprietary and confidential information will not be disclosed to publicly or to competitors.

Third-party claims of intellectual property infringement may prevent or delay our discovery and development efforts.

Our commercial success depends in part on our avoiding infringement of the patents and proprietary rights of third parties. There is a substantial amount of litigation involving patents and other intellectual property rights in the biotechnology and pharmaceutical industries, as well as administrative proceedings for challenging patents, including interference, reexamination, and post-grant review proceedings before the USPTO or oppositions and other comparable proceedings in foreign jurisdictions. We may be exposed to, or threatened with, future litigation by third parties having patent or other intellectual property rights alleging that our product candidates and/or proprietary technologies infringe their intellectual property rights. Numerous U.S. and foreign issued patents and pending patent applications, which are owned by third parties, exist in the fields in which we are developing our product candidates. As the biotechnology and pharmaceutical industries expand and more patents are issued, the risk increases that our product candidates may give rise to claims of infringement of the patent rights of others. Moreover, it is not always clear to industry participants, including us, which patents cover various types of drugs, products or their methods of use or manufacture. Thus, because of the large number of patents issued and patent applications filed in our fields, there may be a risk that third parties may allege they have patent rights encompassing our product candidates, technologies or methods.

If a third party claims that we infringe its intellectual property rights, we may face a number of issues, including, but not limited to:

- infringement and other intellectual property claims which, regardless of merit, may be expensive and time-consuming to litigate and may divert our management's attention from our core business;
- substantial damages for infringement, which we may have to pay if a court decides that the product candidate or technology at issue infringes on or violates the third party's rights, and, if the court finds that the infringement was willful, we could be ordered to pay treble damages and the patent owner's attorneys' fees;
- a court prohibiting us from developing, manufacturing, marketing or selling our product candidates, or from using our proprietary technologies, unless the third party licenses its product rights to us, which it is not required to do;
- if a license is available from a third party, we may have to pay substantial royalties, upfront fees and other amounts, and/or grant cross-licenses to intellectual property rights for our products; and
- redesigning our product candidates or processes so they do not infringe third party intellectual property rights, which may not be possible or may require substantial monetary expenditures and time.

Some of our competitors may be able to sustain the costs of complex patent litigation more effectively than we can because they have substantially greater resources. In addition, any uncertainties resulting from the initiation and continuation of any litigation could have a material adverse effect on our ability to raise the funds necessary to continue our operations or could otherwise have a material adverse effect on our business, results of operations, financial condition and prospects.

Third parties may assert that we are employing their proprietary technology without authorization. Generally, conducting preclinical and clinical trials and other development activities in the United States is not considered an act of infringement. If any of our product candidates is approved by the FDA, a third party may then seek

to enforce its patent by filing a patent infringement lawsuit against us. While we do not believe that any claims that could otherwise have a materially adverse effect on the commercialization of our product candidates are valid and enforceable, we may be incorrect in this belief, or we may not be able to prove it in litigation. In this regard, patents issued in the United States by law enjoy a presumption of validity that can be rebutted only with evidence that is "clear and convincing," a heightened standard of proof. There may be issued third-party patents of which we are currently unaware with claims to compositions, formulations, methods of manufacture or methods for treatment related to the use or manufacture of our product candidates. Patent applications can take many years to issue. There may be currently pending patent applications which may later result in issued patents that our product candidates may infringe. In addition, third parties may obtain patents in the future and claim that use of our technologies infringes upon these patents. Moreover, we may fail to identify relevant patents or incorrectly conclude that a patent is invalid, not enforceable, exhausted, or not infringed by our activities. If any third-party patents were held by a court of competent jurisdiction to cover the manufacturing process of our product candidates, constructs or molecules used in or formed during the manufacturing process, or any final product itself, the holders of any such patents may be able to block our ability to commercialize the product candidate unless we obtained a license under the applicable patents, or until such patents expire or they are finally determined to be held invalid or unenforceable. Similarly, if any third-party patent were held by a court of competent jurisdiction to cover aspects of our formulations, processes for manufacture or methods of use, including combination therapy or patient selection methods, the holders of any such patent may be able to block our ability to develop and commercialize the product candidate unless we obtained a license or until such patent expires or is finally determined to be held invalid or unenforceable. In either case, such a license may not be available on commercially reasonable terms or at all. If we are unable to obtain a necessary license to a third-party patent on commercially reasonable terms, or at all, our ability to commercialize our product candidates may be impaired or delayed, which could in turn significantly harm our business. Even if we obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, it could dissuade companies from collaborating with us to license, develop or commercialize current or future product candidates.

Parties making claims against us may seek and obtain injunctive or other equitable relief, which could effectively block our ability to further develop and commercialize our product candidates. Defense of these claims, regardless of their merit, could involve substantial litigation expense and would be a substantial diversion of employee resources from our business. In the event of a successful claim of infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, obtain one or more licenses from third parties, pay royalties or redesign our infringing products, which may be impossible or require substantial time and monetary expenditure. We cannot predict whether any such license would be available on commercially reasonable terms or at all. Furthermore, even in the absence of litigation, we may need or may choose to obtain licenses from third parties to advance our research or allow commercialization of our product candidates. We may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all. In that event, we would be unable to further develop and commercialize our product candidates, which could harm our business significantly.

We may not be successful in obtaining or maintaining necessary rights to product components and processes for our development pipeline through acquisitions and in-licenses.

Currently, we have certain intellectual property rights under patents and patent applications that we own or have rights to under our inbound license agreements related to our product candidates. Our development of additional product candidates may require the use of proprietary rights held by third parties, and the growth of our business will likely depend in part on our ability to acquire, in-license or use these proprietary rights.

Our product candidates may also require specific formulations to work effectively and efficiently, and rights to such formulation technology may be held by others. Similarly, efficient production or delivery of our product candidates may also require specific compositions or methods, and the rights to these may be owned by third parties. We may be unable to acquire or in-license any compositions, methods of use, processes or other third-party intellectual property rights from third parties that we identify as necessary or important to our business operations. We may fail to obtain any of these licenses at a reasonable cost or on reasonable terms, if at all, which would harm our business. We may need to cease use of the compositions or methods covered by such third-party intellectual property rights and may need to seek to develop alternative approaches that do

not infringe on such intellectual property rights which may entail additional costs and development delays, even if we were able to develop such alternatives, which may not be feasible. Even if we are able to obtain a license, it may be non-exclusive, thereby giving our competitors access to the same technologies licensed to us. In that event, we may be required to expend significant time and resources to develop or license replacement technology. Moreover, the specific components, such as linkers and antibody fragments, that will be used with our product candidates may be covered by the intellectual property rights of others.

Additionally, we may collaborate with or sponsor research at academic institutions to accelerate our preclinical research or development under written agreements with these institutions. In certain cases, these institutions may provide us with an option to negotiate a license to any of the institution's rights in technology resulting from the collaboration or sponsorship. Regardless of such option, we may be unable to negotiate a license within the specified timeframe or under terms that are acceptable to us. If we are unable to do so, the institution may offer the intellectual property rights to others, potentially blocking our ability to pursue our program. If we are unable to successfully obtain rights to required third-party intellectual property or to maintain the existing intellectual property rights we have, we may have to abandon development of such program and our business and financial condition could suffer.

The licensing and acquisition of third-party intellectual property rights is a competitive area, and companies, which may be more established, or have greater resources than we do, may also be pursuing strategies to license or acquire third-party intellectual property rights that we may consider necessary or attractive in order to commercialize our product candidates. More established companies may have a competitive advantage over us due to their size, cash resources and greater clinical development and commercialization capabilities.

We may be involved in lawsuits to protect or enforce our patents or the patents of our licensors, which could be expensive, time-consuming and unsuccessful.

Competitors may infringe our patents or the patents of our licensors. To counter infringement or unauthorized use, we may be required to file lawsuits with infringement claims, which can be expensive and time-consuming. In addition, in an infringement proceeding, a court may decide that one or more of our patents is not valid or is unenforceable or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation or defense proceedings could put one or more of our patents at risk of being invalidated, held unenforceable, or interpreted narrowly and could put our patent applications at risk of not issuing. Defense of these claims, regardless of their merit, would involve substantial litigation expense and would be a substantial diversion of employee resources from our business. In the event of a successful claim of infringement against us, we may have to pay substantial damages, including treble damages and attorneys' fees for willful infringement, obtain one or more licenses from third parties, pay royalties or redesign our infringing products, which may be impossible or require substantial time and monetary expenditure.

Post-grant proceedings provoked by third parties or brought by the USPTO may be necessary to determine the validity or priority of inventions with respect to our patents or patent applications or those of our licensors. An unfavorable outcome could result in a loss of our current patent rights and could require us to cease using the related technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us a license on commercially reasonable terms, or at all. Litigation or post-grant proceedings may result in a decision adverse to our interests and, even if we are successful, may result in substantial costs and distract our management and other employees. We may not be able to prevent, alone or with our licensors, misappropriation of our trade secrets or confidential information, particularly in countries where the laws may not protect those rights as fully as in the United States.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock.

Obtaining and maintaining our patent protection depends on compliance with various procedural, document submission, fee payment and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Some of our patent applications have been granted or may be granted or allowed in the future. We cannot be certain that an allowed patent application will become an issued patent. There may be events that can cause

the allowance of a patent application to be withdrawn. For example, after a patent application has been allowed, but prior to being issued, material that could be relevant to patentability may be identified. In such circumstances, the applicant may pull the application from allowance in order for the USPTO to review the application in view of the new material. We cannot be certain that the USPTO will re-allow the application in view of the new material. Further, periodic maintenance and annuity fees on any issued patent are due to be paid to the USPTO and foreign patent agencies in several stages over the lifetime of the patent. The USPTO and various foreign governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process and following the issuance of a patent. We rely on our outside counsel and other professionals or our licensing partners to pay these fees due to the USPTO and non-U.S. government patent agencies and to help us comply with other procedural, documentary and other similar requirements and we are also dependent on our licensors to take the necessary action to comply with these requirements with respect to our licensed intellectual property. While an inadvertent lapse can in many cases be cured by payment of a late fee or by other means in accordance with the applicable rules, there are situations in which noncompliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. Noncompliance events that could result in abandonment or lapse of a patent or patent application include, but are not limited to, failure to respond to official actions within prescribed time limits, non-payment of fees and failure to properly legalize and submit formal documents. In such an event, our competitors might be able to enter the market, which would have a material adverse effect on our business.

Issued patents covering our product candidates or technology could be found invalid or unenforceable if challenged in court or the USPTO.

Despite the measures we take to obtain and maintain patent and other intellectual property rights with respect to our product candidates, our intellectual property rights could be challenged or invalidated. If we or one of our licensors initiate legal proceedings against a third party to enforce a patent covering one of our product candidates or our technology, the defendant could counterclaim that the patent covering our product candidate or technology, as applicable, is invalid and/or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity and/or unenforceability are commonplace, and there are numerous grounds upon which a third party can assert invalidity or unenforceability of a patent. Third parties may also raise similar claims before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include re-examination, *inter partes* review, post-grant review and equivalent proceedings in foreign jurisdictions (such as opposition proceedings). Such proceedings could result in revocation or amendment to our patents in such a way that they no longer cover our product candidates or technology. The outcome following legal assertions of invalidity and unenforceability is unpredictable. With respect to the validity question, for example, we cannot be certain that there is no invalidating prior art, of which we, our patent counsel and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, or if we are otherwise unable to adequately protect our rights, we would lose at least part, and perhaps all, of the patent protection on our product candidates or technology. Such a loss of patent protection could have a material adverse impact on our business and our ability to commercialize or license our technology and product candidates.

Changes to patent law in the United States and in foreign jurisdictions could diminish the value of patents in general, thereby impairing our ability to protect our products.

As is the case with other biopharmaceutical companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biopharmaceutical industry involve both technological and legal complexity, and is therefore costly, time-consuming and inherently uncertain. In addition, the United States continues to adapt to wide-ranging patent reform legislation that became effective starting in 2012. Moreover, recent U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. In addition to increasing uncertainty regarding our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on new legislation and decisions by the federal courts, and the USPTO, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future. For example, in the case *Amgen v. Sanofi*, the Federal Circuit held that broad functional antibody claims are invalid for lack of enablement. While we do not believe that any of

the patents owned or licensed by us will be found invalid based on this decision, we cannot predict how future decisions by the courts, Congress or the USPTO may impact the value of our patents. Similarly, changes in the patent laws of other jurisdictions could adversely affect our ability to obtain and effectively enforce our patent rights, which would have a material adverse effect on our business and financial condition.

We have limited foreign intellectual property rights and may not be able to protect our intellectual property rights throughout the world.

We have obtained allowed patents in the United States that we consider to be important for certain of our product candidates, however, we may have less robust intellectual property rights outside the United States, and, in particular, we may not be able to pursue generic coverage of our product candidates outside of the United States. Filing, prosecuting and defending patents on product candidates in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can be less extensive than those in the United States. In addition, the laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the United States. Consequently, we may not be able to prevent third parties from practicing our inventions in all countries outside the United States, or from selling or importing products made using our inventions in and into the United States or other jurisdictions. Competitors may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and further, may export otherwise infringing products to territories where we have patent protection, but enforcement is not as strong as that in the United States. These products may compete with our products and our patents or other intellectual property rights may not be effective or sufficient to prevent them from competing. Most of our patent portfolio is at the very early stage. We will need to decide whether and in which jurisdictions to pursue protection for the various inventions in our portfolio prior to applicable deadlines.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents, trade secrets and other intellectual property protection, particularly those relating to biopharmaceutical products, which could make it difficult for us to stop the infringement of our patents or marketing of competing products in violation of our proprietary rights generally. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business, could put our patents at risk of being invalidated or interpreted narrowly and our patent applications at risk of not issuing and could provoke third parties to assert claims against us. We may not prevail in any lawsuits that we initiate and the damages or other remedies awarded, if any, may not be commercially meaningful. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license.

In addition, many countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to third parties. Many countries also limit the enforceability of patents against government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of such patent. If we or any of our licensors is forced to grant a license to third parties with respect to any patents relevant to our business, our competitive position may be impaired, and our business and financial condition may be adversely affected.

We may be subject to claims challenging the inventorship or ownership of our patents and other intellectual property.

We generally enter into confidentiality and intellectual property assignment agreements with our employees, consultants, and contractors. These agreements generally provide that inventions conceived by the party in the course of rendering services to us will be our exclusive property. However, those agreements may not be honored and may not effectively assign intellectual property rights to us. Moreover, there may be some circumstances, where we are unable to negotiate for such ownership rights. Disputes regarding ownership or inventorship of intellectual property can also arise in other contexts, such as collaborations and sponsored research. If we are subject to a dispute challenging our rights in or to patents or other intellectual property, such a dispute could be expensive and time consuming. If we were unsuccessful, we could lose valuable rights in intellectual property that we regard as our own.

We may be subject to damages resulting from claims that we or our employees have wrongfully used or disclosed confidential information of our competitors or are in breach of non-competition or non-solicitation agreements with our competitors.

Many of our employees, consultants and advisers were previously employed at other pharmaceutical companies, including our competitors or potential competitors, in some cases until recently. Some of these employees, consultants, advisers, and members of management executed proprietary rights, non-disclosure and non-competition agreements in connection with such previous employment. Although we take steps to ensure that our employees do not use the proprietary information or know-how of others in their work for us, we may be subject to claims that we or our employees, consultants, advisers, and members of management have inadvertently or otherwise used or disclosed trade secrets or other confidential information of these former employers or competitors. In addition, we may in the future be subject to claims that we caused an employee to breach the terms of his or her non-competition or non-solicitation agreement. Litigation may be necessary to defend against these claims. If we fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Even if we are successful in defending against these claims, litigation could result in substantial costs and could be a distraction to management. If our defense to those claims fails, in addition to paying monetary damages, we may lose valuable intellectual property rights or personnel. Any litigation or the threat thereof may adversely affect our ability to hire employees. A loss of key personnel or their work product could hamper or prevent our ability to commercialize product candidates, which could have an adverse effect on our business, results of operations and financial condition.

Some intellectual property that we have in-licensed may have been discovered through government funded programs and thus may be subject to federal regulations and a preference for U.S.-based companies. Compliance with such regulations may limit our exclusive rights and limit our ability to contract with non-U.S. manufacturers.

Any of the intellectual property rights that we have licensed or may license in the future and that have been generated through the use of U.S. government funding are subject to certain federal regulations. As a result, the U.S. government may have certain rights to intellectual property embodied in our current or future product candidates pursuant to the Bayh-Dole Act of 1980, or the Bayh-Dole Act. These U.S. government rights in certain inventions developed under a government-funded program include a non-exclusive, non-transferable, irrevocable worldwide license to use inventions for any governmental purpose. The U.S. government also has the right to take title to such intellectual property rights if we, or the applicable licensor, fail to disclose the invention to the government and fail to file an application to register the intellectual property within specified time limits. Intellectual property generated under a government funded program is also subject to certain reporting requirements, compliance with which may require us or the applicable licensor to expend substantial resources. We cannot be certain that our current or future licensors will comply with the disclosure or reporting requirements of the Bayh-Dole Act at all times or be able to rectify any lapse in compliance with these requirements.

In addition, the U.S. government requires that any products embodying the subject invention or produced using the subject invention be manufactured substantially in the United States. The manufacturing preference requirement can be waived if the owner of the intellectual property can show that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that, under the circumstances, domestic manufacture is not commercially feasible. This preference for U.S. manufacturers may limit our ability to contract with non-U.S. product manufacturers for products covered by such intellectual property. To the extent any of our current or future intellectual property is generated through the use of U.S. government funding, the provisions of the Bayh-Dole Act may similarly apply.

If we do not obtain patent term extension for any of our current or future product candidates, our business may be materially harmed.

Depending upon the timing, duration and specifics of any FDA marketing approval of any of our current or future product candidates, one or more of our U.S. patents may be eligible for limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, or the Hatch-Waxman

Amendments. The Hatch-Waxman Amendments permit a patent extension term of up to five years as compensation for patent term lost during the FDA regulatory review process. A patent term extension cannot extend the remaining term of a patent beyond a total of 14 years from the date of product approval, only one patent may be extended and only those claims covering the approved drug, a method for using it, or a method for manufacturing it may be extended. However, we may not be granted an extension because of, for example, failing to exercise due diligence during the testing phase or regulatory review process, failing to apply within applicable deadlines, failing to apply prior to expiration of relevant patents, or otherwise failing to satisfy applicable requirements. Moreover, the applicable time period or the scope of patent protection afforded could be less than we request. If we are unable to obtain patent term extension or term of any such extension is less than we request, our competitors may obtain approval of competing products following our patent expiration, and our business, financial condition, results of operations, and prospects could be materially harmed.

If our trademarks and trade names are not adequately protected, then we may not be able to build name recognition in our marks of interest and our business may be adversely affected.

Our trademarks or trade names may be challenged, infringed, circumvented, declared generic or determined to be infringing on other marks. We rely on both registration and common law protection for our trademarks. We may not be able to protect our rights to these trademarks and trade names or may be forced to stop using these names, which we need for name recognition by potential partners or customers in our markets of interest. During the trademark registration process, we may receive Office Actions from the USPTO objecting to the registration of our trademark. Although we would be given an opportunity to respond to those objections, we may be unable to overcome such rejections. In addition, in the USPTO and in comparable agencies in many foreign jurisdictions, third parties are given an opportunity to oppose pending trademark applications and/or to seek the cancellation of registered trademarks. Opposition or cancellation proceedings may be filed against our trademarks, and our trademarks may not survive such proceedings. If we are unable to establish name recognition based on our trademarks and trade names, we may not be able to compete effectively and our business may be adversely affected.

Numerous factors may limit any potential competitive advantage provided by our intellectual property rights.

The degree of future protection afforded by our intellectual property rights, whether owned or in-licensed, is uncertain because intellectual property rights have limitations, and may not adequately protect our business, provide a barrier to entry against our competitors or potential competitors, or permit us to maintain our competitive advantage. Moreover, if a third party has intellectual property rights that cover the practice of our technology, we may not be able to fully exercise or extract value from our intellectual property rights. The factors that may limit any potential competitive advantage provided by our intellectual property rights include:

- pending patent applications that we own or license may not lead to issued patents;
- patents, should they issue, that we own or license, may not provide us with any competitive advantages, or may be challenged and held invalid or unenforceable;
- others may be able to develop and/or practice technology that is similar to our technology or aspects of our technology but that is not covered by the claims of any of our owned or in-licensed patents, should any such patents issue;
- third parties may compete with us in jurisdictions where we do not pursue and obtain patent protection;
- we (or our licensors) might not have been the first to make the inventions covered by a pending patent application that we own or license;
- we (or our licensors) might not have been the first to file patent applications covering a particular invention;
- others may independently develop similar or alternative technologies without infringing our intellectual property rights;
- we may not be able to obtain and/or maintain necessary licenses on reasonable terms or at all;

- third parties may assert an ownership interest in our intellectual property and, if successful, such disputes may preclude us from exercising exclusive rights, or any rights at all, over that intellectual property;
- we may not be able to maintain the confidentiality of our trade secrets or other proprietary information;
- we may not develop or in-license additional proprietary technologies that are patentable; and
- the patents of others may have an adverse effect on our business.

Should any of these events occur, they could significantly harm our business and results of operation.

Risks Related to Regulatory Approval and Other Legal Compliance Matters

Even if we complete the necessary preclinical studies and clinical trials, the regulatory approval process is expensive, time consuming and uncertain and may prevent us from obtaining approvals for the commercialization of some or all of our product candidates. As a result, we cannot predict when or if, and in which territories, we will obtain marketing approval to commercialize a product candidate.

The research, testing, manufacturing, labeling, approval, selling, marketing, promotion and distribution of drug products are subject to extensive regulation by the FDA and comparable foreign regulatory authorities. We are not permitted to market our product candidates in the United States or in other countries until we receive approval of an NDA or BLA from the FDA or marketing approval from applicable regulatory authorities outside the United States. Our product candidates are in various stages of development and are subject to the risks of failure inherent in development. We have not submitted an application for or received marketing approval for any of our product candidates in the United States or in any other jurisdiction. We have no experience as a company in filing and supporting the applications necessary to gain marketing approvals and expect to rely on third-party CROs to assist us in this process.

The process of obtaining marketing approvals, both in the United States and abroad, is lengthy, expensive and uncertain. It may take many years, if approval is obtained at all, and can vary substantially based upon a variety of factors, including the type, complexity and novelty of the product candidates involved. Securing marketing approval requires the submission of extensive preclinical and clinical data and supporting information, including manufacturing information, to regulatory authorities for each therapeutic indication to establish the product candidate's safety and efficacy. The FDA or other regulatory authorities may determine that our product candidates are not safe and effective, only moderately effective or have undesirable or unintended side effects, toxicities or other characteristics that preclude our obtaining marketing approval or prevent or limit commercial use.

In addition, changes in marketing approval policies during the development period, changes in or the enactment or promulgation of additional statutes, regulations or guidance or changes in regulatory review for each submitted product application, may cause delays in the approval or rejection of an application. Regulatory authorities have substantial discretion in the approval process and varying interpretations of the data obtained from preclinical and clinical testing could delay, limit or prevent marketing approval of a product candidate. Any marketing approval we ultimately obtain may be limited or subject to restrictions or post-approval commitments that render the approved product not commercially viable.

Disruptions in the FDA and other government agencies caused by funding shortages or global health concerns could hinder their ability to hire and retain key leadership and other personnel, or otherwise prevent new products and services from being developed or commercialized in a timely manner, which could negatively impact our business.

The ability of the FDA to review and approve new products can be affected by a variety of factors, including government budget and funding levels, ability to hire and retain key personnel and accept the payment of user fees, and statutory, regulatory, and policy changes and other events that may otherwise affect the FDA's ability to perform routine functions. Average review times at the agency have fluctuated in recent years as a result. In addition, government funding of other government agencies that fund research and development activities is subject to the political process, which is inherently fluid and unpredictable.

Disruptions at the FDA and other agencies may also slow the time necessary for new drugs to be reviewed or approved by necessary government agencies, which would adversely affect our business. For example, over the last several years, including for 35 days beginning on December 22, 2018, the U.S. government has shut down several times and certain regulatory agencies, such as the FDA, have had to furlough critical employees and stop critical activities. If a prolonged government shutdown occurs, it could significantly impact the ability of the FDA to timely review and process our regulatory submissions, which could have a material adverse effect on our business.

In response to the COVID-19 pandemic, on March 10, 2020, the FDA announced its intention to postpone most inspections of foreign manufacturing facilities, and on March 18, 2020, the FDA temporarily postponed routine surveillance inspections of domestic manufacturing facilities. Subsequently, on July 10, 2020, the FDA announced its intention to resume certain on-site inspections of domestic manufacturing facilities subject to a risk-based prioritization system. The FDA intends to use this risk-based assessment system to identify the categories of regulatory activity that can occur within a given geographic area, ranging from mission critical inspections to resumption of all regulatory activities. Regulatory authorities outside the United States may also impose similar restrictions or other policy measures in response to the COVID-19 pandemic. If a prolonged government shutdown occurs, or if global health concerns continue to prevent the FDA or other regulatory authorities from conducting their regular inspections, reviews, or other regulatory activities, it could significantly impact the ability of the FDA or other regulatory authorities to timely review and process our regulatory submissions, which could have a material adverse effect on our business. Any delay in obtaining or failure to obtain required approvals could negatively affect our ability or that of any future collaborators to generate revenue from the particular product candidate, which likely would result in significant harm to our financial position and adversely impact our stock price.

Failure to obtain marketing approval in foreign jurisdictions would prevent our product candidates from being marketed abroad. Any approval we may be granted for our product candidates in the United States would not assure approval of our product candidates in foreign jurisdictions and any of our product candidates that may be approved for marketing in a foreign jurisdiction will be subject to risks associated with foreign operations.

In order to market and sell our products in the European Union and other foreign jurisdictions, we must obtain separate marketing approvals and comply with numerous and varying regulatory requirements. The approval procedure varies among countries and can involve additional testing. The time required to obtain approval may differ substantially from that required to obtain FDA approval. The marketing approval process outside the United States generally includes all of the risks associated with obtaining FDA approval. We may not obtain approvals from regulatory authorities outside the United States on a timely basis, if at all. Approval by the FDA does not ensure approval by regulatory authorities in other countries or jurisdictions, and approval by one regulatory authority outside the United States does not ensure approval by regulatory authorities in other countries or jurisdictions or by the FDA. We may file for marketing approvals but not receive necessary approvals to commercialize our products in any market.

In many countries outside the United States, a product candidate must also be approved for reimbursement before it can be sold in that country. In some cases, the price that we intend to charge for our products, if approved, is also subject to approval. Obtaining non-U.S. regulatory approvals and compliance with non-U.S. regulatory requirements could result in significant delays, difficulties and costs for us and could delay or prevent the introduction of our product candidates in certain countries. In addition, if we fail to obtain the non-U.S. approvals required to market our product candidates outside the United States or if we fail to comply with applicable non-U.S. regulatory requirements, our target markets will be reduced and our ability to realize the full market potential of our product candidates will be harmed and our business, financial condition, results of operations and prospects may be adversely affected.

Additionally, we could face heightened risks with respect to seeking marketing approval in the United Kingdom as a result of the recent withdrawal of the United Kingdom from the European Union, commonly referred to as Brexit. Pursuant to the formal withdrawal arrangements agreed between the United Kingdom and the European Union, the United Kingdom withdrew from the European Union, effective December 31, 2020. On December 24, 2020, the United Kingdom and the European Union entered into a Trade and Cooperation Agreement. The agreement sets out certain procedures for approval and recognition of medical products in each jurisdiction. Any delay in obtaining, or an inability to obtain, any marketing approvals, as a

result of the Trade and Cooperation Agreement would prevent us from commercializing any product candidates in the United Kingdom and/or the European Union and restrict our ability to generate revenue and achieve and sustain profitability. If any of these outcomes occur, we may be forced to restrict or delay efforts to seek regulatory approval in the United Kingdom and/or European Union for any product candidates, which could significantly and materially harm our business.

We expect that we will be subject to additional risks in commercializing any of our product candidates that receive marketing approval outside the United States, including tariffs, trade barriers and regulatory requirements; economic weakness, including inflation, or political instability in particular foreign economies and markets; compliance with tax, employment, immigration and labor laws for employees living or traveling abroad; foreign currency fluctuations, which could result in increased operating expenses and reduced revenue, and other obligations incident to doing business in another country; and workforce uncertainty in countries where labor unrest is more common than in the United States.

We may not be able to obtain orphan drug designation or orphan drug exclusivity for our product candidates and, even if we do, that exclusivity may not prevent the FDA or the EMA from approving competing products.

Regulatory authorities in some jurisdictions, including the United States and the European Union, may designate drugs for relatively small patient populations as orphan drugs. Under the Orphan Drug Act, the FDA may designate a product as an orphan drug if it is a drug intended to treat a rare disease or condition, which is generally defined as a patient population of fewer than 200,000 individuals annually in the United States. Generally, a product with orphan drug designation only becomes entitled to orphan drug exclusivity if it receives the first marketing approval for the indication for which it has such designation, in which case the FDA or the EMA will be precluded from approving another marketing application for the same product for that indication for the applicable exclusivity period. The applicable exclusivity period is seven years in the United States and ten years in the European Union. The European exclusivity period can be reduced to six years if a product no longer meets the criteria for orphan drug designation or if the product is sufficiently profitable so that market exclusivity is no longer justified.

We may seek orphan drug designations for our product candidates and may be unable to obtain such designations. Even if we do secure such designations and orphan drug exclusivity for a product, that exclusivity may not effectively protect the product from competition because different products can be approved for the same condition. Further, the FDA can subsequently approve the same drug for the same condition if the FDA concludes that the later product is clinically superior in that it is shown to be safer, to be more effective or to make a major contribution to patient care. Finally, orphan drug exclusivity may be lost if the FDA or the EMA determines that the request for designation was materially defective or if the manufacturer is unable to assure sufficient quantity of the product to meet the needs of patients with the rare disease or condition.

Any product candidate for which we obtain marketing approval is subject to ongoing regulation and could be subject to restrictions or withdrawal from the market, and we may be subject to substantial penalties if we fail to comply with regulatory requirements, when and if any of our product candidates are approved.

Any product candidate for which we obtain marketing approval will be subject to continual requirements of and review by the FDA and other regulatory authorities. These requirements include submissions of safety and other post-marketing information and reports, registration and listing requirements, cGMP requirements relating to quality control and manufacturing, quality assurance and corresponding maintenance of records and documents, and requirements regarding the distribution of samples to physicians and recordkeeping. In addition, the approval may be subject to limitations on the indicated uses for which the product may be marketed or to the conditions of approval or contain requirements for costly post-marketing testing and surveillance to monitor the safety or efficacy of the medicine, including the requirement to implement a risk evaluation and mitigation strategy. Accordingly, if we receive marketing approval for one or more of our product candidates, we will continue to expend time, money and effort in all areas of regulatory compliance, including manufacturing, production, product surveillance and quality control. If we fail to comply with these requirements, we could have the marketing approvals for our products withdrawn by regulatory authorities and our ability to market any products could be limited, which could adversely affect our ability to achieve or sustain profitability.

We must also comply with requirements concerning advertising and promotion for any of our product candidates for which we obtain marketing approval. Promotional communications with respect to prescription products are subject to a variety of legal and regulatory restrictions and must be consistent with the information in the product's approved labeling. Thus, we will not be able to promote any products we develop for indications or uses for which they are not approved. The FDA and other agencies, including the Department of Justice closely regulate and monitor the post-approval marketing and promotion of products to ensure that they are marketed and distributed only for the approved indications and in accordance with the provisions of the approved labeling. Violations of the Federal Food, Drug, and Cosmetic Act and other statutes, including the False Claims Act, relating to the promotion and advertising of prescription products may lead to investigations and enforcement actions alleging violations of federal and state health care fraud and abuse laws, as well as state consumer protection laws.

Failure to comply with regulatory requirements, may yield various results, including:

- restrictions on such products, manufacturers or manufacturing processes;
- restrictions on the labeling or marketing of a product;
- restrictions on distribution or use of a product;
- requirements to conduct post-marketing studies or clinical trials;
- warning letters or untitled letters;
- withdrawal of the products from the market;
- refusal to approve pending applications or supplements to approved applications that we submit;
- recall of products;
- damage to relationships with collaborators;
- unfavorable press coverage and damage to our reputation;
- fines, restitution or disgorgement of profits or revenues;
- suspension or withdrawal of marketing approvals;
- refusal to permit the import or export of our products;
- product seizure;
- injunctions or the imposition of civil or criminal penalties; and
- litigation involving patients using our products.

Non-compliance with EU requirements regarding safety monitoring or pharmacovigilance, and with requirements related to the development of products for the pediatric population, can also result in significant financial penalties. Similarly, failure to comply with the European Union's requirements regarding the protection of personal information can also lead to significant penalties and sanctions.

We may seek certain designations for our product candidates, including Breakthrough Therapy, Fast Track and Priority Review designations in the United States, but we might not receive such designations, and even if we do, such designations may not lead to a faster development or regulatory review or approval process.

We may seek certain designations for one or more of our product candidates that could expedite review and approval by the FDA. A Breakthrough Therapy product is defined as a product that is intended, alone or in combination with one or more other products, to treat a serious condition, and preliminary clinical evidence indicates that the product may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. For products that have been designated as Breakthrough therapies, interaction and communication between the FDA and the sponsor of the trial can help to identify the most efficient path for clinical development while minimizing the number of patients placed in ineffective control regimens.

The FDA may also designate a product for Fast Track review if it is intended, whether alone or in combination with one or more other products, for the treatment of a serious or life-threatening disease or condition, and it

demonstrates the potential to address unmet medical needs for such a disease or condition. For Fast Track products, sponsors may have greater interactions with the FDA and the FDA may initiate review of sections of a Fast Track product's application before the application is complete. This rolling review may be available if the FDA determines, after preliminary evaluation of clinical data submitted by the sponsor, that a Fast Track product may be effective.

We may also seek a priority review designation for one or more of our product candidates. If the FDA determines that a product candidate offers major advances in treatment or provides a treatment where no adequate therapy exists, the FDA may designate the product candidate for priority review. A priority review designation means that the goal for the FDA to review an application is six months, rather than the standard review period of ten months.

These designations are within the discretion of the FDA. Accordingly, even if we believe that one of our product candidates meets the criteria for these designations, the FDA may disagree and instead determine not to make such designation. Further, even if we receive a designation, the receipt of such designation for a product candidate may not result in a faster development or regulatory review or approval process compared to products considered for approval under conventional FDA procedures and does not assure ultimate approval by the FDA. In addition, even if one or more of our product candidates qualifies for these designations, the FDA may later decide that the product candidates no longer meet the conditions for qualification or decide that the time period for FDA review or approval will not be shortened.

Current and future legislation may increase the difficulty and cost for us to obtain reimbursement for any of our candidate products that do receive marketing approval.

In the United States and foreign jurisdictions, there have been a number of legislative and regulatory changes and proposed changes regarding the healthcare system that could prevent or delay marketing approval of our product candidates, restrict or regulate post-approval activities and affect our ability to profitably sell any product candidates for which we obtain marketing approval. We expect that current laws, as well as other healthcare reform measures that may be adopted in the future, may result in more rigorous coverage criteria and in additional downward pressure on the price that we may receive for any approved products. If reimbursement of our products is unavailable or limited in scope, our business could be materially harmed.

The ACA substantially changed the way healthcare is financed by both governmental and private insurers and continues to significantly impact the U.S. pharmaceutical industry. Since enactment of the ACA, there have been numerous legal challenges and Congressional actions to repeal and replace provisions of the law. For example, with enactment of the Tax Act in 2017, Congress repealed the tax-based shared responsibility payment, known as the "individual mandate." The repeal of this provision, which required most Americans to carry a minimal level of health insurance, became effective in 2019. Further, on December 14, 2018, a U.S. District Court judge in the Northern District of Texas ruled that the individual mandate portion of the ACA is an essential and inseverable feature of the ACA, and therefore because the mandate was repealed as part of the Tax Act, the remaining provisions of the ACA are invalid as well. The U.S. Supreme Court is currently reviewing the case, although it is unclear when a decision will be made or how the Supreme Court will rule. On February 10, 2021, the Biden Administration withdrew the federal government's support for overturning the ACA. Litigation and legislation over the ACA are likely to continue, with unpredictable and uncertain results.

The Trump Administration also took executive actions to undermine or delay implementation of the ACA, including directing federal agencies with authorities and responsibilities under the ACA to waive, defer, grant exemptions from, or delay the implementation of any provision of the ACA that would impose a fiscal or regulatory burden on states, individuals, healthcare providers, health insurers or manufacturers of pharmaceuticals or medical devices. On January 28, 2021, however, President Biden revoked those orders and issued a new executive order that directs federal agencies to reconsider rules and other policies that limit Americans' access to health care and consider actions that will protect and strengthen that access. The executive order also initiated a special enrollment period for purposes of obtaining health insurance coverage through the ACA marketplace, which began on February 15, 2021 and will remain open through August 15, 2021. Further, it is possible that additional governmental action will be taken in response to the COVID-19 pandemic.

Current and future legislative efforts may limit the prices for our products, if and when they are licensed for marketing, and that could materially impact our ability to generate revenues.

The costs of prescription pharmaceuticals have also been the subject of considerable discussion in the United States. In recent years, there have been several U.S. congressional inquiries, executive orders and policy initiatives, as well as proposed and enacted state and federal legislation designed to, among other things, implement drug pricing reform, bring more transparency to drug pricing, review the relationship between pricing and manufacturer patient programs, reduce the costs of drugs under Medicare and reform government program reimbursement methodologies for drug products. To those ends, the Trump Administration finalized a rule allowing states or certain other non-federal government entities to submit importation program proposals to the FDA for review and approval. Applicants are required to demonstrate that their importation plans pose no additional risk to public health and safety and will result in significant cost savings for consumers. The FDA has issued guidance that allows manufacturers to import their own FDA-approved drugs that are authorized for sale in other countries (multi-market approved products).

Further, former President Trump issued several executive orders intended to lower the costs of prescription drug products. Several of these orders are reflected in recently promulgated regulations, and one of these regulations is currently subject to a nationwide preliminary injunction. The Biden Administration has frozen or delayed certain of the previous administration's measures to reform drug prices. It remains to be seen how the Biden Administration will address this issue but, under Medicare Part D, the new administration may seek to establish a ceiling for the launch prices of all branded, biologic, and certain generic drugs by referencing the average price of these drugs in other developed countries. At the same time, the administration may seek to limit Medicare Part D and public option drug prices through a tax penalty on manufacturers for increases in the cost of drugs and biologics above the general inflation rate. The American Rescue Plan Act of 2021, comprehensive COVID-19 relief legislation recently enacted under the Biden Administration, includes a number of healthcare-related provisions, such as support to rural health care providers, increased tax subsidies for health insurance purchased through insurance exchange marketplaces, financial incentives to states to expand Medicaid programs and elimination of the Medicaid drug rebate cap effective in 2024.

At the state level, legislatures are increasingly passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. In addition, regional health care authorities and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription drug and other health care programs. These measures could reduce the ultimate demand for our products, once approved, or put pressure on our product pricing. We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for our product candidates or additional pricing pressures.

Finally, outside the United States, in some nations, including those of the European Union, the pricing of prescription pharmaceuticals is subject to governmental control and access. In these countries, pricing negotiations with governmental authorities can take considerable time after the receipt of marketing approval for a product. To obtain reimbursement or pricing approval in some countries, we or our collaborators may be required to conduct a clinical trial that compares the cost-effectiveness of our product to other available therapies. If reimbursement of our products is unavailable or limited in scope or amount, or if pricing is set at unsatisfactory levels, our business could be materially harmed.

We may be subject to certain healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, contractual damages, reputational harm, fines, disgorgement, exclusion from participation in government healthcare programs, curtailment or restricting of our operations, and diminished future profits and earnings, if any.

Healthcare providers, third-party payors and others will play a primary role in the recommendation and prescription of any products for which we obtain marketing approval. Our current and future arrangements with healthcare providers and third-party payors will expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and

relationships through which we research as well as market, sell and distribute any products for which we obtain marketing approval. Potentially applicable U.S. federal and state healthcare laws and regulations include the following:

- *Anti-Kickback Statute*. The federal Anti-Kickback Statute prohibits, among other things, persons and entities from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made under federal healthcare programs such as Medicare and Medicaid.
- *False Claims Laws*. The federal false claims laws and civil monetary penalties laws, including the civil False Claims Act and the Civil Monetary Penalty Law, impose criminal and civil penalties, including those from civil whistleblower or qui tam actions against individuals or entities for knowingly presenting, or causing to be presented to the federal government, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government.
- *HIPAA*. The federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, imposes criminal and civil liability for, among other things, executing or attempting to execute a scheme to defraud any healthcare benefit program.
- *HIPAA and HITECH*. HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act, or the HITECH Act, also imposes obligations on certain types of individuals and entities, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of individually identifiable health information.
- *False Statements Statute*. The federal false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of or payment for healthcare benefits, items or services.
- *Transparency Requirements*. The federal Physician Payments Sunshine Act requires certain manufacturers of drugs, devices, biologics, and medical supplies for which payment is available under Medicare, Medicaid, or the Children's Health Insurance Program, with specific exceptions, to report annually to the Department of Health and Human Services information related to payments and other transfers of value made to physicians (defined to include doctors, dentists, optometrists, podiatrists, and chiropractors) and ownership and investment interests by physicians and their immediate family members. Beginning in 2022, applicable manufacturers also will be required to report such information regarding its payments and other transfers of value to physician assistants, nurse practitioners, clinical nurse specialists, anesthesiologist assistants, certified registered nurse anesthetists and certified nurse midwives during the previous year.
- *Analogous State and Foreign Laws*. Analogous state laws and regulations, such as state anti-kickback and false claims laws, and transparency laws, may apply to sales or marketing arrangements, and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers, and some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government, in addition to requiring manufacturers to report information related to payments to physicians and other healthcare providers or marketing expenditures. Many state laws also govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts. Foreign laws also govern the privacy and security of health information in many circumstances.

The provision of benefits or advantages to physicians to induce or encourage the prescription, recommendation, endorsement, purchase, supply, order or use of medicinal products is prohibited in the European Union. Payments made to physicians in certain European Union Member States must be publicly disclosed. Moreover, agreements with physicians often must be the subject of prior notification and approval by the physician's employer, his or her competent professional organization and/or the regulatory authorities of the individual European Union Member States. These requirements are provided in the national laws,

industry codes or professional codes of conduct applicable in the European Union Member States. Failure to comply with these requirements could result in reputational risk, public reprimands, administrative penalties, fines or imprisonment.

Efforts to ensure that our business arrangements with third parties, and our business generally, will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, damages, fines, imprisonment, exclusion of products from government funded healthcare programs, such as Medicare and Medicaid, disgorgement, contractual damages, and reputational harm, any of which could substantially disrupt our operations. If any of the physicians or other providers or entities with whom we expect to do business is found not to be in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs.

Compliance with state, national and international privacy and data security requirements could result in additional costs and liabilities to us or inhibit our ability to collect and process data globally, and the failure to comply with such requirements could subject us to a variety of harms, including significant fines and penalties, litigation and reputational damage, any of which may have a material adverse effect on our business, financial condition or results of operations.

The regulatory framework for the collection, use, safeguarding, sharing, transfer and other processing of information worldwide is rapidly evolving and is likely to remain uncertain for the foreseeable future. Globally, virtually every jurisdiction in which we operate or are likely to operate has established its own data security and privacy frameworks with which we must comply. For example, the collection, use, disclosure, transfer, or other processing of personal data regarding individuals in the European Union, including personal health data, is subject to the EU General Data Protection Regulation, or the GDPR, which took effect across all member states of the European Economic Area, or EEA, in May 2018. The GDPR is wide-ranging in scope and imposes numerous requirements on companies that process personal data, including strict rules on the transfer of personal data to countries outside the European Union, including the United States.

Our efforts to comply with GDPR or other applicable European Union laws and regulations may not be successful, or may be perceived to be unsuccessful, which could adversely affect our business in the European Union. Further, a decision from the European Court of Justice, or ECJ, invalidated the EU-U.S. Privacy Shield and also raised questions about the continued validity of one of the primary alternatives to the EU-U.S. Privacy Shield, namely the European Commission's Standard Contractual Clauses. European Union regulators have also issued additional guidance regarding considerations and requirements that we and other companies must consider and undertake when using the Standard Contractual Clauses. Although the European Union has presented a new draft set of contractual clauses, at present, there are few, if any, viable alternatives to the EU-U.S. Privacy Shield and the Standard Contractual Clauses. The ECJ's decision and other regulatory guidance or developments otherwise may impose additional obligations with respect to the transfer of personal data from the European Union and Switzerland to the United States, each of which could restrict our activities in those jurisdictions, limit our ability to provide our products and services in those jurisdictions, or increase our costs and obligations and impose limitations upon our ability to efficiently transfer personal data from the European Union and Switzerland to the United States.

Brexit has complicated data protection regulation in the United Kingdom because, as of January 1, 2021, the GDPR has been converted into United Kingdom law and the United Kingdom is now a "third country" under the GDPR, subject to a transition period of up to six months. Unless the European Commission makes an 'adequacy finding' in respect of the United Kingdom before the expiration of the transition period, the United Kingdom will become an 'inadequate third country' under the GDPR and transfers of data from the EEA to the United Kingdom will require a 'transfer mechanism,' such as the standard contractual clauses. Furthermore, following the expiration of the specified period, there will be increasing scope for divergence in application, interpretation and enforcement of the data protection law as between the United Kingdom and EEA.

As a result, there is increased scrutiny on the extent to which clinical trial sites located in the EEA should apply the GDPR to transfers of personal data from such sites to countries that are considered to lack an adequate level of data protection, such as the United States. The GDPR also permits data protection authorities to require destruction of improperly gathered or used personal information and/or impose substantial fines for violations of the GDPR, which can be up to four percent of global revenues or 20 million Euros, whichever is greater, and it also confers a private right of action on data subjects and consumer associations to lodge complaints with supervisory authorities, seek judicial remedies, and obtain compensation for damages resulting from violations of the GDPR. In addition, the GDPR provides that EU member states may make their own further laws and regulations limiting the processing of personal data, including genetic, biometric or health data.

Actions are either in place or under way in the United States to enact similar legislation. There are a broad variety of data protection laws that are applicable to our activities, and a wide range of enforcement agencies at both the state and federal levels that can review companies for privacy and data security concerns based on general consumer protection laws. The Federal Trade Commission and state Attorneys General all are aggressive in reviewing privacy and data security protections for consumers. New laws also are being considered at both the state and federal levels. For example, the California Consumer Privacy Act, or CCPA, which went into effect on January 1, 2020, is creating similar risks and obligations as those created by GDPR, though the Act does exempt certain information collected as part of a clinical trial subject to the Federal Policy for the Protection of Human Subjects (the Common Rule). Many other states are considering similar legislation. A broad range of legislative measures also have been introduced at the federal level. Accordingly, failure to comply with federal and state laws (both those currently in effect and future legislation) regarding privacy and security of personal information could expose us to fines and penalties under such laws. There also is the threat of consumer class actions related to these laws and the overall protection of personal data. Even if we are not determined to have violated these laws, government investigations into these issues typically require the expenditure of significant resources and generate negative publicity, which could harm our reputation and our business.

Additionally, California voters approved a new privacy law, the California Privacy Rights Act, or CPRA, in the November 3, 2020 election. Effective starting on January 1, 2013, the CPRA will significantly modify the CCPA, including by expanding consumers' rights with respect to certain sensitive personal information. The CPRA also creates a new state agency that will be vested with authority to implement and enforce the CCPA and the CPRA.

In addition to the foregoing, any breach of privacy laws or data security laws, particularly resulting in a significant security incident or breach involving the misappropriation, loss or other unauthorized use or disclosure of sensitive or confidential patient or consumer information, could have a material adverse effect on our business, reputation and financial condition. As a data controller, we will be accountable for any third-party service providers we engage to process personal data on our behalf, including our CROs. There is no assurance that privacy and security-related safeguards we implement will protect us from all risks associated with the third-party processing, storage and transmission of such information.

New legislation proposed or enacted in Illinois, Massachusetts, Nevada, New Jersey, New York, Rhode Island, Virginia, Washington and other states, and a proposed right to privacy amendment to the Vermont Constitution, imposes, or has the potential to impose, additional obligations on companies that collect, store, use, retain, disclose, transfer and otherwise process confidential, sensitive and personal information, and will continue to shape the data privacy environment nationally. State laws are changing rapidly and there is discussion in Congress of a new federal data protection and privacy law to which we would become subject if it is enacted. There is also discussion of an executive order on cybersecurity that could affect how we collect and process information. All of these evolving compliance and operational requirements impose significant costs that are likely to increase over time, may require us to modify our data processing practices and policies, divert resources from other initiatives and projects, and could restrict the way products and services involving data are offered, all of which could significantly harm our business, financial condition, results of operations and prospects. Further, certain state laws may be more stringent or broader in scope, or offer greater individual rights, with respect to confidential, sensitive and personal information than federal, international or other state laws, and such laws may differ from each other, which may complicate compliance efforts.

Given the breadth and depth of changes in data protection obligations, preparing for and complying with such requirements is rigorous and time intensive and requires significant resources and a review of our technologies, systems and practices, as well as those of any third-party collaborators, service providers, contractors or consultants that process or transfer personal data. The GDPR and other changes in laws or regulations associated with the enhanced protection of certain types of sensitive data, such as healthcare data or other personal information from our clinical trials, could require us to change our business practices and put in place additional compliance mechanisms, may interrupt or delay our development, regulatory and commercialization activities and increase our cost of doing business, and could lead to government enforcement actions, private litigation and significant fines and penalties against us and could have a material adverse effect on our business, financial condition or results of operations.

We are subject to U.S. and certain foreign export control, import, sanctions, anti-corruption, and anti-money laundering laws and regulations with respect to our operations and non-compliance with such laws can subject us to criminal and/or civil liability and harm our business.

We are subject to export control and import laws and regulations, including the U.S. Export Administration Regulations, U.S. Customs regulations, various economic and trade sanctions regulations administered by the U.S. Treasury Department's Office of Foreign Assets Control, the U.S. Foreign Corrupt Practices Act of 1977, as amended, or the FCPA, the U.S. domestic bribery statute contained in 18 U.S.C. § 202, the U.S. Travel Act, the USA PATRIOT Act, and other state and national anti-bribery and anti-money laundering laws in countries in which we conduct activities. Anti-corruption laws are interpreted broadly and prohibit companies and their employees, agents, third-party intermediaries, joint venture partners and collaborators from authorizing, promising, offering or providing, directly or indirectly, improper payments or benefits to recipients in the public or private sector. We may have direct or indirect interactions with officials and employees of government agencies or government-affiliated hospitals, universities and other organizations. In addition, we may engage third party intermediaries to promote our clinical research activities abroad and/or to obtain necessary permits, licenses, and other regulatory approvals. We can be held liable for the corrupt or other illegal activities of these third-party intermediaries, our employees, representatives, contractors, partners and agents, even if we do not explicitly authorize or have actual knowledge of such activities.

Noncompliance with the laws and regulations described above could subject us to whistleblower complaints, investigations, sanctions, settlements, prosecution, other enforcement actions, disgorgement of profits, significant fines, damages, other civil and criminal penalties or injunctions, suspension and/or debarment from contracting with certain persons, the loss of export privileges, reputational harm, adverse media coverage and other collateral consequences. If any subpoenas, investigations or other enforcement actions are launched, or governmental or other sanctions are imposed, or if we do not prevail in any possible civil or criminal litigation, our business, results of operations and financial condition could be materially harmed. In addition, responding to any action will likely result in a materially significant diversion of management's attention and resources and significant defense and compliance costs and other professional fees. In certain cases, enforcement authorities may even cause us to appoint an independent compliance monitor which can result in added costs and administrative burdens.

If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could harm our business.

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. From time to time and in the future, our operations may involve the use of hazardous and flammable materials, including chemicals and biological materials, and may also produce hazardous waste products. Even if we contract with third parties for the disposal of these materials and waste products, we cannot completely eliminate the risk of contamination or injury resulting from these materials. In the event of contamination or injury resulting from the use or disposal of our hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties for failure to comply with such laws and regulations.

We maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials, however this insurance may not provide

adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us.

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. Current or future environmental laws and regulations may impair our research, development or production efforts. In addition, failure to comply with these laws and regulations may result in substantial fines, penalties or other sanctions.

Our employees, independent contractors, CROs, consultants, commercial partners, vendors and principal investigators may engage in misconduct or other improper activities, including non-compliance with regulatory standards and requirements.

We are exposed to the risk of fraud or other misconduct by our employees, independent contractors, CROs, consultants, commercial partners, vendors and, if we commence clinical trials, our principal investigators. Misconduct by these parties could include intentional failures to comply with FDA regulations or the regulations applicable in the European Union and other jurisdictions, provide accurate information to the FDA, the European Commission and other regulatory authorities, comply with healthcare fraud and abuse laws and regulations in the United States and abroad, report financial information or data accurately, or disclose unauthorized activities to us. In particular, sales, marketing and business arrangements in the healthcare industry are subject to extensive laws and regulations intended to prevent fraud, misconduct, kickbacks, self-dealing and other abusive practices. These laws and regulations restrict or prohibit a wide range of pricing, discounting, marketing and promotion, sales commission, customer incentive programs and other business arrangements.

Such misconduct also could involve the improper use of information obtained in the course of clinical trials or interactions with the FDA or other regulatory authorities, which could result in regulatory sanctions and cause serious harm to our reputation. Even with appropriate policies and procedures, it is not always possible to identify and deter misconduct, and the precautions we take to detect and prevent such activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from government investigations or other actions or lawsuits stemming from a failure to comply with these laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, financial condition, results of operations and prospects, including the imposition of significant fines or other sanctions.

Risks Related to Our Business Operations, Employee Matters and Managing Growth

Our future success depends on our ability to retain key employees, consultants and advisors and to attract, retain and motivate qualified personnel.

We are highly dependent on the management, research and development, clinical, financial and business development expertise of our executive officers, as well as the other members of our scientific and clinical teams. Although we have employment offer letters which outline the terms of employment with each of our executive officers, each of them may terminate their employment with us at any time. As such, these employment offer letters do not guarantee our retention of our executive officers for any period of time. In addition, insurance coverage is increasingly expensive, including with respect to directors and officers' liability insurance, or D&O insurance. We may not be able to maintain D&O insurance at a reasonable cost or in an amount adequate to satisfy any liability that may arise. An inability to secure and maintain D&O insurance may make it difficult for us to retain and attract talented and skilled directors and officers to serve our company, which could adversely affect our business. We do not maintain "key person" insurance for any of our employees.

Recruiting and retaining qualified scientific and clinical personnel and, if we are successful in obtaining marketing approval for our product candidates, sales and marketing personnel, is and will be critical to our success. The loss of the services of our executive officers or other key employees could impede, delay or prevent the achievement of our research, development and commercialization objectives and seriously harm our ability to successfully implement our business strategy. Furthermore, replacing executive officers and other key employees may be difficult and may take an extended period of time because of the limited number of individuals in our industry with the breadth of skills and experience required to successfully develop, gain

regulatory approval for and commercialize products in the life sciences industry, and specifically our product candidates. We are based in Massachusetts, a state that is home to many other biopharmaceutical companies as well as many academic and research institutions, resulting in fierce competition for qualified personnel. Furthermore, to the extent we hire personnel from competitors, we may be subject to allegations that they have been improperly solicited or that they have divulged proprietary or other confidential information, or that their former employers own their research output. We also experience competition for the hiring of scientific and clinical personnel from universities and

research institutions. In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development strategy. Our consultants and advisors may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us. If we are unable to continue to attract and retain high quality personnel, our ability to pursue our growth strategy will be limited and could adversely affect our business, prospects, financial condition and results of operations.

We expect to grow our organization, and as a result, we may encounter difficulties in managing our growth, which could disrupt our operations.

As of April 30, 2021, we had 57 full-time employees. We expect to experience significant growth in the number of our employees and the scope of our operations, particularly in the areas of clinical development, regulatory affairs, finance and, if any of our product candidates receive marketing approval, sales, marketing and distribution. Our management may need to divert a disproportionate amount of its attention away from our day-to-day activities to devote time to managing these growth activities. To manage these growth activities, we must continue to implement and improve our managerial, operational and financial systems, expand our facilities and continue to recruit and train additional qualified personnel. Due to our limited financial resources and the limited experience of our management team in managing a company with such anticipated growth, we may not be able to effectively manage the expansion of our operations or recruit and train additional qualified personnel. The expansion of our operations may lead to significant costs and may divert our management and business development resources. Our inability to effectively manage the expansion of our operations may result in weaknesses in our infrastructure, and could give rise to operational mistakes, loss of business opportunities, loss of employees and reduced productivity among remaining employees. Our expected growth could require significant capital expenditures and may divert financial resources from other projects, such as the development of additional product candidates. If our management is unable to effectively manage our expected growth, our expenses may increase more than expected, our potential ability to generate revenue could be reduced and we may not be able to implement our business strategy.

We depend on our information technology systems and associated third-party service providers, and any failure of these systems could harm our business. Security breaches, loss of data, inability to access systems, and other disruptions could compromise sensitive information related to our business or prevent us from accessing critical information and expose us to liability, which could adversely affect our business, results of operations and financial condition.

We collect and maintain information in digital and other forms that is necessary to conduct our business, and we are increasingly dependent on information technology systems and infrastructure to operate our business. In the ordinary course of our business, we collect, store and transmit large amounts of confidential information, including intellectual property, proprietary business information and personal information. It is critical that we do so in a secure manner to maintain the privacy, security, confidentiality, availability and integrity of such confidential information. Our internal information technology systems and infrastructure, and those of our contractors, consultants, vendors, service providers and other third parties on which we rely, are vulnerable to damage or unauthorized access or use resulting from computer viruses, malware, natural disasters, terrorism, war, telecommunication and electrical failures, cyber-attacks or cyber-intrusions over the Internet, denial or degradation of service attacks, ransomware, hacking, phishing and other social engineering attacks, attachments to emails, intentional or accidental actions or inactions by persons inside our organization or by persons with access to systems inside our organization.

The risk of a security breach or disruption or data loss, particularly through cyber-attacks or cyber intrusion, including by computer hackers, supply chain attacks, foreign governments and cyber terrorists, has generally

increased as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased. In addition, the prevalent use of mobile devices that access confidential information increases the risk of lost or stolen devices, security incidents and data security breaches, which could lead to the loss of confidential information or other intellectual property. As a result of the COVID-19 pandemic, we may face increased risks of a security breach or disruption due to our reliance on internet technology and the number of our employees who are working remotely, which may create additional opportunities for cybercriminals to exploit vulnerabilities. The costs to us to mitigate network security problems, bugs, viruses, worms, malicious software programs and security vulnerabilities could be significant, and while we have implemented security measures to protect our data security and information technology systems, our efforts to address these problems may not be successful, and these problems could result in unexpected interruptions, delays, cessation of service, negative publicity and other harm to our business and our competitive position. If such an event were to occur and cause interruptions in our operations, it could result in a material disruption of our product development programs.

Any security compromise affecting us, our partners, our service providers or our industry, whether real or perceived, could harm our reputation, erode confidence in the effectiveness of our security measures and lead to regulatory scrutiny. If such an event were to occur and cause interruptions in our operations or result in the unauthorized acquisition of or access to personally identifiable information or individually identifiable health information (violating certain privacy laws, as applicable, such as HIPAA, CCPA, HITECH and GDPR), it could result in a material disruption of our discovery and development programs and our business operations, whether due to a loss of our trade secrets or other similar disruptions. Some of the federal, state and foreign government requirements include obligations of companies to notify individuals of security breaches involving particular personally identifiable information, which could result from breaches experienced by us or by our vendors, contractors, or organizations with which we have formed strategic relationships. Notifications and follow-up actions related to a security breach could impact our reputation, cause us to incur significant costs, including legal expenses and remediation costs. For example, the loss of clinical trial data from completed or future clinical trials could result in delays in our regulatory approval efforts and significantly increase our costs to recover or reproduce the lost data. We would also be exposed to a risk of loss, governmental investigations or enforcement, or litigation and potential liability, any of which could materially adversely affect our business, results of operations and financial condition.

A variety of risks associated with marketing our product candidates internationally, if approved, could materially adversely affect our business.

We also plan to seek regulatory approval of our product candidates outside of the United States and, accordingly, we expect that we will be subject to additional risks related to operating, including conducting marketing and sales activities, in international jurisdictions if we obtain the necessary approvals, including:

- regulatory requirements in foreign countries that differ from those in the United States;
- unexpected changes in tariffs, trade barriers, price and exchange controls and other regulatory requirements;
- economic weakness, including inflation, or political instability in particular foreign economies and markets;
- compliance with tax, employment, immigration and labor laws for employees living or traveling abroad;
- foreign taxes, including withholding of payroll taxes;
- foreign currency fluctuations, which could result in increased operating expenses and reduced revenue, and other obligations incident to doing business in another country;
- complexities associated with managing multiple payor reimbursement regimes, government payors or patient self-pay systems;
- difficulties staffing and managing foreign operations;
- workforce uncertainty in countries where labor unrest is more common than in the United States;
- potential liability under the FCPA or other comparable foreign regulations;

- challenges enforcing our contractual and intellectual property rights, especially in those foreign countries that do not respect and protect intellectual property rights to the same extent as the United States;
- production shortages resulting from any events affecting raw material supply or manufacturing capabilities abroad; and
- business interruptions resulting from geo-political actions, including war and terrorism or natural disasters including pandemics or other outbreaks of infectious disease, earthquakes, typhoons, floods and fires.

Any of these factors, along with other risks associated with international operations, could materially adversely affect our future international expansion and operations and, consequently, our results of operations.

We may engage in strategic transactions that could impact our liquidity, increase our expenses and present significant distractions to our management.

From time to time, we may consider strategic transactions, such as acquisitions of companies, asset purchases and out-licensing or in-licensing of intellectual property, products or technologies. Additional potential transactions that we may consider in the future include a variety of business arrangements, including spin-offs, strategic partnerships, joint ventures, restructurings, divestitures, business combinations and investments. Any future transactions could increase our near and long-term expenditures, result in potentially dilutive issuances of our equity securities, including our common stock, or the incurrence of debt, contingent liabilities, amortization expenses or acquired in-process research and development expenses, any of which could affect our financial condition, liquidity and results of operations. Future acquisitions may also require us to obtain additional financing, which may not be available on favorable terms or at all. These transactions may not be successful and may require significant time and attention of management. In addition, the integration of any business that we may acquire in the future may disrupt our existing business and may be a complex, risky and costly endeavor for which we may never realize any or all potential benefits of the acquisition. Accordingly, although there can be no assurance that we will undertake or successfully complete any additional transactions of the nature described above, any additional transactions that we do complete could have a material adverse effect on our business, results of operations, financial condition and prospects.

The COVID-19 pandemic may affect our ability to initiate and complete preclinical studies, delay the initiation of our planned and any future clinical trials, disrupt regulatory activities, or have other adverse effects on our business and operations. In addition, this pandemic has caused substantial disruption in the financial markets and may adversely impact economies worldwide, each of which could result in adverse effects on our business, on raising capital and on our operations.

The COVID-19 pandemic has caused and continues to cause many governments to implement measures to slow the spread of the outbreak through quarantines, travel restrictions, heightened border scrutiny and other measures. The outbreak and government measures taken in response have also had a significant impact, both direct and indirect, on businesses and commerce, as worker shortages have occurred; supply chains have been disrupted; facilities and production have been suspended; consumer confidence has declined; and demand for certain goods and services, such as medical services and supplies, has spiked, while demand for other goods and services, such as travel, has fallen. While the FDA approved emergency use authorization of vaccines in December 2020, it is still expected to take many months to complete widespread vaccinations. Therefore, the future progression of the outbreak and its effects on our business and operations continue to be uncertain. We and our CMOs and CROs may face disruptions in the future that affect our ability to initiate and complete preclinical studies, including recruitment and retention of critical employees, and disruptions in procuring items that are essential for our research and development activities, such as raw materials used in the manufacture of any product candidates we may develop, laboratory supplies used in our preclinical studies, or animals that are used for preclinical testing for which there are shortages because of ongoing efforts to address the outbreak. For example, in 2020, we experienced a temporary shortage of raw material used in the manufacturing process for one of our product candidates. We may experience additional delays in the future as a result of the COVID-19 pandemic or otherwise, which could delay our product development timelines. We and our CMOs and CROs may also face disruptions related to our future IND-enabling studies and clinical trials arising from delays in preclinical studies, manufacturing disruptions, and the ability to obtain

necessary IRB, IBC or other necessary site approvals, as well as other delays at clinical trial sites. The global response to the COVID-19 pandemic may redirect resources with respect to regulatory and intellectual property matters in a way that could adversely impact our ability to progress regulatory approvals and protect our intellectual property. In addition, we may face impediments to regulatory meetings and approvals due to measures intended to limit in-person interactions. The pandemic has caused significant disruptions in the financial markets, and may continue to cause such disruptions, which could impact our ability to raise additional funds through public offerings and may also impact the volatility of our stock price and trading in our stock. Moreover, the pandemic has significantly impacted economies worldwide, which could result in adverse effects on our business and operations. We cannot be certain what the overall impact of the COVID-19 pandemic will be on our business and it has the potential to adversely affect our business, financial condition, results of operations and prospects.

Our operations or those of the third parties upon whom we depend might be affected by the occurrence of a natural disaster, pandemic or other catastrophic event.

We depend on our employees, consultants, CMOs, CROs, as well as regulatory agencies and other parties, for the continued operation of our business. While we maintain disaster recovery plans, they might not adequately protect us. Despite any precautions we take for natural disasters or other catastrophic events, these events, including terrorist attacks, pandemics, hurricanes, fires, floods and ice and snowstorms, could result in significant disruptions to our research and development, preclinical studies, clinical trials, and, ultimately, commercialization of our products. Long-term disruptions in the infrastructure caused by events, such as natural disasters, the outbreak of war, the escalation of hostilities and acts of terrorism or other "acts of God," particularly involving cities in which we have offices, manufacturing or clinical trial sites, could adversely affect our businesses. Although we carry business interruption insurance policies and typically have provisions in our contracts that protect us in certain events, our coverage might not include or be adequate to compensate us for all losses that may occur. Any natural disaster or catastrophic event affecting us, our CMOs, our CROs, regulatory agencies or other parties with which we are engaged could have a material adverse effect on our operations and financial performance.

Risks Related to this Offering, Ownership of Our Common Stock and Our Status as a Public Company

An active trading market for our common stock may not develop and you may not be able to resell your shares of our common stock at or above the initial offering price, if at all.

Prior to this offering, no market for shares of our common stock existed and an active trading market for our shares may never develop or be sustained following this offering. We cannot predict the extent to which an active market for our common stock will develop or be sustained after this offering, or how the development of such a market might affect the market price for our common stock. The initial public offering price for our common stock will be determined through negotiations with the underwriters and may not be indicative of the market price of our common stock after this offering. Although we have applied to list our common stock on the Nasdaq Global Market, or Nasdaq, an active trading market for our shares may never develop or be sustained following this offering. If an active market for our common stock does not develop or is not sustained, it may be difficult for you to sell shares you purchased in this offering at an attractive price or at all.

The price of our common stock could be subject to volatility related or unrelated to our operations and your investment in us could suffer a decline in value.

The market price of our common stock may fluctuate significantly in response to numerous factors, many of which are beyond our control. The stock market in general and the market for biotechnology and pharmaceutical companies in particular have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, investors may not be able to sell their common stock at or above the initial public offering price. The market price for our common stock may be influenced by many factors, including:

- the results from our preclinical studies;
- the commencement, enrollment or results of any future clinical trials we may conduct, or changes in the development status of our product candidates;

- adverse results from, delays in initiating or completing, or termination of clinical trials;
- unanticipated serious safety concerns related to the use of our product candidates;
- clinical trial results from, or regulatory developments regarding, a competitor's product candidate;
- adverse regulatory decisions, including failure to receive regulatory approval of our product candidates;
- regulatory or legal developments in the United States and foreign countries;
- any delay in our regulatory filings for our product candidates and any adverse development or perceived adverse development with respect to the applicable regulatory authority's review of such filings, including without limitation the FDA's issuance of a "refusal to file" letter or a request for additional information;
- the public's response to press releases or other public announcements by us or third parties, including our filings with the Securities and Exchange Commission, or the SEC, and announcements relating to acquisitions, strategic transactions, licenses, joint ventures, capital commitments, intellectual property, litigation or other disputes impacting us or our business;
- lower than expected market acceptance of our product candidates following approval for commercialization;
- adverse developments concerning our manufacturers;
- our inability to obtain adequate product supply for any approved product or inability to do so at acceptable prices;
- variations in the level of expenses related to our preclinical and clinical development programs, including relating to the timing of invoices from, and other billing practices of, our CROs and clinical trial sites;
- variations in the level of expenses related to our commercialization activities, if any product candidates are approved;
- the clinical results of our competitors or potential competitors;
- introduction of new products or services by our competitors;
- changes in financial estimates by us or by any securities analysts who might cover our stock;
- conditions or trends in our industry;
- our cash position;
- sales of our common stock by us or our stockholders in the future;
- adoption of new, or changes to current accounting standards;
- ineffectiveness of our internal controls;
- changes in the market valuations of similar companies;
- stock market price and volume fluctuations of comparable companies and, in particular, those that operate in the biotechnology and pharmaceutical industry;
- publication of research reports about us or our industry or positive or negative recommendations or withdrawal of research coverage by securities analysts;
- announcements by us or our competitors of significant acquisitions, strategic partnerships or divestitures;
- announcements of investigations or regulatory scrutiny of our operations or lawsuits filed against us;
- changes in the structure of healthcare payment systems;
- investors' general perception of our company and our business;
- overall performance of the equity markets;

- trading volume of our common stock;
- potential inclusion or exclusion of our common stock in exchange, industry, or other tracking indices;
- disputes or other developments relating to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies and product candidates;
- significant lawsuits, including patent or stockholder litigation;
- proposed changes to healthcare laws, intellectual property laws or pharmaceutical pricing in the United States or foreign jurisdictions, or speculation regarding such changes;
- the expiration of market standoff or contractual lock-up agreements and future sales of our common stock by our officers, directors and significant stockholders;
- recruitment or departure of key personnel;
- developments with respect to the COVID-19 pandemic;
- general political and economic conditions; and
- other events or factors, many of which are beyond our control.

In addition, in the past, stockholders have initiated class action lawsuits against pharmaceutical and biotechnology companies following periods of volatility in the market prices of these companies' stock. This risk is especially relevant for us because biopharmaceutical companies have experienced significant stock price volatility in recent years. Such litigation, if instituted against us, could cause us to incur substantial costs and divert management's attention and resources from our business.

If securities or industry analysts do not publish research or reports about our company, or if they issue unfavorable or inaccurate research regarding our business, our stock price and trading volume could decline.

The trading market for our common stock will depend in part on the research and reports that securities or industry analysts publish about us or our business. We do not currently have research coverage by securities and industry analysts, and if no significant coverage is initiated or maintained following this offering, the market price for our common stock may be adversely affected. If no securities or industry analysts commence coverage of our company, the trading price for our stock would likely be negatively impacted. In the event securities or industry analysts initiate coverage, if one or more of the analysts who cover us downgrades our stock or publishes unfavorable or inaccurate research about our business, our stock price may decline. If one or more of these analysts ceases coverage of our company or fails to publish reports on us regularly, demand for our stock could decrease, which might cause our stock price and trading volume to decline.

Unfavorable global economic conditions could adversely affect our business, financial condition, stock price and results of operations.

Our results of operations could be adversely affected by general conditions in the global economy and in the global financial markets. For example, the 2008 global financial crisis caused extreme volatility and disruptions in the capital and credit markets. A severe or prolonged economic downturn, such as the 2008 global financial crisis, could result in a variety of risks to our business, including, weakened demand for any product candidates we may develop and our ability to raise additional capital when needed on acceptable terms, if at all. A weak or declining economy could also strain our suppliers, possibly resulting in supply disruption. If the current equity and credit markets deteriorate, it may make any necessary debt or equity financing more difficult, more costly, and more dilutive. Failure to secure any necessary financing in a timely manner and on favorable terms could have a material adverse effect on our growth strategy, financial performance and stock price and could require us to delay or abandon clinical development plans. In addition, there is a risk that one or more of our current service providers, manufacturers and other partners may not survive such difficult economic times, which could directly affect our ability to attain our operating goals on schedule and on budget. Any of the foregoing could harm our business and we cannot anticipate all of the ways in which the current economic climate and financial market conditions could adversely impact our business. Furthermore, our stock price may decline due in part to the volatility of the stock market and any general economic downturn.

Our principal stockholders and management own a significant percentage of our common stock and will be able to exert significant control over matters subject to stockholder approval.

Upon the completion of this offering, based on shares outstanding as of April 30, 2021, our executive officers, directors, holders of 5% or more of our common stock and their respective affiliates will beneficially own shares in the aggregate representing approximately % of our outstanding common stock, assuming no exercise of the underwriters' option to purchase additional shares in this offering and assuming we issue the number of shares of common stock as set forth on the cover page of this prospectus.

As a result of their share ownership, these stockholders, if they act together, will have the ability to influence our management and policies and will be able to significantly affect the outcome of matters requiring stockholder approval such as elections of directors, amendments of our organizational documents or approvals of any merger, sale of assets or other major corporate transaction. This may prevent or discourage unsolicited acquisition proposals or offers for our common stock that our stockholders may feel are in their best interest.

Some of these persons or entities may have interests different than yours. For example, because many of these stockholders purchased their shares at prices substantially below the price at which shares are being sold in this offering and have held their shares for a longer period, they may be more interested in selling our company to an acquirer than other investors, or they may want us to pursue strategies that deviate from the interests of other stockholders. In addition, this concentration of ownership might adversely affect the market price of our common stock by:

- delaying, deferring or preventing a change of control of us;
- entrench our management and board of directors;
- impeding a merger, consolidation, takeover or other business combination involving us; or
- discouraging a potential acquirer from making a tender offer or otherwise attempting to obtain control of us.

See "Principal Stockholders" in this prospectus for more information regarding the ownership of our outstanding common stock by our executive officers, directors, principal stockholders and their affiliates.

We will have broad discretion regarding use of our cash and cash equivalents and the net proceeds from this offering, and we may not use them effectively.

Our management will have broad discretion in the application of our existing cash and cash equivalents and the net proceeds from this offering, including for any of the purposes described in the section of this prospectus entitled "Use of Proceeds," and you will not have the opportunity as part of your investment decision to assess whether such proceeds are being used appropriately. We could utilize the net proceeds in ways our stockholders may not agree with or that do not yield a favorable return, if any. Because of the number and variability of factors that will determine our use of our existing cash and cash equivalents and the net proceeds from this offering, their ultimate use may vary substantially from their currently intended use. Our management might not apply our existing cash and cash equivalents and the net proceeds from this offering in ways that ultimately increase the value of your investment. Investors in this offering will need to rely upon the judgment of our management with respect to the use of proceeds. The failure by our management to apply these funds effectively could harm our business, financial condition, results of operations and prospectus and could cause the price of our common stock to decline. Pending their use, we may invest the net proceeds from this offering in short-term, investment-grade, interest-bearing investments. These investments may not yield a favorable return to our stockholders. If we do not invest or apply the net proceeds from this offering in ways that enhance stockholder value, we may fail to achieve expected financial results, which could cause our stock price to decline.

Purchasers in this offering will experience immediate and substantial dilution in the book value of their investment.

The assumed initial public offering price of our common stock is substantially higher than the pro forma as adjusted net tangible book value per share of our common stock. Therefore, if you purchase shares of our common stock in this offering, you will pay a price per share that substantially exceeds our pro forma as

adjusted net tangible book value per share after this offering. Based on an assumed initial public offering price of $ per share, the midpoint of the price range set forth on the cover page of this prospectus, you will experience immediate dilution of $ per share as of March 31, 2021, representing the difference between our pro forma as adjusted net tangible book value per share after this offering and the assumed initial public offering price. In addition, to the extent outstanding stock options are exercised, there will be further dilution to investors in this offering. Further, if the underwriters exercise their option to purchase additional shares, you will experience additional dilution. See "Dilution" for a more detailed description of the dilution to new investors in the offering.

A significant portion of our total outstanding shares is restricted from immediate resale but may be sold into the market in the near future, which could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. After this offering, we will have shares of common stock outstanding based on the number of shares outstanding as of March 31, 2021 after giving effect to the automatic conversion of our convertible preferred stock. This includes the shares that we are selling in this offering, which may be resold in the public market immediately without restriction, unless purchased by our affiliates. The remaining shares are currently restricted as a result of securities laws or lock-up agreements but will become eligible to be sold at various times after the offering as described in the section of this prospectus titled "Shares Eligible for Future Sale." Morgan Stanley & Co. LLC and Cowen and Company, LLC, in their sole discretion, may release some or all of the shares of common stock subject to lock-up agreements at any time and without notice, which would allow for earlier sales of shares in the public market.

In addition, promptly following the closing of this offering, we intend to file one or more registration statements on Form S-8 under the Securities Act of 1933, as amended, or the Securities Act, registering the issuance of approximately shares of common stock subject to options or other equity awards issued or reserved for future issuance under our equity incentive plans. Shares registered under these registration statements on Form S-8 will be available for sale in the public market subject to vesting arrangements and exercise of options, the lock-up agreements described above and the restrictions of Rule 144 in the case of our affiliates.

Moreover, beginning 180 days after the completion of this offering, holders of an aggregate of shares of our common stock will have rights, along with holders of an additional shares of our common stock issuable upon exercise of outstanding options, subject to specified conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. Once we register these shares, they can be freely sold in the public market upon issuance, subject to volume limitations applicable to affiliates and the lock-up agreements described in the "Underwriting" section of this prospectus.

We do not intend to pay dividends on our common stock so any returns will be limited to the value of our stock.

We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. Any determination to pay dividends in the future will be at the sole discretion of our board of directors. In addition, the terms of any future debt agreements may preclude us from paying dividends. Any return to stockholders will therefore be limited in the foreseeable future to the appreciation of their stock.

We are an "emerging growth company," and the reduced disclosure requirements applicable to emerging growth companies may make our common stock less attractive to investors.

We are an "emerging growth company," or EGC, as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. We may remain an EGC until December 31, 2025, although if the market value of our common stock that is held by non-affiliates exceeds $700.0 million as of any June 30 before that time or if we have annual gross revenues of $1.07 billion or more in any fiscal year, we would cease to be an EGC as of December 31 of the applicable year. We also would cease to be an EGC if we issue more than $1.0 billion of non-convertible debt over a three-year period. For so long as we remain an EGC, we are permitted and intend

to rely on exemptions from certain disclosure requirements that are applicable to other public companies that are not EGCs. These exemptions include:

- being permitted to provide only two years of audited financial statements in this prospectus, in addition to any required unaudited interim financial statements, with correspondingly reduced "Management's Discussion and Analysis of financial Condition and Results of Operations" disclosure;
- not being required to comply with the auditor attestation requirements in the assessment of our internal control over financial reporting;
- not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the financial statements;
- reduced disclosure obligations regarding executive compensation; and
- exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

We cannot predict whether investors will find our common stock less attractive if we rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

In addition, the JOBS Act permits an EGC to take advantage of an extended transition period to comply with new or revised accounting standards applicable to public companies until those standards would otherwise apply to private companies. We have elected not to "opt out" of such extended transition period, which means that when a standard is issued or revised and it has different application dates for public or private companies, we can adopt the new or revised standard at the time private companies adopt the new or revised standard and may do so until such time that we either (1) irrevocably elect to "opt out" of such extended transition period or (2) no longer qualify as an EGC. We may choose to early adopt any new or revised accounting standards whenever such early adoption is permitted for private companies.

We will incur increased costs as a result of operating as a public company, and our management will be required to devote substantial time to new compliance initiatives and corporate governance practices.

As a public company, we will incur significant legal, accounting and other expenses that we did not incur as a private company. The Sarbanes-Oxley Act of 2002, or the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, Nasdaq listing requirements, and other applicable securities rules and regulations impose various requirements on public companies, including establishment and maintenance of effective disclosure and financial controls and corporate governance practices. Our management and other personnel will need to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations will increase our legal and financial compliance costs, particularly as we hire additional financial and accounting employees to meet public company internal control and financial reporting requirements and will make some activities more time-consuming and costly. For example, we expect that these rules and regulations may make it more difficult and more expensive for us to obtain director and officer liability insurance, and we might be forced to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. The impact of these events could also make it more difficult for us to attract and retain qualified members of our board of directors.

We are evaluating these rules and regulations and cannot predict or estimate the amount of additional costs we may incur or the timing of such costs. These rules and regulations are often subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from revenue-generating activities to compliance activities. If notwithstanding our efforts to comply with new laws, regulations and standards, we fail to comply, regulatory authorities may initiate legal proceedings against us and our business may be materially adversely effected.

Pursuant to Section 404, in our second annual report due to be filed with the Securities and Exchange Commission, or SEC, after becoming a public company, we will be required to furnish a report by our management on our internal control over financial reporting. However, while we remain an EGC with less than $100 million in annual revenue, we will not be required to include an attestation report on internal control over financial reporting issued by our independent registered public accounting firm. To achieve compliance with Section 404 within the prescribed period, we will be engaged in a process to document and evaluate our internal control over financial reporting, which is both costly and challenging. In this regard, we will need to continue to dedicate internal resources, including through hiring additional financial and accounting personnel, potentially engage outside consultants and adopt a detailed work plan to assess and document the adequacy of internal control over financial reporting, continue steps to improve control processes as appropriate, validate through testing that controls are functioning as documented and implement a continuous reporting and improvement process for internal control over financial reporting. Despite our efforts, there is a risk that we will not be able to conclude, within the prescribed timeframe or at all, that our internal control over financial reporting is effective as required by Section 404. If we identify one or more material weaknesses in our internal control over financial reporting, it could result in an adverse reaction in the financial markets due to a loss of confidence in the reliability of our financial statements.

If we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results or prevent fraud. As a result, stockholders could lose confidence in our financial and other public reporting, which would harm our business and the trading price of our common stock.

Effective internal control over financial reporting is necessary for us to provide reliable financial reports and, together with adequate disclosure controls and procedures, is designed to prevent fraud. Any failure to implement required new or improved controls, or difficulties encountered in their implementation could cause us to fail to meet our reporting obligations. In addition, any testing by us conducted in connection with Section 404, or any subsequent testing by our independent registered public accounting firm, may reveal deficiencies in our internal control over financial reporting that are deemed to be material weaknesses or that may require prospective or retroactive changes to our financial statements or identify other areas for further attention or improvement. Inferior internal controls could also subject us to regulatory scrutiny and sanctions, impair our ability to raise revenue and cause investors to lose confidence in our reported financial information, which could harm our business and have a negative effect on the trading price of our common stock and adversely affect our results of operations and financial condition.

We will be required to disclose changes made in our internal controls and procedures on a quarterly basis and our management will be required to assess the effectiveness of these controls annually. However, for as long as we are an EGC under the JOBS Act, our independent registered public accounting firm will not be required to attest to the effectiveness of our internal control over financial reporting pursuant to Section 404. We could be an emerging growth company for up to five years. An independent assessment of the effectiveness of our internal control over financial reporting could detect problems that our management's assessment might not. Undetected material weaknesses in our internal control over financial reporting could lead to financial statement restatements and require us to incur the expense of remediation, which could have a negative effect on the trading price of our common stock and adversely affect our results of operations and financial condition.

Our disclosure controls and procedures may not prevent or detect all errors or acts of fraud.

Upon completion of this offering, we will become subject to certain reporting requirements of the Securities Exchange Act of 1934, as amended, or the Exchange Act. Our disclosure controls and procedures are designed to reasonably assure that information required to be disclosed by us in reports we file or submit under the Exchange Act is accumulated and communicated to management, recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC. We believe that any disclosure controls and procedures or internal control over financial reporting, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by an unauthorized override of the

controls. Accordingly, because of the inherent limitations in our control system, misstatements or insufficient disclosures due to error or fraud may occur and not be detected.

Changes in tax laws or in their implementation or interpretation may adversely affect our business and financial condition.

Changes in tax law may adversely affect our business or financial condition. The Tax Act, enacted on December 22, 2017, as amended by the CARES Act, enacted on March 27, 2020, contained significant changes to corporate taxation, including a reduction of the corporate tax rate from a top marginal rate of 35% to a flat rate of 21%, the limitation of the tax deduction for net interest expense to 30% of adjusted taxable income (except for certain small businesses), the limitation of the deduction for NOLs arising in taxable years beginning after December 31, 2017 to 80% of current-year taxable income (though such NOLs may be carried forward indefinitely) and elimination of the carryback for NOLs arising in taxable years beginning after December 31, 2020, the imposition of a one-time taxation of offshore earnings at reduced rates regardless of whether they are repatriated, the elimination of U.S. tax on foreign earnings (subject to certain important exceptions), the allowance of immediate deductions for certain new investments instead of deductions for depreciation expense over time, and the modification or repeal of many business deductions and credits. In addition to the CARES Act, as part of Congress's response to the COVID-19 pandemic, additional legislation has been enacted in 2020 and 2021 containing tax provisions. Regulatory guidance under the Tax Act, CARES Act, and such additional legislation is and continues to be forthcoming. Such guidance could ultimately increase or lessen the impact of these laws on our business and financial condition. Congress may enact additional legislation in connection with the COVID-19 pandemic, and as a result of changes in the U.S. presidential administration and control of the U.S. Senate, additional tax legislation may also be enacted, which could have an impact on our company. In addition, it is uncertain if and to what extent various states will conform to the Tax Act, the CARES Act, and additional tax legislation.

Provisions in our corporate charter documents and under Delaware law could make an acquisition of our company, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove our current directors and members of management.

Provisions in our restated certificate of incorporation and our amended and restated bylaws that will become effective upon the closing of this offering may discourage, delay or prevent a merger, acquisition or other change in control of our company that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. These provisions could also limit the price that investors might be willing to pay in the future for shares of our common stock, thereby depressing the market price of our common stock. In addition, because our board of directors is responsible for appointing the members of our management team, these provisions may frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors. Among other things, these provisions:

- establish a classified board of directors such that only one of three classes of directors is elected each year;
- allow the authorized number of our directors to be changed only by resolution of our board of directors;
- limit the manner in which stockholders can remove directors from our board of directors;
- establish advance notice requirements for stockholder proposals that can be acted on at stockholder meetings and nominations to our board of directors;
- require that stockholder actions must be effected at a duly called stockholder meeting and prohibit actions by our stockholders by written consent;
- limit who may call stockholder meetings;
- authorize our board of directors to issue preferred stock without stockholder approval, which could be used to institute a "poison pill" that would work to dilute the stock ownership of a potential hostile acquirer, effectively preventing acquisitions that have not been approved by our board of directors; and

- require the approval of the holders of at least two-thirds of the votes that all our stockholders would be entitled to cast to amend or repeal specified provisions of our certificate of incorporation or bylaws that will become effective upon the closing of this offering.

In addition, these provisions would apply even if we were to receive an offer that some stockholders may consider beneficial. Moreover, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, or the DGCL, which prohibits a person who owns in excess of 15% of our outstanding voting stock from merging or combining with us for a period of three years after the date of the transaction in which the person acquired in excess of 15% of our outstanding voting stock, unless the merger or combination is approved in a prescribed manner.

Our restated certificate of incorporation that will become effective upon the closing of this offering designates the Court of Chancery of the State of Delaware and the federal district courts of the United States of America as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers and employees and increase the costs to our stockholders of bringing such claims.

Our restated certificate of incorporation that will become effective upon the closing of this offering provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (or, if the Court of Chancery of the State of Delaware does not have jurisdiction, the federal district court for the District of Delaware) will be the sole and exclusive forum for the following types of actions or proceedings under Delaware statutory or common law:

- any derivative action or proceeding brought on our behalf;
- any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers, employees or stockholders to our company or our stockholders;
- any action asserting a claim arising pursuant to any provision of the DGCL or as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware; or
- any action asserting a claim arising pursuant to any provision of our certificate of incorporation or bylaws (in each case, as they may be amended from time to time) or governed by the internal affairs doctrine.

These choice of forum provisions will not apply to suits brought to enforce a duty or liability created by the Exchange Act. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all such Securities Act actions, and investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder. Accordingly, both state and federal courts have jurisdiction to entertain such claims. To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, our restated certificate of incorporation that will become effective upon the closing of this offering provides that, unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America shall, to the fullest extent permitted by law, be the sole and exclusive forum for the resolution of any claims arising under the Securities Act. While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions. In such instance, we would expect to vigorously assert the validity and enforceability of the exclusive forum provisions of our restated certificate of incorporation. This may require significant additional costs associated with resolving such action in other jurisdictions and there can be no assurance that the provisions will be enforced by a court in those other jurisdictions.

These exclusive forum provisions may limit the ability of our stockholders to bring a claim in a judicial forum that such stockholders find favorable for disputes with us or our directors, officers or employees, and increase the costs to such stockholders of bringing such a claim, either of which may discourage such lawsuits against us and our directors, officers and employees. If a court were to find the either exclusive forum provision contained in our restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur further significant additional costs associated with resolving such action in other jurisdictions, all of which could materially adversely affect our business, financial condition and operating results.

CAUTIONARY STATEMENT REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains statements that constitute forward-looking statements and therefore involve substantial risks and uncertainties. All statements, other than statements of historical fact, contained in this prospectus, including statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans and objectives of management, are forward-looking statements. The words "aim," "anticipate," "believe," "contemplate," "continue," "could," "estimate," "expect," "intend," "may," "might," "plan," "potential," "predict," "project," "should," "target," "would," or the negative of these words or other similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

Forward-looking statements appear in a number of places in this prospectus and include, but are not limited to, statements regarding our intent, belief or current expectations. Forward-looking statements are based on our management's beliefs and assumptions and on information currently available to our management. Such statements are subject to risks and uncertainties, and actual results may differ materially from those expressed or implied in the forward-looking statements due to various factors, including, but not limited to, those identified under the section entitled "Risk Factors" in this prospectus.

The forward-looking statements in this prospectus include, among other things, statements about:

- the initiation, timing, progress and results of our research and development programs and preclinical studies and clinical trials;
- the impact of the COVID-19 pandemic and our response to the pandemic;
- our plans to develop and, if approved, subsequently commercialize any product candidates we may develop;
- the timing of and our ability to submit applications for, and obtain and maintain regulatory approvals for our product candidates;
- our estimates regarding expenses, future revenue, capital requirements and need for additional financing;
- our expectations regarding our ability to fund our operating expenses, debt repayment obligations and capital expenditure requirements with our cash and cash equivalents and anticipated net proceeds from this offering, as well as our estimates regarding the time period through which we expect to have cash available to fund our operations;
- the potential advantages of our current and future product candidates;
- the rate and degree of market acceptance of our products, if approved;
- our estimates regarding the addressable patient population and potential market opportunity for our current and future product candidates;
- our commercialization, marketing and manufacturing capabilities and strategy;
- our expectations regarding our ability to obtain and maintain intellectual property protection for our product candidates;
- our ability to identify additional products, product candidates or technologies with significant commercial potential that are consistent with our commercial objectives;
- our expectations related to the use of the anticipated net proceeds from this offering;
- the impact of government laws and regulations;
- our competitive position and expectations regarding developments and projections relating to our current or future competitors and any competing therapies that are or become available;
- developments relating to our competitors and our industry;
- our ability to establish and maintain collaborations or obtain additional funding; and

- our expectations regarding the time during which we will be an emerging growth company under the JOBS Act.

We may not actually achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements we make. We have included important factors in the cautionary statements included in this prospectus, particularly in the "Risk Factors" section, that we believe could cause actual results or events to differ materially from the forward-looking statements that we make. Moreover, we operate in a competitive and rapidly changing environment. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, collaborations, joint ventures or investments we may make or enter into.

You should read this prospectus and the documents that we reference in this prospectus and have filed as exhibits to the registration statement of which this prospectus is a part completely and with the understanding that our actual future results may be materially different from what we expect. The forward-looking statements contained in this prospectus are made as of the date of this prospectus, and we do not assume any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by applicable law.

In addition, statements that "we believe" and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

MARKET AND INDUSTRY DATA

This prospectus includes statistical and other industry and market data that we obtained from independent industry publications and research, surveys and studies conducted by independent third parties as well as our own estimates of the prevalence of certain diseases and conditions. The market data used in this prospectus involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such data. Industry publications and third-party research, surveys and studies generally indicate that their information has been obtained from sources believed to be reliable, although they do not guarantee the accuracy or completeness of such information. Our estimates of the patient population with the potential to benefit from treatment with any product candidates we may develop include several key assumptions based on our industry knowledge, industry publications, third-party research and other surveys, which may be based on a small sample size and may fail to accurately reflect the addressable patient population. While we believe that our internal assumptions and estimates are reasonable, no independent source has verified such assumptions or estimates.

USE OF PROCEEDS

We estimate that the net proceeds from our issuance and sale of shares of our common stock in this offering will be approximately $ million, assuming an initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. If the underwriters exercise their option to purchase additional shares of our common stock in full, we estimate that the net proceeds from this offering will be approximately $ million, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the net proceeds to us from this offering by approximately $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. An increase (decrease) of 1,000,000 shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) the net proceeds to us from this offering by approximately $ million, assuming no change in the assumed initial public offering price per share and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

As of March 31, 2021, we had cash and cash equivalents of $141.2 million. We currently estimate that we will use the net proceeds from this offering, together with our existing cash and cash equivalents, as follows:

- approximately $ million to advance the development of XTX202 through Phase 1 dose escalation and Phase 2 efficacy cohorts of our planned Phase 1/2 clinical trial in patients with solid tumors;
- approximately $ million to advance the development of XTX301 through investigational new drug application, or IND, enabling studies, submission of an IND to the U.S. Food and Drug Administration and into initial Phase 1 clinical development;
- approximately $ million to advance the development of XTX101 through our planned Phase 1 clinical trial; and
- the remainder to continue to advance XTX401 in preclinical development and advance our discovery efforts, and for working capital and other general corporate purposes.

We may use a portion of the net proceeds from this offering for the acquisition of businesses, technologies, intellectual property or other assets that we believe are complementary to our own, although we currently have no agreements, commitments or understandings with respect to any such transaction.

Our expected use of net proceeds from this offering and our existing cash and cash equivalents represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. As a result, we cannot predict with any certainty our use of the net proceeds from this offering or the amounts that we will actually spend on each area of use set forth above. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including results from our research and development efforts, the timing and success of our preclinical studies and clinical trials and the timing of and outcome of regulatory submissions, as well as any collaborations that we may enter into with third parties for our product candidates and any unforeseen cash needs.

Based on our current plans, we estimate that the anticipated net proceeds from this offering, together with our existing cash and cash equivalents, will enable us to fund our operating expenses and capital expenditure requirements into . In particular, we expect that the anticipated net proceeds from this offering, together with our existing cash and cash equivalents, will enable us to . However, we do not expect these funds will be sufficient to complete the clinical development of, or commercialize, any of our product candidates or programs. We have based our estimates on assumptions that may prove to be wrong. We could use our available capital resources sooner than we currently expect, in which case we would need to obtain additional funding, which may not be available to use on acceptable terms, or at all. Our failure to raise capital as and when needed would have a negative impact on our financial condition and our ability to pursue our business strategy.

Our management will retain broad discretion over the allocation of the net proceeds from this offering. Pending our use of the net proceeds from this offering, we may invest the net proceeds in a variety of capital preservation investments, including short-term, investment-grade, interest-bearing instruments and U.S. government securities.

DIVIDEND POLICY

We have never declared or paid cash dividends on our common stock. We currently intend to retain all available funds and any future earnings to fund the development and expansion of our business, and we do not anticipate paying any cash dividends in the foreseeable future. Any future determination to declare and pay dividends will be made at the discretion of our board of directors and will depend on then-existing conditions, including our results of operations, financial condition, contractual restrictions, capital requirements, business prospects and other factors our board of directors may deem relevant.

CAPITALIZATION

The following table sets forth our cash and cash equivalents and our total capitalization as of March 31, 2021:

- on an actual basis;
- on a pro forma basis to give effect to (i) the automatic conversion of all outstanding shares of our convertible preferred stock into an aggregate of 174,783,481 shares of our common stock upon the closing of this offering, (ii) the automatic conversion of the outstanding warrant to purchase shares of Series A convertible preferred stock into a warrant to purchase shares of common stock and the resulting reclassification of the warrant liability to additional paid-in capital, (iii) the vesting of performance-based stock option awards with vesting conditions that are contingent upon the closing of this offering and the resulting recognition of equity-based compensation expense, (iv) the increase in other expense related to contingent payments payable upon the closing of this offering and the reclassification of such payables to current liabilities, and (v) the filing and effectiveness of our restated certificate of incorporation in connection with the closing of this offering; and
- on a pro forma as adjusted basis to give further effect to our issuance and sale of shares of our common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The pro forma and pro forma as adjusted information below is illustrative only, and our capitalization following the closing of this offering will be adjusted based on the actual initial public offering price and other terms of this offering determined at pricing. You should read the information in this table together with our consolidated financial statements and the related notes appearing elsewhere in this prospectus and the "Selected Consolidated Financial Data" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" sections of this prospectus.

	As of March 31, 2021		
	Actual	Pro Forma	Pro Forma As Adjusted
	(in thousands, except share and per share data)		
Cash and cash equivalents	$ 141,222	$ 141,222	$
Notes payable, current and noncurrent	$ 9,781	$ 9,781	
Stockholders' equity (deficit)			
Convertible preferred stock (Series A, Series A-1, Series B and Series C), $0.0001 par value per share; 174,808,481 shares authorized, 174,783,481 shares issued and outstanding, actual; no shares authorized, issued or outstanding, pro forma and pro forma as adjusted	222,888	—	
Preferred stock, $0.0001 par value: no shares authorized, issued or outstanding, actual; shares authorized, no shares issued or outstanding, pro forma and pro forma as adjusted	—	—	
Common stock, $0.0001 par value: 213,000,000 shares authorized, 9,253,440 shares issued and 6,863,248 shares outstanding, actual; shares authorized, 184,036,921 shares issued and 181,646,729 shares outstanding, pro forma; shares authorized, shares issued and shares outstanding, pro forma as adjusted	1	18	
Additional paid-in capital	2,617	225,748	
Accumulated deficit	(101,753)	(102,172)	
Total stockholders' equity (deficit)	(99,135)	123,594	
Total capitalization	$ 133,534	$ 133,375	$

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents, additional paid-in capital, total stockholders' equity and total capitalization by $ million, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. An increase (decrease) of 1,000,000 shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) the pro forma as adjusted amount of each of cash and cash equivalents, additional paid-in capital, total stockholders' equity and total capitalization by $ million, assuming no change in the assumed initial public offering price per share and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The table above is based on 9,253,440 shares of our common stock outstanding as of March 31, 2021, which includes 2,390,192 shares of unvested restricted common stock subject to forfeiture, and excludes:

- 26,368,873 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2021 under our 2020 Stock Incentive Plan, as amended, or the 2020 Plan, at a weighted average exercise price of $0.62 per share;
- an additional 2,557,888 shares of common stock issuable upon the exercise of stock options granted after March 31, 2021, at an exercise price of $0.70 per share;
- 1,980,433 shares of common stock available for future issuance as of March 31, 2021 under our 2020 Plan (which does not account for stock options to purchase an aggregate of 2,557,888 shares of common stock, at an exercise price of $0.70 per share, granted after March 31, 2021, or an increase of 1,550,953 shares in the number of shares available for future issuance as a result of cancelled options and forfeited restricted stock awards subsequent to March 31, 2021); and
- and additional shares of our common stock that will become available for future issuance under our 2021 Stock Incentive Plan and our 2021 Employee Stock Purchase Plan, respectively, each of which will become effective immediately prior to the effectiveness of the registration statement of which this prospectus forms a part, as well as any automatic increases in the number of shares of common stock reserved for future issuance under these plans.

DILUTION

If you invest in our common stock in this offering, your ownership interest will be diluted immediately to the extent of the difference between the initial public offering price per share of our common stock and the pro forma as adjusted net tangible book value per share of our common stock immediately after this offering.

Our historical net tangible book value (deficit) as of March 31, 2021 was $(99.4) million, or $(10.75) per share of our common stock. Our historical net tangible book value (deficit) is the amount of our total tangible assets less our total liabilities. Historical net tangible book value (deficit) per share represents historical net tangible book value (deficit) divided by the 9,253,440 shares of our common stock issued and outstanding as of March 31, 2021, which includes 2,390,192 shares of unvested restricted common stock subject to forfeiture.

Our pro forma net tangible book value (deficit) as of March 31, 2021 was $123.3 million, or $0.67 per share of our common stock. Pro forma net tangible book value represents the amount of our total tangible assets less our total liabilities, and gives effect to (i) the automatic conversion of all outstanding shares of our convertible preferred stock into an aggregate of 174,783,481 shares of our common stock upon the closing of this offering, (ii) the automatic conversion of the outstanding warrant to purchase shares of Series A convertible preferred stock into a warrant to purchase shares of common stock and the resulting reclassification of the warrant liability to additional paid-in capital, (iii) the vesting of performance-based stock option awards with vesting conditions that are contingent upon the closing of this offering and the resulting recognition of equity-based compensation expense, and (iv) the increase in other expense related to contingent payments payable upon the closing of this offering and the reclassification of such payables to current liabilities. Pro forma net tangible book value per share represents pro forma net tangible book value divided by the total number of shares outstanding as of March 31, 2021, after giving effect to the pro forma adjustments described above.

After giving further effect to our issuance and sale of shares of our common stock in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, our pro forma as adjusted net tangible book value as of March 31, 2021 would have been $ million, or $ per share. This represents an immediate increase in pro forma as adjusted net tangible book value per share of $ to existing stockholders and an immediate dilution of $ in pro forma as adjusted net tangible book value per share to new investors purchasing common stock in this offering. Dilution per share to new investors is determined by subtracting pro forma as adjusted net tangible book value per share after this offering from the assumed initial public offering price per share paid by new investors. The following table illustrates this dilution on a per share basis:

Assumed initial public offering price per share		$
Historical net tangible book value (deficit) per share as of March 31, 2021	$ (10.75)	
Increase per share attributable to the pro forma adjustments described above	11.42	
Pro forma net tangible book value (deficit) per share as of March 31, 2021	0.67	
Increase in pro forma as adjusted net tangible book value per share attributable to new investors purchasing shares of common stock in this offering		
Pro forma as adjusted net tangible book value per share immediately after this offering		
Dilution per share to new investors purchasing shares of common stock in this offering		$

The dilution information discussed above is illustrative only and will change based on the actual initial public offering price and other terms of this offering determined at pricing. A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) our pro forma as adjusted net tangible book value per share after this offering by $ and dilution per share to new investors purchasing shares of common stock in

this offering by $, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. An increase of 1,000,000 shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase our pro forma as adjusted net tangible book value per share after this offering by $ and decrease the dilution per share to new investors purchasing shares of common stock in this offering by $, assuming no change in the assumed initial public offering price per share and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. A decrease of 1,000,000 shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would decrease our pro forma as adjusted net tangible book value per share after this offering by $ and increase the dilution per share to new investors purchasing shares of common stock in this offering by $, assuming no change in the assumed initial public offering price and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

If the underwriters exercise their option to purchase additional shares in full, our pro forma as adjusted net tangible book value per share after this offering would be $, representing an immediate increase in pro forma as adjusted net tangible book value per share of $ to existing stockholders and immediate dilution in pro forma as adjusted net tangible book value per share of $ to new investors purchasing shares of common stock in this offering, assuming an initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, and after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us.

The following table summarizes, as of March 31, 2021, on the pro forma as adjusted basis described above, the total number of shares of common stock purchased from us on an as converted to common stock basis, the total consideration paid or to be paid and the average price per share paid or to be paid by existing stockholders and by new investors in this offering at an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, before deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us. As the table shows, new investors purchasing shares of common stock in this offering will pay an average price per share substantially higher than our existing stockholders paid.

	Shares Purchased		Total Consideration		Average Price Per Share
	Number	Percent	Amount	Percentage	
Existing stockholders		%	$	%	$
New investors		%	$	%	$
Total		100%		100%	

A $1.00 increase (decrease) in the assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus, would increase (decrease) the total consideration paid by new investors by $ million and, in the case of an increase, would increase the percentage of total consideration paid by new investors by percentage points and, in the case of a decrease, would decrease the percentage of total consideration paid by new investors by percentage points, assuming that the number of shares offered by us, as set forth on the cover page of this prospectus, remains the same. An increase (decrease) of 1,000,000 shares in the number of shares offered by us, as set forth on the cover page of this prospectus, would increase (decrease) the total consideration paid by new investors by $ million and, in the case of an increase, would increase the percentage of total consideration paid by new investors by percentage points and, in the case of a decrease, would decrease the percentage of total consideration paid by new investors by percentage points, assuming no change in the assumed initial public offering price.

The table above assumes no exercise of the underwriters' option to purchase additional shares in this offering. If the underwriters exercise their option to purchase additional shares in full, the number of shares of our common stock held by existing stockholders would be reduced to % of the total number of shares of our common stock outstanding after this offering, and the number of shares of common stock held by new investors purchasing shares of common stock in this offering would be increased to % of the total number of shares of our common stock outstanding after this offering.

The tables and discussion above are based on the number of shares of our common stock outstanding as of March 31, 2021, which include 2,390,192 shares of unvested restricted common stock subject to forfeiture and exclude:

- 26,368,873 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2021 under our 2020 Plan at a weighted average exercise price of $0.62 per share;
- an additional 2,577,888 shares of common stock issuable upon the exercise of stock options granted after March 31, 2021, at an exercise price of $0.70 per share;
- 1,980,433 shares of common stock available for future issuance as of March 31, 2021 under our 2020 Plan (which does not account for stock options to purchase an aggregate of 2,557,888 shares of common stock, at an exercise price of $0.70 per share, granted after March 31, 2021, or an increase of 1,550,953 shares in the number of shares available for future issuance as a result of cancelled options and forfeited restricted stock awards subsequent to March 31, 2021); and
- and additional shares of our common stock that will become available for future issuance under our 2021 Stock Incentive Plan and our 2021 Employee Stock Purchase Plan, respectively, each of which will become effective immediately prior to the effectiveness of the registration statement of which this prospectus forms a part, as well as any automatic increases in the number of shares of common stock reserved for future issuance under these plans.

To the extent stock options are issued and exercised under our equity incentive plans, or we issue additional shares of common stock in the future, there will be further dilution to investors purchasing shares of common stock in this offering. In addition, we may choose to raise additional capital because of market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans. If we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

SELECTED CONSOLIDATED FINANCIAL DATA

You should read the following selected consolidated financial data together with our consolidated financial statements and the related notes appearing elsewhere in this prospectus and the "Management's Discussion and Analysis of Financial Condition and Results of Operations" section of this prospectus. We have derived the consolidated statement of operations data for the years ended December 31, 2019 and 2020 and the consolidated balance sheet data as of December 31, 2019 and 2020 from our audited consolidated financial statements appearing elsewhere in this prospectus. The consolidated statement of operations data for the three months ended March 31, 2020 and 2021 and the consolidated balance sheet data as of March 31, 2021 have been derived from our unaudited condensed consolidated financial statements appearing elsewhere in this prospectus and have been prepared on the same basis as the audited consolidated financial statements. In the opinion of management, the unaudited data reflects all adjustments, consisting only of normal, recurring adjustments, necessary for a fair statement of the financial information in those statements. Our historical results are not necessarily indicative of the results that may be expected in the future, and our interim results are not necessarily indicative of results to be expected for a full fiscal year or any other interim period.

	Year Ended December 31,		Three Months Ended March 31,	
	2019	2020	2020	2021
	(in thousands, except unit and share and per unit and per share data)			
Consolidated Statement of Operations Data:				
Operating expenses:				
Research and development	$ 14,256	$ 43,910	$ 5,636	$ 11,621
General and administrative	4,771	10,653	2,262	4,899
Total operating expenses	19,027	54,563	7,898	16,520
Loss from operations	(19,027)	(54,563)	(7,898)	(16,520)
Gain on tranche rights	1,739	—	—	—
Other expense, net	(23)	(656)	(220)	(147)
Net loss	$ (17,311)	$ (55,219)	$ (8,118)	$ (16,667)
Net loss per unit, basic and diluted[1]	$ (4.45)		$ (2.09)	
Net loss per share, basic and diluted[1]		$ (11.10)		$ (2.48)
Weighted-average common units outstanding, basic and diluted[1]	3,888,443		3,888,443	
Weighted average common shares outstanding, basic and diluted[1]		4,976,138		6,728,945
Pro forma net loss per share, basic and diluted (unaudited)[2]		$ (0.79)		$ (0.13)
Pro forma weighted average number of common shares outstanding used in net loss per share, basic and diluted (unaudited)[2]		70,576,735		132,921,982

(1) See Note 15 to our consolidated financial statements and Note 10 to our unaudited interim condensed consolidated financial statements appearing elsewhere in this prospectus for details on the calculation of basic and diluted net loss per share.

(2) The unaudited pro forma basic and diluted net loss per share for the year ended December 31, 2020 and three months ended March 31, 2021 were computed using the weighted-average number of shares of common stock outstanding, including the pro forma effect of the automatic conversion of all outstanding shares of convertible preferred stock into shares of common stock on the later of January 1, 2020 or the date the equity instruments were issued. The unaudited pro forma net loss used in the calculation of unaudited pro forma basic and diluted net loss per share for the year ended December 31, 2020 and three months ended March 31, 2021 include (i) adjustments to the equity-based compensation expense related to certain stock option awards with vesting conditions that are contingent upon the closing of this offering, (ii) adjustments to other expense related to historical fair value adjustments recorded to our warrant liability which is replaced by an equity warrant upon the closing of this offering, and (iii) adjustments to other expense to record additional expense related to contingent payments payable upon the closing of this

offering. The unaudited pro forma basic and diluted net loss per share does not include the shares sold in or related proceeds received from this offering.

	As of December 31, 2020	As of March 31, 2021 (unaudited)
	(in thousands)	
Consolidated Balance Sheet Data:		
Cash and cash equivalents	$ 19,238	$ 141,222
Working capital[(1)]	(1,565)	126,328
Total assets	36,317	158,344
Notes payable, current and noncurrent	9,745	9,781
Convertible preferred stock	78,002	222,888
Total stockholders' deficit	(83,287)	(99,135)

(1) We define working capital as current assets less current liabilities. See our consolidated financial statements and related notes appearing elsewhere in this prospectus for further details regarding our current assets and current liabilities.

MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion and analysis of our financial condition and results of operations together with the "Selected Consolidated Financial Data" section of this prospectus and our consolidated financial statements and related notes appearing elsewhere in this prospectus. Some of the information contained in this discussion and analysis or set forth elsewhere in this prospectus, including information with respect to our plans and strategy for our business and related financing, includes forward-looking statements that involve risks and uncertainties. As a result of many factors, including those factors set forth in the "Risk Factors" section of this prospectus, our actual results could differ materially from the results described in or implied by the forward-looking statements contained in the following discussion and analysis. Please also see the section entitled "Cautionary Note Regarding Forward-Looking Statements and Industry Data."

Overview

We are a biotechnology company focused on harnessing the immune system to achieve deep and durable clinical responses to improve the lives of patients with cancer. We have built our geographically precise solutions, or GPS, platform to rapidly engineer novel molecules, including cytokines and other biologics, that are designed to optimize their therapeutic index. Current immuno-oncology therapies have curative potential for patients with cancer; however, their potential is significantly curtailed by systemic toxicity that results from activity of the therapeutic molecule outside the tumor microenvironment, or TME. Our molecules are engineered to localize activity within the TME without systemic effect, resulting in the potential to achieve enhanced anti-tumor activity. We are advancing a number of geographically precise, or tumor-selective, agents through various stages of development. Our most advanced cytokine product candidate is XTX202, an interleukin 2 therapy currently in investigational new drug application, or IND, enabling studies. We plan to submit an IND to the U.S. Food and Drug Administration, or FDA, in to evaluate XTX202 in patients with solid tumors. Our checkpoint inhibitor product candidate is XTX101, an anti-cytotoxic T-lymphocyte-associated protein 4 monoclonal antibody for which we recently submitted an IND to the FDA. If the IND is cleared, we plan to initiate a Phase 1 clinical trial in to evaluate XTX101 in patients with solid tumors. In addition, we are advancing our tumor-selective IL-12 and IL-15 molecules, XTX301 and XTX401, through preclinical development.

Since inception, we have devoted substantially all of our financial resources and efforts to performing research and development activities. To date, we have financed our operations primarily from proceeds raised through private placements of preferred units, which were exchanged for shares of convertible preferred stock, private placements of convertible preferred stock and a debt financing. Through March 31, 2021, we have received an aggregate of $234.5 million, net of issuance costs, from such transactions, including $224.5 million in net proceeds from the sale and issuance of preferred units and convertible preferred stock and $10.0 million in net proceeds from the debt financing.

We have not generated any revenue from product sales, and do not expect to generate any revenue from product sales for at least the next several years, if at all. All of our programs are still in preclinical development. Our ability to generate product revenue sufficient to achieve profitability will depend heavily on the successful development and eventual commercialization of one or more of our product candidates, if approved. Since inception, we have incurred significant operating losses, including net losses of $17.3 million and $55.2 million for the years ended December 31, 2019 and 2020, respectively, and a net loss of $16.7 million for the three months ended March 31, 2021. As of March 31, 2021, we had an accumulated deficit of $101.8 million. We expect to incur significant expenses and operating losses for the foreseeable future. We anticipate that our expenses will continue to increase significantly in connection with our ongoing activities, particularly as we:

- continue to advance our current research programs and conduct additional research programs;
- advance our current product candidates and any future product candidates we may develop into preclinical and clinical development;
- seek marketing approvals for any product candidates that successfully complete clinical trials;
- obtain, expand, maintain, defend and enforce our intellectual property;

- hire additional research, clinical, regulatory, quality, manufacturing and general and administrative personnel;
- establish a commercial and distribution infrastructure to commercialize any products for which we may obtain marketing approval;
- continue to discover, validate and develop additional product candidates;
- continue to manufacture increasing quantities of our current or future product candidates for use in preclinical studies, clinical trials and for any potential commercialization;
- acquire or in-license other product candidates, technologies or intellectual property; and
- incur additional costs associated with current and future research, development and commercialization efforts and operations as a public company.

As a result, we will need substantial additional funding to support our continuing operations and pursue our strategy. Until such time as we can generate significant revenue from product sales, if ever, we expect to finance our operations through a combination of equity offerings, debt financings and other sources of funding, such as collaborations, licensing arrangements or other strategic transactions. We may be unable to raise additional funds or enter into such other agreements or arrangements when needed on acceptable terms, or at all. Our failure to raise capital or enter into such agreements as and when needed could have a material adverse effect on our business, results of operations and financial condition.

Because of the numerous risks and uncertainties associated with product development, we are unable to predict the timing or amount of increased expenses or when or if we will be able to achieve profitability. Even if we are able to generate revenue from product sales, we may not become profitable. If we fail to become profitable or are unable to sustain profitability on a continuing basis, then we may be unable to continue our operations at planned levels and be forced to reduce or terminate our operations.

As of March 31, 2021, we had cash and cash equivalents of $141.2 million. We believe that our existing cash and cash equivalents, together with the anticipated net proceeds from this offering, will enable us to fund our operating expenses, debt repayment obligations and capital expenditure requirements into .

Impact of COVID-19 on Our Business

The worldwide COVID-19 pandemic has affected and may affect in the future our ability to initiate and complete preclinical studies, delay the initiation and completion of our planned clinical trials, disrupt regulatory activities or have other adverse effects on our business, results of operations, financial condition and prospects. In addition, the pandemic has caused substantial disruption in the financial markets and may adversely impact economies worldwide, both of which could adversely affect our business, operations and ability to raise funds to support our operations.

We are following, and plan to continue to follow, recommendations from federal, state and local governments regarding workplace policies, practices and procedures. In response to the direction from state and local governmental authorities, we have restricted access to our facility to those individuals who must perform critical research, translational medicine, laboratory and other support activities that must be completed on site, limited the number of such people that can be present at our facility at any one time and required that most of our employees work remotely. In addition, we and the third-party manufacturers, contract research organizations, or CROs, and academic collaborators that we engage have faced in the past and may face in the future disruptions that could affect our ability to initiate and complete preclinical studies or clinical trials, including disruptions in procuring items that are essential for our research and development activities, such as, for example, raw materials used in the manufacture of our product candidates, laboratory supplies for our preclinical studies and clinical trials, or animals that are used for preclinical testing, in each case, for which there may be shortages because of ongoing efforts to address the COVID-19 pandemic.

We cannot be certain what the overall impact of the COVID-19 pandemic will be on our business, and it has the potential to adversely affect our business, financial condition, results of operations and prospects.

Financial Operations Overview

Revenue

We have not generated any revenue since inception and do not expect to generate any revenue from the sale of products for at least the next several years, if at all. If our development efforts for our current or future product candidates are successful and result in regulatory approval or if we enter into collaboration or license agreements with third parties, we may generate revenue in the future from product sales or payments from third-party collaborators or licensors.

Operating Expenses

Research and Development Expenses

Research and development expenses consist primarily of costs incurred for our discovery efforts, research activities and development and testing of our programs and product candidates. These expenses include:

- personnel-related expenses, including salaries, bonuses, benefits and equity-based compensation expense for employees engaged in research and development functions;
- costs incurred with third-party contract development and manufacturing organizations, or CDMOs, to acquire, develop and manufacture materials for both preclinical studies and planned clinical studies;
- costs of funding research performed by third parties that conduct research and development and preclinical activities on our behalf;
- costs of sponsored research agreements and outside consultants, including their fees, equity-based compensation and related expenses;
- costs incurred to maintain compliance with regulatory requirements;
- fees for maintaining license and other amounts due under our third-party licensing agreements;
- expenses incurred for the procurement of materials, laboratory supplies and non-capital equipment used in the research and development process; and
- depreciation, amortization and other direct and allocated expenses, including rent, insurance, maintenance of facilities and other operating costs, incurred as a result of our research and development activities.

We expense research and development costs as incurred. We recognize external development costs based on an evaluation of the progress to completion of specific deliverables using information provided to us by our vendors. Payments for these activities are based on the terms of the individual agreements, which may differ from the pattern of costs incurred, and are reflected in our financial statements as prepaid expenses or accrued research and development expenses. Nonrefundable advance payments for goods or services to be received in the future for use in research and development activities are capitalized as assets, even when there is no alternative future use for the research and development. The capitalized amounts are expensed as the related goods are delivered or the services are performed.

We use our personnel and infrastructure resources for our discovery efforts, including the advancement of our platform, developing programs and product candidates and managing external research efforts. A significant portion of our research and development costs have been, and will continue to be, external costs. We track these external costs, such as fees paid to CDMOs, preclinical study vendors and other third parties in connection with our manufacturing and manufacturing process development, preclinical studies and other research activities by program. Due to the number of ongoing programs and our ability to use resources across several projects, personnel-related expenses and indirect or shared operating costs incurred for our research and development programs are not recorded or maintained on a program-by-program basis.

The following table reflects our research and development expense, including direct program-specific expense summarized by program, personnel-related expenses and indirect or shared operating costs recognized during each period presented (in thousands):

	Year Ended December 31,		Three Months Ended March 31,	
	2019	2020	2020	2021
XTX202	$ 918	$ 14,866	$ 570	$ 3,543
XTX101	2,965	11,554	1,358	1,735
Other early programs and indirect research and development	6,407	9,483	2,019	3,125
Personnel-related (including equity-based compensation)	3,966	8,007	1,689	3,218
Total research and development expenses	$ 14,256	$ 43,910	$ 5,636	$ 11,621

Research and development activities are central to our business model. Product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials. We expect that our research and development expenses will continue to increase for the foreseeable future as we advance our programs and product candidates into and through clinical development, and as we continue to develop additional product candidates. We also expect our discovery research efforts and our related personnel costs will increase and, as a result, we expect our research and development expenses, including costs associated with equity-based compensation, will increase above historical levels. In addition, we may incur additional expenses related to milestone and royalty payments payable to third parties with whom we have entered into, or may enter into, license, acquisition and option agreements to acquire the rights to future products and product candidates.

At this time, we cannot reasonably estimate or know the nature, timing and projected costs of the efforts that will be necessary to complete the development of, and obtain regulatory approval for, any of our product candidates or programs. This is due to the numerous risks and uncertainties associated with drug development, including the uncertainty of:

- the scope, timing, costs and progress of preclinical and clinical development activities;
- the number and scope of preclinical and clinical programs we decide to pursue;
- our ability to maintain our current research and development programs and to establish new ones
- our ability to establish an appropriate safety profile for our product candidates with IND-enabling studies;
- our ability to hire and retain key research and development personnel;
- the costs associated with the development of any additional product candidates we develop or acquire through collaborations;
- the effects of COVID-19 to our research and development employees, contractors and those who may participate in our planned studies.
- our successful enrollment in and completion of clinical trials;
- our ability to successfully complete clinical trials with safety, potency and purity profiles that are satisfactory to the FDA or any comparable foreign regulatory authority;
- our receipt of regulatory approvals from applicable regulatory authorities;
- our ability to successfully develop, obtain regulatory approval for, and then successfully commercialize, our product candidates;
- our ability to commercialize products, if and when approved, whether alone or in collaboration with others;
- the continued acceptable safety profiles of the product candidates following approval;
- our ability to establish and maintain agreements with third-party manufacturers for clinical supply for our clinical trials and commercial manufacturing, if our product candidates are approved;

- the terms and timing of any collaboration, license or other arrangement, including the terms and timing of any milestone payments thereunder; and
- our ability to obtain and maintain patent, trade secret and other intellectual property protection and regulatory exclusivity for our product candidates if and when approved.

A change in any of these variables with respect to the development of any of our product candidates would significantly change the costs, timing and viability associated with the development of that product candidate. We may never succeed in obtaining regulatory approval for any product candidate we may develop.

General and Administrative Expenses

General and administrative expenses consist primarily of personnel-related costs, including salaries, benefits and equity-based compensation, for personnel in our executive, finance, legal, business development, human resources and other administrative functions. General and administrative expenses also include legal fees relating to corporate matters; professional fees for accounting, auditing, tax, human resources and administrative consulting services; insurance costs; and facility-related expenses, which include depreciation costs and other allocated expenses for rent, maintenance of facilities, recruiting and other general administrative costs. These costs relate to the operation of the business and are in support of but separate from the research and development function and our individual development programs. Costs to secure and defend our intellectual property are expensed as incurred and are classified as general and administrative expenses.

We anticipate that our general and administrative expenses will increase in the future as we increase our headcount and infrastructure to support the expected growth in our research and development activities. We also expect to incur increased expenses associated with being a public company, including increased costs of accounting, audit, legal, regulatory and tax-related services associated with maintaining compliance with exchange listing and Securities and Exchange Commission, or SEC, requirements, director and officer insurance costs and investor and public relations costs. We also expect to incur additional intellectual property-related expenses as we file patent applications to protect intellectual property arising from our research and development activities.

Other Income (Expense), Net

Other income (expense), net consists primarily of gains or losses associated with changes in the fair value of the tranche rights associated with our Series A-1 preferred units and contingent liabilities associated with the consummation of specified transactions, including an initial public offering, interest expense principally on the note payable under our debt arrangement with Pacific Western Bank, or PacWest, and interest income earned from our cash and cash equivalents. In May 2019, upon the issuance of the final tranche of our Series A-1 preferred units, the tranche right liability was settled and a gain of $1.7 million was recorded. Therefore, no further gains or losses will be recognized related to the tranche rights.

Income Taxes

Since our inception, we have not recorded any U.S. federal or state income tax benefits for the net losses we have incurred in each year or for our earned research and development tax credits, due to our uncertainty of realizing a benefit from those items. As of December 31, 2020, we had federal and state net operating loss, or NOL, carryforwards of approximately $78.0 million and $69.6 million, respectively, which may be available to offset future taxable income. As of December 31, 2020, federal NOLs of $73.2 million have an indefinite carryforward period. The remaining $4.8 million in federal NOL carryforwards and our state NOL carryforward will expire beginning in 2035. As of December 31, 2020, we also had federal and state research and development carryforwards of approximately $1.5 million and $0.8 million, respectively, which may be available to offset any future income tax and which will begin to expire in 2037. These loss and credit carryforwards are subject to review and possible adjustment by the appropriate taxing authorities.

Utilization of our NOL carryforwards and research and development credit carryforwards may be subject to a substantial annual limitation due to ownership change limitations that have occurred previously or that could occur in the future in accordance with Section 382 of the Internal Revenue Code of 1986, or Section 382,

as well as similar state provisions. These ownership changes may limit the amount of NOL and research and development credit carryforwards that can be utilized annually to offset future taxable income and taxes, respectively. In general, an ownership change as defined by Section 382 results from transactions increasing the ownership of certain stockholders or public groups in the stock of a corporation by more than 50% over a three-year period. Since our formation, we have raised capital through the issuance of units and capital stock on several occasions. These financings could result in a change of control as defined by Section 382. We have not yet completed a detailed study of our inception to date ownership change activity.

In addition, we have not yet conducted a study of our research and development credit carry forwards. Such a study may result in an adjustment to our research and development credit carryforwards; however, until a study is completed and any adjustment is known, no amount is being presented as an uncertain tax position. A full valuation allowance has been provided against our research and development credits, and, if an adjustment is required, this adjustment would be offset by an adjustment to the valuation allowance. Thus, there would be no impact to the balance sheet or statement of operations and comprehensive loss if an adjustment were required.

Income taxes are determined at the applicable tax rates adjusted for non-deductible expenses, research and development tax credits and other permanent differences. Our income tax provision may be significantly affected by changes to our estimates.

Results of Operations

Comparison of the Three Months Ended March 31, 2020 and 2021

The following tables summarize our results of operations for the three months ended March 31, 2020 and 2021 (in thousands):

	Three Months Ended March 31,		
	2020	2021	Change
Operating expenses:			
Research and development	$ 5,636	$ 11,621	$ 5,985
General and administrative	2,262	4,899	2,637
Total operating expenses	7,898	16,520	8,622
Loss from operations	(7,898)	(16,520)	(8,622)
Other income (expense), net:			
Other expense, net	(220)	(147)	73
Total other expense, net	(220)	(147)	73
Net loss	$ (8,118)	$ (16,667)	$ (8,549)

Research and Development Expenses

The following tables summarize our research and development expenses for the three months ended March 31, 2020 and 2021 (in thousands):

	Three Months Ended March 31,		
	2020	2021	Change
XTX202	$ 570	$ 3,543	$ 2,973
XTX101	1,358	1,735	377
Other early programs and indirect research and development	2,019	3,125	1,106
Personnel-related (including equity-based compensation)	1,689	3,218	1,529
Total research and development expenses	$ 5,636	$ 11,621	$ 5,985

Research and development expenses increased by $6.0 million from $5.6 million for the three months ended March 31, 2020, to $11.6 million for three months ended March 31, 2021. The increase in research and development expenses was primarily due to the following:

- $3.0 million increase in expenses incurred to advance our XTX202 program, primarily resulting from a $2.1 million increase in manufacturing and a $0.8 million increase in preclinical development activities;
- $1.5 million increase in personnel-related costs, including a $0.1 million increase in equity-based compensation, primarily due to increases in salaries, bonus and benefits associated with increased research and development headcount;
- $1.1 million increase in other early programs and indirect research and development expenses, primarily driven by an increase in external expenses related to preclinical development activities; and
- $0.4 million increase in expenses incurred to advance our XTX101 program, driven primarily by an increase in manufacturing, clinical and preclinical development activities.

General and Administrative Expenses

General and administrative expenses increased $2.6 million from $2.3 million for the three months ended March 31, 2020 to $4.9 million for the three months ended March 31, 2021. The increase in general and administrative expenses was primarily due to the following:

- $1.5 million increase in personnel-related costs, including a $0.6 million increase in equity-based compensation, combined with a $0.7 million increase in salaries, bonuses and benefits due primarily to higher general and administrative headcount; and
- $1.0 million increase in professional fees, driven primarily by an increase in accounting and other professional services related to ongoing business activities.

Other Income (Expense), Net

Other income (expense), net, decreased by approximately $0.1 million during the three months ended March 31, 2021 compared to the same period in the prior year primarily as a result of reduced expense recognized with respect to the fair value of our contingent liabilities associated with the consumption of specified transactions during the three months ended March 31, 2021, partially offset by an increase in interest expense.

Comparison of the Years Ended December 31, 2019 and 2020

The following tables summarize our results of operations for the years ended December 31, 2019 and 2020 (in thousands):

	Year Ended December 31,		
	2019	2020	Change
Operating expenses:			
Research and development	$ 14,256	$ 43,910	$ 29,654
General and administrative	4,771	10,653	5,882
Total operating expenses	19,027	54,563	35,536
Loss from operations	(19,027)	(54,563)	(35,536)
Other income (expense), net:			
Gain on tranche rights	1,739	—	(1,739)
Other expense, net	(23)	(656)	(633)
Total other income (expense), net	1,716	(656)	(2,372)
Net loss	$ (17,311)	$ (55,219)	$ (37,908)

Research and Development Expenses

The following tables summarize our research and development expenses for the years ended December 31, 2019 and 2020 (in thousands):

	Year Ended December 31,		
	2019	2020	Change
XTX202	$ 918	$ 14,866	$ 13,948
XTX101	2,965	11,554	8,589
Other early programs and indirect research and development	6,407	9,483	3,076
Personnel-related (including equity-based compensation)	3,966	8,007	4,041
Total research and development expenses	$ 14,256	$ 43,910	$ 29,654

Research and development expenses increased by $29.7 million from $14.3 million for the year ended December 31, 2019 to $43.9 million for the year ended December 31, 2020. The increase in research and development expenses was primarily due to the following:

- $13.9 million increase in expenses incurred to advance our XTX202 program driven by a $6.0 million upfront payment under our license agreement with AskGene Pharma, Inc., or AskGene, and approximately $7.9 million of increases in manufacturing and preclinical development activities;
- $8.6 million increase in expenses incurred to advance our XTX101 program, driven primarily by increases in manufacturing and preclinical development activities; and
- $4.0 million increase in personnel-related costs, including a $0.3 million increase in equity-based compensation, due primarily to increases in salaries, bonuses and benefits associated with higher research and development headcount.

General and Administrative Expenses

General and administrative expenses increased by $5.9 million from $4.8 million for the year ended December 31, 2019 to $10.7 million for the year ended December 31, 2020. The increase in general and administrative expenses was primarily due to the following:

- $2.9 million increase in personnel-related costs, driven primarily by a $0.9 million increase in equity-based compensation and a $1.9 million increase in salaries, bonuses and benefits, primarily due to higher general and administrative headcount; and
- $2.2 million increase in professional fees, driven primarily by an increase in legal, accounting and other services related to ongoing business activities.

Other Income (Expense), Net

Total other income (expense), net was approximately $1.7 million of other income for the year ended December 31, 2019 compared to other expense of $0.7 million for the year ended December 31, 2020, or a change of about $2.4 million. The change was primarily due to a gain associated with fair value adjustments to our liabilities related to our Series A-1 tranche rights during 2019. In addition, interest expense increased by approximately $0.5 million in 2020 primarily due to a full year of interest expense associated with the note payable compared to a partial year in the previous period.

Liquidity and Capital Resources

Sources of Liquidity

Since our inception, we have incurred significant operating losses and negative cash flows from operations. We have not yet commercialized any of our product candidates, which are in preclinical development, and we do not expect to generate revenue from sales of any products for several years, if at all. To date, we have financed our operations primarily from proceeds raised through private placements of preferred units, which were

exchanged for shares of convertible preferred stock, private placements of convertible preferred stock and a debt financing. Through March 31, 2021, we have received an aggregate of $234.5 million, net of issuance costs, from such transactions, including $224.5 million in net proceeds from the sale and issuance of preferred units and convertible preferred stock and $10.0 million in net proceeds from the debt financing. As of March 31, 2021, we had cash and cash equivalents of $141.2 million.

Cash Flows

The following table provides information regarding our cash flows for each period presented (in thousands):

	Year Ended December 31,		Three Months Ended March 31,	
	2019	2020	2020	2021
Net cash provided by (used in):				
Operating activities	$ (17,843)	$ (36,091)	$ (4,907)	$ (22,734)
Investing activities	(715)	(2,188)	(790)	(170)
Financing activities	60,020	10,029	9,969	144,890
Net increase (decrease) in cash, cash equivalents and restricted cash	$ 41,462	$ (28,250)	$ 4,272	$ 121,986

Operating Activities

Our cash flows from operating activities are greatly influenced by our use of cash for operating expenses and working capital requirements to support our business. We have historically experienced negative cash flows from operating activities as we invested in developing our pipeline, platform, drug discovery efforts and related infrastructure. The cash used in operating activities resulted primarily from our net losses adjusted for non-cash charges, which are generally due to equity-based compensation, depreciation and amortization, as well as changes in components of operating assets and liabilities, which are generally due to increased expenses and timing of vendor payments.

During the three months ended March 31, 2021, net cash used in operating activities of $22.7 million was primarily due to our net loss of $16.7 million and changes in operating assets and liabilities of $7.3 million, partially offset by net non-cash expenses of $1.2 million.

During the three months ended March 31, 2020, net cash used in operating activities of $4.9 million was primarily due to our net loss of $8.1 million, partially offset by both changes in operating assets and liabilities of $2.9 million and net non-cash expenses of $0.3 million.

During the year ended December 31, 2020, net cash used in operating activities of $36.1 million was primarily due to our net loss of $55.2 million, partially offset by both changes in operating assets and liabilities of $16.6 million and by net non-cash expenses of $2.5 million.

During the year ended December 31, 2019, net cash used in operating activities of $17.8 million was primarily due to our net loss of $17.3 million and by net non-cash expenses and gains of $1.3 million, partially offset by changes in operating assets and liabilities of $0.8 million.

Investing Activities

During the three months ended March 31, 2020 and 2021, net cash used in investing activities of $0.8 million and $0.2 million, respectively, was primarily due to purchases of property and equipment.

During the year ended December 31, 2019 and 2020, net cash used in investing activities of $0.7 million and $2.2 million, respectively, was primarily due to purchases of property and equipment.

Financing Activities

During the three months ended March 31, 2021, net cash provided by financing activities of $144.9 million consisted primarily of proceeds from the sale and issuance of shares of our Series B and Series C convertible preferred stock.

During the three months ended March 31, 2020, net cash provided by financing activities of $10.0 million consisted primarily of proceeds from the sale and issuance of our Series B preferred units.

During the year ended December 31, 2020, net cash provided by financing activities of $10.0 million consisted primarily of proceeds from the sale and issuance of our Series B preferred units.

During the year ended December 31, 2019, net cash provided by financing activities of $60.0 million consisted primarily of $10.0 million of net proceeds from the sale and issuance of our Series A-1 preferred units, $40.1 million of net proceeds from the sale and issuance of our Series B preferred units and $10.0 million in net proceeds from the issuance of a note payable to PacWest.

Loan and Security Agreement

In November 2019, we entered into a loan and security agreement, or the Loan Agreement, with PacWest, under which we borrowed $10.0 million. Borrowings under the Loan Agreement are collateralized by substantially all of our assets, excluding intellectual property. As of March 31, 2021, we had $10.0 million in outstanding borrowings under the Loan Agreement and interest on the loan balance accrues at a variable annual rate equal to the greater of (i) the prime rate, as defined in the Loan Agreement, plus 0.25% or (ii) 5.00%. Interest-only payments on any loan balances are required to be paid on a monthly basis through May 21, 2021. Subsequent to the interest-only period, we are required to be make equal monthly payments of principal plus interest until the loan matures in November 2023. In addition, under the Loan Agreement, we are obligated to pay a one-time $0.5 million fee to PacWest upon the closing of this offering. The Loan Agreement also contains customary representations, warranties and covenants and provisions related to events of default, including payment defaults, breaches of covenants, change of control and occurrence of a material adverse effect.

Funding Requirements

We expect our expenses to increase substantially in connection with our ongoing research and development activities, particularly as we advance into planned clinical development of our product candidates and expand the research efforts and preclinical activities associated with our other existing programs and discovery platform. In addition, upon the completion of this offering, we expect to incur additional costs associated with operating as a public company. As a result, we expect to incur substantial operating losses and negative operating cash flows for the foreseeable future.

As of March 31, 2021, we had cash and cash equivalents of $141.2 million. We believe that our existing cash and cash equivalents, together with the anticipated net proceeds from this offering, will enable us to fund our operating expenses, debt repayment obligations and capital expenditure requirements into . We have based this estimate on assumptions that may prove to be wrong, and we could exhaust our available capital resources sooner than we expect.

Because of the numerous risks and uncertainties associated with product development, and because the extent to which we may enter into collaborations with third parties for the development of our product candidates is unknown, we may incorrectly estimate the timing and amounts of increased capital outlays and operating expenses associated with completing the research and development of our product candidates. Our funding requirements and timing and amount of our operating expenditures will depend on many factors, including, but not limited to:

- the scope, progress, results and costs of research and development for our current and future product candidates, including our planned clinical trials for our most advanced product candidates, XTX202 and XTX101, and ongoing preclinical development for our product candidates XTX301 and XTX401;
- the scope, prioritization and number of our research and development programs;
- the scope, costs, timing and outcome of regulatory review of our product candidates;
- the costs of securing manufacturing materials for use in preclinical studies, clinical trials and, for any product candidates for which we receive regulatory approval, use as commercial supply;
- our ability to seek, establish and maintain a collaboration to develop XTX101 with a collaborator, including the financial terms and any cost-sharing arrangements of any such collaboration;

- the costs and timing of future commercialization activities for any of our product candidates for which we receive regulatory approval;
- the amount and timing of revenue, if any, received from commercial sales of any product candidates for which we receive regulatory approval;
- the costs and timing of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property and proprietary rights and defending any intellectual property-related claims;
- the extent to which we may acquire or in-license other products, product candidates, technologies or intellectual property, as well as the terms of any such arrangements;
- the impacts of the COVID-19 pandemic; and
- the costs of continuing to expand our operations and operating as a public company.

Identifying potential product candidates and conducting preclinical testing and clinical trials is a time consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain regulatory approval and achieve product sales. In addition, our product candidates, if approved, may not achieve commercial success. Our commercial revenues, if any, will be derived from sales of products that we do not expect to be commercially available for several years, if ever. Accordingly, we will need to obtain substantial additional funds to achieve our business objectives.

Our expectation with respect to our ability to fund current planned operations is based on estimates that are subject to risks and uncertainties. Our operating plan may change as a result of many factors currently unknown to management and there can be no assurance that the current operating plan will be achieved in the time frame anticipated by us, and we may need to seek additional funds sooner than planned.

Adequate additional funds may not be available to us on acceptable terms, or at all. Market volatility resulting from the COVID-19 pandemic or other factors could also adversely impact our ability to access capital as and when needed. To the extent that we raise additional capital through the sale of equity or convertible debt securities, your ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. Additional debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends and may require the issuance of warrants, which could potentially dilute your ownership interest.

If we raise additional funds through collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may have to significantly delay, reduce or eliminate some or all of our product development or future commercialization efforts, or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

For additional information on risks associated with our substantial capital requirements, please see “Risk Factors—Risks Related to Our Limited Operating History, Financial Position and Capital Requirements—Even if this offering is successful, we will need to obtain substantial additional funding to finance our operations and complete the development and any commercialization of any current or future product candidates. If we are unable to raise this capital when needed, we may be forced to delay, reduce or eliminate one or more of our research and development programs or other operations.”

Contractual Obligations

The following table summarizes our contractual obligations as of payment due date by period as of December 31, 2020 (in thousands):

	Payments Due by Period				
	Total	Less Than 1 Year	1 to 3 Years	3 to 5 Years	More Than 5 Years
Operating lease commitments[1]	$ 16,491	$ 1,457	$ 3,317	$ 3,518	$ 8,199
Note payable[2]	10,854	2,804	8,050	—	—
Obligations under license agreement[3]	5,000	5,000	—	—	—
Other obligations[4]	788	496	243	49	—
Total	$ 33,133	$ 9,757	$ 11,610	$ 3,567	$ 8,199

(1) Represents future minimum lease payments under our non-cancellable operating lease for our corporate headquarters at 828 Winter Street in Waltham, Massachusetts, which expires in March 2030. Our operating lease includes the option to extend the term for a period of five years at the then-market rental rate. The amounts in the table above do not include the optional extension.

(2) Consists of payment obligations for principal and interest under our Loan Agreement with PacWest, excluding a $0.5 million contingent payment that will be payable to PacWest upon the closing of this offering.

(3) Represents installment payments for the upfront payment under our agreement with AskGene, which were paid in various installments through February 2021.

(4) Represents certain lab equipment leased through an equipment finance lease, which expires in July 2024. Other obligations consist of non-cancellable obligations related to a service agreement with a research vendor and certain IT software services.

In the normal course of business, we enter into agreements with contract research organizations for clinical trials and clinical supply manufacturing and with vendors for preclinical research studies and other services and products for operating purposes. We have not included these payments in the table of contractual obligations above since the contracts are generally cancellable by us for convenience. We may be subject to certain termination fees or wind down costs upon termination of these agreements. Such costs are not fixed or estimable and are not included in the table of contractual obligations above.

In addition, we are party to certain agreements that require us to pay third parties upon achievement of certain development, regulatory or commercial milestones or upon the consummation of specified transactions, including an aggregate of $1.0 million in payments to third parties in connection with the closing of this offering. Amounts related to contingent payments are not considered contractual obligations as they are contingent on the successful achievement of certain development, regulatory and commercial milestones that may not be achieved or upon the consummation of specified transactions that may not occur. We have not included payments contingent upon the achievement of certain development, regulatory or commercial milestones on our balance sheet. We have included the fair value of payments contingent upon the consummation of specific transactions on our balance sheet. We have not included any of these commitments in the table above because the achievement of these milestones or occurrence of these events is not fixed and determinable. For further information regarding certain of our license agreements and amounts that could become payable in the future under those agreements, please see the section of this prospectus titled “Business—License Agreements” and Note 9 to our consolidated financial statements appearing elsewhere in this prospectus.

Off-Balance Sheet Arrangements

We did not have, during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined under applicable SEC rules.

Critical Accounting Policies and Use of Estimates

Our management’s discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with generally accepted accounting principles in the United States. The preparation of these consolidated financial statements requires

us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, as well as the reported expenses incurred during the reporting periods. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

While our significant accounting policies are described in more detail in the notes to our consolidated financial statements appearing elsewhere in this prospectus, we believe the following accounting policies used in the preparation of our consolidated financial statements require the most significant judgments and estimates.

Research and Development Expenses and Related Accruals

Research and development expenses are comprised of costs incurred in performing research and development activities, including salaries, equity-based compensation and benefits, facilities costs and laboratory supplies, depreciation, manufacturing expenses and external costs of outside vendors engaged to conduct planned clinical development, preclinical development, manufacturing and manufacturing process development and other research support activities. All costs associated with research and development activities are expensed as incurred.

As part of the process of preparing our consolidated financial statements, we are required to estimate our accrued expenses as of each balance sheet date. This process involves reviewing open contracts and purchase orders, communicating with our personnel to identify services that have been performed on our behalf and estimating the level of service performed and the associated cost incurred for the service when we have not yet been invoiced or otherwise notified of the actual cost. The majority of our service providers invoice us monthly in arrears for services performed or when contractual milestones are met. We make estimates of our accrued expenses as of each balance sheet date based on facts and circumstances known to us at that time. We periodically confirm the accuracy of our estimates with the service providers and make adjustments if necessary. The significant estimates in our accrued research and development expenses include the costs incurred for services performed by our vendors in connection with research and development activities for which we have not yet been invoiced. In certain instances, we prepay for services to be provided in the future. These amounts are initially capitalized and subsequently expensed as the services are performed.

We base our expenses related to research and development activities on our estimates of the services received and efforts expended pursuant to quotes and contracts with vendors that conduct research and development on our behalf. The financial terms of these agreements are subject to negotiation, vary from contract to contract and may result in uneven payment flows. There may be instances in which payments made to our vendors will exceed the level of services provided and result in a prepayment of the research and development expense. In accruing service fees, we estimate the time period over which services will be performed and the level of effort to be expended in each period. If the actual timing of the performance of services or the level of effort varies from our estimate, we adjust the accrual or prepaid balance accordingly. Nonrefundable advance payments for goods and services that will be used in future research and development activities are initially capitalized and subsequently expensed when the activity has been performed or when the goods have been received rather than when the payment is made.

Although we do not expect our estimates to be materially different from amounts incurred, if our estimates of the status and timing of services performed differ from the actual status and timing of services performed, it could result in us reporting accrued amounts that are too high or too low in any particular period. To date, there have been no material differences between our estimates of such expenses and the amounts incurred.

Equity-Based Compensation

As described in Note 1 to our consolidated financial statements appearing elsewhere in this prospectus, in June 2020, we completed a series of transactions resulting in the reorganization of our corporate structure. Prior to such reorganization, our former parent company, Xilio Therapeutics, LLC, granted incentive units, which we accounted for as equity-classified awards. In connection with the reorganization, the incentive units were exchanged for shares of our vested and unvested restricted common stock. We issue equity-based awards to employees, directors and non-employees, generally in the form of stock options.

We measure employee equity-based compensation based on the grant date fair value of the equity-based awards and recognize equity-based compensation expense on a straight-line basis over the requisite service period of the awards, which is generally the vesting period of the respective award, in accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 718, *Compensation—Stock Compensation*, or ASC 718. For awards subject to performance conditions, we recognize equity-based compensation expense using an accelerated recognition method over the remaining period when we determine that achievement of the milestone is probable. We recognize forfeitures as they occur. We classify equity-based compensation expense in the consolidated statements of operations and comprehensive loss in the same manner in which the award recipient's salary and related costs are classified or in which the award recipient's service payments are classified, as applicable.

Determination of the Fair Value of Equity-Based Awards

We estimate the fair value of our stock options and, prior to our corporate reorganization, incentive units granted with service-based conditions using the Black-Scholes option pricing model, which requires inputs of subjective assumptions, including: (i) the expected volatility of our common stock, (ii) the expected term of the award, (iii) the risk-free interest rate, (iv) expected dividends and (v) the fair value of our common stock. Due to the lack of a public market for the trading of our common stock and a lack of company-specific historical and implied volatility data, we base the estimate of expected volatility on the historical volatilities of a representative group of publicly traded guideline companies. For these analyses, we select companies with comparable characteristics and with historical share price information that approximates the expected term of the equity-based awards. We compute the historical volatility data using the daily closing prices for the selected companies' shares during the equivalent period that approximates the calculated expected term of our stock options. We will continue to apply this method until a sufficient amount of historical information regarding the volatility of our own stock price becomes available. We estimate the expected term of our stock options granted to employees and directors using the simplified method, whereby the expected term equals the average of the vesting term and the original contractual term of the option. We utilize this method as we do not have sufficient historical exercise data to provide a reasonable basis upon which to estimate the expected term. The expected dividend yield is assumed to be zero as we have no current plans to pay any dividends on common stock. We have elected to use the expected term for stock options granted to non-employees, using the simplified method, as the basis for the expected term assumption. However, we may elect to use either the contractual term or the expected term for stock options granted to non-employees on an award-by-award basis.

Determination of Fair Value of Common Units and Common Stock

As there has been no public market for either our common stock, common units or incentive units to date, the estimated fair value of our common units and common stock and the strike price of our incentive units has been approved by our board of directors, with input from management, as of the date of each award grant, considering the most recently available independent third-party valuations of our common stock and common units and our board of directors assessment, with input from management, of additional objective and subjective factors that we believed were relevant and which may have changed from the date of the most recent valuation through the date of the grant. These independent third-party valuations were performed in accordance with the guidance outlined in the American Institute of Certified Public Accountants' Accounting and Valuation Guide, *Valuation of Privately-Held-Company Equity Securities Issued as Compensation*. We estimated the value of our equity using market approaches. The market approach includes using the market adjusted equity value method, guideline initial public offering, or IPO, transactions method and the recent transaction method which "back solves" to a preferred price. The hybrid approach is a scenario-based analysis and where one or more of the scenarios allocate the equity value utilizing the option-pricing method, or OPM. We allocated equity value to our common units, incentive units and preferred units or to our shares of common stock and shares of our convertible preferred stock, as the case may be, using either an OPM or a hybrid method, which is a hybrid between the OPM and the probability-weighted expected return method. The OPM treats common securities and preferred securities as call options on the total equity value of a company, with exercise prices based on the value thresholds at which the allocation among the various holders of a company's securities changes. Under this method, the common units and incentive units and common stock have value only if the funds available for distribution to members exceed the value of the preferred security liquidation preference at the time of the liquidity event, such as a strategic sale or a merger. When using the market

approach to determine the equity value, we allocated the equity value to our common units, incentive units and preferred units or to our shares of common stock, warrants and shares of our convertible preferred stock, as the case may be, using the OPM. When using the hybrid approach, we estimated the probability-weighted value across multiple scenarios but used the OPM to estimate the allocation of value within at least one of the scenarios. In addition to a scenario using the OPM, the hybrid method also considers an IPO, scenario in which the shares of convertible preferred stock are assumed to convert to common stock. The future value of the common stock in the IPO scenario was discounted back to the valuation date at an appropriate risk adjusted discount rate. In the hybrid method, the present value indicated for each scenario was probability weighted to arrive at an indication of value for our common stock.

In addition to considering the results of these third-party valuations, our board of directors considered various objective and subjective factors to determine the fair value of our equity instruments as of each grant date, which may be later than the most recently available third-party valuation date, including:

- the lack of liquidity of our equity as a private company;
- the prices of our preferred units and convertible preferred stock sold to outside investors in arm's length transactions and the rights, preferences and privileges of our preferred units and convertible preferred stock as compared to those of our common units and common stock, including the liquidation preferences of our convertible preferred stock;
- the progress of our research and development efforts, including the status of preclinical studies for our product candidates;
- our stage of development and business strategy and the material risks related to our business and industry;
- the achievement of enterprise milestones, including entering into strategic collaborative and license agreements;
- the valuation of publicly traded companies in the life sciences and biotechnology sectors, as well as recently completed mergers and acquisitions of peer companies;
- any external market conditions affecting the biotechnology industry and trends within the biotechnology industry;
- the likelihood of achieving a liquidity event, such as an initial public offering or a sale of our company, given prevailing market conditions; and
- the analysis of initial public offerings and the market performance of similar companies in the biotechnology industry.

For financial statement purposes, we performed common unit valuations at various dates, which resulted in valuation of our common units of $0.22, $0.47 and $0.58 per unit as of May 2019, February 2020, and May 2020, respectively. We performed common stock valuations at various dates, which resulted in valuation of our common stock of $0.58, $0.62, $0.70 and $1.06 per share as of July 2020, January 2021, March 2021 and May 2021, respectively. There are significant judgments and estimates inherent in these valuations. These judgments and estimates include assumptions regarding our future operating performance, the stage of development of our product candidates, the timing and probability of a potential initial public offering or other liquidity event and the determination of the appropriate valuation methodology at each valuation date. The assumptions underlying these valuations represent management's best estimates, which involve inherent uncertainties and the application of management judgment. As a result, if factors or expected outcomes change and we use significantly different assumptions or estimates, our equity-based compensation expense could be materially different.

Once a public trading market for our common stock has been established in connection with the consummation of this offering, it will no longer be necessary for our board of directors to estimate the fair value of our common stock in connection with our accounting for granted stock options and restricted stock awards, as the fair value of our common stock will be determined based on the trading price of our common stock on the Nasdaq Global Market.

The following table summarizes by grant date and type of award, the number of equity-based awards granted between January 1, 2019 and the date of this prospectus, the per share exercise price, the fair value of common stock on each grant date and the per share estimated fair value of the awards:

Grant Date	Type of Award	Number of Units or Shares Subject to Awards Granted	Per Unit Strike Price or per Share Exercise Price	Fair Value of Common Unit or Stock on Grant Date	Per Unit or Share Estimated Fair Value of Awards on Grant Date[1]
February 19, 2019	Incentive Unit	305,000	$ 0.09	$ 0.09	$ 0.06
March 28, 2019	Incentive Unit	20,000	$ 0.09	$ 0.09	$ 0.06
June 14, 2019	Incentive Unit	2,653,635	$ 0.11	$ 0.22	$ 0.16
September 20, 2019	Incentive Unit	185,000	$ 0.11	$ 0.22	$ 0.16
March 12, 2020	Incentive Unit	4,864,906	$ 0.15	$ 0.47	$ 0.38
July 23, 2020	Stock option	8,149,735	$ 0.58	$ 0.58	$ 0.31 – 0.39
February 8, 2021	Stock option	848,387	$ 0.62	$ 0.62	$ 0.43 – 0.44
March 11, 2021	Stock option	14,319,412	$ 0.62	$ 0.62	$ 0.43 – 0.51
March 29, 2021	Stock option	3,622,528	$ 0.70	$ 0.70	$ 0.50
April 1, 2021	Stock option	433,724	$ 0.70	$ 0.70	$ 0.50
April 8, 2021	Stock option	1,062,082	$ 0.70	$ 0.70	$ 0.50
April 15, 2021	Stock option	1,062,082	$ 0.70	$ 0.70	$ 0.50

(1) The estimated fair value per share of the awards represents our measurement of the weighted-average fair value of option grants using the Black-Scholes model and does not reflect any subsequent modifications of the awards that may have occurred.

Emerging Growth Company Status

As an emerging growth company, or EGC, under the Jumpstart Our Business Startups Act of 2012, or JOBS Act, we may delay the adoption of certain accounting standards until such time as those standards apply to private companies. Other exemptions and reduced reporting requirements under the JOBS Act for EGCs include presentation of only two years of audited financial statements in a registration statement for an IPO, an exemption from the requirement to provide an auditor's report on internal controls over financial reporting pursuant to Section 404(b) of the Sarbanes-Oxley Act of 2002, an exemption from any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation, and less extensive disclosure about our executive compensation arrangements.

In addition, the JOBS Act provides that an EGC can take advantage of an extended transition period for complying with new or revised accounting standards. This provision allows an EGC to delay the adoption of some accounting standards until those standards would otherwise apply to private companies. We have elected not to "opt out" of such extended transition period, which means that when a standard is issued or revised and it has different application dates for public or private companies, we can adopt the new or revised standard at the time private companies adopt the new or revised standard and may do so until such time that we either (1) irrevocably elect to "opt out" of such extended transition period or (2) no longer qualify as an emerging growth company. As a result, our financial statements may not be comparable to companies that comply with new or revised accounting pronouncements as of public company effective dates.

We may remain classified as an EGC until the end of the fiscal year in which the fifth anniversary of this offering occurs, although if the market value of our common stock that is held by non-affiliates exceeds $700 million as of any June 30 before that time or if we have annual gross revenues of $1.07 billion or more in any fiscal year, we would cease to be an emerging growth company as of December 31 of the applicable year. We also would cease to be an EGC if we issue more than $1 billion of non-convertible debt over a three-year period.

Recent Accounting Pronouncements

For a description of recent accounting pronouncements, see Note 2 of the notes to our consolidated financial statements for the year ended December 31, 2020 appearing elsewhere in this prospectus.

Quantitative and Qualitative Disclosures About Market Risks

Interest Rate Fluctuation Risk

We are not currently exposed to significant market risk related to changes in interest rates. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates, particularly because our cash and cash equivalents are primarily held in FDIC insured accounts within various U.S. banking institutions and we have a note payable. An immediate change in market interest rates of 100 basis points would not have a material impact on the fair market value of our cash and cash equivalents balance, note payable or on our financial position or results of operations.

Foreign Currency Fluctuation Risk

We are not currently exposed to significant market risk related to changes in foreign currency exchange rates; however, we have contracted with and may continue to contract with foreign vendors. Our operations may be subject to fluctuations in foreign currency exchange rates in the future.

Inflation Fluctuation Risk

Inflation generally affects us by increasing our cost of labor and certain services. We do not believe that inflation had a material effect on our financial statement included elsewhere in this prospectus.

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BUSINESS

Overview

We are a biotechnology company focused on harnessing the immune system to achieve deep and durable clinical responses to improve the lives of patients with cancer. We have built our geographically precise solutions, or GPS, platform to rapidly engineer novel molecules, including cytokines and other biologics, that are designed to optimize their therapeutic index. Current immuno-oncology, or I-O, therapies have curative potential for patients with cancer; however, their potential is significantly curtailed by systemic toxicity that results from activity of the therapeutic molecule outside the tumor microenvironment, or TME. Our molecules are engineered to localize activity within the TME without systemic effect, resulting in the potential to achieve enhanced anti-tumor activity. We are advancing a number of geographically precise, or tumor-selective, agents through various stages of development. Our most advanced cytokine product candidate is XTX202, an interleukin 2, or IL-2, therapy currently in investigational new drug application, or IND, enabling studies. We plan to submit an IND to the U.S. Food and Drug Administration, or FDA, in to evaluate XTX202 in patients with solid tumors. Our checkpoint inhibitor product candidate is XTX101, an anti-cytotoxic T-lymphocyte-associated protein 4, or anti-CTLA-4, monoclonal antibody for which we recently submitted an IND to the FDA. If the IND is cleared, we plan to initiate a Phase 1 clinical trial in to evaluate XTX101 in patients with solid tumors. In addition, we are advancing our tumor-selective IL-12 and IL-15 molecules, XTX301 and XTX401, through preclinical development.

Our focus is to improve upon two of the foundational mechanisms of I-O: cytokines and checkpoint inhibitors. Since the 1980s, cytokines have been explored as a cancer therapy due to their ability to carry messages between cells and serve as master regulators of the body's response to inflammation and immune attack. Although cytokines have demonstrated the ability to generate sustained complete responses, or CRs, and compelling clinical efficacy in certain tumors, their use is limited by severe systemic toxicity. Similar to cytokines, checkpoint inhibitors have shown the potential to provide meaningful improvements in survival for patients with cancer, but the utilization of these therapies, beyond those that target the immune proteins PD-1 or PD-L1, is also limited largely by toxicity.

Our goal is to overcome the limitations of current I-O therapies by developing products with an improved efficacy-to-toxicity ratio, or therapeutic index. The toxicities for cytokines and checkpoint inhibitors stem from their activity outside of the TME. Our GPS platform is designed to overcome these systemic toxicities by creating tumor-selective molecules and unleashing the potential of cytokines and checkpoint inhibitors in the TME. These molecules are intended to be inactive until they reach the TME, where they are activated, resulting in localized clinical activity without dose-limiting toxicities, or DLTs. To achieve this tumor selectivity, we apply our GPS platform, which includes engineered features and a proprietary protein masking technology that render our molecules inactive until reaching the tumor. Our GPS platform also enables regulated pharmacokinetics, or PK, and protease-dependent activation, resulting in geographically localized anti-tumor activity. The engineered features are designed to ensure that our product candidates are stable molecules with well-understood properties and a reproducible manufacturing approach.

Leveraging our GPS platform, we are building a pipeline of tumor-selective cytokine and checkpoint inhibitor programs. We have worldwide development and commercialization rights to all of our product candidates.

Our most advanced cytokine is XTX202, an engineered form of IL-2 that is masked with a protein domain to prevent binding activity until cleaved off by TME-associated proteases. In preclinical studies, we observed that XTX202 was activated in a protease-dependent manner, exhibited tumor growth inhibition and was well-tolerated. We plan to submit an IND to the FDA in to evaluate XTX202 in patients with solid tumors and, if cleared, promptly initiate a Phase 1/2 clinical trial in multiple tumor types. In addition, assuming we successfully complete the Phase 1 trial and determine the recommended Phase 2 dose, or RP2D, for XTX202, we plan to initiate clinical trials of combinations with standard-of-care agents to assess the ability to optimally dose XTX202 in combination with a therapeutic dose of standard-of-care treatments.

Leveraging our experience with XTX202, we are applying our GPS platform to known cytokines that we believe have attractive therapeutic potential but that have been unable to achieve regulatory approval to date. The next cytokine product candidates we are developing are XTX301 and XTX401, which are engineered tumor-selective IL-12 and IL-15 molecules, respectively. In preclinical models, both product candidates

exhibited tumor-selective activity with minimal peripheral effects. Notably, XTX301 showed tumor growth inhibition in mouse models and was well-tolerated in multi-dose studies in non-human primate, or NHP, models. We are advancing XTX301 and XTX401 through preclinical development.

Beyond our cytokine programs, we are developing XTX101, a Phase 1-ready tumor-selective anti-CTLA-4 monoclonal antibody, or mAb, that is designed to improve upon the therapeutic index of existing anti-CTLA-4 therapies. Using our GPS platform, we have engineered XTX101 to enhance the desirable features of an anti-CTLA-4 antibody while limiting its known liabilities. We recently submitted an IND for the initiation of a Phase 1 clinical trial. Our planned Phase 1 dose-escalation trial in the monotherapy and anti-PD-1 combination settings will assess the tolerability of XTX101 at the target dose with the goal of establishing an RP2D both as a monotherapy and in combination with an anti-PD-1. Given the significant size of the opportunity and the trials required to develop XTX101, we plan to seek potential collaboration opportunities with a company developing an anti-PD-1 during our Phase 1 clinical trial and develop XTX101 with that collaborator.

We intend to develop a number of product candidates that mimic or modify the activity of critical I-O therapies to improve both their therapeutic activity and their tolerability, with the goal of achieving a clinically meaningful improvement in their therapeutic index. We also plan to evaluate opportunities for better tolerated and more efficacious combination therapies, using product candidates from across our portfolio with other cancer therapies, to increase the potential for curative regimens in oncology. Beyond oncology, we also plan to apply our GPS platform to other disease areas in which the immune system is dysregulated.

Our History and Team

We believe that the collective track record of our executive team, scientific advisory board, or SAB, and talented employees positions us to successfully bring therapies from discovery through development and ultimately, if approved, to commercialization.

We have attracted a diverse executive leadership team comprised of industry professionals and scientists with extensive expertise in building and leading successful biotech companies. Collectively, members of our executive team have contributed significantly to the filing of over 40 INDs and over 30 new drug applications, or NDAs, supplemental NDAs and biologics license applications, or BLAs, including for ground-breaking cancer treatments such as pembrolizumab, tivozanib, dostarlimab, niraparib, olaparib, lenvatinib, docetaxel and trastuzumab. Our executive leadership includes our president and chief executive officer, René Russo, Pharm.D., who has over 20 years of experience leading all aspects of research and development, or R&D, and commercialization in the biotechnology industry, including six successful commercial products, with leadership roles at Adagio Therapeutics, Inc. as founder and chair of the board, Arsanis, Inc. as president and chief executive officer, Cubist Pharmaceuticals, Inc. and Bristol-Myers Squibb Company. Martin Huber, M.D., our chief medical officer, is a medical oncologist trained at the University of Texas M.D. Anderson Cancer Center, who has over 25 years of experience in R&D and commercialization in the pharmaceutical and biotechnology industries and has led multiple cancer immunotherapy programs, including at Tesaro, Inc., Merck & Co., Inc. and F. Hoffman-La Roche AG. Rónán O'Hagan, Ph.D., our chief scientific officer, brings 25 years of oncology R&D experience including at Merck & Co., Inc. and Aveo Pharmaceuticals, Inc. as a founding scientist. Li Malmberg, our chief technology and manufacturing officer, brings 25 years of scientific and executive leadership experience managing technical operations and chemistry manufacturing and controls strategy from preclinical development through commercial launch of small molecules and biologics including at Magenta Therapeutics, Inc., Celgene Corporation and AbbVie. Our chief financial officer, Salvatore Giovine, has nearly 20 years of financial leadership and management experience, primarily with Johnson & Johnson, the majority of which was with its Janssen Biotech, Inc. division.

In addition to our executive team, we have established an SAB comprised of leading experts in the fields of oncology, immunology, human genetics, cytokines, protease biology, translational oncology and cancer drug development: Chris Hunter, Ph.D., Deborah Charych, Ph.D., Jamie Spangler, Ph.D., Kwok Wong, M.D., Ph.D., Andy Minn, M.D., Ph.D., Jason Luke, M.D. and Anthony O'Donoghue, Ph.D.

Since our founding, we have raised over $225 million in capital from premier venture capital funds, healthcare-dedicated funds and other leading investors that share our vision of transforming the lives of patients with cancer, including Atlas Venture, Bain Capital Life Sciences, Deerfield Management Company, F-Prime

Capital, MRL Ventures Fund, RA Capital Management, RiverVest Venture Partners, Rock Springs Capital, SV Health Investors and Takeda Ventures.

Our Strategy

Our vision is to transform the lives of patients with cancer by harnessing the power of highly potent, tumor-selective I-O therapies that deliver deep and durable clinical responses. By leveraging our GPS platform, we aim to discover, develop and, ultimately, commercialize I-O therapies that overcome the known limitations of today's approaches and provide effective, tolerable and durable therapeutic options for patients and their physicians. In order to achieve our goal, the key elements of our strategy are to:

- **Efficiently advance our most advanced cytokine product candidate, XTX202, through clinical development for multiple cancer indications as both a monotherapy and a combination agent.** Using our GPS platform, we engineered and are developing XTX202, a novel, modified form of IL-2 that is masked with a protein domain to prevent binding activity until cleaved off by TME-associated proteases. In preclinical mouse models, XTX202 was observed to have comparable tumor growth inhibition to aldesleukin, an FDA-approved IL-2, and non-masked IL-2, while avoiding mortality and body weight loss. Due to its mechanism of action and opportunity to deliver tumor-directed activity while minimizing the risk of off-tumor effects, we plan to explore the therapeutic utility of XTX202 for the treatment of solid tumor indications. We plan to submit an IND to the FDA in to evaluate XTX202 in patients with solid tumors and, if cleared, promptly initiate a Phase 1/2 clinical trial in multiple tumor types. We plan to focus on establishing safety and efficacy of XTX202 as a monotherapy prior to advancing it in further development in combination with standard-of-care agents. If we receive positive findings from the Phase 1/2 trial, and subject to discussions with regulatory authorities, we intend to efficiently advance XTX202 into registration-enabling clinical trials both as a monotherapy and as a combination therapy initially for the treatment of renal cell carcinoma, or RCC, and melanoma prior to potential expansion into additional cancer indications.
- **Progress our preclinical cytokine product candidates, XTX301 and XTX401, into and through clinical development.** Leveraging our experience with XTX202, we are applying our GPS platform to known cytokines that we believe have attractive therapeutic potential but that have been unable to achieve regulatory approval to date. As part of our strategy, we are developing XTX301 and XTX401, which are engineered tumor-selective IL-12 and IL-15 molecules, respectively. In preclinical models, both product candidates exhibited tumor-selective activity with minimal peripheral effects. Notably, XTX301 showed tumor growth inhibition in mouse models and was well-tolerated in multi-dose studies in NHP models. Based on the strength of our existing preclinical data, we are advancing XTX301 with the goal of submitting an IND in and are pursuing IND-enabling studies of XTX401.
- **Broadly expand our portfolio by applying the versatility and reproducibility of our GPS platform to develop novel therapies.** We have prioritized efforts to develop novel cytokine therapies based on the therapeutic activity of cytokines established in other clinical trials, while recognizing that the benefit of these cytokines has been historically hampered by issues of short half-life, poor bioavailability and significant toxicity. By leveraging the insights and capabilities of our platform and our leadership team, we aim to systematically create novel molecules, including cytokines and other biologics, that overcome these challenges to safely localize their potent activity to the TME. We believe that our GPS platform, which enables us to develop molecules with the potential to trigger anti-tumor immunity while limiting systemic exposure to improve tolerability, is broadly applicable in oncology. As a result, we intend to develop additional product candidates that mimic or modify the activity of critical I-O therapies to improve both their therapeutic activity and tolerability. We plan to continue to invest in our innovative GPS platform and in our team to further expand our capabilities to engineer, manufacture and develop potentially more effective and less toxic therapies.
- **Realize the full potential of our checkpoint inhibitor product candidate, XTX101.** Our tumor-selective anti-CTLA-4 antibody, XTX101, is designed to improve upon the therapeutic index of existing anti-CTLA-4 therapies. In order to achieve this, we use a complementarity determining region, or CDR, mask to impose tumor-localization upon enhanced antibody binding. In preclinical models, we observed tumor-selective activity and tumor growth inhibition superior to that of an ipilimumab analog. Based on our preclinical studies, we believe that XTX101 could be an attractive combination

candidate with an anti-PD-1 agent and may require a broad clinical program. We recently submitted an IND to the FDA to evaluate XTX101 in patients with solid tumors. If the IND is cleared, we plan to initiate a Phase 1 clinical trial in . We also plan to explore opportunities for a potential collaboration that could expedite late-stage development of XTX101 and support its future commercialization, if approved.

- **Build a fully integrated immuno-oncology company by independently commercializing approved products in indications and key geographies where we believe we can maximize our product candidates' value.** We currently own all worldwide development and commercial rights to our product candidates and programs, which we believe have been optimally selected based on our extensive preclinical data, including data with disease-specific animal models and biomarkers, supporting their potential for clinical success. To maximize the full potential and value of our pipeline, we intend to retain key development and commercialization rights for our product candidates in indications and geographies that we believe we can ultimately commercialize successfully on our own, if approved.
- **Leverage the broad applicability of our GPS platform through strategic collaborations.** We believe the collective components of our GPS platform and the reproducibility it enables in our drug discovery and development efforts present a meaningful opportunity for us to leverage our GPS platform in multiple therapeutic areas. Accordingly, we plan to explore strategic collaborations that would enable us to accelerate the development of additional product candidates or programs as well as expand our capabilities, pipeline opportunities and product offerings in cancer and other therapeutic areas, particularly where a collaborator may have synergistic or additive capabilities to our own.

About I-O

The discovery of a role for immunotherapy in the treatment of cancer was made more than 100 years ago, when William Coley treated patients with heat-treated bacterial toxins, resulting in a profound anti-tumor effect in some of those patients. Two of the most important mechanisms within I-O are checkpoint inhibitors and cytokines, with cytokine therapies having been introduced in the 1980s and checkpoint inhibitors in the period after 2011, when the first such product was approved. Both therapeutic approaches are known to provide efficacy in terms of clinical responses and tumor shrinkage. However, toxicities have limited the application of these therapies, resulting in the need to dose-reduce, dose-interrupt or discontinue many patients from treatment. Immune checkpoint inhibitors are associated with immune-related adverse events, or AEs, that may affect any organ system and may be life-threatening or fatal to patients. Cytokines are associated with broad ranging multi-organ toxicities that can be lethal and have limited the development of this class of potential therapies. Anti-PD1 checkpoint inhibitors have been used broadly due to the fact that they achieve efficacy with limited systemic toxicity, enabling their administration at their maximally effective doses. Anti-PD-1 treatments have been the most widely utilized immunotherapy agent in oncology, with FDA approvals in more than a dozen separate tumor types and $27 billion in 2020 worldwide sales. It is our mission to overcome the limitations of other checkpoint inhibitors and cytokine therapies and make immunotherapies beyond anti-PD-1 treatments more accessible, efficacious and safe for patients with cancer.

The promise and limitations of cytokines

Cytokines are small proteins that carry messages between cells and serve as master regulators of the body's response to inflammation and immune attack. There are multiple cytokines, including interferon alpha (α), beta (β) and gamma (γ), as well as IL-2, which are approved in a range of oncology and non-oncology indications. Interferon α was first approved in 1986 for the treatment of patients with hairy cell leukemia and was subsequently approved in a range of oncology indications including malignant melanoma, chronic myeloid leukemia and follicular lymphoma. Aldesleukin, a high-dose IL-2 therapy, was first approved in 1992 as a monotherapy for patients with melanoma and RCC. In addition, interferons have shown the potential for cytokines beyond oncology with approvals for the treatment of patients with multiple sclerosis, resulting in cytokines becoming a key treatment option for a range of conditions. However, cytokines have not achieved therapeutic success in a broad population of patients because their use has been limited by severe toxicity, including fatal outcomes.

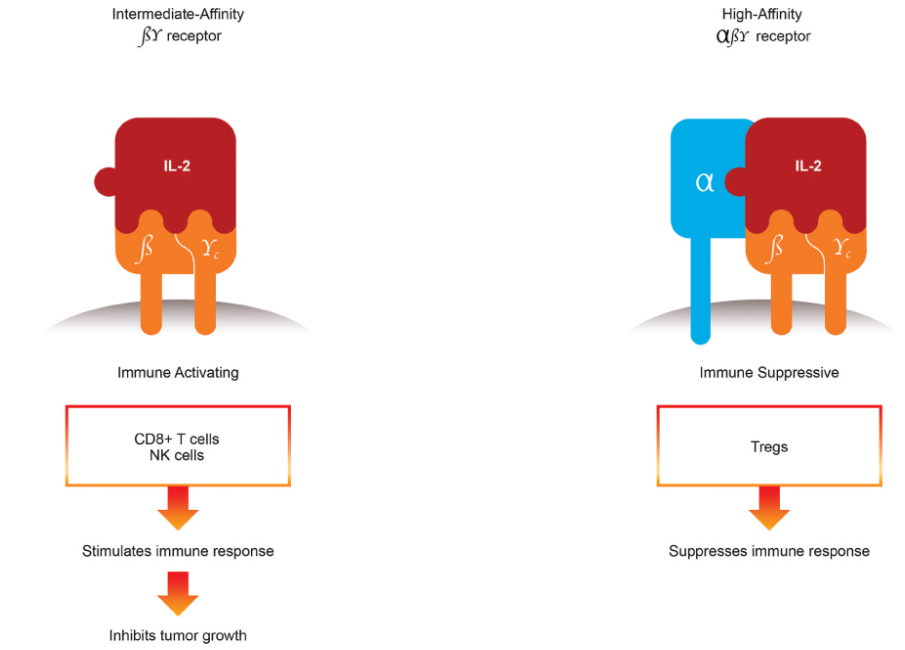
IL-2: Extensive clinical evidence of the promise and limitations of cytokines

The best example of the challenge of cytokines remains IL-2, for which there is both the promise of curative efficacy and the potential for life-threatening toxicity. In 1984, Dr. Steven Rosenberg, a physician and cancer researcher at the National Cancer Institute, treated a 33-year-old woman who was severely ill with metastatic melanoma and had progressed through multiple prior treatments with a recombinant form of IL-2, which led to significant tumor shrinkage. The patient went into full remission soon afterward and remained cancer-free for decades. This and other early applications of IL-2 in cancer ushered in a new era for using cytokines to slow or even reverse tumor growth.

The application of cytokines to treat cancer fits with the role these signaling molecules have evolved to play in the body. Many key cytokines, including IL-2, regulate the immune system, and it is now recognized that there are immune stimulatory cytokines, immune suppressive cytokines and cytokines that have multiple activities on different target cell types. IL-2 is a master regulator of immune responses and has been investigated extensively as a potential anti-cancer immunotherapy. IL-2 supports the function, survival and proliferation of T cells, including the subset of T cells known as CD8+ T cells that are most closely linked to anti-tumor immunity.

As shown in the figure below, the activities of IL-2 are driven by two classes of receptor complexes, the high-affinity αβγ receptor that contains three subunits and the intermediate-affinity βγ receptor that lacks the α-chain, a receptor known as CD25. The receptor complexes are differentially expressed on different cell types. The immune activating CD8+ T cells and natural killer, or NK, cells primarily express βγ, and the immune suppressive regulatory T cells, or Tregs, express the αβγ receptor. A wild-type IL-2 binds preferentially to the αβγ receptor and therefore strongly stimulates Tregs, thus limiting the immune activating effect of wild-type IL-2. Moreover, the presence of the high affinity αβγ receptor on Tregs allows these cells to act as scavengers of wild-type IL-2 and reduce the availability of wild-type IL-2 for stimulation of CD8+ or NK cells. By contrast, non-α IL-2 does not bind to the α receptor component of the αβγ complex and therefore binds equally to CD8+, NK and Treg cells. This shifts the balance of activity for non-α IL-2 away from Tregs and allows more effective activation of CD8+ and NK cells. In addition, non-α IL-2 is not subject to scavenging by Tregs since it does not bind to the αβγ high affinity receptor and only binds to the intermediate affinity βγ receptor. By not being subject to scavenging by Tregs, the levels of non-α IL-2 are not reduced. Therefore, non-α IL-2 is available at higher concentrations to activate signaling through the βγ receptor on CD8+ and NK cells. As a result, non-α IL-2 is expected to be more effective at promoting anti-tumor immune response and thus inhibiting tumor growth than a wild-type IL-2.

Avoiding IL-2 Receptor α Reduces Immune Suppression and Supports Immune Activation

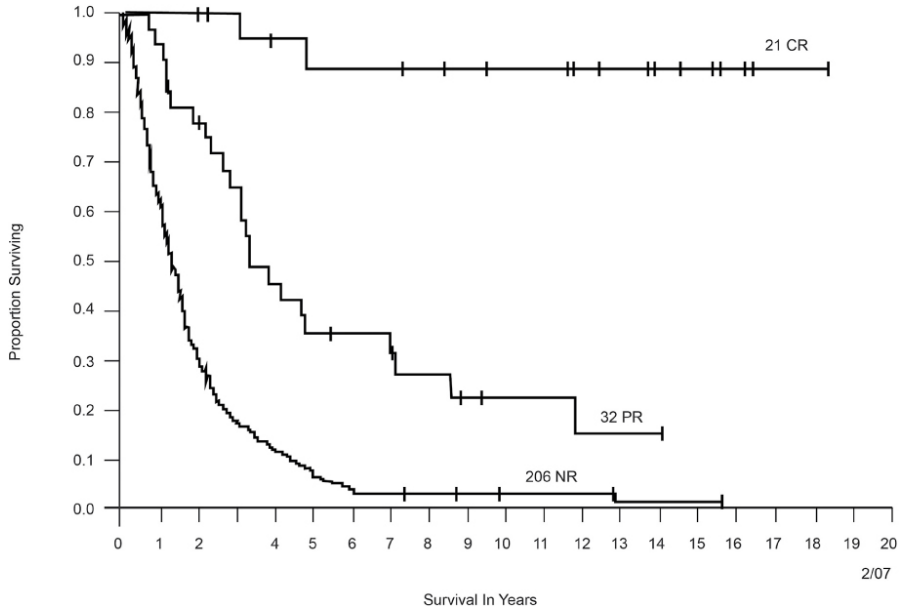


Adapted from Border (2012) Nature

IL-2 also stimulates a variety of other immune cells, including NK cells, monocytes and macrophages, either directly or indirectly by inducing T cell secretion of potent cytokines such as tumor necrosis factor, or TNF, and interferon-gamma, or IFN-γ. Due to its many immune-system-stimulating activities, therapeutic IL-2 has shown efficacy in diverse cancers. High-dose IL-2 has been approved in metastatic RCC and melanoma and can result in durable CRs and even cures. Specifically, the approved IL-2 treatment aldesleukin produced overall response rates of 15-16% in metastatic RCC and metastatic melanoma in clinical trials. Remarkably, 6% to 7% of patients achieved CR and functional cures.

As shown in the figure below, which is a Kaplan-Meier survival analysis, high-dose IL-2 resulted in long-term survival in a subset of patients who had achieved a CR. We believe that patients who develop a CR when treated with high-dose IL-2 are highly likely to achieve a long-term durable response or cure.

Survival of Patients Who Achieved a CR with High-Dose IL-2



Historical use of IL-2 in cancer has been accompanied by severe toxicity

The power of IL-2 is promising, but it has been greatly reduced due to toxicities. When administered locally, IL-2 has been shown to be clinically active and well-tolerated, shrinking local cancerous lesions and reducing malignant effusions. However, when administered systemically, treatment with IL-2 has been shown to induce severe toxicities, including vascular leak syndrome, or VLS, myocardial infarction, or heart attack, acute renal failure and immune-mediated neuropathy. This toxicity profile greatly limits its current use.

In order to localize IL-2, many groups have tried linking IL-2 to tumor-targeting mAbs, creating fusion proteins. These fusion proteins can accumulate in a tumor and create locally high IL-2 concentrations. However, the use of cytokine fusion proteins has not prevented systemic toxicity because the long circulating half-life of antibody fusions and unexpected cleavage of IL-2 from the antibody domain has contributed to high systemic IL-2 levels in some cases.

The toxicities associated with early IL-2 therapies, such as aldesleukin, are hypothesized to be associated in part with binding and signaling through the high affinity αβγ IL-2-receptor on immune cells or vascular endothelial cells. In addition, as noted previously, the αβγ IL-2-receptor is expressed at high levels on Tregs that act to inhibit the immune response, whereas the intermediate affinity βγ IL-2 receptor is expressed on cells that promote immune response including CD8+ T cells and NK cells.

Modeling of IL-2 activity in preclinical animal tumor models and evaluation of dosage and dose-frequency data from patients has suggested that IL-2 has a steep dose-activity curve, with reduced exposure impacting both efficacy and toxicity. Therefore, IL-2 anti-tumor activity and toxicity are both dependent on the amount of IL-2 administered. As such, engineering a form of IL-2 that can minimize the systemic effects while harnessing and directing the activity to the TME is the goal to benefit patients.

With validation in IL-2, we believe that addressing severe toxicities while maintaining clinical activity can be applied to multiple other cytokines, including IL-12 and IL-15, which have demonstrated clinical activity but remain limited by severe toxicities.

The promise and limitations of checkpoint inhibitors

Checkpoint inhibitors have become mainstays in cancer therapy since the FDA approved ipilimumab, an anti-CTLA-4 therapy, in 2011. As has been observed with cytokines, checkpoint inhibitors have shown the potential to provide meaningful improvements in survival for patients with cancer, but the utilization of these therapies has been limited largely by toxicities. These toxicities, which can be life-threatening or fatal, have resulted in the need to dose-reduce, dose-interrupt or discontinue many patients from treatment. As noted earlier, anti-PD-1 checkpoint inhibitors have been used broadly due to the fact that they achieve efficacy with limited systemic toxicity, enabling their administration at their maximally effective doses. The clinical benefit of CTLA-4 blockade to patients with cancer is well-established; however, efficacy of current therapies is impaired by DLTs arising from systemic immune activation. This has reduced the use of anti-CTLA-4 mAbs both as a monotherapy and in combination therapy.

I-O Combinations

The ability to combine oncology agents has been an important step in developing effective cancer regimens. Combination chemotherapy can be curative in settings where single agents have had limited efficacy and were not considered curative. The substantial DLT associated with I-O agents has prevented these agents from being combined effectively. The ultimate promise of I-O for patients is dependent upon the ability to develop I-O agents that can be combined at their optimal doses without life-threatening toxicity. The severe toxicity of IL-2 has limited the ability to combine IL-2 with other cancer treatments without compromising the dose administered. Ipilimumab has been combined with anti-PD-1 agents. The combination of ipilimumab with nivolumab, which targets the immune checkpoint protein PD-1, was associated with improved clinical outcomes but was limited by significantly higher risk of all-grade and high-grade immune-related AEs such as pruritus, rash, diarrhea, colitis, elevation of the liver enzyme alanine transaminase, known as ALT, hyperthyroidism, hypophysitis and pneumonitis. Of note, combination therapy generally requires use of low dose ipilimumab at 1 mg/kg rather than the more efficacious dose of 10mg/kg. Even at the lower dose, ipilimumab combination therapy is poorly tolerated, with AEs causing up to 80% of patients to discontinue treatment, up to 50% of patients requiring emergency room visits and up to 36% of patients requiring hospitalization. The potential of our GPS-enabled molecules to mitigate the systemic toxicity of I-O could allow us to combine I-O agents to meaningfully improve survival in a broader range of tumor types.

Our GPS Platform

I-O therapies have curative potential for patients with cancer. However, this potential is significantly curtailed by DLTs that result from activity of the therapeutic molecule outside the TME. We believe that geographic localization of the activity of I-O agents to the TME can overcome these DLTs and enable maximal therapeutic benefit for patients. Tumor-selective activity could be achieved by harnessing unique characteristics of the TME to activate therapeutic molecules locally that remain inactive outside of the TME.

Matrix metalloproteases, or MMPs, are enzymes involved in protein degradation that are essential for tumor growth and metastasis because they regulate key processes within the TME, including growth, survival, angiogenesis, invasion and metastasis. MMPs are preferentially active in the TME by comparison to non-tumor organs or tissues. As a result, MMP activity can be leveraged to activate molecules within the TME that remain inactive outside the TME. This has been validated by the MMP activated imaging agent AVB-620, which selectively highlights tumor tissue in human clinical studies and has received Breakthrough Therapy Designation from the FDA as a diagnostic. Similarly, our GPS platform harnesses MMPs to activate therapeutic molecules selectively within the TME while allowing them to remain inactive outside of the TME.

Our GPS platform enables us to engineer a broad range of immune-modulatory molecules, including cytokines and antibodies, that contain masking domains that render these molecules inactive outside of the TME. The molecules are then designed to be turned on selectively in the TME where they are activated by the unique conditions in the TME, including the preferential activity of MMPs. Specifically, MMPs cleave a linker that connects the masking protein domain to the active agent. This separates the mask from the active agent, enabling the unmasked agent to promote an anti-tumor response within the TME.

Key features of our tumor-selective molecules exemplify the engineering approach that underpins our GPS platform. Each feature contributes to multiple characteristics of the molecule that are designed to enable

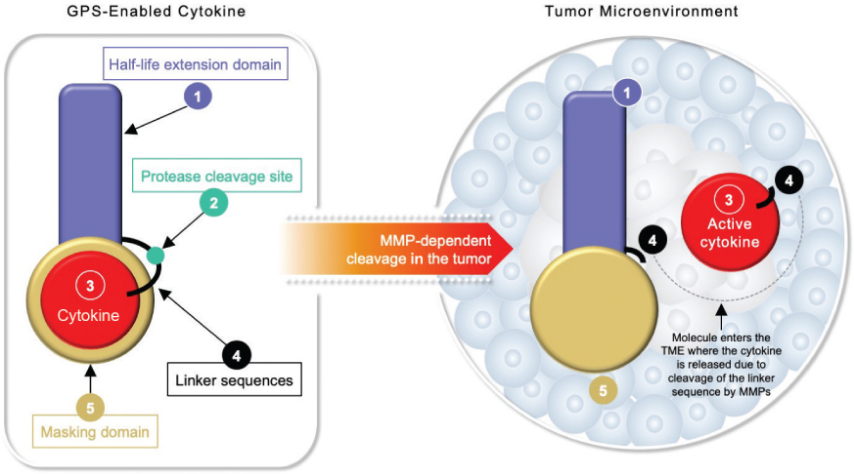
tumor selective biological activity and tumor growth inhibition without toxicity outside of the TME. The general architecture of a GPS-enabled molecule is:

- a masking domain;
- a half-life extension domain;
- linker sequences;
- a protease cleavage site; and
- the active engineered molecule.

The engineered features are designed to ensure that our product candidates are stable molecules with well-understood properties and a reproducible manufacturing approach. In preclinical studies, we have successfully applied our GPS platform to cytokines and antibodies that regulate immune checkpoints in order to promote localized anti-tumor immune responses, while avoiding the DLTs associated with systemic immune responses.

In the graphic below, an illustrative cytokine product candidate on the left contains a masking domain that is released by protease cleavage. The half-life extension domain is shown in blue, the masking domain in tan and the active cytokine in red. When the linker sequences, shown in black, which contain a protease-cleavage site, shown in green, are cleaved by proteases, the masking domain is released, allowing the cytokine to bind to the target receptors. Before cleavage by the MMP in the TME, the cytokine is inactive outside the TME. Specifically, there is no binding to target receptors and the molecule has a long half-life outside the TME. After cleavage in the TME, the cytokine is locally activated and has a short half-life. These design features also enhance intrinsic stability of the molecule and facilitate manufacturing.

Key Features of Our GPS-Enabled Cytokines



As shown in the graphic above, the structural components comprising our GPS platform work synergistically to improve the therapeutic index of our product candidates.

- **Masking Domain.** The masking domain is a protein domain that is selected for optimal masking outside of the TME and allows efficient activation upon cleavage by a protease within the TME. Masking of the cytokine is designed to prevent binding to its cognate receptor on immune cells, thereby inhibiting biological activity outside the TME. In addition, the masking domain contributes to improved PK properties and a longer half-life for the inactive molecule by reducing target mediated drug disposition.

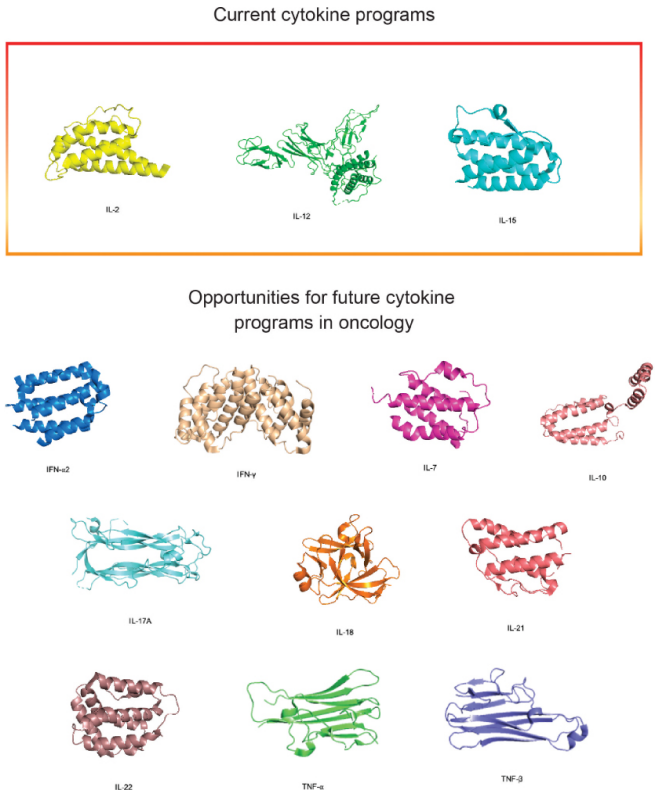
- **Half-Life Extension Domain.** The half-life extension domain is designed to overcome the short circulating half-life of native cytokines such that the inactive masked cytokine circulates for a prolonged period while outside of the TME. Within the TME, where certain proteases are preferentially active, these proteases cleave the masked cytokine and release an active form of the cytokine that has a short half-life. This ensures that the active cytokine behaves locally in the tumor, similar to native cytokines, while restricting the cytokine's activity to the TME.
- **Linker Sequences.** Linker sequences connect the cytokine and the mask to the half-life extension domain and are selected to optimize masking and stability of the molecule.
- **Protease Cleavage Site.** A protease cleavage site within a linker sequence allows cleavage by a subset of proteases, particularly MMPs, unmasking the cytokine and allowing it to affect its engineered immune activity. We tailor the protease site for optimal masking and subsequent activation of the cytokine in the TME. Biochemical, cell-based and *ex vivo* functional studies have demonstrated, with a subset of MMPs, efficient and full cleavage and complete rescue of cytokine activity and selective activation of the masked cytokines in the TME by comparison to non-tumor tissues. These data have been further substantiated by *in vivo* studies in mice and NHPs that demonstrate cytokine activity in the TME, but not outside of the TME, and also demonstrate the tumor-selective activation of the protease sites incorporated into GPS-enabled cytokines.
- **Cytokine.** The cytokine itself is engineered for enhanced potency through sequence alterations that improve biological activity such as biased agonism of immune activating receptors, improved stability or improved PK properties. For example, XTX202 includes IL-2 that is engineered to eliminate binding to the α IL-2-receptor, or non-α IL-2. This is intended to reduce the efficiency of signaling through the αβγ receptor to match that of the βγ receptor and shift the balance of IL-2 away from the suppressive activity of Treg cells and toward promoting an anti-tumor immune response through CD8+ and NK cells. The use of non-α IL-2 also avoids scavenging of the active IL-2 by Tregs in the TME, thereby facilitating more active non-α IL-2 to stimulate CD8+ and NK cells than would be the case if wild-type IL-2 were used. Our preclinical data have demonstrated that masked non-α IL-2 achieves the same degree of tumor growth inhibition in mice as a masked wild-type IL-2 that is competent for binding to the IL-2-receptor. Recent clinical observations of objective responses in patients with a systemic non-α IL-2 molecule validate the clinical approach. Similarly, when applying our GPS platform to antibodies or other mechanisms, we also engineer them with the goal of enhancing activity.

We believe that the characteristics of our GPS platform described above enable the following key advantages for cytokines:

- masking that takes advantage of multiple intra-molecular interactions, minimizing the risk of activity outside of the TME and therefore the risk of toxicity;
- half-life extending inactive molecules to support administration to patients on a schedule consistent with other biologics agents;
- locally activating cytokine molecules that have a short half-life in the TME, which reduces the risk of the released cytokine exhibiting activity outside of the TME and, therefore, further reduces the risk of toxicity;
- engineering the active molecule such that unmasking in the TME promotes a potent anti-tumor immune response; and
- early consideration and incorporation of manufacturing and development aspects into the design of molecules to facilitate production of high-quality drug product for clinical use.

We have validated our GPS platform through our preclinical activities with our IL-2 product candidate, XTX202, which has exhibited tumor-selective biological activity and tumor growth inhibition without toxicity outside of the TME. The reproducibility of our GPS platform is evidenced by the tumor-selective activity observed in preclinical studies with our engineered IL-12 and IL-15 cytokines, XTX301 and XTX401. We believe this supports broad application of our GPS platform to multiple structurally diverse cytokines, including those shown in the image below, that have potential as cancer therapies but need localized activity within the TME to overcome the DLTs that result from activity outside of the TME.

Potential Applicability of Our GPS Platform Across Cytokines



Our GPS platform further provides the potential to generate tumor-selective antibody therapeutics, as validated by our tumor-selective anti-CTLA-4 antibody, which has exhibited tumor-selective biological activity, tumor growth inhibition and a lack of toxicity in preclinical studies. The reproducibility of these data to the results seen with our cytokine programs highlights the potential breadth of application of our GPS platform beyond cytokines to different therapeutic modalities.

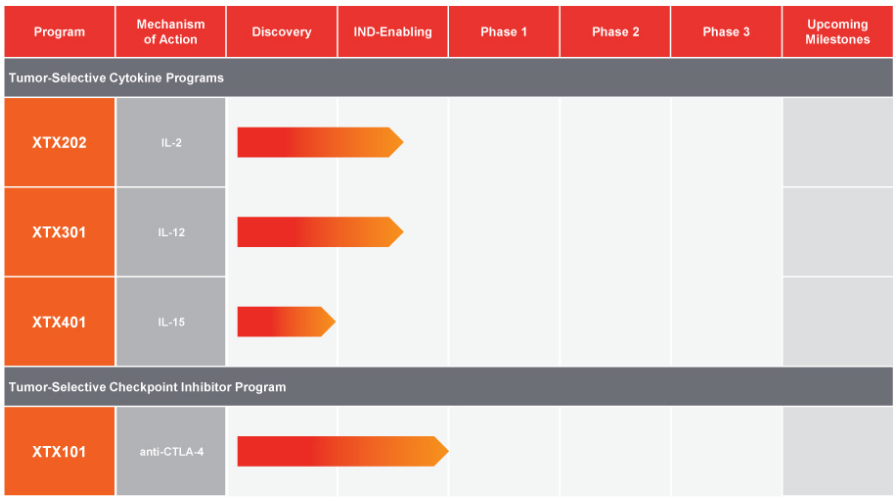
In addition to utilizing proprietary engineering that is broadly applicable to structurally diverse cytokines to realize the full potential of multiple cytokines for cancer therapy, we believe our GPS platform enables diverse applications to multiple biologic modalities, including mAbs, and has the potential to be applied to multiple therapeutic areas, including autoimmune diseases.

Our Pipeline

Leveraging our GPS platform, we are building a pipeline of tumor-selective cytokine and checkpoint inhibitor immunotherapies to treat cancer. Our goal is to overcome the limitations of current I-O therapies by developing products with an improved therapeutic index.

Consistent with this goal, we selected molecules that have prior clinical validation demonstrating therapeutic benefit, but are limited by significant toxicities that we believe can be addressed with our approach. We have worldwide development and commercialization rights to all of our product candidates.

The following chart summarizes our product candidates and anticipated upcoming milestones.



Our development strategy is focused on three important concepts:

(1) achieve an acceptable safety profile while maintaining dose levels sufficient to confer localized activity in the tumor;

(2) establish clinical proof-of-concept, or POC, as a monotherapy; and

(3) demonstrate the combinability of our molecules so they can be explored and administered with relevant standard-of-care agents to potentially improve patient outcomes.

Assuming we successfully achieve an improved therapeutic index during our initial clinical trials, we plan to proceed into an expansive set of registration-enabling clinical trials across a range of tumor types.

Cytokine Programs

The major focus in our cytokine programs is the development of cytokines with exemplary clinical activity and tolerability. These programs include XTX202, our optimized IL-2 product candidate, XTX301, our optimized IL-12 product candidate, and XTX401, our optimized IL-15 product candidate.

XTX202, our tumor-selective IL-2 product candidate

XTX202 is a modified form of IL-2 that is masked with a protein domain to prevent binding activity until cleaved off by TME-associated proteases. In preclinical studies, we observed that XTX202 was activated in a protease-dependent manner, exhibited tumor growth inhibition and was well-tolerated. We plan to submit an IND to the FDA in to evaluate XTX202 in patients with solid tumors and, if cleared, promptly initiate a Phase 1/2 clinical trial in multiple tumor types. In addition, assuming we successfully complete the Phase 1 trial and determine the RP2D for XTX202, we plan to initiate clinical trials of combinations with standard-of-care agents to assess the ability to optimally dose XTX202 in combination with a therapeutic dose of standard-of-care treatments.

Background on IL-2

The power of IL-2 to activate the immune system as a cancer therapeutic is promising, but it has been greatly reduced due to toxicities. When administered locally, IL-2 has been shown to be clinically active and well-tolerated, shrinking local cancerous lesions and reducing malignant effusions. However, when administered

systemically, treatment with IL-2 has been shown to induce severe toxicities, including VLS, myocardial infarction, acute renal failure and immune-mediated neuropathy. These toxicities, among others, have greatly limited IL-2's scope.

The toxicities associated with early IL-2 therapies are hypothesized to be associated in part with binding and signaling through the high affinity αβγ IL-2-receptor on immune cells or vascular endothelial cells. In order to shift the balance of IL-2 away from suppressive activity of Treg cells and toward promoting an anti-tumor response, IL-2 is often engineered to reduce the binding of the α IL-2 receptor, commonly referred to as non-α IL-2. As a result, non-α IL-2 has the potential to increase efficacy. Additionally, non-α IL-2 might also not bind to vascular endothelial cells. The observation of objective responses in patients with a systemic non-α IL-2 molecule validates the clinical approach; however, non-α IL-2 that is systemically active upon administration still has toxicity, including VLS, that limits the ability to give an optimal dose.

Because IL-2 anti-tumor activity and toxicity are both dependent on the amount of IL-2 administered, we believe engineering a form of IL-2 that can minimize the systemic effects and direct the activity locally to the TME would be an optimal way to improve patient outcomes.

Our Solution: XTX202

The critical challenge in the development of IL-2 therapeutics is to improve patient tolerability without reducing efficacy. Deploying the key structural components of our GPS platform, we have designed XTX202 with three key features designed to overcome this: (1) avoidance of binding to CD25, the IL-2α receptor subunit, in order to reduce the activation of Treg cells that inhibit immune response, while maintaining effective activation of CD8+ and NK cells that promote an anti-tumor immune response; (2) overcoming the short circulating half-life of the native cytokine using the half-life extension domain; and (3) a removable protease-cleavable protein mask that prevents XTX202 from binding and signaling until the mask is removed by the MMPs that are preferentially active within the TME.

These key features are intended to ensure that XTX202 is released and activated preferentially within the TME, where it has been designed to bind to lymphocytes. In the TME, XTX202 is designed to be unmasked and to bind to the IL-2 βγ receptors that are abundantly expressed on CD8+ T effector cells and NK cells, activating these cells. Locally activated T cells and NK cells have potent anti-tumor cytotoxic activity. The unmasked XTX202 is then rapidly internalized by these lymphocytes, shortening the systemic half-life of the unmasked molecule.

Overview of preclinical studies and data

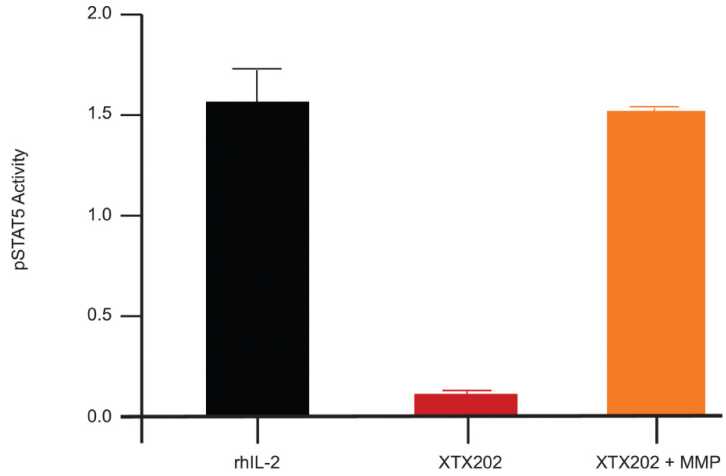
We have undertaken extensive preclinical studies to demonstrate the two key characteristics of XTX202: (1) anti-tumor activity and (2) little or no evidence of systemic toxicity. In order to assess this, we compared XTX202 to both aldesleukin and a non-masked version of the molecule, which we refer to as XTX200, a non-α IL-2 with the same half-life extension domain feature but no mask to block IL-2 function systemically. XTX200 also serves as a surrogate for other non-α IL-2 molecules currently being investigated by others. This was done to assess the activity of our masking technology and compare XTX202 against high-dose IL-2. We believe that these studies collectively provide preclinical POC for TME-dependent activation of XTX202 that, if replicated in clinical trials, could result in significant benefits to patients with a variety of cancer types. The key findings of our XTX202 preclinical studies are as follows:

- XTX202 did not signal through the IL-2 receptor when masked, and MMP activation of XTX202 restored full potency of IL-2 signaling in *in vitro* assays illustrating the tight, protease-dependent control of IL-2 activity conferred by XTX202;
- XTX202 activated an immune response in the tumor but not in peripheral organs, demonstrating geographically selective tumor pharmacodynamic, or PD, activity *in vivo* in mice;
- XTX202 matched the tumor growth inhibition activity of XTX200 and aldesleukin, without activation of immune response outside of the TME, thereby avoiding the systemic toxicity (VLS and enlargement of the spleen, or splenomegaly), body weight loss and mortality in mice that were associated with the doses of XTX200 or aldesleukin required for tumor growth inhibition;

- XTX202 was well-tolerated in NHPs with no evidence of systemic immune activation outside of the tumor or VLS, whereas XTX200 induced both; and
- XTX202 exhibited a half-life of greater than one week in NHPs, compared to a half-life of less than 0.5 days for XTX200. Based on these data, we believe that circulating levels of masked XTX202 can be achieved with clinically meaningful concentrations of activated (unmasked) XTX202 within tumors and that any unmasked cytokine of XTX202 that reaches the systemic circulation will be rapidly cleared with no systemic AEs.

We evaluated the masking feature in XTX202 using a sensitive *in vitro* assay that measures IL-2 activity. In our study, we monitored the IL-2 dependent activation of the JAK-STAT pathway, a chain of interactions between proteins in a cell involved in immunity, using HEK-Blue IL-2 reporter cells that expressed IL-2Rαβγ, JAK and STAT genes. Avoiding activation, or phosphorylation, of STAT5, called pSTAT5, would suggest potential for reduced systemic toxicity. In our study, pSTAT5 activity is expressed as absorbance at 650 nanomolar. As shown in the figure below, reporter cells were incubated with recombinant human IL-2, or rhIL-2, XTX202, or XTX202 that was incubated with an MMP. Both the positive control rhIL-2 and MMP-treated XTX202 activated the reporter cell line and induced pSTAT5 activity. Conversely, XTX202 induced minimal pSTAT5 activity. Based on these data, we concluded that masked XTX202 did not signal through IL-2 receptor and that MMP activation of XTX202 restored full potency of IL-2 signaling.

XTX202 Provided Tight, Protease-Dependent Control of IL-2 Activity

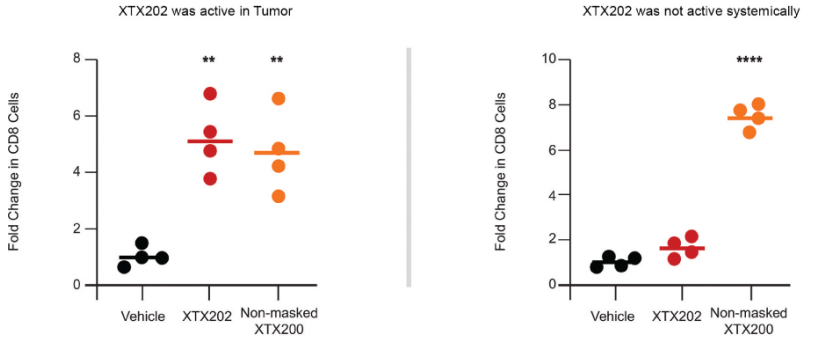


We then used syngeneic mouse tumor models to evaluate the activity of XTX202 *in vivo*. In these mouse tumor models, we observed tumor-selective PD effects of XTX202 and robust monotherapy activity against established tumors.

We examined established B16F10 melanoma tumors for PD evidence of XTX202 activity and compared the results to activity seen systemically. These data were compared to the non-masked control XTX200 and the vehicle-treated negative controls. Animals received 10 mg/kg of XTX202 or 0.5 mg/kg of XTX200, the non-masked control, on day zero and day three.

The presence of CD8+ T cells was used as a measure of immune activation. The figure below depicts activity in B16F10 melanoma tumors on the left and in the spleen, a peripheral immune organ, on the right. We observed that both XTX202 and XTX200 induced an increase in CD8+ T cells in the tumor compared to vehicle control, but only non-masked XTX200 caused CD8+ T cells to expand in the spleen. As shown in the figure below, we observed that XTX202 activated an immune response in the tumor, but not in peripheral organs such as the spleen.

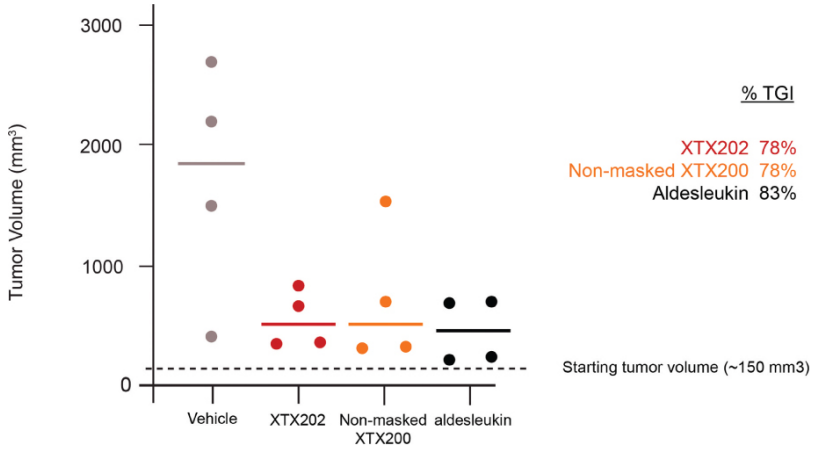
XTX202 Tumor Selectivity in B16F10 Tumor Mice



A one-way ANOVA Dunnett's multiple comparison post-test was performed to determine the statistical significance of treatment vs vehicle (*P<0.05; **P<0.01; ***P<0.001; ****P<0.0001).

In a separate experiment, we compared the ability of XTX202, XTX200 and aldesleukin to inhibit growth of established MC38 colon cancer tumors in mice. Prior experiments had demonstrated that 0.5 mg/kg of XTX200 once every three days, or Q3D, and 3 mg/kg of aldesleukin twice per day, or BID, for five days were the maximum tolerated doses, or MTDs, in mice for these molecules. Previous experiments had also demonstrated that XTX202 was well-tolerated in mice at doses up to at least 25 mg/kg Q3D. In this study, on day zero, animals received 10 mg/kg of XTX202, a well-tolerated dose for this molecule, or XTX200 at an MTD of 0.5 mg/kg on day zero and day three, or aldesleukin at an MTD dose of 3 mg/kg BID on days zero through four. As shown in the below figure, a well-tolerated dose of XTX202 matched the activity achieved with aldesleukin or non-masked IL-2 at their MTDs.

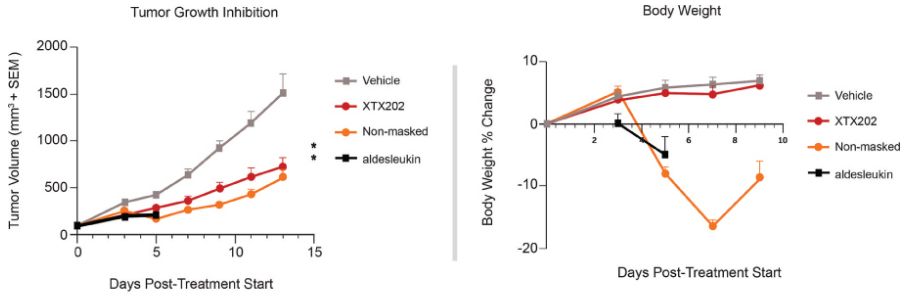
XTX202 Tumor Growth Inhibition Was Comparable to Non-Masked Control XTX200 and Aldesleukin



We also conducted a preclinical study in a second syngeneic tumor model, using mice bearing established MB49 bladder cancer tumors. On day zero, mice received 2 mg/kg of XTX202, or 0.4 mg/kg of systemically active non-masked XTX200 every two days. Aldesleukin was given twice daily at 3 mg/kg for three days. As shown in the left panel in the figure below, a well-tolerated dose of 2 mg/kg of XTX202 achieved similar

activity to the non-masked IL-2 at its MTD of 0.4 mg/kg. As shown in the right panel, XTX202 at 2 mg/kg had no observed effect on weight gain compared to animals that received vehicle control. By contrast, 0.4 mg/kg of the non-masked molecule led to significant weight loss. The dose of aldesleukin required to match XTX202 activity was not tolerated in this study and resulted in animal mortality by day five. The tumor growth inhibition observed with the 2 mg/kg dose of XTX202 was comparable to the activity of the non-masked engineered IL-2 surrogate at its MTD, but body weight loss and mortality were seen in the aldesleukin group and activity could not be determined effectively.

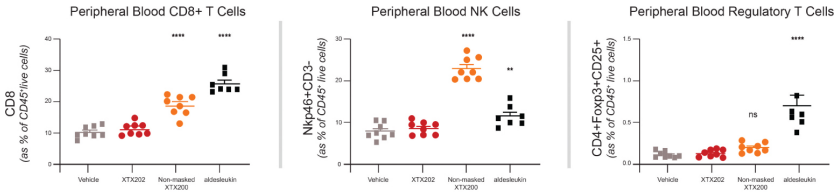
Effects of XTX202 on Tumor Growth Inhibition and Body Weight in MB49 Tumor Mice



TGI was measured on day 13 and a One-way ANOVA Dunnet's multiple comparison post-test was performed on day 13 to determine statistical significance of treatment vs vehicle (*P<0.05; **P<0.01; ***P<0.001; ****P<0.0001).

In the same MB49 tumor study, in animals in which effective tumor growth inhibition was observed, blood samples were collected on day five from all animals. These samples were evaluated for changes in immune cell populations in the blood by fluorescent activated cell sorting. XTX202 did not cause an increase in circulating CD8+ T cells, NK cells or Tregs. In contrast, XTX200 caused an increase in circulating CD8+ and NK cells, but no effect on Tregs, and aldesleukin had variable but stimulatory effects on all three cell types.

XTX202 Did Not Affect Immune Cells in the Periphery



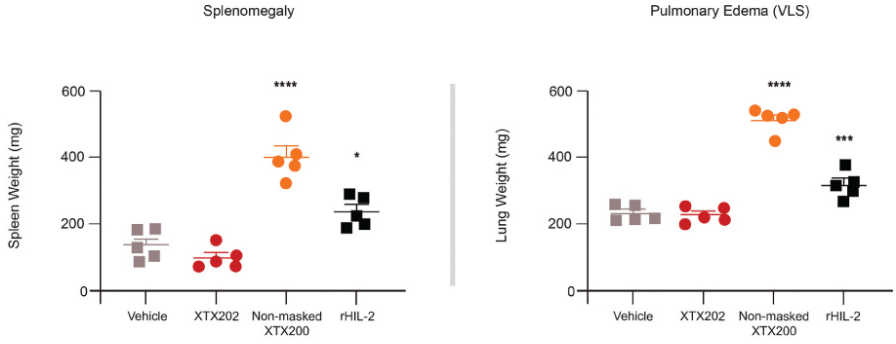
A One-way ANOVA Dunnet's multiple comparison post-test was performed to determine the statistical significance of treatment vs vehicle (*P<0.05; **P<0.01; ***P<0.001; ****P<0.0001).

These preclinical data collectively support the hypothesis that the activity of XTX202 is limited to the TME. The lack of expansion of the CD8+ T cell, NK cell or Treg cell populations in the peripheral blood suggest that XTX202 achieved tumor growth inhibition while exhibiting no evidence of activity outside of the TME. By contrast, the non-masked molecule XTX200 and aldesleukin both showed significant increases in immune cell populations in the blood, demonstrating that these molecules are both active outside of the TME. This conclusion was further supported by measurements of animal health in the bladder cancer tumor model.

As shown in the figure below, we did not observe XTX202 to induce splenomegaly, while significant increases in spleen size were observed in animals treated with either XTX200 or aldesleukin. Similarly, XTX202 did not

lead to VLS in treated mice as demonstrated by the lack of pulmonary edema, shown in the right panel. By contrast, XTX200 or aldesleukin administration resulted in vascular leak and pulmonary edema.

Splenomegaly and Pulmonary Edema Observed in Mice with Aldesleukin and Non-Masked XTX200, But Not with XTX202

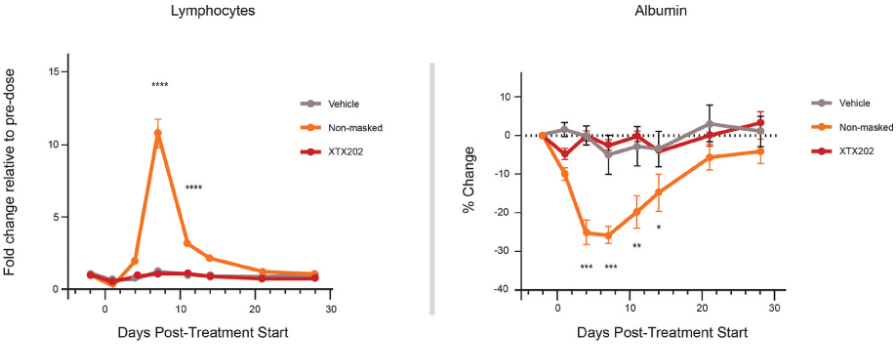


A One-way ANOVA Dunnet's multiple comparison post-test was performed to determine the statistical significance of treatment vs vehicle (*P<0.05; **P<0.01; ***P<0.001; ****P<0.0001).

Tolerability of XTX202 and XTX200 was also evaluated in NHP studies. All animals were administered a single intravenous, or IV, infusion of either XTX200 at 0.7 mg/kg or XTX202 at 1.0 mg/kg. Peripheral lymphocyte counts and serum albumin levels were monitored for four weeks post-administration.

As shown in the figure below, we observed robust lymphocyte expansion following injection of systemically active, non-masked XTX200. By contrast, XTX202 had no effect on lymphocyte numbers. These results were further supported by analysis of circulating albumin, since a decrease in serum albumin levels is an indication of VLS. Serum albumin dropped rapidly in the presence of systemically active cytokine but not after administration of XTX202. Similar results in a repeat-dose, dose-range finding, or DRF, study in NHPs demonstrated that XTX202 was well-tolerated with the highest non-severely toxic dose, or HNSTD, greater than or equal to 10 mg/kg when administered once per week for four weeks compared to the MTD of the non-masked molecule, which was 0.7 mg/kg when administered on the same schedule.

XTX202 Overcame Toxicity of Non-Masked XTX200 in NHPs



A repeated measurement Two-way ANOVA with Bonferroni's multiple comparison correction was performed to determine the statistical significance of treatment versus vehicle for each measure (*P<0.05; **P<0.01; ***P<0.001; ****P<0.0001).

We recently completed dosing in good laboratory practice, or GLP, toxicity studies. No severe toxicity of XTX202 was observed in rats at up to 25 mg/kg, the highest dose tested. In NHPs, the anticipated HNSTD is at least 10 mg/kg or greater.

The circulating half-life and PK properties of masked XTX202 and non-masked control cytokine were evaluated in a preliminary NHP study. Drug levels were measured with a custom enzyme-linked immunosorbent assay following a single IV infusion of 1 mg/kg of XTX202 or the molar equivalent of XTX200 at 0.7 mg/kg. PK parameters were calculated using a non-compartmental analysis. As shown in the table below, XTX202 exhibited a long mAb-like half-life of 8.5 days, whereas the half-life of the non-masked XTX200 was far shorter at 0.48 days. The half-life extension moiety and the decrease in target-mediated disposition due to masking of IL-2 result in the long half-life of XTX202.

Measured PK Parameters (1 mg/kg dose)

	Half Life (Days)	Cmax (nmol/L)	AUCinf (day*nmol/L)
XTX202	8.5	172.3	530.5
XTX200	0.48	61.3	115.4

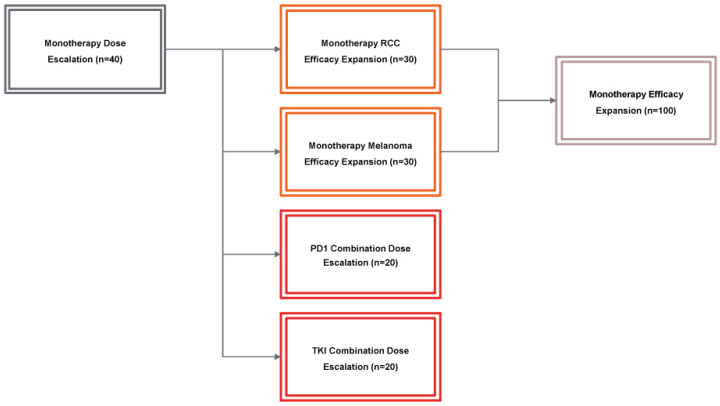
Based on these data, we believe that circulating levels of masked XTX202 can be achieved with clinically meaningful concentrations of activated (unmasked) XTX202 within tumors and that any unmasked cytokine of XTX202 that reaches the systemic circulation will be rapidly cleared with no systemic AEs.

We believe that our preclinical data support clinical development of XTX202 for the treatment of a range of cancer indications. In head-to-head preclinical tumor model studies, XTX202 achieved activity with 2-10mg/kg Q3D equivalent to aldesleukin at 3 mg/kg twice per day. XTX202 was well-tolerated up to 10 mg/kg repeated administration over four weeks in NHPs, whereas the published MTD for aldesleukin in NHPs is 25 ug/kg daily for 28 days. Therefore, in our preclinical studies, XTX202 demonstrated a calculated improvement in overall therapeutic index of over 100-fold compared to aldesleukin. Based on these preclinical data, we expect XTX202 to achieve monotherapy activity in clinical trials, as has been demonstrated for aldesleukin, but with a better tolerability profile. We expect this to allow dose-escalation to achieve intra-tumor cytokine levels high enough to induce local T cell and NK cell activation, proliferation and anti-tumor cytotoxicity.

Clinical Development Plan

We plan to submit an IND to the FDA in for a Phase 1/2 dose-escalation monotherapy trial in patients with solid tumors who have previously received an anti-PD-L1 treatment regimen. If the IND is cleared, we plan to promptly initiate this clinical trial. The objective of this dose-escalation trial will be to determine an RP2D. We aim to establish safety POC by showing XTX202 has the ability to achieve target exposure at or below the RP2D without leading to significant AEs in patients. An additional objective is to show efficacy POC with anti-tumor activity at the RP2D by evaluating intra-tumor PD activity for evidence of IL-2 activity in the tumor. Assuming we successfully complete the Phase 1 trial and determine the RP2D for XTX202, we plan to initiate Phase 2 expansion cohorts with XTX202 monotherapy to determine the objective response rate, including CRs, in RCC and melanoma patients who previously received an anti-PD-1 treatment regimen. Subject to the response rate observed in the POC phase, we plan to initiate nonrandomized monotherapy trials with the potential for accelerated approval. In addition, we plan to initiate one or more additional Phase 1 trials aimed at demonstrating that we can combine XTX202 with other agents such as anti-PD-1 and tyrosine kinase inhibitors, or TKIs, which are small molecules that are designed to inhibit the activation of enzymes called tyrosine kinases that are drivers of certain cancers and proliferative disorders. The TKIs selected for these combination studies will include one or two TKIs currently approved for the treatment of patients with RCC. If we are able to generate objective responses in patients with RCC or melanoma, we plan to initiate registration-enabling clinical trials in the indication or indications relevant to these patients. Beyond RCC and melanoma, we also plan to explore XTX202's potential in other solid tumor indications. The figure below shows our anticipated Phase 1/2 clinical trial design for XTX202 in RCC, melanoma and other indications to evaluate its activity as both a monotherapy and in combination with other agents.

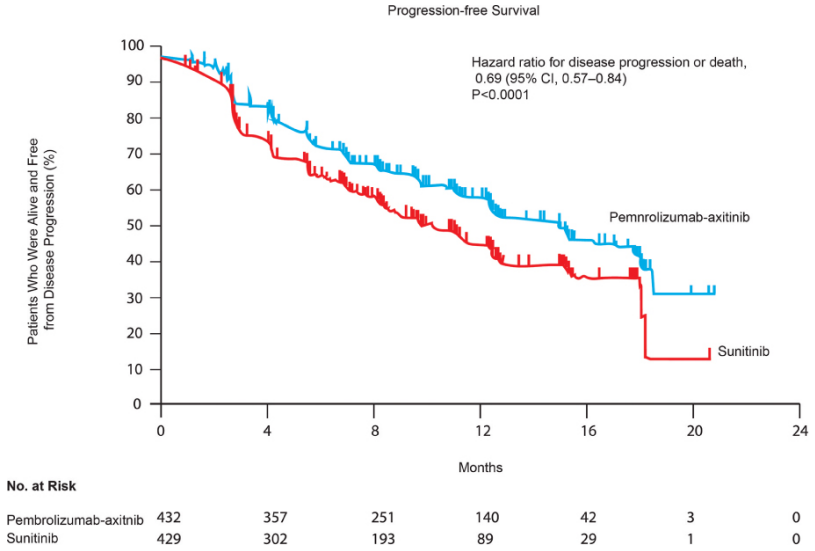
XTX202: Planned Phase 1/2 Trial Designed to Establish POC with Potential to Trigger Accelerated Approval Cohort for Monotherapy



RCC Overview

RCC accounts for 2% of global cancer diagnoses and deaths annually, and the global incidence is increasing. Most cases of RCC are discovered incidentally on imaging, and approximately one-third of cases are advanced or metastatic at the time of diagnosis. Survival is highly dependent on the stage at diagnosis, with metastatic disease having a five-year survival rate of only 12%. RCC is the ninth most common cancer in the United States, with approximately 74,000 new cases and approximately 15,000 deaths projected in 2020. The landscape of therapeutic options has rapidly evolved such that the treatment goal, even in the metastatic setting, is to cure patients or ensure their long-term survival. Systemic frontline therapy options now include combinations of checkpoint inhibitors and TKIs such as pembrolizumab and axitinib, nivolumab and ipilimumab, and avelumab and axitinib. Despite these recent approvals, there remains a pressing need to identify new therapeutic targets and effective treatments since the substantial majority of patients continue to experience relapses and progression and ultimately succumb to their cancer. As a result, cures are not commonly achieved, as in the example of pembrolizumab combined with vascular endothelial growth factor receptor-targeted TKI. As shown in the figure below, most patients with metastatic RCC will eventually relapse even after treatment with sunitinib or pembrolizumab and axitinib as the median time to progression-free survival, or PFS, is 11.1 months and 15.1 months, respectively.

Pembrolizumab+Axitinib Improved Overall Survival in Metastatic RCC, but Most Patients Still Relapsed Within 18 Months



In contrast to the TKI and anti-PD-1 combination shown above, IL-2-directed therapy offers the opportunity for durable responses and cures, as was seen in the historical aldesleukin treatment data. Only 15% of RCC patients treated with high-dose IL-2 obtained an objective response but approximately half of these, or 7% of all patients treated, achieved a CR. The unique feature of high-dose IL-2 is that approximately 90% of patients with RCC who achieved a CR remained permanently disease-free and off-treatment.

Assuming a successful Phase 1/2 dose escalation trial, we plan to pursue a rapid POC clinical trial in RCC, an indication in which recombinant IL-2 produces positive clinical responses, but in which its use is limited due to toxicity. We believe XTX202's characteristics can overcome these limitations and address the unmet need in RCC.

Metastatic Melanoma Overview

Melanoma of the skin is the nineteenth most commonly occurring cancer in the United States with approximately 100,000 new cases and approximately 7,200 deaths projected in 2021. The rates of melanoma have been rising rapidly and treatment is a major driver of healthcare costs. Although the five-year survival rate from diagnosis for early melanoma is over 95%, this drops to approximately 25% for metastatic melanoma that has spread to distant sites. Despite the approval of 12 new FDA-approved melanoma therapies since 2011, treatment of stage III and IV melanoma remains suboptimal. After surgical resection, adjuvant treatment with a targeted therapy or a checkpoint inhibitor may be initiated. In about 50% of patients with melanoma, the *BRAF* gene is mutated and a combination of a BRAF inhibitor and a MEK inhibitor—for example, dabrafenib plus trametinib—might be used. These new therapies have resulted in significant improvements of relapse-free survival in patients with melanoma, and in some cases, an improvement in overall survival is observed. However, many patients still relapse and progress, and there is an urgent need for additional therapeutic options.

Recombinant IL-2 produced an overall response rate, or ORR, of 16% in metastatic melanoma and produced CRs and functional cures in 6% of patients in clinical trials. However, use of recombinant IL-2 has been limited by DLTs.

Accordingly, in the last decade, treatments that target PD-1 and CTLA-4 have grown to dominate the metastatic melanoma treatment landscape. However, many patients do not respond, and relapses are common, leading to a five-year survival rate of around 50% in metastatic melanoma. We believe that a safe and effective form of IL-2 may improve initial response rates and clinical outcomes when added to checkpoint inhibitor therapy and may maintain responses in patients with melanoma who have relapsed from checkpoint inhibitor treatment. Importantly, high-dose IL-2 has shown a response rate, including CRs in patients with melanoma despite those patients having progressed on prior treatment with an anti-PD-1 showing the potential for IL-2 mechanism of action-based efficacy in patients who have previously been treated with an anti-PD-1.

Similar to our development plan for RCC, assuming a successful Phase 1/2 dose escalation trial, we plan to rapidly pursue a POC clinical trial in melanoma, where recombinant IL-2 has demonstrated clinical responses but has been historically limited due to toxicity. Our clinical development plan includes the evaluation of patients with melanoma who have previously been treated with an anti-PD-1 to demonstrate clinical POC.

Potential Future Indications

Beyond RCC and melanoma, we intend to explore XTX202 in additional solid tumor indications for which there is a significant unmet medical need, and for which IL-2 has previously demonstrated utility. These indications may include non-small cell lung cancer, or NSCLC, bladder cancer and ovarian cancer.

Aldesleukin has been studied in a broad range of tumor types. DLTs have prevented most patients with cancer from receiving the high doses necessary for systemic efficacy. Multiple clinical trials have evaluated IL-2 where local treatment is possible. In these trials, IL-2 has induced objective responses in patients with ovarian cancer when administered in the peritoneum, in patients with bladder cancer when administered directly into the bladder and in patients with NSCLC and mesothelioma when administered into the pleural cavity. These data provide POC that multiple tumor types are likely sensitive to IL-2 if high levels of exposure can be obtained.

XTX301, our half-life extended, tumor-selective IL-12 therapeutic

XTX301 is an engineered form of IL-12 that is masked with a protein domain to prevent binding activity until cleaved off by TME-associated proteases. In preclinical studies, we observed that XTX301 was activated in a protease-dependent manner and was clinically active and well-tolerated. XTX301 is currently in IND-enabling studies and we plan to submit an IND to the FDA in for evaluation in patients with solid tumors.

Background on IL-12

IL-12 is a potent, pro-inflammatory cytokine produced by antigen-presenting cells such as dendritic cells, macrophages and B cells. IL-12 has two subunits, p35 and p40, that are linked to form a heterodimer protein. IL-12 is a key cytokine in the body's response to pathogen infection, sending a signal to T cells, among others. IL-12 interacts with diverse immune cells, including CD4+ T cells, CD8+ T cells, NK cells, monocytes and macrophages. IL-12's broad range of pro-inflammatory functions suggests that it could potentially be highly potent in controlling anti-cancer immunity. IL-12 has been shown in preclinical studies to induce robust anti-tumor effects against many types of malignancies and it has been tested against multiple human cancers in clinical trials. Recombinant human IL-12 has been evaluated in clinical trials, and anti-tumor efficacy was observed in a small number of patients across a range of tumor types.

Unfortunately, systemic IL-12 therapy causes severe AEs in patients with cancer. Life-threatening liver damage, called hepatotoxicity, was identified during the early development of previous IL-12 therapies, which severely limited the dose of IL-12 that could be administered, and further trials to evaluate efficacy were therefore conducted at sub-optimal doses due to the toxicity. In an early Phase 2 trial of recombinant IL-12, the MTD of 0.5 μg/kg per day caused severe side effects in 70% of patients, or 12 of 17 patients, of whom two died from gastrointestinal bleeding and multi-organ failure, respectively. The severe toxicities indicated that recombinant IL-12 could not be used systemically due to rapid increases in the cytokines IFN-γ, TNF-α and IL-6 that caused a cytokine storm syndrome characterized by systemic inflammation, multi-organ dysfunction and immune cytopenias. Efforts to overcome these systemic liabilities include alternate drug delivery approaches such as intra-tumoral administration of IL-12 encoding DNA vaccines or administration of oncolytic viruses expressing IL-12. Despite activity in individual lesions, cancer is a systemic disease that cannot be cured with

local therapy once it has reached an advanced stage. Therefore, to unleash the potential for IL-12 in the majority of patients with advanced or metastatic cancer, an IL-12 that can be administered systemically but act locally at the tumor site is needed.

The failure of systemic IL-12 to induce meaningful anti-tumor efficacy is generally attributed to tolerability, which limits the dose and, as a result, the ability to reach therapeutic concentrations within the TME. Therefore, maximizing the amount of IL-12 that reaches the tumor, while minimizing exposure of non-tumor tissue, may be critical for a safe and effective anti-tumor response. Tumor-selective activity is therefore a desirable therapeutic profile.

Our solution: XTX301

Our goal for our IL-12 program is to create a tumor-selective, extended half-life IL-12 therapeutic with minimal peripheral effects. We are using our GPS platform and proprietary approach to achieve systemic delivery of tumor-selective IL-12, which we believe would have potential as a monotherapy and in combination with other therapies.

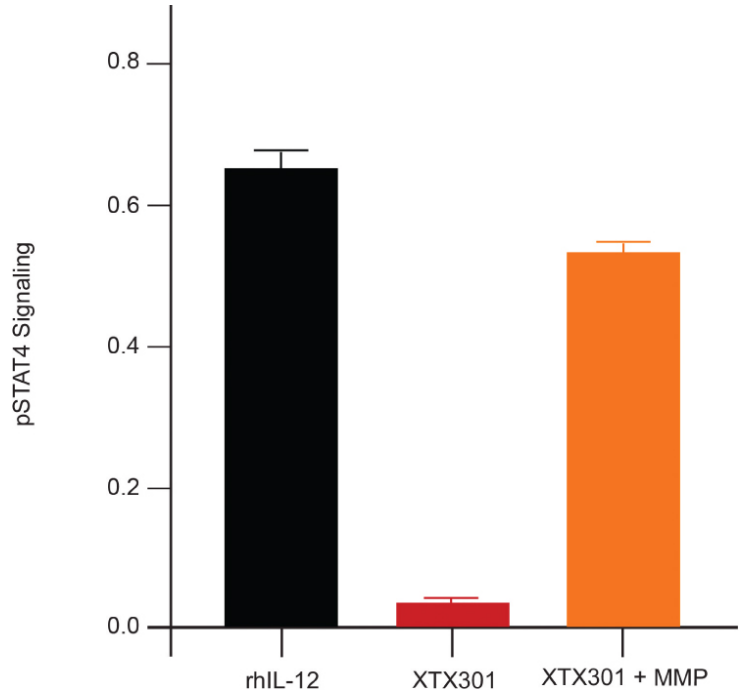
The design of our masked IL-12 cytokine molecule is closely related to that of our masked IL-2 cytokine molecule, which illustrates the flexibility and robustness of our cytokine engineering approach. The masking domain is designed to prevent binding to cell-surface expressed high affinity IL-12 receptor, unless the linker containing the protease site is cleaved by proteases preferentially active in the TME. The half-life extension domain is designed to overcome the short circulating half-life of the native cytokine and the overall molecule is designed to enhance the efficiency of manufacturing.

Overview of preclinical studies and data

We have observed tumor-selective activity of XTX301 in rodent models after systemic administration. Anti-tumor activity was observed in syngeneic mouse models using murinized surrogate molecules. In order to achieve anti-tumor activity *in vivo*, we optimized the circulating half-life of XTX301 while maintaining masking so that little or no activity was observed in non-tumor tissue. We observed minimal effects outside the tumor in mouse models. In a preliminary repeat-dose NHP study, XTX301 was observed to be well-tolerated at doses at least 50-fold higher than a non-masked human IL-12 control.

As shown in the figure below, XTX301 did not signal through IL-12 receptors when masked and MMP activation of XTX301 restored full potency of IL-12 signaling. Reporter cells that express the IL-12 receptors were incubated with recombinant IL-12, XTX301 alone or XTX301 that was incubated with an MMP. We observed that both the positive control rhIL-2 and MMP-treated XTX301 activated the reporter cell line and induced phosphorylation of STAT4. XTX301 induced very little phospho-STAT4 activity.

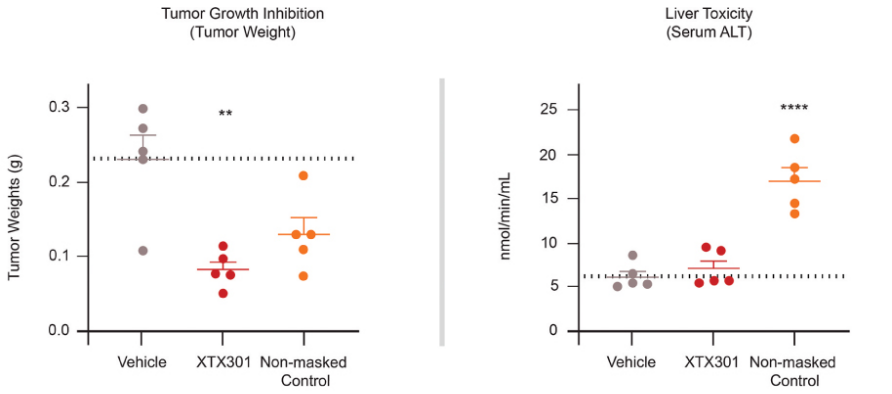
XTX301 Provided Tight, Protease-Dependent Control of IL-12 Activity



In preclinical models with XTX301, tumor growth inhibition was observed in melanoma and bladder cancer models without adverse events. Mouse studies were conducted with a surrogate for XTX301 that included mouse sequences for IL-12 and the masking domain in place of the human sequences present in XTX301 but that was otherwise identical. Mice bearing established tumors received a single dose of either vehicle, 0.4 mg/kg of the non-masked mouse IL-12 cytokine or 0.5 mg/kg of the surrogate of the masked XTX301. Tumor growth inhibition was evaluated by comparing tumor weights between treatment groups. Since hepatotoxicity is the primary DLT for IL-12 in human patients, hepatotoxicity was evaluated by measuring liver enzymes status in the circulation.

As shown in the figure below, we observed that XTX301 controlled MB49 tumor growth without causing systemic toxicities. The left panel shows that a single dose of XTX301 inhibited tumor growth resulting in decreased tumor weight compared to vehicle control. Similarly, we observed that the non-masked IL-12 control resulted in tumor growth inhibition. However, as shown in the right panel below, the non-masked IL-12 caused an increase in serum ALT liver enzymes, a clinical signature of liver toxicity, while masked IL-12 XTX301 did not cause a measurable increase in serum ALT at 0.5 mg/kg dose. XTX301 did cause a modest increase in serum ALT at 3 mg/kg and the non-masked control caused an increase in serum ALT at a dose of 0.1 mg/kg. This suggests a reduction in peripheral activity with XTX301 of at least 30-fold compared to non-masked mouse IL-12.

Tumor-Selective IL-12 Decoupled Activity from Toxicity in Mice



A One-way ANOVA Dunnet's multiple comparison post-test was performed to determine the statistical significance of treatment vs vehicle (*P<0.05; **P<0.01; ***P<0.001; ****P<0.0001).

In NHPs, XTX301 showed minimal systemic activity and was observed to be well-tolerated at doses up to 1.5 mg/kg, which was at least 50-fold higher than the MTD of less than 0.03 mg/kg for the non-masked human IL-12 molecule when both agents were compared in a multi-dose study in NHPs in which they were administered once per week for four weeks.

Current Status and Clinical Development Plan

Based on these data, we are currently advancing XTX301 through IND-enabling studies including cell line development and manufacturing, and a non-clinical toxicology program to support progression into clinical development. We plan to submit an IND to the FDA in . Our clinical development plan for XTX301 will focus initially on monotherapy dose-escalation in patients with solid tumors. Following an assessment of anti-tumor effect with the monotherapy in selected tumor types, we also plan to explore the potential to combine XTX301 with other agents prior to initiation of registration-enabling clinical trials.

XTX401, our half-life extended, tumor-selective IL-15 therapeutic

XTX401 is a modified form of IL-15 that is masked with a protein domain to prevent binding activity until cleaved off by TME-associated proteases. In preclinical studies, we observed that XTX401 was activated in a protease-dependent manner and was clinically active and well-tolerated. XTX401 is currently in preclinical development undergoing IND-enabling studies.

Background on IL-15

IL-15 is a cytokine that primarily stimulates the proliferation and cytotoxic functions of CD8+ T cells and NK cells that can enhance anti-tumor responses. IL-15 activities have some similarities to IL-2, and the receptors bound by the two cytokines partly overlap: IL-15 signals through a receptor complex composed of the IL-2/IL-15 receptor β chain, or CD122, and the common gamma chain γC, or CD132. IL-15 signaling induces the proliferation, survival and differentiation of T cells and NK cells, including CD8+ memory T cells that are believed to be critical for durable anti-tumor immunity.

The challenge associated with IL-15 as a potential therapeutic is that it has a short *in vivo* half-life and has shown considerable toxicity both in preclinical models and in patients. In NHPs, IL-15 has shown severe toxicity at higher doses, including weight loss and skin rash. In patients with cancer, severe toxicity was observed when NCI-rhIL-15 was dosed by continuous IV infusion, including a drug-related death. AEs

included hypotension, thrombocytopenia, liver injury and high fever. More recent versions of IL-15 have caused grade 3 AEs, including lymphocytopenia, increased liver enzymes, anemia, diarrhea and peripheral edema, with minimal clinical activity reported. Much of the reported toxicity is associated with systemic activation and proliferation of NK cells; therefore, local administration has been tried with a half-life extended recombinant IL-15, which demonstrated objective responses in patients with bladder cancer in combination with the standard-of-care agents. The ability to induce local tumor regressions support that IL-15 activity in the TME can have therapeutic benefit assuming that systemic toxicity can be avoided.

Our solution: XTX401

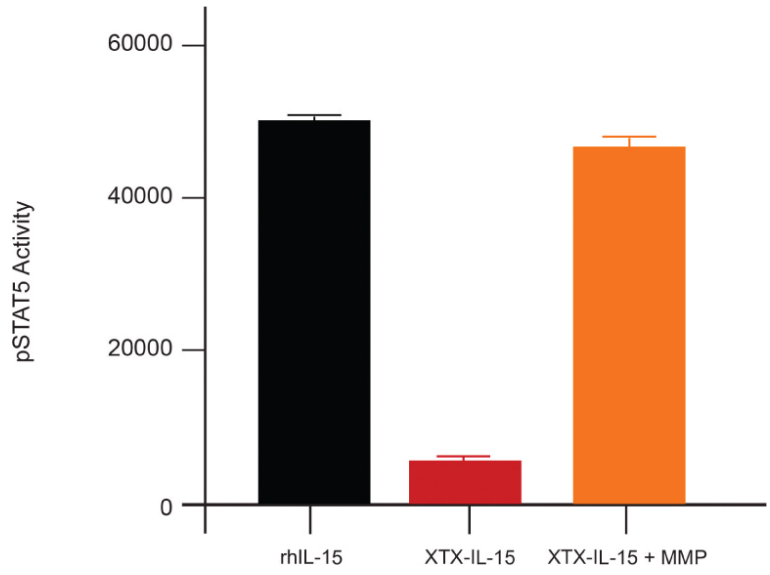
For our IL-15 program, we have used our GPS platform to focus on improving potency, improving circulating half-life, ensuring local activity within the TME and showing tolerability. Key steps in engineering the masked cytokine included enhancing the affinity of the IL-15 cytokine binding to the IL-15 βγ receptor, adding a half-life extension domain and applying our masking technology.

Overview of preclinical studies and data

Our goal for the IL-15 program was to create a tumor-selective, extended half-life IL-15 therapeutic with minimal peripheral effects. We used XTX-IL-15, one of a series of masked, tumor-selective IL-15 molecules that were under investigation prior to selection of the final development candidate, XTX401, in the studies described below. In these *in vitro* studies, we observed successful masking and protease-dependent activation. We have also observed tumor-selective activation *in vivo* in a syngeneic mouse tumor model after systemic administration. In addition, we were able to achieve the desired circulating half-life improvement, with only minimal peripheral effects in mouse models.

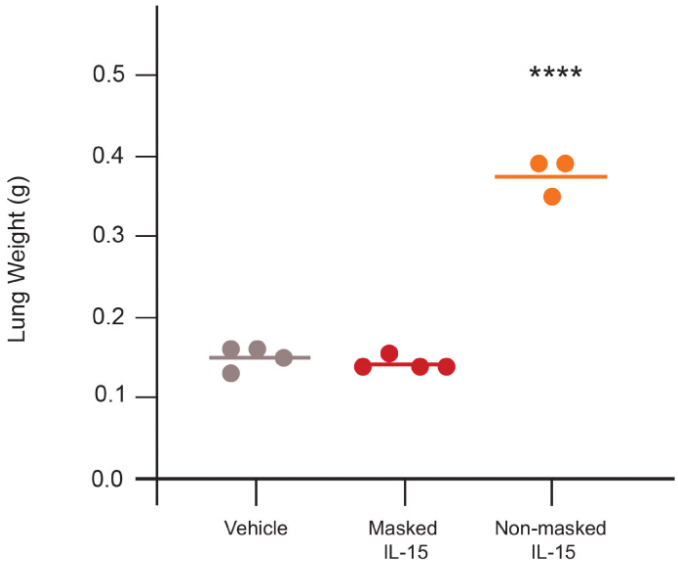
IL-15 bioactivity *in vitro* was determined by measuring the IL-15-mediated Stat5 transcriptional activity in a HEK-Blue reporter assay as described above for IL-2 cell-based assays. As shown in the below figure, reporter cells were incubated with rhIL-15, XTX-IL-15, or XTX-IL-15 that was incubated with an MMP. Both the positive control rhIL-15 and MMP-treated XTX-IL-15 activated the reporter cell line and induced phosphorylation of STAT5. XTX-IL-15 induced little phospho-STAT5 activity.

Masked IL-15 Provided Tight, Protease-Dependent Control of IL-15 Activity



Tolerability of XTX-IL-15 was evaluated *in vivo* by measuring pulmonary edema, a consequence of IL-15 induced vascular leak, after a single dose of XTX-IL-15 or non-masked IL-15 in C57BL/6 mice. Animals were sacrificed on day five post-treatment and pulmonary edema was assessed by measuring lung weights. As shown in the below figure, a single dose of 2 mg/kg of XTX-IL-15 did not result in pulmonary edema, whereas a single 2 mg/kg dose of non-masked IL-15 resulted in significant pulmonary edema. These data suggest the improved tolerability of XTX-IL-15 compared to non-masked IL-15. In the single dose *in vivo* studies, the half-life and exposure levels of the XTX-IL-15 cytokine in circulation remained higher than those of the non-masked cytokine as a result of decreased target mediated disposition due to masking.

Tumor-Selective IL-15 Was Well-Tolerated in Mice

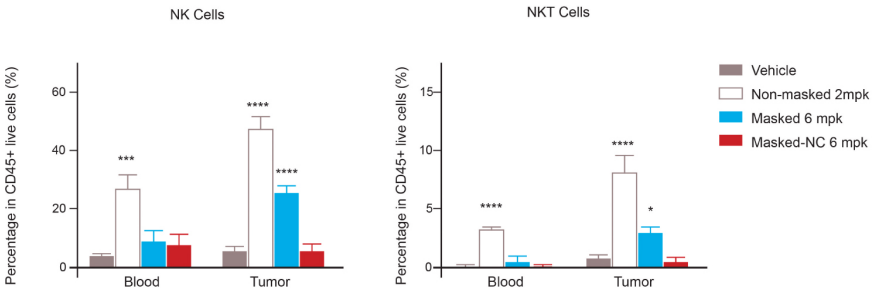


A One-way ANOVA with Dunnett's post-test was performed to determine the statistical significance between each two groups (*P<0.05, **P<0.01, ***P<0.001, ****P<0.0001).

To assess the tumor-selective activity of XTX-IL-15, mice bearing established B16F10 tumors were injected intravenously with a single dose of vehicle control, or non-masked IL-15, or XTX-IL-15, or a control version of the XTX-IL-15 that is not cleavable by proteases and therefore cannot be unmasked, or Masked-NC. Increased NK or natural killer T, or NKT, cells, cell numbers in the tumor or in the blood were used as a measure of IL-15 dependent immune activation. Animals received a single intravenous dose of 2 mg/kg non-masked IL-15, or 6 mg/kg XTX-IL-15, or 6 mg/kg of Masked-NC. Animals were sacrificed on day five, and NK and NKT cell numbers in the tumor and blood were measured.

As shown in the figure below, both the non-masked IL-15 and the XTX-IL-15 induced an increase in NK or NKT cells in the tumor, compared to vehicle control, but only non-masked IL-15 caused NK and NKT cells to expand in the blood outside of the TME. The Masked-NC control molecule did not promote activation of NK or NKT cells in the tumor or blood indicating that activation of NK and NKT cells in the tumor by the XTX-IL-15 is dependent upon protease activity in the TME. No body weight loss or increase in lung weight was observed in mice treated with XTX-IL-15 in this experiment.

XTX-IL-15 Achieved Tumor-Selective PD Activity and Improved Tolerability



A One-Way ANOVA with Bonferroni correction compared to vehicle control. *p<0.05, **p<0.01, ***p<0.001, ****p<0.0001.

Current Status and Clinical Development Plan

Our IL-15 program is currently in preclinical development and we plan to evaluate this product in patients with solid tumors.

Checkpoint Inhibitor Program

Using our GPS platform, we have developed our lead checkpoint inhibitor product candidate, XTX101, our tumor-selective anti-CTLA-4 antibody, which exhibited tumor-selective biological activity, tumor growth inhibition and a lack of toxicity in preclinical studies. We believe in the broad applicability of our GPS platform and may apply it to additional checkpoint inhibitors in the future, either on our own or with a collaborator.

XTX101, our tumor-selective anti-CTLA4 mAb

XTX101 is a Phase 1-ready tumor-selective anti-CTLA-4 mAb that is designed to improve upon the therapeutic index of existing anti-CTLA-4 therapies. While anti-CTLA-4 therapies such as ipilimumab have demonstrated meaningful efficacy across a range of tumor types, autoimmune toxicities associated with these therapies limit their use significantly. Using our GPS platform, we have engineered XTX101 to enhance the desirable features of an anti-CTLA-4 antibody while limiting its known liabilities. We approached this by using CDR masking of the antibody, identifying an antibody with improved binding to CTLA-4 and engineering enhanced binding to the Fcγ receptors. CDRs are part of the variable chains in antibodies and T cell receptors where molecules bind to their specific antigen.

We have evaluated XTX101 in several preclinical studies and recently submitted an IND to the FDA to evaluate XTX101 in patients with solid tumors. If the IND is cleared, we plan to initiate a Phase 1 clinical trial in . In preclinical studies, we observed TME-dependent activation of XTX101 leading to enhanced activity and an improved tolerability profile compared to an ipilimumab analog. Our planned Phase 1 dose-escalation trial in the monotherapy and anti-PD-1 combination settings will assess the tolerability of XTX101 at the target dose with the goal of establishing an RP2D both as a monotherapy and in combination with an anti-PD-1. Given the significant size of the opportunity and the trials required to develop XTX101, we plan to seek collaboration opportunities with a company developing an anti-PD-1 during our Phase 1 clinical trial and develop XTX101 with that collaborator.

Background on CTLA-4

CTLA-4 is an immune checkpoint protein that is well-established as playing a central role in the development of tumors. The scientific insight that led to this early checkpoint inhibitor was recognizing CTLA-4 as a protein on T cells that acts as a brake on T cell activation. By removing this brake, T cells were freed to attack cancer. This work led to development of the first approved checkpoint inhibitor therapeutic, ipilimumab, a

CTLA-4 or mAb that was approved in 2011 for treatment of unresectable or metastatic melanoma at a dose of 3 mg/kg and in additional indications in subsequent years.

Clinical trials have shown that 20% of ipilimumab-treated melanoma patients survive at least three years, and a subset survive for 10 years or longer. Ipilimumab remains one of the most impactful drugs for these patients; however, the number of patients who benefit from treatment with ipilimumab remains limited due to its toxicity. Investigation of dose-response in two clinical studies in melanoma patients has shown that higher doses are likely to increase the proportion of patients who benefit; however, increasing dose also results in an unacceptable toxicity profile. In a Phase 2 clinical trial of ipilimumab conducted by Bristol-Myers Squibb Company, a dose range of 0.3 mg/kg to 10 mg/kg was tested and efficacy was measured both by response rate and by clinical outcome. Both the response rate and median overall survival, or mOS, were higher at 10 mg/kg than at 3 mg/kg, with the 0.3 mg/kg dose determined as being ineffective. The rate of severe AEs was 25% at the 10 mg/kg dose, 7% at the 3 mg/kg dose and 0% at the ineffective dose of 0.3 mg/kg. Similarly, as shown in the table below, in a Phase 3 clinical trial conducted by Bristol-Myers Squibb Company, mOS was higher at the 10 mg/kg dose but resulted in unacceptable toxicity. Therefore, we believe that achieving a three-fold increase in therapeutic index would be transformational.

High-dose Ipilimumab Improved Survival but Resulted in Unacceptable Toxicity

Dose (mg/kg)	Median OS (mo)	Adverse Events: Gr 3/4 itAEs/disconts. (%)
3	**11.5**	**14 / 19**
10	**15.7**	**30 / 31**

Ipilimumab has shown preliminary evidence of promising anti-tumor activity in a range of tumor types outside of the approved indications, but successful additional approvals have been limited by toxicity. For example, ipilimumab is more active when combined with the anti-PD-1 antibody nivolumab, but the combination causes a greatly increased rate of immune-related toxicity. Clinical results from patients who express high-affinity FcγR polymorphisms have shown improved responses to ipilimumab, but efforts to improve the potency of the antibody are limited by perceived toxicity risk. There remains a critical need to develop safe and effective forms of anti-CTLA-4 mAbs that can achieve efficacious doses within the TME.

Our solution: XTX101

XTX101 is a tumor-selective anti-CTLA-4 mAb that is designed to improve upon the therapeutic index of existing anti-CTLA-4 therapies by overcoming potency and tolerability limitations. Our goal is to demonstrate an improved safety profile enabling higher anti-CTLA-4 exposure in the tumor that will result in increased efficacy. In preclinical studies, we have observed the following tolerability and activity profile of XTX-101:

- improved *in vivo* potency and the intra-tumoral PD effects of XTX101 are consistent with the improved potency being a result of the higher affinity binding to the target CTLA-4 and enhanced IgG1-Fc effector function, which further improves checkpoint inhibition and enhances antibody-dependent cellular cytotoxicity to deplete immune-suppressive Tregs in the TME;
- reduced peripheral immune activity due to masking of the CDR sequences; and
- activation by protease-dependent release of the masks, which acts selectively in the TME and reduces toxicity associated with systemic immune activation.

XTX101 is designed to enhance the desirable features of an anti-CTLA-4 antibody while limiting known liabilities. We have approached this by using CDR masking of the antibody to impose tumor-localization upon antibody binding. In addition, we identified an antibody with improved binding to CTLA-4 and engineered enhanced binding to the Fcγ receptors. We expect this combination of features to result in an optimized therapeutic index.

Overview of preclinical studies and data

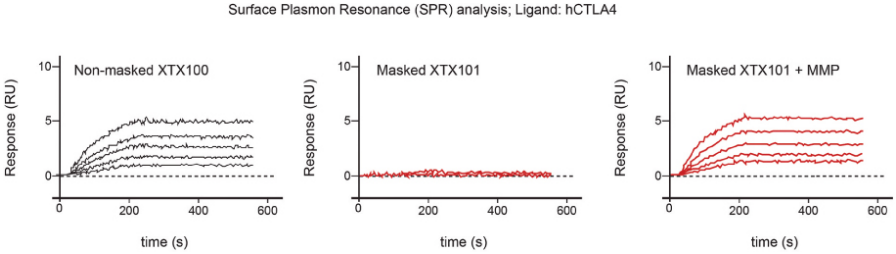
We have examined XTX101 in several preclinical and IND-enabling studies that we believe have demonstrated the potential for XTX101 to have an enhanced activity and an improved tolerability profile compared to

ipilimumab. As summarized below, we believe that these studies collectively provide preclinical POC for TME-dependent activation of XTX101 that, if replicated in clinical trials, could result in significant benefits to patients with a variety of different cancer types.

- XTX101 showed tight control and full reliance on MMP activity for binding to CTLA-4 in an *in vitro* study using a sensitive surface plasmon residence, or SPR.
- XTX101 was activated by human tumors in a study of 85 tumor biopsies across a variety of cancer types that demonstrated 66% overall activation.
- XTX101 demonstrated activity similar to an ipilimumab analog in *in vivo* mouse models of bladder cancer tumor growth. XTX101 dosed at 0.3 mg/kg and 1.0 mg/kg resulted in 2/8 CRs and 5/8 CRs, respectively.
- In the same mouse study, we observed that XTX101 induced an increase in CD8+ T cells within the tumor and a decrease in Tregs in the tumor, without increasing CD4+ T cells in the blood. The ipilimumab analog had less activity than XTX101 in the tumor but did show an increase in CD4+ T cells in the blood.
- In a separate mouse study, the combination of XTX101 and anti-PD-1 antibody showed robust tumor growth inhibition in excess of either drug as a monotherapy, with no significant toxicity.

We observed the dependency of XTX101 on proteolytic cleavage to achieve binding using an SPR assay, which measures on-rate and off-rate of antibody binding to the target protein, allowing an accurate assessment of binding. The data demonstrate tight control and full reliance on MMP activity for binding of XTX101 to CTLA-4. The figure below shows protease-dependent activation of XTX101 *in vitro* using a biophysical assay. The left panel shows the binding of non-masked anti-CTLA-4 mAb, XTX100, to CTLA-4 coated on the SPR chip. Binding is indicated by a positive response measured in resonance units, or RUs. The middle panel shows minimal binding of unmasked anti-CTLA-4 mAb, XTX101, under the same conditions. The right panels show that treatment of masked XTX101 with MMPs restores binding to CTLA-4 in the SPR assay.

After Proteolytic Activation, Full Binding was Restored to XTX101

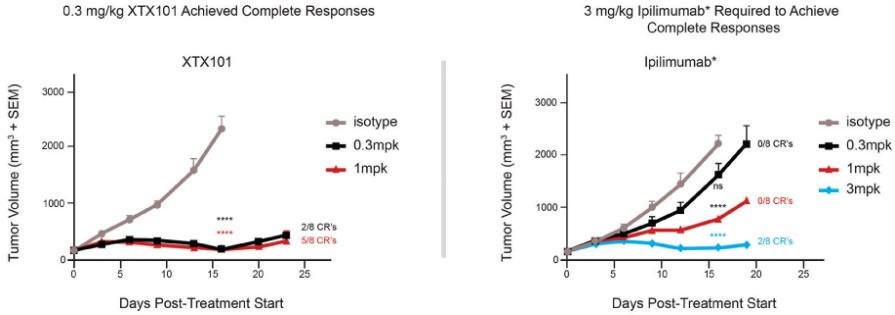


We further demonstrated the capacity of human tumors to activate XTX101 in a protease-dependent manner using fresh tumor biopsies obtained from human patients and assessing their ability to activate XTX101 and thus restore binding to CTLA-4. XTX101 activation was observed for all tumor types evaluated. The total number of tumors tested was 85, and overall, 66% demonstrated activation of XTX101. The proportion of tumors for each cancer indication that demonstrated protease-dependent activation of XTX101 was:

Cancer Indication	n	Proportion (%) Demonstrating Protease-Dependent Activation of XTX101
Colon	11	91%
Breast	4	75%
Melanoma	7	71%
Bladder	6	67%
NSCLC	9	67%
Liver	6	67%
Ovarian	12	58%
RCC	30	57%

In *in vivo* models of bladder cancer tumor growth, XTX101 showed activity superior to that of an ipilimumab analog. MB49 cells were inoculated subcutaneously into C57BL/6-huCTLA-4 mice. When tumors reached approximately 150 mm^3, mice received a single IV dose of each molecule at the doses indicated in the figure. These were 0.3 mg/kg or 1.0 mg/kg for XTX101 and 0.3 mg/kg, 1.0 mg/kg and 3.0 mg/kg for the ipilimumab analog, which we produced to conduct these studies. As shown in the figure below, we observed that XTX101 was more clinically active than the ipilimumab analog in the MB49 bladder cancer model. The left panel shows the effect of different doses of XTX101 on tumor growth, with two CRs achieved with a dose of 0.3 mg/kg and five CRs achieved with a dose of 1.0 mg/kg. The right panel shows the effect of different doses of the ipilimumab analog on tumor growth, with no CRs achieved with a dose of either 0.3 or 1.0 mg/kg. XTX101 exhibited superior tumor growth inhibition compared to the ipilimumab analog. A dose of 3 mg/kg of the ipilimumab analog was required to achieve similar activity and CR rate as XTX101 at 0.3 mg/kg, suggesting XTX101 has 10-fold higher potency than the ipilimumab analog.

Clinical Activity of XTX101 and Ipilimumab Analog in MB49 Tumor Mice

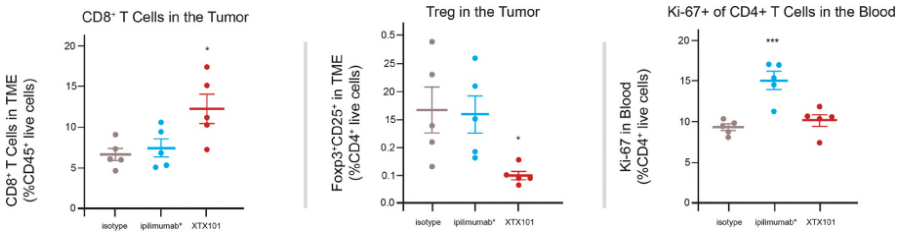


* Ipilimumab: ipilimumab analog that comprises a monoclonal antibody of identical amino acid sequence to ipilimumab that was produced at Xilio for research purposes

A Two-way ANOVA with Bonferonni's multiple comparisons post-test was performed to determine the statistical significance of treatment vs. isotype on day 16 (ns not significant; *P<0.05; **P<0.01; ***P<0.001; ****P<0.0001).

Further, as shown in the below figure, we observed that XTX101 induced an increase in CD8+ T cells within the tumor, as shown in the left panel, and a decrease in Tregs in the tumor, as shown in the middle panel. We observed that XTX101 did not promote an increase in CD4+ T cells in the blood even at 3 mg/kg despite achieving complete responses at 0.3 mg/kg, suggesting tumor-selective activity of XTX101. We further observed that the ipilimumab analog promoted an increase in CD4+ T cells in the blood at the 3 mg/kg dose required for efficient tumor growth inhibition in the blood, as shown in the right panel, demonstrating that the ipilimumab analog was active outside of the TME at doses required for activity.

XTX101 Demonstrated Tumor-Selective PD and Treg Depletion



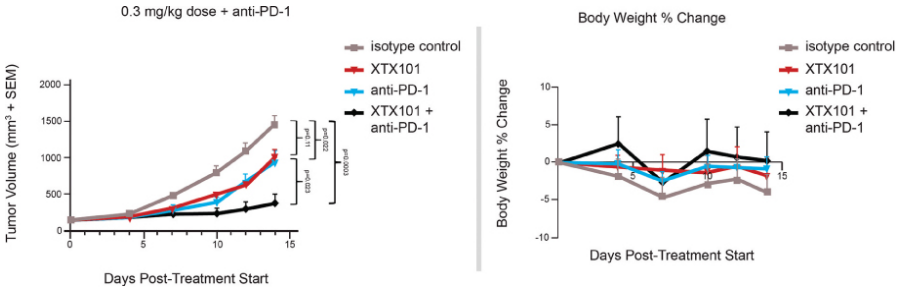
* ipilimumab analog that comprises a monoclonal antibody of identical amino acid sequence to ipilimumab that was produced at Xilio for research purposes

A Two-way ANOVA with Dunnett's multiple comparisons post-test was performed to determine the statistical significance of treatment versus isotype control (*P<0.05; **P<0.01; ***P<0.001; ****P<0.0001).

We also assessed the effect of combination of XTX101 with anti-PD-1 antibody in another preclinical study in which female C57BL/6-huCTLA4 mice, the n-8 per treatment group, were implanted subcutaneously with 0.5x10e6 MC38 cells. When the tumors reached approximately 150 mm^3 on day zero, the mice were intravenously administered 10mg/kg isotype control antibody, 0.3 mg/kg of XTX101 or 10mg/kg anti-PD-1.

As shown in the figure below, XTX101 and the anti-PD-1 antibody each showed limited activity as a monotherapy. However, the combination of XTX101 with anti-PD-1 showed robust tumor growth inhibition of 82%, including two out of eight animals achieving a CR. No significant toxicity was observed in animals treated with either monotherapy or the combination, suggesting that XTX101 can be effectively combined with anti-PD-1 without enhanced toxicity.

Single Dose Combination of XTX101 with anti-muPD-1
Enhanced Tumor Growth Inhibition with No Impact on Body Weight



	Isotype Control	XTX101 0.3 mg/kg	Anti-PD-1 10 mg/kg	XTX101 0.3 mg/kg + anti-PD-1
% TGI Day 14	N/A	34	40	82
P values	N/A	0.022	0.11	0.0003
Complete responses	0/8	0/8	0/8	2/8

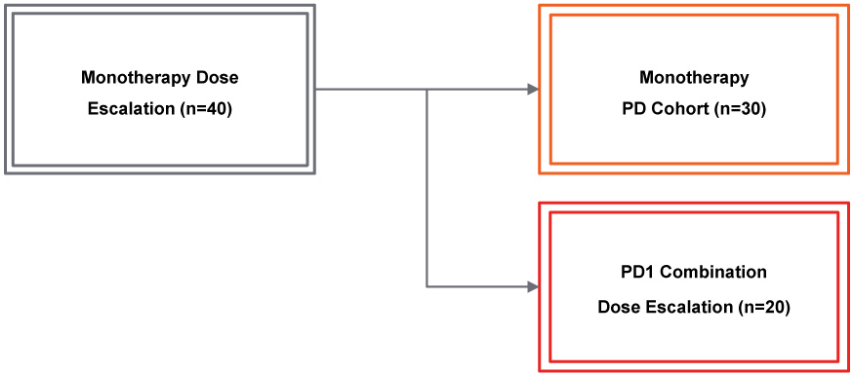
Clinical Development Plan

We recently submitted an IND to the FDA to evaluate XTX101 in patients with solid tumors . If the IND is cleared, we plan to initiate a Phase 1 clinical trial in . We plan to conduct the Phase 1 dose-escalation trial in monotherapy and anti-PD-1 combination settings.

The objective of the monotherapy dose-escalation cohort is to assess the tolerability of XTX101 at the target dose in patients with solid tumors who have progressed after receiving the standard-of-care treatment for their tumor. In addition, we intend to evaluate evidence of anti-CTLA-4 PD activity in tumors from patients treated with XTX101. To assess the anti-tumor PD effects, patients who have progressed on anti-PD-L1 treatment but have not received prior ipilimumab will be treated with XTX101, then patients will have tumor biopsies to assess PD. Based on the observed improved activity of XTX101 over current CTLA-4-directed therapeutics, such as an ipilimumab analog, its higher affinity binding to the target CTLA-4 and enhanced Fc-driven effector function, we also plan to look for early signs of activity in this initial trial.

Finally, we intend to evaluate XTX101 in combination with pembrolizumab at a full XTX101 dose in patients who have not previously been treated with an anti-PD-L1. The objective is to show that XTX101 dose is not limited by the DLTs observed with ipilimumab when ipilimumab is given in combination with anti-PD-1 agents. Our planned registration-enabling program for XTX101 will require randomized trials in combination with an anti-PD-1. Given the significant size of the opportunity and the trials required to develop XTX101, we plan to seek potential collaboration opportunities with a company developing an anti-PD-1 during our Phase 1 clinical trial and develop XTX101 with that collaborator. The following illustrates the design of our Phase 1 clinical trial of XTX101:

XTX101 Phase 1 Trial to Establish POC with Monotherapy and Safety in Combination with anti-PD-1



Future Discovery and Development Plans

We have prioritized efforts to develop novel cytokine therapies based on the therapeutic activity established in other clinical trials, while recognizing that their benefit has been historically hampered by issues of short half-life, poor bioavailability and significant toxicity. By leveraging the insights and capabilities of our GPS platform, we aim to systematically create novel cytokines that overcome these challenges in order to safely localize their potent activity to the TME.

We intend to develop a number of product candidates that mimic or modify the activity of critical I-O therapies to improve both their therapeutic activity and their tolerability, with the goal of achieving a clinically meaningful improvement in their therapeutic index. In addition to the cytokines IL-2, IL-12 and IL-15, potential examples include IFN-α2, IFN-γ, IL-7, IL-10, IL-17A, IL-18, IL-21, IL-22, TNF-α and TNF-β.

We plan to evaluate the opportunity for better tolerated and more efficacious combination therapies, using product candidates from across our portfolio with other cancer therapies, to increase the potential for curative regimens in oncology. Beyond oncology, we also plan to apply our GPS platform to other disease areas in which the immune system is dysregulated.

Competition

We believe our novel and proprietary GPS platform and masking approach represent a meaningful competitive advantage in seeking to develop novel and highly effective treatments for cancer. However, the biotechnology

and biopharmaceutical industries are characterized by rapid evolution of technologies and sharp competition and emphasis on intellectual property. Any product candidates that we successfully develop and commercialize will have to compete with existing therapies and new therapies that may become available in the future. While we believe that our technology, development experience and scientific knowledge provide us with competitive advantages, we face potential competition from many different sources, including major pharmaceutical, specialty pharmaceutical and biotechnology companies, academic institutions, governmental agencies and public and private research institutions.

Some of our competitors, either independently or with strategic partners, have substantially greater financial, technical and human resources than we do. In addition, our competitors may be more successful than we are in research and development, manufacturing, preclinical testing, conducting clinical trials, obtaining regulatory approval for treatments and achieving widespread market acceptance. Merger and acquisition activity in the biotechnology and biopharmaceutical industries may result in resources being concentrated among a smaller number of our competitors. These companies also compete with us in recruiting and retaining qualified scientific and management personnel, establishing clinical trial sites and patient registration for clinical trials and acquiring technologies complementary to, or necessary for, our programs. Smaller or early-stage companies may also prove to be significant competitors, particularly through collaborative arrangements with large and established companies.

Cytokine Program

With respect to our most advanced cytokine product candidate, XTX202, if approved, it may face competition from other IL-2 based cancer therapies. For example, Proleukin (aldesleukin), a synthetic protein very similar to IL-2, is approved and marketed for the treatment of metastatic RCC and melanoma. In addition, we are aware of several companies that have modified or low-dose IL-2 programs in development for the treatment of cancer, including Alkermes plc, Nektar Therapeutics, Neoleukin Therapeutics, Inc., Roche AG, Sanofi, Trutino Biosciences Inc. and Werewolf Therapeutics, Inc.

With respect to XTX301, there are no approved IL-12 therapies currently on the market for the treatment of cancer; however, we are aware of several other companies that have modified IL-12 or intra-tumoral IL-12 delivery programs for the treatment of cancer in development, including DragonFly Therapeutics, Inc., EMD Serono, Inc., Philogen S.p.A., Werewolf Therapeutics, Inc., Xencor, Inc. and Zymeworks Inc.

With respect to XTX401, there are no approved IL-15 therapies currently on the market for the treatment of cancer; however, we are aware of several other companies that have IL-15 based cancer therapies that are in development, including Jiangsu Hengrui Medicine Company Ltd., Kadmon Holdings, Inc., NantWorks, LLC, Nektar Therapeutics, Sanofi and Xencor, Inc.

anti-CTLA-4 Therapies

We are also aware of a number of companies that are developing anti-CTLA-4 therapies as immunotherapies.

With respect to XTX101, if approved, we may face competition from other anti-CTLA-4 based therapies. For example, Yervoy (ipilimumab), an anti-CTLA-4, is approved to treat melanoma, RCC and certain cancers of the large intestine. In addition, we are aware that several companies have anti-CTLA-4 programs in development, including Adagene, Inc., Agenus Inc., AstraZeneca plc, Bioatla, Inc., Bristol-Myers Squibb Company, CytomX Therapeutics, Inc. and MacroGenics, Inc.

In addition to competitors specifically targeting IL-2, IL-12, IL-15 and anti-CTLA-4, we also face competition more broadly across the oncology market. The most common methods of treating patients with cancer are surgery, radiation and drug therapy, including chemotherapy, hormone therapy, biologic therapy, such as monoclonal and bispecific antibodies, immunotherapy, cell-based therapy and targeted therapy, or a combination of any such treatments. Beyond these treatments, we may also be subject to competition from additional modalities, including oncolytic viruses and cancer vaccines.

Our commercial opportunity could be substantially limited if our competitors develop and commercialize products that are more effective, safer, less toxic, more convenient or less expensive than products we may develop. In geographies that are critical to our commercial success, competitors may also obtain regulatory approvals before us, resulting in our competitors building a strong market position in advance of the entry of

our products. In addition, our ability to compete may be affected in many cases by insurers or other third-party payers seeking to encourage the use of other drugs. The key competitive factors affecting the success of any products we may develop are likely to be their efficacy, safety, convenience, price and availability of reimbursement.

Intellectual Property

We strive to protect our proprietary technology, inventions, improvements, and platforms, including composition of matter for product candidates, methods of use and processes for their manufacture that we believe are important to our business, including by obtaining, maintaining, defending and enforcing patent and other intellectual property rights for the foregoing in the United States and in certain foreign jurisdictions. We also rely on trade secrets and confidentiality agreements to protect our confidential information and know-how and other aspects of our business that are not amenable to, or that we do not consider appropriate for, patent protection.

Our success depends in part on our ability to:

- obtain, maintain, enforce and defend patent and other intellectual property rights for our commercially important technology, inventions and improvements;
- preserve the confidentiality of our trade secrets and other confidential information;
- obtain and maintain licenses to use and exploit intellectual property owned or controlled by third parties;
- operate without infringing, misappropriating or otherwise violating any valid and enforceable patents and other intellectual property rights of third parties; and
- defend against challenges and assertions by third parties challenging the validity or enforceability of our intellectual property rights, or our rights in our intellectual property, or asserting that the operation of our business infringes, misappropriates or otherwise violates their intellectual property rights.

Patent portfolio

As of April 30, 2021, we own, co-own, or exclusively license approximately 11 patent application families related to our business, including five pending Patent Cooperation Treaty, or PCT, patent applications, four pending United States applications, two of which are allowed, and 43 pending foreign applications in Europe, Japan, China, Australia, Brazil, Canada, Eurasia, Indonesia, Israel, India, South Korea, Mexico, Malaysia, New Zealand, the Philippines, Saudi Arabia, Singapore, South Africa, and Taiwan. In addition, we own three U.S. provisional patent applications within the priority year. Our owned, co-owned, or exclusively in-licensed patent applications cover various aspects of our programs and technology, including composition of matter and method of use as further described below. Any U.S. or foreign patents issued from national stage filings of our owned, co-owned, or exclusively in-licensed PCT patent applications and any U.S. patents issued from non-provisional applications we may file in connection with our provisional patent applications would be scheduled to expire on various dates from 2037 through 2042, without taking into account any possible patent term adjustments or extensions and assuming payment of all appropriate maintenance, renewal, annuity and other governmental fees.

GPS Platform

Our proprietary engineering platform enables Geographically Precise Solutions, which we refer to as GPS, that can effect tumor-selective immunotherapy while minimizing systemic toxicity. By masking biological agents such as cytokines and antibodies, our GPS platform can be used to decouple therapeutic effects from toxicity for treating different cancers. We own one patent family covering the GPS platform in the cytokine space including two pending United States application and corresponding foreign applications in Europe, Japan, Australia, Brazil, Canada, Eurasia, Indonesia, Israel, India, South Korea, Mexico, Malaysia, New Zealand, the Philippines, Saudi Arabia, Singapore, and South Africa. We exclusively license two patent families relating to the GPS platform technology and our cytokine and antibody programs. One patent family of the two patent families is exclusively in-licensed in the oncology field from AskGene Pharma, Inc. that covers the

GPS platform technology for cytokines. The 20-year term for these owned and exclusively licensed families ranges from 2039 to 2041, excluding any extension of patent term that may be available.

Cytokine Program

Our cytokine pipeline includes three different product candidates, XTX202 (our tumor-selective IL-2), XTX301 (our tumor-selective IL-12), and XTX401 (our tumor-selective IL-15).

IL-2 Program

With regard to the IL-2 program, we own two patent families relating to masked IL-2 cytokines including XTX202, with composition of matter and methods of use claims. A first patent family includes one pending and one allowed U.S. application and corresponding foreign applications in Australia, Brazil, Canada, Eurasian Patent Organization, European Patent Office, Indonesia, Israel, India, Japan, Republic of Korea, Mexico, Malaysia, New Zealand, Philippines, Saudi Arabia, Singapore, and South Africa. A second patent family includes pending PCT and Taiwan applications. The patent family exclusively in-licensed in the oncology field from AskGene Pharma, Inc. also relates to the IL-2 program. The 20-year term for these owned and exclusively in-licensed families ranges from 2039 to 2041, excluding any extension of patent term that may be available.

IL-12 Program

With regard to the IL-12 program, we own one patent family directed to different masked IL-12 constructs and sequences, including XTX301, with composition of matter and methods of use claims. This family is presently pending as PCT and in Taiwan. The twenty year term for this family expires in 2041, excluding any extension of patent term that may be available.

IL-15 Program

With regard to the IL-15 program, we own one patent family directed to different masked IL-15 constructs and sequences, including XTX401, with composition of matter and methods of use claims. This family is presently pending as PCT and in Taiwan, and the twenty year term expires in 2041, excluding any extension of patent term that may be available.

Checkpoint Inhibitor Program

Xilio owns, co-owns or exclusively in-licenses three patent families relating to masked anti-CTLA-4 antibody constructs and sequences, including XTX101, with composition of matter and methods of use claims. A first patent family is exclusively in-licensed from WuXi Biologics (Shanghai) Co., Ltd., and directed to anti-CTLA-4 antibodies. This family includes one pending and one allowed U.S. application covering certain complementarity-determining regions and variable region sequences of anti-CTLA4 antibodies, including XTX101. Corresponding foreign applications are pending in Taiwan, Australia, Brazil, Canada, China, Eurasian Patent Organization, European Patent Office, Hong Kong, India, Indonesia, Israeli, Japan, Republic of Korea, Mexico, Malaysia, New Zealand, Philippines, Saudi Arabia, Singapore, and South Africa. A second patent family is owned and directed to anti-CTLA-4 antibodies with modifications that improve antibody-dependent cellular cytotoxicity and is presently pending as a PCT application. A third patent family is co-owned and directed to masked anti-CTLA-4 antibodies, which is currently pending as a PCT applicant and in Taiwan. In addition, we own two U.S. provisional applications directed to combination therapies using masked or unmasked anti-CTLA-4 antibodies, including XTX101 and PD-1/PD-L1 antibodies. The 20-year term for these owned, co-owned, and licensed families ranges from 2037 to 2042, excluding any extension of patent term that may be available.

Trademark portfolio

As of April 30, 2021, we own two registered trademarks in the United States, and we have received Notices of Allowances for our trademark applications for XILIO and XILIO THERAPEUTICS.

Patent prosecution

A PCT patent application is not eligible to become an issued patent until, among other things, we file one or more national stage patent applications within 30 months, 31 months or 32 months of the PCT application's

priority date, depending on the jurisdiction, in the countries in which we seek patent protection. If we do not timely file any national stage patent applications, we may lose our priority date with respect to our PCT patent application and any potential patent protection on the inventions disclosed in such PCT patent application. Moreover, a provisional patent application is not eligible to become an issued patent. A provisional patent application may serve as a priority filing for a non-provisional patent application, we file within 12 months of such provisional patent application. If we do not timely file non-provisional patent applications, we may lose our priority date with respect to our existing provisional patent applications and any potential patent protection on the inventions disclosed in our provisional patent applications.

While we intend to timely file additional provisional patent applications and national stage and non-provisional patent applications relating to our PCT patent applications, we cannot predict whether any of our patent applications will result in the issuance of patents. If we do not successfully obtain patent protection, or if the scope of the patent protection we or our licensors obtain with respect to our product candidates or technology, including our GPS, cytokine and antibody technologies is not sufficiently broad, we will be unable to prevent others from using our technology or from developing or commercializing technology and products similar or identical to ours or other similar competing products and technologies. Our ability to stop third parties from making, using, selling, offering to sell, importing or otherwise commercializing any of our technology, inventions and improvements, either directly or indirectly, will depend in part on our success in obtaining, maintaining, defending and enforcing patent claims that cover our technology, inventions and improvements.

The patent positions of companies like ours are generally uncertain and involve complex legal and factual questions. The protection afforded by a patent varies on a product-by-product basis, from jurisdiction-to-jurisdiction, and depends upon many factors, including the type of patent, the scope of its coverage, the availability of patent term adjustments and regulatory-related patent term extensions, the availability of legal remedies in a particular jurisdiction and the validity and enforceability of the patent. Moreover, patent laws and related enforcement in various jurisdictions outside of the United States are uncertain and may not protect our rights to the same extent as the laws of the United States. Changes in the patent laws and rules, whether by legislation, judicial decisions or regulatory interpretation, in the United States and other jurisdictions may diminish our ability to protect our inventions and obtain, maintain, defend and enforce our patent rights, and could therefore affect the value of our business.

The area of patent and other intellectual property rights in biotechnology is evolving and has many risks and uncertainties, and third parties may have blocking patents and other intellectual property that could be used to prevent us from commercializing our platforms and product candidates and practicing our proprietary technology. Our patent rights may be challenged, narrowed, circumvented, invalidated or ruled unenforceable, which could limit our ability to stop third parties from marketing and commercializing related platforms or product candidates or limit the term of patents that cover our platforms and product candidates. In addition, the rights granted under any issued patents may not provide us with protection or competitive advantages against third parties with similar technology, and third parties may independently develop similar technologies. Moreover, because of the extensive time required for development, testing and regulatory review of a potential product, it is possible that before any of our product candidates can be commercialized, any related patent may expire or remain in force for only a short period following commercialization, thereby reducing any competitive advantage provided by the patent. For this and other risks related to our proprietary technology, inventions, improvements, platforms and product candidates and intellectual property rights related to the foregoing, please see the section entitled “Risk Factors—Risks Related to our Intellectual Property.”

Patent term extensions

The term of individual patents depends upon the laws of the jurisdictions in which they are obtained. In most jurisdictions in which we file, the patent term is 20 years from the earliest date of filing of the first non-provisional patent application to which the patent claims priority. However, the term of U.S. patents may be extended or adjusted for delays incurred due to compliance with FDA requirements or by delays encountered during prosecution that are caused by the United States Patent and Trademark Office, or the USPTO. For example, in the United States, a patent claiming a new biologic product, its method of use or its method of manufacture may be eligible for a limited patent term extension under the Drug Price Competition and Patent Term Restoration Act of 1984, or the Hatch-Waxman Act, for up to five years beyond the normal expiration date of the patent. Patent term restoration cannot be used to extend the remaining term of a patent past a

total of 14 years from the product's approval date in the United States. Only one patent applicable to an approved product is eligible for the extension, and the application for the extension must be submitted prior to the expiration of the patent for which extension is sought. A patent that covers multiple products for which approval is sought can only be extended in connection with one of the approvals. For more information on patent term extensions, see "Business—Government Regulation and Product Approval—Patent Term Restoration and Extension". In the future, if and when any product candidates we may develop receive FDA approval, we expect to apply for patent term extensions on issued patents covering those product candidates. Moreover, we intend to seek patent term adjustments and extensions for any of our issued patents in any jurisdiction where such adjustments and extensions are available. However, there is no guarantee that the applicable authorities, including the USPTO and FDA, will agree with our assessment of whether such adjustments and extensions should be granted, and even if granted, the length of such adjustments and extensions.

Trade secrets

In addition to patent protection, we also rely on trade secrets, know-how, unpatented technology and other proprietary information to strengthen our competitive position. We take steps to protect and preserve our trade secrets and other confidential and proprietary information and prevent the unauthorized disclosure of the foregoing, including by entering into non-disclosure and invention assignment agreements with parties who have access to our trade secrets or other confidential and proprietary information, such as employees, consultants, outside scientific collaborators, contract research and manufacturing organizations, sponsored researchers and other advisors, at the commencement of their employment, consulting or other relationships with us. In addition, we take other appropriate precautions, such as maintaining physical security of our premises and physical and electronic security of our information technology systems, to guard against any misappropriation or unauthorized disclosure of our trade secrets and other confidential and proprietary information by third parties.

Despite these efforts, third parties may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or other confidential or proprietary information. In addition, we cannot provide any assurances that all of the foregoing non-disclosure and invention assignment agreements have been duly executed, and any of the counterparties to such agreements may breach them and disclose our trade secrets and other confidential and proprietary information. Although we have confidence in the measures we take to protect and preserve our trade secrets and other confidential and proprietary information, they may be inadequate, our agreements or security measures may be breached, and we may not have adequate remedies for such breaches. Moreover, to the extent that our employees, contractors, consultants, collaborators and advisors use intellectual property owned by others in their work for us, disputes may arise as to our rights in any know-how or inventions arising out of such work. For more information, please see the section entitled "Risk Factors—Risks Related to our Intellectual Property."

License agreements

We are a party to license agreements under which we license patents, patent applications and other intellectual property from third parties. These licenses impose various diligence and financial payment obligations on us. We expect to continue to enter into these types of license agreements in the future. We consider the following license agreements to be material to our business.

Cross-License Agreement with AskGene

In December 2020, our subsidiary, Xilio Development, entered into a cross-license agreement with AskGene Pharma, Inc., or AskGene, pursuant to which AskGene granted us certain exclusive licenses for AskGene patent rights related to non-antigen binding IL-2 products in the field of oncology and certain co-exclusive licenses for AskGene patent rights related to antigen binding IL-2 products in all fields. In addition, subject to the terms of the agreement and during the time period specified, AskGene granted us an option to certain exclusive licenses for AskGene patent rights related to non-antigen binding IL-15 products in the field of oncology and certain co-exclusive licenses for AskGene patent rights related to antigen binding IL-15 products in all fields. Under the agreement, AskGene retains rights to the AskGene patent rights in Singapore, Thailand, Malaysia, Vietnam, the People's Republic of China, Taiwan, Macau, Hong Kong, Korea and India, which we

refer to as the AskGene territory, and granted licenses to us for the AskGene patent rights worldwide, excluding the AskGene territory, which we refer to as the Xilio territory.

Under the agreement, we paid AskGene an upfront payment of $6.0 million, and for each licensed product, we are obligated to pay AskGene up to $13.0 million in the aggregate upon the achievement of specified regulatory milestones. If we exercise our option for the IL-15 licenses during the option period, we will be obligated to pay AskGene a $4.0 million option exercise fee. In addition, subject to specified conditions, for any IL-2 licensed product, we are obligated to pay AskGene percentage royalties in the mid-single digits on aggregate annual net sales of IL-2 licensed products in the Xilio territory during the applicable royalty term, and if we exercise our option for AskGene's IL-15 patent rights, then for any IL-15 licensed product, we are obligated to pay AskGene percentage royalties in the low single digits on aggregate annual net sales of IL-15 licensed products in the Xilio territory during the applicable royalty term.

During the term of the agreement, AskGene has agreed not to exploit the following in the field of oncology in the Xilio territory: (i) any non-antigen binding IL-2 product, and (ii) if we exercise our option for AskGene's IL-15 patent rights, any non-antigen binding IL-15 product.

In addition, under the agreement, we granted a non-exclusive, royalty-free, non-transferable, worldwide license to AskGene for specified Xilio patent rights related to non-antigen binding IL-2 products in the field of immunology and for specified Xilio patent rights related to antigen binding IL-2 products in all fields. In addition, subject to the terms of the agreement and during the time period specified, we granted AskGene an option to obtain an exclusive, royalty-bearing, non-transferable, worldwide license for specified Xilio patent rights related to non-antigen binding IL-2 products in the field of immunology and an option to obtain a co-exclusive, royalty-bearing, non-transferable, worldwide license for specified Xilio patent rights related to antigen binding IL-2 products in all fields. If AskGene exercises its option, the parties would negotiate and enter into a license agreement, and AskGene would be obligated to pay us up to $17.0 million in aggregate upfront and milestone payments for each licensed product. In addition, subject to specified conditions, for any IL-2 licensed product, AskGene would be obligated to pay us percentage royalties in the low single digits on aggregate annual net sales of IL-2 licensed products during the applicable royalty term. Subject to the terms of the agreement and during the time period specified, we also granted AskGene also an option to obtain a license in the AskGene territory to develop and commercialize our IL-2 licensed products and, if we exercise our option to the AskGene IL-15 licenses, our IL-15 licensed products. If AskGene exercises its option to develop and commercialize these licensed products in the AskGene territory, then the parties will negotiate and enter into a license agreement for AskGene's exclusive development and commercialization of such products in the AskGene territory, and AskGene would be obligated to pay us percentage royalties in the mid-single digits on aggregate annual net sales of such licensed products in the AskGene territory.

Subject to the terms of the agreement, each party's obligation to make royalty payments is subject to adjustment in specified circumstances and extends with respect to a licensed product in a country upon the first commercial sale of such licensed product in such country and ending upon the latest of (i) the expiration of the last valid claim of any licensed patent rights in such country that cover such licensed product, including, (ii) the expiration of regulatory exclusivity, if any, for such licensed product in such country, and (iii) for a specified time period following first commercial sale of such licensed product in such country.

The agreement continues on a product-by-product and country-by-country basis until the expiration of the applicable royalty term in each country, at which time the agreement expires with respect to such product in such country, and the licensed party receives a perpetual, irrevocable, fully-paid and royalty-free license to the licensed patent rights in such country. Either party has the right to terminate the agreement if the other party materially breaches the agreement and fails to cure such breach within specified cure periods or in the event the other party becomes insolvent or files for bankruptcy. Upon any termination, other than the expiration of the agreement with respect to a particular product in a particular country, the licenses granted by each party will terminate and neither party will have the right to practice the other party's patent rights.

Amended and Restated Exclusive License Agreement with City of Hope

In August 2016, our subsidiary, Xilio Development, entered into an amended and restated exclusive license agreement with City of Hope pursuant to which City of Hope granted us an exclusive worldwide license to specified patent rights related to our anti-CTLA-4 monoclonal antibody program.

Under the agreement, we issued 228,184 common units to City of Hope. In addition, for the first three licensed products or licensed services to achieve specified development and regulatory milestones, we are obligated to pay City of Hope up to $10.3 million in the aggregate per licensed product or licensed service. Subject to specified conditions, we are obligated to pay City of Hope tiered royalties in the low single digits on aggregate annual net sales of licensed products or licensed services on a country-by-country basis until the expiration of the last-to-expire patent or patent application licensed from City of Hope covering the applicable licensed product or licensed service in such country. We are also obligated to pay City of Hope a portion of any consideration we receive for the grant of sublicenses under the agreement ranging from a low double-digit to mid-twenties percentage of such consideration, subject to specified conditions under that agreement at the time that we grant any such sublicense. In addition, we are obligated to pay $0.5 million to City of Hope in connection with the consummation of the offering to which this prospectus relates.

The agreement continues on a country-by-country basis until the expiration of the last to expire licensed patent right in such country. We have the right to terminate the agreement for convenience at any time on 30 days' prior written notice to City of Hope. Either party has the right to terminate the agreement if the other party materially breaches the agreement and fails to cure such breach within specified cure periods. City of Hope may terminate the agreement if we or any of our affiliates or sublicensees bring specified patent challenges with respect to the licensed patents against City of Hope or if we assist others in bringing a patent challenge against City of Hope. However, instead of terminating as a result of a patent challenge, City of Hope may elect to increase our payment obligations by a specified percentage amount retroactive to the commencement of such patent challenge.

CTLA-4 Monoclonal Antibody License Agreement with WuXi Biologics

In September 2016, we entered into a license agreement with WuXi Biologics (Hong Kong) Limited, or WuXi Biologics, as amended in December 2017, pursuant to which WuXi Biologics granted us an exclusive worldwide license, including the rights to grant sublicenses through multiple tiers, to specified monoclonal antibodies and patent rights and know-how controlled by WuXi Biologics, including certain patent rights related to our anti-CTLA-4 mAb program.

For each product that incorporates a licensed antibody that has been modified using the rights licensed under the agreement, we are obligated to pay WuXi Biologics up to approximately $25.8 million in the aggregate for specified development and regulatory milestones. In addition, subject to specified conditions, we are obligated to pay WuXi Biologics tiered royalties in the low to mid-single digits on aggregate annual worldwide net sales of licensed products during the applicable royalty term and subject to early expiration or adjustment in specified circumstances. Our obligation to make royalty payments extends with respect to a licensed product in a country until the later of the expiration of the last-to-expire patent or patent application licensed from WuXi Biologics covering the applicable licensed product in such country or for a specified time period following the first commercial sale of such licensed product. Subject to specified conditions under the agreement, we also have certain obligations to contract with WuXi Biologics for specified services related to the development or manufacture of licensed products.

Unless terminated earlier in accordance with its terms, the agreement will continue until the expiration of the last to expire royalty term for a licensed product. We have the right to terminate the agreement for convenience at any time upon at least 90 days' prior written notice to WuXi Biologics. Either party may terminate the agreement for the other party's uncured material breach. Other than following our termination for convenience or termination by WuXi Biologics for our material breach, upon the expiration of the applicable royalty term for a licensed product in a country, we will receive a paid-up and royalty free license to exploit such licensed product in such country.

Manufacturing

We currently contract with a third party to manufacture our product candidates for preclinical studies and our currently planned clinical trials, and we intend to do so with one or more third parties for future preclinical studies and clinical trials. We do not own or operate manufacturing facilities for the production of our product candidates, and we currently do not have plans to build our own clinical or commercial scale manufacturing capabilities. To date, our third-party manufacturer has met our manufacturing requirements. Our third-party manufacturer has agreed to provide clinical material meeting current good manufacturing practice, or cGMP,

requirements and in sufficient quantities to meet anticipated clinical-trial demands. To meet our projected needs for commercial manufacturing, our current third-party manufacturer will need to increase its scale of production or we will need to secure one or more alternate suppliers. We believe that there are alternate manufacturers that could satisfy our anticipated clinical and commercial requirements, although we cannot be certain that identifying and establishing relationships with such manufacturers, if necessary, would not result in significant delay or material additional costs.

Although we expect to rely on one or more third-party contract manufacturers for the production of our current and future product candidates, we have personnel with extensive technical, manufacturing, analytical and quality experience in biotherapeutic protein manufacturing to oversee our contract manufacturer relationships. In collaboration with our third-party manufacturer, we have manufactured cGMP clinical supply for our planned clinical trial for our product candidate XTX101, and we are in the process of manufacturing cGMP clinical supply for our product candidate XTX202 using the same technical and manufacturing capability. As we scale clinical and commercial manufacturing for each of our product candidates, we intend to continue to expand and strengthen our network of contract manufacturers to include multiple suppliers globally.

Government Regulation and Product Approval

Government authorities in the United States, at the federal, state and local level, and in other countries and jurisdictions, including the European Union, or EU, extensively regulate, among other things, the research, development, testing, manufacture, quality control, approval, packaging, storage, recordkeeping, labeling, advertising, promotion, distribution, marketing, sales, pricing, reimbursement, post-approval monitoring and reporting, and import and export of pharmaceutical products. The processes for obtaining regulatory approvals in the United States and in foreign countries and jurisdictions, along with subsequent compliance with applicable statutes and regulations and other regulatory authorities, require the expenditure of substantial time and financial resources.

Review and Approval of Drugs and Biologics in the United States

In the United States, the FDA approves and regulates drugs under the Federal Food, Drug, and Cosmetic Act, or FDCA, and related regulations. Biological products are licensed for marketing under the Public Health Service Act, or PHSA, and subject to regulation under the FDCA and related regulations. An applicant seeking approval to market and distribute a new drug or biological product in the United States must typically secure the following:

- completion of preclinical laboratory tests in compliance with the FDA's good laboratory practice, or GLP, regulations;
- submission to the FDA of an investigational new drug application, or IND, which must take effect before human clinical trials may begin;
- approval by an independent institutional review board, or IRB, representing each clinical site before each clinical trial may be initiated;
- performance of adequate and well-controlled human clinical trials in accordance with good clinical practices, or GCPs, to establish the safety and efficacy of the proposed drug product for each proposed indication;
- submission to the FDA of an NDA for a drug candidate product and a biologics license application, or BLA, for a biological product requesting marketing for one or more proposed indications;
- review of the request for approval by an FDA advisory committee, where appropriate or if applicable;
- completion of one or more FDA inspections of the manufacturing facility or facilities at which the product, or components thereof, are produced to assess compliance with cGMPs to assure the product's identity, strength, quality and purity;
- completion of FDA audits of clinical trial sites to assure compliance with GCPs and the integrity of the clinical data;
- payment of user fees and securing FDA approval of the NDA or BLA; and

- compliance with any post-approval requirements, including the potential requirement to implement a Risk Evaluation and Mitigation Strategy, or REMS, and the potential requirement to conduct post-approval studies.

Preclinical Studies

Before an applicant begins testing a compound with potential therapeutic value in humans, the product candidate enters the preclinical testing stage. Preclinical studies include laboratory evaluation of the purity and stability of the manufactured substance or active pharmaceutical ingredient and the formulated product, as well as *in vitro* and animal studies to assess the safety and activity of the product candidate for initial testing in humans and to establish a rationale for therapeutic use. The conduct of preclinical studies is subject to federal regulations and requirements, including GLP regulations. Some long-term preclinical testing, such as animal tests of reproductive adverse events and carcinogenicity, and long-term toxicity studies, may continue after the IND is submitted.

The IND and IRB Processes

An IND is a request for FDA authorization to administer an investigational product candidate to humans. Such authorization must be secured prior to interstate shipment and administration of any new drug or biologic that is not the subject of an approved NDA or BLA. In support of a request for an IND, applicants must submit a protocol for each clinical trial and any subsequent protocol amendments must be submitted to the FDA as part of the IND. In addition, the results of the preclinical tests, together with manufacturing information, analytical data, any available clinical data or literature and plans for clinical trials, among other things, are submitted to the FDA as part of an IND. The FDA requires a 30-day waiting period after the filing of each IND before clinical trials may begin. This waiting period is designed to allow the FDA to review the IND to determine whether human research subjects and patients will be exposed to unreasonable health risks. At any time during this 30-day period, or thereafter, the FDA may raise concerns or questions about the conduct of the trials as outlined in the IND and impose a clinical hold or partial clinical hold. In this case, the IND sponsor and the FDA must resolve any outstanding concerns before clinical trials can begin. The FDA's primary objectives in reviewing an IND are to assure the safety and rights of patients and to help assure that the quality of the investigation will be adequate to permit an evaluation of the drug's effectiveness and safety and of the biological product's safety, purity and potency.

Following commencement of a clinical trial under an IND, the FDA may also place a clinical hold or partial clinical hold on that trial. Clinical holds are imposed by the FDA whenever there is concern for patient safety and may be a result of new data, findings, or developments in clinical, nonclinical, and/or chemistry, manufacturing, and controls, or CMC. A clinical hold is an order issued by the FDA to the sponsor to delay a proposed clinical investigation or to suspend an ongoing investigation. A partial clinical hold is a delay or suspension of only part of the clinical work requested under the IND. For example, a specific protocol or part of a protocol is not allowed to proceed, while other protocols may do so. No more than 30 days after imposition of a clinical hold or partial clinical hold, the FDA will provide the sponsor a written explanation of the basis for the hold. Following issuance of a clinical hold or partial clinical hold, an investigation may only resume after the FDA has notified the sponsor that the investigation may proceed. The FDA will base that determination on information provided by the sponsor correcting the deficiencies previously cited or otherwise satisfying the FDA that the investigation can proceed.

A sponsor may choose, but is not required, to conduct a foreign clinical study under an IND. When a foreign clinical study is conducted under an IND, all IND requirements must be met unless waived. When a foreign clinical study is not conducted under an IND, the sponsor must ensure that the study complies with certain regulatory requirements of the FDA in order to use the study as support for an IND or application for marketing approval in the United States. The FDA's regulations are intended to help ensure the protection of human subjects enrolled in non-IND foreign clinical studies, as well as the quality and integrity of the resulting data. They further help ensure that non-IND foreign studies are conducted in a manner comparable to that required for IND studies.

In addition to the foregoing IND requirements, an IRB representing each institution participating in the clinical trial must review and approve the plan for any clinical trial before it commences at that institution, and

the IRB must conduct continuing review and reapprove the trial at least annually. The IRB must review and approve, among other things, the trial protocol and informed consent information to be provided to trial subjects. An IRB must operate in compliance with FDA regulations. An IRB can suspend or terminate approval of a clinical trial at its institution, or an institution it represents, if the clinical trial is not being conducted in accordance with the IRB's requirements or if the product candidate has been associated with unexpected serious harm to patients.

Additionally, some trials are overseen by an independent group of qualified experts organized by the trial sponsor, known as a data safety monitoring board, or DSMB, or committee. This group provides authorization for whether a trial may move forward at designated check points based on access that only the group maintains to available data from the trial. Suspension or termination of development during any phase of clinical trials can occur if it is determined that the participants or patients are being exposed to an unacceptable health risk. Other reasons for suspension or termination may be made based on evolving business objectives and/or competitive climate. Information about certain clinical trials, including details of the protocol and eventually study results, also must be submitted within specific time frames to the National Institutes of Health for public dissemination on the ClinicalTrials.gov data registry. Similar requirements for posting clinical trial information in clinical trial registries exist in the European Union, or the EU, and in other countries outside the United States.

Human Clinical Studies in Support of an NDA or BLA

Clinical trials involve the administration of the investigational product to human subjects under the supervision of qualified investigators in accordance with GCP requirements, which include, among other things, the requirement that all research subjects provide their informed consent in writing before their participation in any clinical trial. Clinical trials are conducted under written trial protocols detailing, among other things, the inclusion and exclusion criteria, the objectives of the trial, the parameters to be used in monitoring safety and the effectiveness criteria to be evaluated.

The clinical investigation of an investigational drug or biological product is generally divided into four phases. Although the phases are usually conducted sequentially, they may overlap or be combined. The four phases of an investigation are as follows:

- Phase 1. Phase 1 studies include the initial introduction of an investigational new drug or biological product into humans. These studies are designed to evaluate the safety, dosage tolerance, metabolism and pharmacologic actions of the investigational drug or biological product in humans, the side effects associated with increasing doses, and if possible, to gain early evidence on effectiveness.
- Phase 2. Phase 2 includes the controlled clinical trials conducted to preliminarily or further evaluate the effectiveness of the investigational drug or biological product for a particular indication(s) in patients with the disease or condition under trial, to determine dosage tolerance and optimal dosage, and to identify possible adverse side effects and safety risks associated with the drug or biological product. Phase 2 clinical trials are typically well-controlled, closely monitored, and conducted in a limited patient population.
- Phase 3. Phase 3 clinical trials are generally controlled clinical trials conducted in an expanded patient population generally at geographically dispersed clinical trial sites. They are performed after preliminary evidence suggesting effectiveness of the drug or biological product has been obtained, and are intended to further evaluate dosage, clinical effectiveness and safety, to establish the overall benefit-risk relationship of the investigational drug or biological product, and to provide an adequate basis for product approval.
- Phase 4. Post-approval studies may be conducted after initial marketing approval. These studies are used to gain additional experience from the treatment of patients in the intended therapeutic indication.

Progress reports detailing the results of the clinical trials must be submitted at least annually to the FDA and more frequently if serious adverse events occur. In addition, IND safety reports must be submitted to the FDA for any of the following: serious and unexpected suspected adverse reactions; findings from other studies or animal or *in vitro* testing that suggest a significant risk in humans exposed to the drug; and any clinically important increase in the case of a serious suspected adverse reaction over that listed in the protocol or

investigator brochure. The FDA will typically inspect one or more clinical sites to assure compliance with GCP and the integrity of the clinical data submitted.

In August 2018, the FDA released a draft guidance entitled "Expansion Cohorts: Use in First-In-Human Clinical Trials to Expedite Development of Oncology Drugs and Biologics," which outlines how developers can utilize an adaptive trial design commonly referred to as a seamless trial design in early stages of oncology biological product development (i.e., the first-in-human clinical trial) to compress the traditional three phases of trials into one continuous trial called an expansion cohort trial. Information to support the design of individual expansion cohorts are included in IND applications and assessed by FDA. Expansion cohort trials can potentially bring efficiency to biological product development and reduce developmental costs and time.

Concurrent with clinical trials, companies often complete additional animal studies and must also develop additional information about the chemistry and physical characteristics of the candidate product as well as finalize a process for manufacturing the product in commercial quantities in accordance with cGMP requirements. The manufacturing process must be capable of consistently producing quality batches of the drug candidate and, among other things, must develop methods for testing the identity, strength, quality, purity, and potency of the final drug. Additionally, appropriate packaging must be selected and tested, and stability studies must be conducted to demonstrate that the drug candidate does not undergo unacceptable deterioration over its shelf life.

Expanded Access

Expanded access, sometimes called "compassionate use," is the use of investigational products outside of clinical trials to treat patients with serious or immediately life-threatening diseases or conditions when there are no comparable or satisfactory alternative treatment options. FDA regulations allow access to investigational products under an IND by the sponsor or the treating physician for treatment purposes on a case-by-case basis for: individual patients (single-patient IND applications for treatment in emergency settings and non-emergency settings); intermediate-size patient populations; and larger populations for use of the investigational product under a treatment protocol or treatment IND application.

There is no requirement for a sponsor to provide expanded access to an investigational product. However, if a sponsor decides to make its investigational product available for expanded access, the FDA reviews requests for expanded access and determines if treatment may proceed. Expanded access may be appropriate when all of the following criteria apply: patient(s) have a serious or immediately life-threatening disease or condition, and there is no comparable or satisfactory alternative therapy to diagnose, monitor or treat the disease or condition; the potential patient benefit justifies the potential risks of the treatment and the potential risks are not unreasonable in the context or condition to be treated; and the expanded use of the investigational drug for the requested treatment will not interfere with initiation, conduct or completion of clinical investigations that could support marketing approval of the product or otherwise compromise the potential development of the product.

Sponsors of one or more investigational products for the treatment of a serious disease(s) or condition(s) must make publicly available their policy for evaluating and responding to requests for expanded access for individual patients. Sponsors are required to make such policies publicly available upon the earlier of initiation of a Phase 2 or Phase 3 trial; or 15 days after the investigational drug or biologic receives designation as a breakthrough therapy, fast track product or regenerative medicine advanced therapy.

In addition, on May 30, 2018, the Right to Try Act was signed into law. The law, among other things, provides an additional mechanism for patients with a life-threatening condition who have exhausted approved treatments and are unable to participate in clinical trials to access certain investigational products that have completed a Phase 1 clinical trial, are the subject of an active IND and are undergoing investigation for FDA approval. Unlike the expanded access framework described above, the Right to Try Pathway does not require FDA to review or approve requests for use of the investigational product. There is no obligation for a manufacturer to make its investigational products available to eligible patients under the Right to Try Act.

Pediatric Studies

Under the Pediatric Research Equity Act of 2003, an application or supplement thereto must contain data that are adequate to assess the safety and effectiveness of the product for the claimed indications in all relevant

pediatric subpopulations, and to support dosing and administration for each pediatric subpopulation for which the product is safe and effective. Sponsors must also submit pediatric study plans prior to the assessment data. Those plans must contain an outline of the proposed pediatric study or studies the applicant plans to conduct, including study objectives and design, any deferral or waiver requests and other information required by regulation. The applicant, the FDA, and the FDA's internal review committee must then review the information submitted, consult with each other and agree upon a final plan. The FDA or the applicant may request an amendment to the plan at any time.

For investigational products intended to treat a serious or life-threatening disease or condition, the FDA must, upon the request of an applicant, meet to discuss preparation of the initial pediatric study plan or to discuss deferral or waiver of pediatric assessments. In addition, the FDA will meet early in the development process to discuss pediatric study plans with sponsors, and the FDA must meet with sponsors by no later than the end-of-phase 1 meeting for serious or life-threatening diseases and by no later than 90 days after the FDA's receipt of the study plan.

The FDA may, on its own initiative or at the request of the applicant, grant deferrals for submission of some or all pediatric data until after approval of the product for use in adults, or full or partial waivers from the pediatric data requirements. Additional requirements and procedures relating to deferral requests and requests for extension of deferrals are contained in the Food and Drug Administration Safety and Innovation Act, or FDASIA. The FDA maintains a list of diseases that are exempt from PREA requirements due to low prevalence of disease in the pediatric population. In 2017, with the passage of the FDA Reauthorization Act of 2017, or FDARA, Congress further modified these provisions. Previously, drugs that had been granted orphan drug designation were exempt from the requirements of the Pediatric Research Equity Act. Under the amended section 505B, beginning on August 18, 2020, the submission of a pediatric assessment, waiver or deferral will be required for certain molecularly targeted cancer indications with the submission of an application or supplement to an application.

FDARA also established new requirements to govern certain molecularly targeted cancer indications. Any company that submits an application three years after the date of enactment of that statute must submit pediatric assessments with the application if the product is intended for the treatment of an adult cancer and is directed at a molecular target that the FDA determines to be substantially relevant to the growth or progression of a pediatric cancer. The investigation must be designed to yield clinically meaningful pediatric study data regarding the dosing, safety and preliminary efficacy to inform pediatric labeling for the product.

Submission and Review of an NDA or BLA by the FDA

In order to obtain approval to market a drug or biological product in the United States, a marketing application must be submitted to the FDA that provides data establishing the safety and effectiveness of the proposed drug product for the proposed indication, and the safety, purity and potency of the biological product for its intended indication. The application includes all relevant data available from pertinent preclinical and clinical trials, including negative or ambiguous results as well as positive findings, together with detailed information relating to the product's chemistry, manufacturing, controls and proposed labeling, among other things. Data can come from company-sponsored clinical trials intended to test the safety and effectiveness of a use of a product, or from a number of alternative sources, including studies initiated by investigators. To support marketing approval, the data submitted must be sufficient in quality and quantity to establish the safety and effectiveness of the investigational drug product and the safety, purity and potency of the biological product to the satisfaction of the FDA.

The application is the vehicle through which applicants formally propose that the FDA approve a new product for marketing and sale in the United States for one or more indications. Every new product candidate must be the subject of an approved NDA or BLA before it may be commercialized in the United States. Under federal law, the submission of most applications is subject to an application user fee. The sponsor of an approved application is also subject to an annual program fee. Certain exceptions and waivers are available for some of these fees, such as an exception from the application fee for products with orphan designation and a waiver for certain small businesses. If an application is withdrawn prior to the FDA acceptance for filing, 75% of these fees may be refunded to the sponsor. If an application is withdrawn after filing, a lower portion of these fees may be refunded in certain circumstances.

Following submission of an NDA or BLA, the FDA conducts a preliminary review of the application generally within 60 calendar days of its receipt and strives to inform the sponsor by the 74th day after the FDA's receipt of the submission to determine whether the application is sufficiently complete to permit substantive review. The FDA may request additional information rather than accept the application for filing. In this event, the application must be resubmitted with the additional information. Once the submission is accepted for filing, the FDA begins an in-depth substantive review. The FDA has agreed to specified performance goals in the review process of NDAs and BLAs. Under that agreement, 90% of applications seeking approval of New Molecular Entities, or NMEs, are meant to be reviewed within ten months from the date on which FDA accepts the NDA for filing, and 90% of applications for NMEs that have been designated for "priority review" are meant to be reviewed within six months of the filing date. The review process and the Prescription Drug User Fee Act goal date may be extended by the FDA for three additional months to consider new information or clarification provided by the applicant to address an outstanding deficiency identified by the FDA following the original submission.

Before approving an application, the FDA typically will inspect the facility or facilities where the product is or will be manufactured. These pre-approval inspections may cover all facilities associated with an NDA or BLA submission, including drug component manufacturing (e.g., active pharmaceutical ingredients), finished drug product manufacturing, and control testing laboratories. The FDA will not approve an application unless it determines that the manufacturing processes and facilities are in compliance with cGMP requirements and adequate to assure consistent production of the product within required specifications. Additionally, before approving an NDA or BLA, the FDA will typically inspect one or more clinical sites to assure compliance with GCP.

If the FDA decides not to license or approve the application, it will issue a Complete Response letter, or CRL. A CRL will describe all of the deficiencies that the FDA has identified in the application, except that where the FDA determines that the data supporting the application are inadequate to support approval, the FDA may issue the CRL without first conducting required inspections, testing submitted product lots, and/or reviewing proposed labeling. In issuing the CRL, the FDA may recommend actions that the applicant might take to place the application in condition for approval, including requests for additional information or clarification. The FDA may delay or refuse approval of an application if applicable regulatory criteria are not satisfied, require additional testing or information and/or require post-marketing testing and surveillance to monitor safety or efficacy of a product.

In addition, as a condition of approval, the FDA may require an applicant to develop a REMS. REMS use risk minimization strategies beyond the professional labeling to ensure that the benefits of the product outweigh the potential risks. To determine whether a REMS is needed, the FDA will consider the size of the population likely to use the product, seriousness of the disease, expected benefit of the product, expected duration of treatment, seriousness of known or potential adverse events, and whether the product is a new molecular entity. Under FDARA, the FDA must implement a protocol to expedite review of responses to inspection reports pertaining to certain applications, including applications for products in shortage or those for which approval is dependent on remediation of conditions identified in the inspection report.

The FDA may refer an application for a novel product to an advisory committee or explain why such referral was not made. Typically, an advisory committee is a panel of independent experts, including clinicians and other scientific experts, that reviews, evaluates and provides a recommendation as to whether the application should be approved and under what conditions. The FDA is not bound by the recommendations of an advisory committee, but it considers such recommendations carefully when making decisions.

The FDA's Decision on an NDA or BLA

On the basis of the FDA's evaluation of the application and accompanying information, including the results of the inspection of the manufacturing facilities, the FDA may issue an approval letter or a complete response letter. An approval letter authorizes commercial marketing of the product with specific prescribing information for specific indications. A complete response letter generally outlines the deficiencies in the submission and may require substantial additional testing or information in order for the FDA to reconsider the application. If and when those deficiencies have been addressed to the FDA's satisfaction in a resubmission of the NDA, the FDA will issue an approval letter. The FDA has committed to reviewing such resubmissions in two or

six months depending on the type of information included. Even with submission of this additional information, the FDA ultimately may decide that the application does not satisfy the regulatory criteria for approval.

If the FDA approves a product, it may limit the approved indications for use for the product, require that contraindications, warnings or precautions be included in the product labeling, require that post-approval studies, including phase 4 clinical trials, be conducted to further assess the drug's safety after approval, require testing and surveillance programs to monitor the product after commercialization, or impose other conditions, including distribution restrictions or other risk management mechanisms, including REMS, which can materially affect the potential market and profitability of the product. The FDA may prevent or limit further marketing of a product based on the results of post-market studies or surveillance programs. After approval, many types of changes to the approved product, such as adding new indications, manufacturing changes and additional labeling claims, are subject to further testing requirements and FDA review and approval.

Fast Track, Breakthrough Therapy and Priority Review Designations

The FDA is authorized to designate certain products for expedited review if they are intended to address an unmet medical need in the treatment of a serious or life-threatening disease or condition. These programs include fast track designation, breakthrough therapy designation and priority review designation.

Specifically, the FDA may designate a product for Fast Track review if it is intended, whether alone or in combination with one or more other products, for the treatment of a serious or life-threatening disease or condition, and it demonstrates the potential to address unmet medical needs for such a disease or condition. For Fast Track products, sponsors may have greater interactions with the FDA and the FDA may initiate review of sections of a Fast Track product's application before the application is complete. This rolling review may be available if the FDA determines, after preliminary evaluation of clinical data submitted by the sponsor, that a Fast Track product may be effective. The sponsor must also provide, and the FDA must approve, a schedule for the submission of the remaining information and the sponsor must pay applicable user fees. However, the FDA's time period goal for reviewing a Fast Track application does not begin until the last section of the application is submitted. In addition, the Fast Track designation may be withdrawn by the FDA if the FDA believes that the designation is no longer supported by data emerging in the clinical trial process.

Second, a product may be designated as a Breakthrough Therapy if it is intended, either alone or in combination with one or more other products, to treat a serious or life-threatening disease or condition and preliminary clinical evidence indicates that the product may demonstrate substantial improvement over existing therapies on one or more clinically significant endpoints, such as substantial treatment effects observed early in clinical development. The FDA may take certain actions with respect to Breakthrough Therapies, including holding meetings with the sponsor throughout the development process; providing timely advice to the product sponsor regarding development and approval; involving more senior staff in the review process; assigning a cross-disciplinary project lead for the review team; and taking other steps to help the sponsor design the clinical trials in an efficient manner.

Third, the FDA may designate a product for priority review if it is a product that treats a serious condition and, if approved, would provide a significant improvement in safety or effectiveness. The FDA determines, on a case-by-case basis, whether the proposed product represents a significant improvement when compared with other available therapies. Significant improvement may be illustrated by evidence of increased effectiveness in the treatment of a condition, elimination or substantial reduction of a treatment-limiting product reaction, documented enhancement of patient compliance that may lead to improvement in serious outcomes, and evidence of safety and effectiveness in a new subpopulation. A priority designation is intended to direct overall attention and resources to the evaluation of such applications, and to shorten the FDA's goal for taking action on a marketing application from ten months to six months.

Accelerated Approval Pathway

The FDA may grant accelerated approval to a product for a serious or life-threatening condition that provides meaningful therapeutic advantage to patients over existing treatments based upon a determination that the product has an effect on a surrogate endpoint that is reasonably likely to predict clinical benefit. The FDA may also grant accelerated approval for such a condition when the product has an effect on an intermediate

clinical endpoint that can be measured earlier than an effect on irreversible morbidity or mortality, or IMM, and that is reasonably likely to predict an effect on irreversible morbidity or mortality or other clinical benefit, taking into account the severity, rarity or prevalence of the condition and the availability or lack of alternative treatments. Products granted accelerated approval must meet the same statutory standards for safety and effectiveness as those granted traditional approval.

For the purposes of accelerated approval, a surrogate endpoint is a marker, such as a laboratory measurement, radiographic image, physical sign or other measure that is thought to predict clinical benefit, but is not itself a measure of clinical benefit. Surrogate endpoints can often be measured more easily or more rapidly than clinical endpoints. An intermediate clinical endpoint is a measurement of a therapeutic effect that is considered reasonably likely to predict the clinical benefit of a drug, such as an effect on IMM. The FDA has limited experience with accelerated approvals based on intermediate clinical endpoints but has indicated that such endpoints generally may support accelerated approval where the therapeutic effect measured by the endpoint is not itself a clinical benefit and basis for traditional approval, if there is a basis for concluding that the therapeutic effect is reasonably likely to predict the ultimate clinical benefit of a product.

The accelerated approval pathway is most often used in settings in which the course of a disease is long and an extended period of time is required to measure the intended clinical benefit of a product, even if the effect on the surrogate or intermediate clinical endpoint occurs rapidly. Thus, accelerated approval has been used extensively in the development and approval of products for treatment of a variety of cancers in which the goal of therapy is generally to improve survival or decrease morbidity and the duration of the typical disease course requires lengthy and sometimes large trials to demonstrate a clinical or survival benefit. Thus, the benefit of accelerated approval derives from the potential to receive approval based on surrogate endpoints sooner than possible for trials with clinical or survival endpoints, rather than deriving from any explicit shortening of the FDA approval timeline, as is the case with priority review.

The accelerated approval pathway is usually contingent on a sponsor's agreement to conduct, in a diligent manner, additional post-approval confirmatory studies to verify and describe the product's clinical benefit. As a result, a product candidate approved on this basis is subject to rigorous post-marketing compliance requirements, including the completion of phase 4 or post-approval clinical trials to confirm the effect on the clinical endpoint. Failure to conduct required post-approval studies, or confirm a clinical benefit during post-marketing studies, would allow the FDA to initiate expedited proceedings to withdraw approval of the product. All promotional materials for product candidates approved under accelerated regulations are subject to prior review by the FDA.

Post-Approval Regulation

Drugs and biologics manufactured or distributed pursuant to FDA approvals are subject to pervasive and continuing regulation by the FDA, including, among other things, requirements relating to recordkeeping, periodic reporting, product sampling and distribution, advertising and promotion and reporting of adverse experiences with the product. After approval, most changes to the approved product, such as adding new indications or other labeling claims, are subject to prior FDA review and approval. There also are continuing, annual user fee requirements for any marketed products and the establishments at which such products are manufactured, as well as new application fees for supplemental applications with clinical data.

In addition, manufacturers and other entities involved in the manufacture and distribution of approved products are required to register their establishments with the FDA and state agencies and are subject to periodic unannounced inspections by the FDA and these state agencies for compliance with cGMP requirements. Changes to the manufacturing process are strictly regulated and often require prior FDA approval before being implemented. FDA regulations also require investigation and correction of any deviations from cGMP and impose reporting and documentation requirements upon the sponsor and any third-party manufacturers that the sponsor may decide to use. Accordingly, manufacturers must continue to expend time, money, and effort in the area of production and quality control to maintain cGMP compliance.

Once an approval is granted, the FDA may withdraw the approval if compliance with regulatory requirements and standards is not maintained or if problems occur after the product reaches the market. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with manufacturing processes, or failure to comply with regulatory requirements, may result in revisions to

the approved labeling to add new safety information; imposition of post-market studies or clinical trials to assess new safety risks; or imposition of distribution or other restrictions under a REMS program. Other potential consequences include, among other things:

- restrictions on the marketing or manufacturing of the product, suspension of the approval, or complete withdrawal of the product from the market or product recalls;
- fines, warning letters or holds on post-approval clinical trials;
- refusal of the FDA to approve pending NDAs or supplements to approved NDAs, or suspension or revocation of product license approvals;
- product seizure or detention, or refusal to permit the import or export of products; or
- injunctions or the imposition of civil or criminal penalties.

The FDA strictly regulates marketing, labeling, advertising and promotion of products that are placed on the market. Products may be promoted only for the approved indications and in accordance with the provisions of the approved label. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability. If a company is found to have promoted off-label uses, it may become subject to adverse public relations and administrative and judicial enforcement by the FDA, the Department of Justice, or the Office of the Inspector General of the Department of Health and Human Services, as well as state authorities. This could subject a company to a range of penalties that could have a significant commercial impact, including civil and criminal fines and agreements that materially restrict the manner in which a company promotes or distributes drug products.

Biosimilars

The 2010 Patient Protection and Affordable Care Act, or ACA, which was signed into law on March 23, 2010, included a subtitle called the Biologics Price Competition and Innovation Act of 2009, or BPCIA. The BPCIA established a regulatory scheme authorizing the FDA to approve biosimilars and interchangeable biosimilars. As of January 1, 2021, the FDA has approved numerous biosimilar products for use in the United States. No interchangeable biosimilars, however, have been approved. The FDA has issued several guidance documents outlining an approach to review and approval of biosimilars. Additional guidance is expected to be finalized by FDA in the near term.

Under the BPCIA, a manufacturer may submit an application for licensure of a biologic product that is "biosimilar to" or "interchangeable with" a previously approved biological product or "reference product." In order for the FDA to approve a biosimilar product, it must find that there are no clinically meaningful differences between the reference product and proposed biosimilar product in terms of safety, purity, and potency. For the FDA to approve a biosimilar product as interchangeable with a reference product, the agency must find that the biosimilar product can be expected to produce the same clinical results as the reference product, and (for products administered multiple times) that the biologic and the reference biologic may be switched after one has been previously administered without increasing safety risks or risks of diminished efficacy relative to exclusive use of the reference biologic.

Under the BPCIA, an application for a biosimilar product may not be submitted to the FDA until four years following the date of approval of the reference product. The FDA may not approve a biosimilar product until 12 years from the date on which the reference product was approved. Even if a product is considered to be a reference product eligible for exclusivity, another company could market a competing version of that product if the FDA approves a full BLA for such product containing the sponsor's own preclinical data and data from adequate and well-controlled clinical trials to demonstrate the safety, purity and potency of their product. The BPCIA also created certain exclusivity periods for biosimilars approved as interchangeable products. At this juncture, it is unclear whether products deemed "interchangeable" by the FDA will, in fact, be readily substituted by pharmacies, which are governed by state pharmacy law.

Orphan Drug Designation and Exclusivity

Under the Orphan Drug Act, the FDA may designate a drug product as an "orphan drug" if it is intended to treat a rare disease or condition, generally meaning that it affects fewer than 200,000 individuals in the United

States, or more in cases in which there is no reasonable expectation that the cost of developing and making a drug product available in the United States for treatment of the disease or condition will be recovered from sales of the product. A company must request orphan drug designation before submitting an NDA or BLA for the candidate product. If the request is granted, the FDA will disclose the identity of the therapeutic agent and its potential use. Orphan drug designation does not shorten the Prescription Drug User Fee Act, or PDUFA, goal dates for the regulatory review and approval process, although it does convey certain advantages such as tax benefits and exemption from the PDUFA application fee.

If a product with orphan designation receives the first FDA approval for the disease or condition for which it has such designation or for a select indication or use within the rare disease or condition for which it was designated, the product generally will receive orphan drug exclusivity. Orphan drug exclusivity means that the FDA may not approve another sponsor's marketing application for the same drug for the same indication for seven years, except in certain limited circumstances. Orphan exclusivity does not block the approval of a different product for the same rare disease or condition, nor does it block the approval of the same product for different indications. If a drug or biologic designated as an orphan drug ultimately receives marketing approval for an indication broader than what was designated in its orphan drug application, it may not be entitled to exclusivity. Orphan exclusivity will not bar approval of another product under certain circumstances, including if a company with orphan drug exclusivity is not able to meet market demand and in cases where a subsequent product with the same drug or biologic for the same indication is shown to be clinically superior to the approved product on the basis of greater efficacy or safety, or providing a major contribution to patient care. Under Omnibus legislation signed by President Trump on December 27, 2020, the requirement for a subsequent product to show clinical superiority in order to break the previous product's orphan drug exclusivity applies to drugs and biologics that received orphan drug designation before enactment of FDARA in 2017 but have not yet been approved or licensed by FDA.

Pediatric Exclusivity

Pediatric exclusivity is another type of non-patent marketing exclusivity in the United States and, if granted, provides for the attachment of an additional six months of marketing protection to the term of any existing regulatory exclusivity, including the non-patent and orphan exclusivity. This six-month exclusivity may be granted if an NDA or BLA sponsor submits pediatric data that fairly respond to a written request from the FDA for such data. The data do not need to show the product to be effective in the pediatric population studied; rather, if the clinical trial is deemed to fairly respond to the FDA's request, the additional protection is granted. If reports of requested pediatric studies are submitted to and accepted by the FDA within the statutory time limits, whatever statutory or regulatory periods of non-patent exclusivity for drugs and biologics, or patent protection that covers a drug product, are extended by six months. This is not a patent term extension, but it effectively extends the regulatory period during which the FDA cannot approve another application.

Patent Term Restoration and Extension

A patent claiming a new drug product may be eligible for a limited patent term extension under the Hatch-Waxman Amendments, which permits a patent restoration of up to five years for patent term lost during product development and the FDA regulatory review. The restoration period granted on a patent covering a product is typically one-half the time between the effective date of the IND approval and the submission date of an application, plus the time between the submission date of an application and the ultimate approval date. Patent term restoration cannot be used to extend the remaining term of a patent past a total of 14 years from the product's approval date. Only one patent applicable to an approved product is eligible for the extension, and the application for the extension must be submitted prior to the expiration of the patent in question. A patent that covers multiple products for which approval is sought can only be extended in connection with one of the approvals. The United States Patent and Trademark Office reviews and approves the application for any patent term extension or restoration in consultation with the FDA.

Pharmaceutical Coverage, Pricing and Reimbursement

In the United States and markets in other countries, patients who are prescribed treatments for their conditions and providers performing the prescribed services generally rely on third-party payors to reimburse all or part

of the associated healthcare costs. Significant uncertainty exists as to the coverage and reimbursement status of products approved by the FDA and other government authorities. Thus, even if a product candidate is approved, sales of the product will depend, in part, on the extent to which third-party payors, including government health programs in the United States such as Medicare and Medicaid, commercial health insurers and managed care organizations, provide coverage, and establish adequate reimbursement levels for, the product. The process for determining whether a payor will provide coverage for a product may be separate from the process for setting the price or reimbursement rate that the payor will pay for the product once coverage is approved. Third-party payors are increasingly challenging the prices charged, examining the medical necessity, and reviewing the cost-effectiveness of medical products and services and imposing controls to manage costs. Third-party payors may limit coverage to specific products on an approved list, also known as a formulary, which might not include all of the approved products for a particular indication.

It is time consuming and expensive to seek coverage and reimbursement from third-party payors. In order to secure coverage and reimbursement for any product that might be approved for sale, a company may need to conduct expensive pharmacoeconomic studies in order to demonstrate the medical necessity and cost-effectiveness of the product, in addition to the costs required to obtain FDA or other comparable marketing approvals. Nonetheless, product candidates may not be considered medically necessary or cost effective. A decision by a third-party payor not to cover a product candidate could reduce physician utilization once the product is approved and have a material adverse effect on sales, results of operations and financial condition. Additionally, a payor's decision to provide coverage for a product does not imply that an adequate reimbursement rate will be approved. Further, one payor's determination to provide coverage for a drug product does not assure that other payors will also provide coverage and reimbursement for the product, and the level of coverage and reimbursement can differ significantly from payor to payor.

Healthcare Law and Regulation

Health care providers and third-party payors play a primary role in the recommendation and prescription of drug products that are granted marketing approval. Arrangements with providers, consultants, third-party payors and customers are subject to broadly applicable fraud and abuse, anti-kickback, false claims laws, patient privacy laws and regulations and other health care laws and regulations that may constrain business and/or financial arrangements.

Restrictions under applicable federal and state health care laws and regulations, include the federal Anti-Kickback Statute, which prohibits, among other things, persons and entities from knowingly and willfully soliciting, offering, paying, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service, for which payment may be made, in whole or in part, under a federal health care program such as Medicare and Medicaid; the federal civil and criminal false claims laws, false statements, and civil monetary penalties laws, including the civil False Claims Act, which prohibit individuals or entities from, among other things, knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false, fictitious or fraudulent or knowingly making, using or causing to made or used a false record or statement to avoid, decrease or conceal an obligation to pay money to the federal government; the Health Insurance Portability and Accountability Act, or HIPAA, which, in addition to privacy protections applicable to healthcare providers and other entities, prohibits executing a scheme to defraud any healthcare benefit program or making false statements relating to healthcare matters; federal laws that require pharmaceutical manufacturers to report certain calculated product prices to the government or provide certain discounts or rebates to government authorities or private entities, often as a condition of reimbursement under government healthcare programs; analogous state laws and regulations, including state anti-kickback and false claims laws; and the federal transparency requirements known as the federal Physician Payments Sunshine Act, which requires certain manufacturers of drugs, devices, biologics and medical supplies to report annually to the Centers for Medicare & Medicaid Services, or CMS, within the United States Department of Health and Human Services, information related to payments and other transfers of value made by that entity to physicians (defined to include doctors, dentists, optometrists, podiatrists and chiropractors) and teaching hospitals, as well as ownership and investment interests held by physicians and their immediate family members. Effective January 1, 2022, these federal transparency reporting obligations will extend to include transfers of value made during the previous year to physician assistants, nurse practitioners, clinical nurse specialists, anesthesiologist assistants, certified registered nurse anesthetists and certified nurse midwives. In

addition, HIPAA as amended by the Health Information Technology for Economic and Clinical Health Act, or HITECH, among other things, imposes limitations on certain covered healthcare providers, health plans, and healthcare clearinghouses and their respective business associates and their covered subcontractors that perform services for them that involve the use, or disclosure of, individually identifiable health information, relating to the privacy, security and transmission of individually identifiable health information.

Further, some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government in addition to requiring manufacturers to report information related to payments to physicians and other health care providers or marketing expenditures or restrict financial interactions between pharmaceutical companies and healthcare providers. Additionally, some state and local laws require the registration of pharmaceutical sales representatives in the jurisdiction. State and foreign laws also govern the privacy and security of health information in some circumstances, many of which differ from each other in significant ways and often are not preempted by HIPAA, thus complicating compliance efforts. In particular, numerous federal and state laws and regulations, including state data breach notification laws, state health information privacy laws, and federal and state consumer protection laws, govern the collection, use, disclosure, and protection of health-related and other personal information.

In addition, we may be subject to laws and regulations prohibiting bribery and corruption such as the Foreign Corrupt Practices Act, or FCPA, which prohibits companies and their intermediaries from making, or offering or promising to make, improper payments to non-U.S. officials for the purpose of obtaining or retaining business or otherwise seeking favorable treatment as well as federal consumer protection and unfair competition laws, which broadly regulate marketplace activities and activities that potentially harm consumers.

Violation of the laws described above or any other governmental laws and regulations may result in significant penalties, including civil, criminal, and administrative penalties, damages, fines, the curtailment or restructuring of operations, the exclusion from participation in federal and state healthcare programs, disgorgement, contractual damages, reputational harm, diminished profits and future earnings, imprisonment, and additional reporting requirements and oversight if a manufacturer becomes subject to a corporate integrity agreement or similar agreement to resolve allegations of non-compliance with these laws. Furthermore, efforts to ensure that business activities and business arrangements comply with applicable healthcare laws and regulations can be costly.

Similar healthcare laws and regulations exist in the EU and other jurisdictions, including reporting requirements detailing interactions with and payments to healthcare providers and laws governing the privacy and security of personal information

Health Care Reform in the United States and Potential Changes to Health Care Laws

Sales of any biopharmaceutical products, if and when approved by the FDA or analogous authorities outside the United States, will depend in significant part on the availability of third-party coverage and adequate reimbursement for the products.

Health care reform has been a significant trend in the U.S. health care industry and elsewhere. In particular, government authorities and other third-party payors have attempted to control costs by limiting coverage and the amount of reimbursement for particular medical products and services. Under the former Trump administration, there were efforts to repeal or modify prior health care reform legislation and regulation and also to implement new health care reform measures, including measures related to payment for drugs under government health care programs. The nature and scope of health care reform in the new Biden administration remains uncertain but early actions including additional health care reform as well as challenges to actions taken under the Trump administration have been taken and are likely to continue.

There has been heightened governmental scrutiny in recent years over the manner in which manufacturers set prices for their marketed products, which has resulted in proposed and enacted federal and state legislation designed to, among other things, bring more transparency to product pricing and reform government program reimbursement methodologies for pharmaceutical and biologic products. At the state level, individual states are increasingly passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on

certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. These measures could reduce the ultimate demand for our products, once approved, or put pressure on our product pricing.

At the state level, legislatures are increasingly passing legislation and implementing regulations designed to control pharmaceutical and biological product pricing, including price or patient reimbursement constraints, discounts, restrictions on certain product access and marketing cost disclosure and transparency measures, and, in some cases, designed to encourage importation from other countries and bulk purchasing. In addition, regional health care authorities and individual hospitals are increasingly using bidding procedures to determine what pharmaceutical products and which suppliers will be included in their prescription drug and other health care programs. These measures could reduce the ultimate demand for our products, once approved, or put pressure on our product pricing. We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for our product candidates or additional pricing pressures.

We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative or executive action, either in the United States or abroad. We expect that additional federal and state health care reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for health care products and services.

Data Privacy Regulation

U.S. Privacy Law

There are numerous U.S. federal and state laws and regulations related to the privacy and security of personal information, including laws requiring the safeguarding of personal information and laws requiring notification to governmental authorities and data subjects as well as remediation in the event of a data breach.

There have been several developments in recent years with respect to U.S. state data privacy laws. In 2018, California passed into law the California Consumer Privacy Act, or the CCPA, which took effect on January 1, 2020 and imposed many requirements on businesses that process the personal information of California residents. Many of the CCPA's requirements are similar to those found in the GDPR, including requiring businesses to provide notice to data subjects regarding the information collected about them and how such information is used and shared, and providing data subjects the right to request access to such personal information and, in certain cases, request the erasure of such personal information. The CCPA also affords California residents the right to opt-out of "sales" of their personal information. The CCPA contains significant penalties for companies that violate its requirements. It also provides California residents a private right of action, including the ability to seek statutory damages, in the event of a breach involving their personal information. Compliance with the CCPA is a rigorous and time-intensive process that may increase the cost of doing business or require companies to change their business practices to ensure full compliance. On November 3, 2020, California voters passed a ballot initiative for the California Privacy Rights Act, or the CPRA, which will significantly expand the CCPA to incorporate additional GDPR-like provisions including requiring that the use, retention and sharing of personal information of California residents be reasonably necessary and proportionate to the purposes of collection or processing, granting additional protections for sensitive personal information, and requiring greater disclosures related to notice to residents regarding retention of information. The CPRA will also expand personal information rights of California residents, including creating a right to opt out of sharing of personal information with third parties for advertising, expanding the lookback period for the right to know about personal information held by businesses, and expanding the right to erasure for information held by third parties. Most CPRA provisions will take effect on January 1, 2023, though the obligations will apply to any personal information collected after January 1, 2022. Similar laws have been proposed or passed at the U.S. federal and state level, including the Virginia Consumer Data Protection Act, which will take effect on January 1, 2023.

General data protection regulation

Many countries outside of the United States maintain rigorous laws governing the privacy and security of personal information. The collection, use, disclosure, transfer, or other processing of personal data, including

personal health data, regarding individuals who are located in the EEA, and the processing of personal data that takes place in the EEA, is subject to the GDPR, which became effective on May 25, 2018. The GDPR is wide-ranging in scope and imposes numerous requirements on companies that process personal data, and it imposes heightened requirements on companies that process health and other sensitive data, such as requiring in many situations that a company obtain the consent of the individuals to whom the sensitive personal data relate before processing such data. Examples of obligations imposed by the GDPR on companies processing personal data that fall within the scope of the GDPR include providing information to individuals regarding data processing activities, implementing safeguards to protect the security and confidentiality of personal data, appointing a data protection officer, providing notification of data breaches and taking certain measures when engaging third-party processors. The GDPR also imposes strict rules on the transfer of personal data to countries outside the EEA, including the United States, and permits data protection authorities to impose large penalties for violations of the GDPR, including potential fines of up to €20 million or 4% of annual global revenues, whichever is greater. The GDPR also confers a private right of action on data subjects and consumer associations to lodge complaints with supervisory authorities, seek judicial remedies, and obtain compensation for damages resulting from violations of the GDPR. Compliance with the GDPR is a rigorous and time-intensive process that may increase the cost of doing business or require companies to change their business practices to ensure full compliance. In July 2020, the Court of Justice of the European Union, or the CJEU, invalidated the EU-U.S. Privacy Shield framework, one of the mechanisms used to legitimize the transfer of personal data from the EEA to the United States. The CJEU decision also drew into question the long-term viability of an alternative means of data transfer, the standard contractual clauses, for transfers of personal data from the EEA to the United States. Following the withdrawal of the U.K. from the EU, the U.K. Data Protection Act 2018 applies to the processing of personal data that takes place in the U.K. and includes parallel obligations to those set forth by GDPR.

Employees and Human Capital Resources

As of April 30, 2021, we had 57 full-time employees, including 26 employees with M.D., Pharm.D. or Ph.D. degrees. Of these full-time employees, 42 are engaged in research and development activities and 15 are engaged in general and administrative activities. None of our employees is represented by a labor union or covered by a collective bargaining agreement. We consider our relationship with our employees to be good.

Our human capital resources objectives include, as applicable, identifying, recruiting, retaining, incentivizing and integrating our existing and additional employees. We are committed to diversity, equity and inclusion across all aspects of our organization, including in our recruitment, advancement and development practices. Each year, we review employee demographic information to evaluate our diversity efforts across all functions and levels of the company. We conduct annual performance and development reviews for each of our employees to discuss the individual's strengths and development opportunities, career development goals and performance goals. We also regularly survey employees to assess employee engagement and satisfaction. Additionally, each regular full-time employee is provided an allowance of up to $10,000 per calendar year and five working days to attend appropriate job-related trainings and other professional development courses, seminars, meetings, and similar sessions. The principal purposes of our equity incentive plans are to attract, retain and motivate selected employees, consultants and directors through the granting of stock-based compensation awards. We value our employees and regularly benchmark total rewards we provide, such as short- and long-term compensation, 401(k) contributions, health, welfare and quality of life benefits, paid time off and personal leave, against our industry peers to ensure we remain competitive and attractive to potential new hires.

Properties and Facilities

We occupy approximately 28,000 square feet of office and laboratory space in Waltham, Massachusetts under a lease that expires in March 2030 with an option to renew for an additional five years. We believe that our facilities are sufficient to meet our current needs and that suitable additional space will be available as and when needed.

Legal Proceedings

We are currently not a party to any material legal proceedings.

MANAGEMENT

Executive Officers and Directors

The following table sets forth the name, age as of April 30, 2021 and position of each of our executive officers and directors.

Name	Age	Position
Executive Officers		
René Russo, Pharm.D.	46	President and Chief Executive Officer, Director
Salvatore Giovine	37	Chief Financial Officer
Martin Huber, M.D.	61	Chief Medical Officer
Rónán O'Hagan, Ph.D.	50	Chief Scientific Officer
Non-Employee Directors		
Daniel S. Lynch	63	Chairman of the Board of Directors
Paul J. Clancy	59	Director
Daniel Curran, M.D.	54	Director
David Gardner	38	Director
David Grayzel, M.D.	53	Director
Andrew Hack, M.D., Ph.D.	47	Director
Rachel Humphrey, M.D.	59	Director
Michael Ross, Ph.D.	71	Director
Christina Rossi	45	Director

(1) Member of the audit committee.

(2) Member of the compensation committee.

(3) Member of the nominating and corporate governance committee.

Executive Officers

René Russo, Pharm.D. has served as our chief executive officer and as a member of our board of directors since May 2019 and as our president since May 2021. Dr. Russo served as entrepreneur-in-residence at New Enterprise Associates, a venture capital firm, from November 2018 to November 2019. Prior to that, she served as president and chief executive officer of Arsanis, Inc., or Arsanis, a biopharmaceutical company, from April 2016 to November 2018, and as its chief development officer from July 2015 until April 2016. Prior to joining Arsanis, Dr. Russo served in various roles of increasing responsibility over an 11-year period at Cubist Pharmaceuticals, Inc., a pharmaceutical development company, focused on the development and commercialization of infectious disease therapeutics, from 2003 until its acquisition by Merck Research Laboratories, or Merck, a healthcare company, in May 2015, most recently as its vice president, global medical affairs. Dr. Russo served as a member of the board of directors of Arsanis, Inc. since April 2016 and continues to serve as a member of X4 Pharmaceuticals, Inc., a biopharmaceutical company, following its merger with Arsanis in March 2019. Prior to joining the biotechnology industry, Dr. Russo held clinical positions at Robert Wood Johnson University Hospital and Princeton Hospital. Dr. Russo received her Pharm.D. and B.S. from Rutgers University. We believe Dr. Russo is qualified to serve on our board of directors because of her expertise and experience as our president and chief executive officer and her expertise in clinical development and commercialization of therapeutics in the life sciences industry.

Salvatore Giovine has served as our chief financial officer since March 2021. Prior to joining us, Mr. Giovine held roles of increasing responsibility at Johnson & Johnson, Inc., a diversified healthcare company, from May 2006 to March 2021, and most recently served as senior finance director. Prior to that, he served as associate in the private equity group at Deloitte LLP, an audit and accounting firm, from May 2004 to May 2006. Mr. Giovine received a B.S. and M.B.A. from Fordham Gabelli School of Business.

Martin Huber, M.D. has served as our chief medical officer since April 2020. From August 2015 to April 2020, Dr. Huber served as senior vice president and chief medical officer from at Tesaro, Inc., a pharmaceutical company, before its acquisition by GlaxoSmithKline plc, a biopharmaceutical company. Prior to that, he was vice president, oncology clinical research at Merck where he was instrumental in the advancement of Merck's oncology programs, serving as program lead for pembrolizumab in non-small cell lung cancer. Prior to Merck, Dr. Huber served in roles of increasing responsibility at Schering-Plough, Hoffmann-La Roche and Rhone-Poulenc Rorer, a pharmaceutical company, from 1994 to 2015. Dr. Huber received a B.S. in Biology from Texas Lutheran College and an M.D. from the Baylor College of Medicine. He completed his medical oncology training at U.T. M.D. Anderson Cancer Center.

Rónán O'Hagan, Ph.D. has served as our chief scientific officer since April 2021. Previously, he served as our senior vice president, research and translational sciences since June 2018. Prior to joining us, Dr. O'Hagan served in roles of increasing responsibility at Merck from November 2011 to June 2018. Prior to Merck, he served as associate director, target biology at AVEO Pharmaceuticals, Inc. from May 2002 to November 2011. Dr. O'Hagan received a B.Sc. from the University of Manitoba and completed Ph.D. studies at McMaster University.

Non-Employee Directors

Daniel S. Lynch has served as a member of our board of directors and as chairman of our board of directors since June 2020. Mr. Lynch has served as executive venture partner at GV, a venture capital firm, since March 2021. Mr. Lynch previously served as the interim chief executive officer of Surface Oncology, Inc., or Surface, a pharmaceutical company, from September 2017 until January 2018. He served as an advisor to Third Rock Ventures, a venture capital firm, from December 2016 to March 2021, as a venture partner from May 2013 to December 2016 and as an entrepreneur-in-residence from May 2011 to May 2013. Mr. Lynch serves as a member of the boards of directors of bluebird bio, Inc., a biopharmaceutical company, Translate Bio Inc., a biotechnology company, Blueprint Medicines Corporation, or Blueprint, a biopharmaceutical company, SpringWorks Therapeutics, Inc., a biopharmaceutical company, and Omega Alpha SPAC. Within the past five years, he served as a member of the boards of directors of Surface and Sesen Bio, Inc., a biotechnology company. Mr. Lynch received a B.A. in mathematics from Wesleyan University and an M.B.A. from the Darden Graduate School of Business Administration at the University of Virginia. We believe that Mr. Lynch is qualified to serve on our board of directors because of his senior leadership experience, his experience in private equity investing in life sciences companies and his extensive corporate governance experience through service on the boards of directors of other life sciences companies.

Paul J. Clancy has served on our board of directors since July 2020. Mr. Clancy has more than 35 years of experience in financial management and strategic business planning. Mr. Clancy served as executive vice president, senior advisor of Alexion Pharmaceuticals, Inc., or Alexion, a biopharmaceutical company, from November 2019 to July 2020, and as chief financial officer of Alexion from July 2017 to October 2019. Prior to Alexion, Mr. Clancy served as the executive vice president and chief financial officer at Biogen Inc. (formerly known as Biogen Idec), a biopharmaceutical company, or Biogen, since 2007. He also served as senior vice president of finance of Biogen Idec, with responsibilities for leading the treasury, tax, investor relations and business planning groups. Prior to the merger of Biogen and Idec Pharmaceutical Corporation, Mr. Clancy was the vice president of portfolio management at Biogen. He joined Biogen in 2001 as vice president of U.S. marketing. Before Biogen, Mr. Clancy spent 13 years at PepsiCo Inc., a food and beverage company, serving in a variety of finance, strategy, and general management positions. Mr. Clancy serves as a member of the board of directors of Agios Pharmaceuticals, Inc. and Incyte Corporation, each a pharmaceutical company, and serves on the board of Exact Sciences Corporation, a cancer diagnostics company. Mr. Clancy is a Senior Visiting Lecturer of Finance at Cornell University's Graduate School of Business. Mr. Clancy received his B.S. in business administration from Babson College and an M.B.A. from Columbia Business School. We believe Mr. Clancy is qualified to serve on our board of directors because of his extensive financial and executive leadership experience at large multi-national companies.

Daniel Curran, M.D. has served as a member of our board of directors since December 2020. He has more than 20 years of pharmaceutical experience in strategy, business development, project leadership and development roles. Since October 2012, Dr. Curran has held roles of increasing responsibility at Takeda Pharmaceutical Company Ltd., or Takeda, a pharmaceutical company, and most recently serves as a senior

vice president and the head of the rare genetics and hematology therapeutic area unit. Prior to Takeda, he served as vice president, corporate development at Millennium Pharmaceuticals, Inc., or Millennium, a wholly owned subsidiary of Takeda, from June 1999 to October 2012. Prior to Millennium, Dr. Curran held a business development role in the product planning and acquisition group at DuPont Merck Pharmaceuticals, a pharmaceutical company. Dr. Curran received an M.D. from the University of Pennsylvania School of Medicine, an M.B.A. from The Wharton School of the University of Pennsylvania and a B.S. in chemistry from King's College. We believe Dr. Curran is qualified to serve on our board of directors because of his diverse experience in the life sciences industry.

David Gardner has served as a member of our board of directors since February 2021. Since May 2015, Mr. Gardner has served as a senior member of the investment team at Rock Spring Capital Management LP, an investment firm focused on the healthcare sector. Prior to that, he was a vice president and research analyst at BlackRock, Inc. (and its predecessor company Merrill Lynch Investment Managers), a global asset management firm, from August 2005 until May 2015. Mr. Gardner received an M.B.A. from Columbia University. We believe Mr. Gardner is qualified to serve on our board of directors because of his experience in venture capital in the life sciences industry.

David Grayzel, M.D. has served as a member of our board of directors since January 2018. Dr. Grayzel has been a partner at Atlas Venture, or Atlas, a venture capital fund, since April 2014. Since joining Atlas, Dr. Grayzel served as chief executive officer of Surface from April 2014 to May 2015. In June 2010, Dr. Grayzel co-founded and served as chief executive officer of Arteaus Therapeutics, LLC, a biotechnology company, from June 2011 until it was acquired by Eli Lilly and Company in January 2014, served as co-founder and chief executive officer of Annovation Biopharma, Inc., a biotechnology company, from May 2011 until it was acquired by The Medicines Company in February 2015, and a founding board member of Delinia, Inc., a biotechnology company, from September 2015 until it was acquired by Celgene in January 2017. He is a co-founder and a member of the board of directors of Surface, and a board member of Aerovate Therapeutics, a biotechnology company and Affinia Therapeutics, a gene therapy company. Previously, Dr. Grayzel was a member of the executive team at Infinity Pharmaceuticals, Inc., a biopharmaceutical company, as the head of clinical development. He serves on the board of Acera School, Inc. (The Massachusetts School for Science, Creativity, and Leadership). Dr. Grayzel also serves as an advisor to several organizations including Memorial Sloan Kettering Cancer Center's (MSKCC) Technology Development Fund, the American Heart Association's One Brave Idea, and is on the Scientific Advisory Board of the Tri-TDI that includes Rockefeller University, MSKCC, and Cornell. Dr. Grayzel received a B.A. in Psychology from Stanford University, an M.D. from Harvard Medical School, and completed his internship and residency training in Internal Medicine at Massachusetts General Hospital. We believe that Dr. Grayzel is qualified to serve on our board of directors because of his experience in management and venture capital in the biopharmaceutical industry.

Andrew Hack, M.D., Ph.D. has served as a member of our board of directors since February 2021. Since March 2019, Dr. Hack has served as a managing director of Bain Capital Life Sciences, a private equity fund that invests in biopharmaceutical, specialty pharmaceutical, medical device, diagnostics, and enabling life science technology companies globally, and since August 2020 has served as chief financial officer and a member of the board of directors of BCLS Acquisition Corp., a special purpose acquisition company sponsored by an affiliate of Bain Capital Life Sciences. Dr. Hack served as chief financial officer of Editas Medicine, Inc., or Editas, a biotechnology company, from July 2015 to March 2019. Prior to joining Editas, from May 2011 to June 2015, Dr. Hack was a portfolio manager at Millennium Management LLC, or Millennium, an institutional asset manager, where he ran a healthcare fund focused on biotechnology, pharmaceutical, and medical device companies. Before joining Millennium, Dr. Hack was a healthcare analyst at HealthCor Management, L.P., or HealthCor, a registered investment advisor, from December 2008 to May 2011. Prior to HealthCor, Dr. Hack served as a healthcare analyst for hedge fund Carlyle-Blue Wave Partners and as principal of the MPM BioEquities Fund, a hedge fund that was affiliated with MPM Capital. Dr. Hack began his investment career covering the biotechnology sector at investment banks Banc of America Securities LLC and Rodman & Renshaw, LLC. Previously, Dr. Hack was director of life sciences and co-founder of Reify Corporation, a life science tools and drug discovery company. Dr. Hack serves as a director of Mersana Therapeutics, Inc., a biotechnology company, Allena Pharmaceuticals, Inc., a biopharmaceutical company, Atea Pharmaceuticals, Inc., a biopharmaceutical company, and Dynavax Technologies Corporation, a biopharmaceutical company. Dr. Hack received his B.A. in biology with special honors from the University of Chicago, where he also received his M.D. and Ph.D. We believe Dr. Hack is

qualified to serve on our board of directors because of his financial background and extensive and diverse experience in the life sciences industry.

Rachel Humphrey, M.D. has served as a member of our board of directors since December 2019. Dr. Humphrey has served as chief medical officer at Black Diamond Therapeutics, Inc., or Black Diamond, a biotechnology company, since September 2020. Prior to joining Black Diamond, she served as chief medical officer at Treadwell Therapeutics, Inc., a biotechnology company, and head of research and development at TIO Bioventures, a venture capital firm, from January 2020 to May 2020. Prior to that, Dr. Humphrey served as SVP, chief medical officer at CytomX Therapeutics, Inc., or CytomX, a biopharmaceutical company, from August 2015 to September 2019. Prior to joining CytomX, Dr. Humphrey served as SVP, head of immuno-oncology at AstraZeneca plc, a pharmaceutical company, from November 2013 to December 2014, chief medical officer at Mirati Therapeutics, Inc., a biopharmaceutical company, from January 2012 to September 2013, and roles of increasing responsibility at Bristol-Myers Squibb, a pharmaceutical company, from May 2003 to January 2012. She also served as director, global clinical leader of research and development at Bayer AG, a pharmaceutical company, from January 1997 to May 2003. Dr. Humphrey received an M.D. from Case Western Reserve University School of Medicine. We believe Dr. Humphrey is qualified to serve on our board of directors because of her experience as a senior executive of several life sciences companies and knowledge of the life sciences industry.

Michael Ross, Ph.D. has served as a member of our board of directors since February 2020. Since 2002, Dr. Ross has served as managing partner at SV Health Investors LLC, or SV Health, an investment firm focused on healthcare investing. Prior to joining SV Health, Mike held various positions including serving as Vice President, Medicinal and Biomolecular Chemistry at Genentech, Inc., a biotechnology company, from 1978 to 1990. Dr. Ross received a Ph.D. from Caltech. We believe Dr. Ross is qualified to serve on our board of directors because of his experience in venture capital in the life sciences industry.

Christina Rossi has served as a member of our board of directors since April 2021. Since October 2018, Ms. Rossi has served as chief commercial officer of Blueprint. From January 2015 to October 2018, Ms. Rossi served as the Multiple Sclerosis business unit head, North America, at Sanofi Genzyme, or Sanofi, a biotechnology company. Previously, Ms. Rossi served as vice president, Multiple Sclerosis Sales at Sanofi form May 2014 to December 2015 and vice president, Multiple Sclerosis Patient and Provider Services at Sanofi from June 2012 to May 2014. Prior to joining Sanofi, Ms. Rossi served in various roles at Biogen, including head, commercial strategy for Eidetica Biopharma GmbH, Biogen's biosimilar-focused venture, and U.S. brand leader for TYSABRI® (natalizumab). In addition, Ms. Rossi consulted in the healthcare practice at the Boston Consulting Group. Ms. Rossi holds a B.S. in biology, cum laude, from Duke University and an M.B.A. from Harvard Business School. We believe Ms. Rossi is qualified to serve on our board of directors because of her experience as a senior executive of several life sciences companies and knowledge of the life sciences industry.

Board Composition

Board Composition

Effective upon the closing of this offering, our board of directors will have members. Our directors hold office until their successors have been elected and qualified or until the earlier of their death, resignation or removal.

Our certificate of incorporation and bylaws that will become effective upon the closing of this offering provide that the authorized number of directors may be changed only by resolution of our board of directors. Our certificate of incorporation and bylaws will also provide that our directors may be removed only for cause by the affirmative vote of the holders of 75% of our shares of capital stock present in person or by proxy and entitled to vote, and that any vacancy on our board of directors, including a vacancy resulting from an enlargement of our board of directors, may be filled only by vote of a majority of our directors then in office.

In accordance with the terms of our certificate of incorporation and bylaws that will become effective upon the closing of this offering, our board of directors will be divided into three classes, class I, class II and class III, with members of each class serving staggered three-year terms. Upon the closing of this offering, the members of the classes will be divided as follows:

- the class I directors will be and , and their term will expire at the annual meeting of stockholders to be held in 2022;
- the class II directors will and , and their term will expire at the annual meeting of stockholders to be held in 2023; and
- the class III directors will be and , and their term will expire at the annual meeting of stockholders to be held in 2024.

Upon the expiration of the term of a class of directors, directors in that class will be eligible to be elected for a new three-year term at the annual meeting of stockholders in the year in which their term expires.

The classification of our board of directors may have the effect of delaying or preventing changes in our control or management. See "Description of Capital Stock—Delaware Anti-Takeover Law and Certain Charter and Bylaw Provisions."

Director Independence

The Nasdaq Stock Market LLC, or Nasdaq, Marketplace Rules, or the Nasdaq Listing Rules require a majority of a listed company's board of directors to be comprised of independent directors within one year of listing. In addition, the Nasdaq Listing Rules require that, subject to specified exceptions, each member of a listed company's audit, compensation and nominating and corporate governance committees be independent under the Securities Exchange Act of 1934, as amended, or the Exchange Act. Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Exchange Act and compensation committee members must also satisfy the independence criteria set forth in Rule 10C-1 under the Exchange Act. Under applicable Nasdaq rules, a director will only qualify as an "independent director" if, in the opinion of the listed company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. In order to be considered independent for purposes of Rule 10A-3, a member of an audit committee of a listed company may not, other than in his or her capacity as a member of the audit committee, the board of directors or any other board committee, accept, directly or indirectly, any consulting, advisory or other compensatory fee from the listed company or any of its subsidiaries or otherwise be an affiliated person of the listed company or any of its subsidiaries. In order to be considered independent for purposes of Rule 10C 1, the board must consider, for each member of a compensation committee of a listed company, all factors specifically relevant to determining whether a director has a relationship to such company which is material to that director's ability to be independent from management in connection with the duties of a compensation committee member, including, but not limited to: (1) the source of compensation of the director, including any consulting advisory or other compensatory fee paid by such company to the director; and (2) whether the director is affiliated with the company or any of its subsidiaries or affiliates.

In 2021, our board of directors undertook a review of the composition of our board of directors and its committees and the independence of each director. Based upon information requested from and provided by each director concerning his or her background, employment and affiliations, including family relationships, our board of directors has determined that each of our directors, with the exception of Dr. Russo, is an "independent director" as defined under applicable Nasdaq rules, including, in the case of all the members of our audit committee, the independence criteria set forth in Rule 10A-3 under the Exchange Act, and in the case of all the members of our compensation committee, the independence criteria set forth in Rule 10C-1 under the Exchange Act. In making such determination, our board of directors considered the relationships that each such non-employee director has with our company and all other facts and circumstances that our board of directors deemed relevant in determining his or her independence, including the beneficial ownership of our capital stock by each non-employee director. Dr. Russo is not an independent director under these rules because she is our president and chief executive officer.

There are no family relationships among any of our directors or executive officers.

Role of the Board in Risk Oversight

One of the key functions of our board of directors is informed oversight of our risk management process. Our board of directors does not have a standing risk management committee, but rather administers this oversight

function directly through the board of directors as a whole, as well as through various standing committees of our board of directors that address risks inherent in their respective areas of oversight. In particular, our board of directors is responsible for monitoring and assessing strategic risk exposure, including cybersecurity risk, and our audit committee has the responsibility to consider and discuss our major financial risk exposures and the steps our management has taken to monitor and control these exposures, including guidelines and policies to govern the process by which risk assessment and management is undertaken. The audit committee also monitors compliance with legal and regulatory requirements.

Board Committees

Our board of directors has established an audit committee, a compensation committee and a nominating and corporate governance committee, each of which will operate under a charter to be adopted by our board of directors. The composition of each committee will be effective as of the date of this prospectus.

Audit Committee

The members of our audit committee are , and . is the chair of the audit committee. Upon the effectiveness of the registration statement of which this prospectus is a part, our audit committee's responsibilities will include:

- appointing, approving the compensation of, and assessing the independence of our registered public accounting firm;
- overseeing the work of our independent registered public accounting firm, including through the receipt and consideration of reports from that firm;
- reviewing and discussing with management and our independent registered public accounting firm our annual and quarterly financial statements and related disclosures;
- monitoring our internal control over financial reporting, disclosure controls and procedures and code of business conduct and ethics;
- overseeing our internal audit function;
- overseeing our risk assessment and risk management policies;
- establishing policies regarding hiring employees from our independent registered public accounting firm and procedures for the receipt and retention of accounting-related complaints and concerns;
- meeting independently with our internal auditing staff, if any, our independent registered public accounting firm and management;
- reviewing and approving or ratifying any related person transactions; and
- preparing the audit committee report required by Securities and Exchange Commission, or SEC, rules.

All audit and non-audit services, other than *de minimis* non-audit services, to be provided to us by our independent registered public accounting firm must be approved in advance by our audit committee.

Our board of directors has determined that is an "audit committee financial expert" as defined in applicable SEC rules. We believe that the composition of our audit committee will meet the requirements for independence under current Nasdaq and SEC rules and regulations. Our board of directors has also determined that each member of our audit committee can read and understand fundamental financial statements, in accordance with applicable requirements. In arriving at these determinations, the board of directors has examined each audit committee member's scope of experience and the nature of their employment in the corporate finance sector.

Compensation Committee

The members of our compensation committee are , and . is the chair of the compensation committee. Upon the effectiveness of the registration statement of which this prospectus is a part, our compensation committee's responsibilities will include:

- reviewing and approving, or making recommendations to our board of directors with respect to, the compensation of our chief executive officer and our other executive officers;
- overseeing an evaluation of our senior executives;
- overseeing and administering our cash and equity incentive plans;
- reviewing and making recommendations to our board of directors with respect to director compensation;
- reviewing and discussing annually with management our "Compensation Discussion and Analysis" disclosure if and to the extent then required by SEC rules; and
- preparing the compensation committee report if and to the extent then required by SEC rules.

We believe that the composition of our compensation committee will meet the requirements for independence under current Nasdaq and SEC rules and regulations.

Nominating and Corporate Governance Committee

The members of our nominating and corporate governance committee are , and . is the chair of the nominating and corporate governance committee. Upon the effectiveness of the registration statement of which this prospectus is a part, our nominating and corporate governance committee's responsibilities will include:

- recommending to our board of directors the persons to be nominated for election as directors and to each of our board's committees;
- reviewing and making recommendations to our board with respect to our board leadership structure;
- reviewing and making recommendations to our board with respect to management succession planning;
- developing and recommending to our board of directors corporate governance principles; and
- overseeing a periodic evaluation of our board of directors.

We believe that the composition of our nominating and corporate governance committee will meet the requirements for independence under current Nasdaq and SEC rules and regulations.

Compensation Committee Interlocks and Insider Participation

None of our executive officers serves, or in the past year has served, as a member of the board of directors or compensation committee, or other committee serving an equivalent function, of any other entity that has one or more of its executive officers serving as a member of our board of directors or our compensation committee. None of the members of our compensation committee is, or has ever been, an officer or employee of our company.

Code of Ethics and Code of Conduct

We intend to adopt a written code of business conduct and ethics, which will be effective upon the effectiveness of the registration statement of which this prospectus is a part, that applies to our directors, officers and employees, including our principal executive officer, principal financial officer, principal accounting officer or controller, or persons performing similar functions. We intend to post a current copy of the code on our website, www.xiliotx.com. In addition, we intend to post on our website all disclosures that are required by law or Nasdaq listing standards concerning any amendments to, or waivers from, any provision of the code.

EXECUTIVE COMPENSATION

The following discussion relates to the compensation of René Russo, Pharm.D., our president and chief executive officer, Joseph Farmer, our former chief operating officer, and Martin Huber, M.D., our chief medical officer, for the year ended December 31, 2020. Dr. Russo, Mr. Farmer and Dr. Huber are collectively referred to in this prospectus as our named executive officers. Mr. Farmer resigned as our chief operating officer in March 2021.

In preparing to become a public company, we have begun a thorough review of all elements of our executive compensation program, including the function and design of our equity incentive programs. We have begun, and expect to continue in the coming months, to evaluate the need for revisions to our executive compensation program to ensure that our program is competitive with the companies with which we compete for executive talent and is appropriate for a public company. This discussion may contain forward-looking statements that are based on our current plans, considerations, expectations and determinations regarding future compensation programs.

Summary Compensation Table

The following table sets forth information regarding compensation awarded to, earned by or paid to each of our named executive officers for the year ended December 31, 2020.

Name and Principal Position	Year	Salary ($)	Stock awards ($)[1]	Option awards ($)[1]	Non-equity incentive plan compensation ($)	All other compensation ($)[2]	Total ($)
René Russo, Pharm.D. *President and Chief Executive Officer*	2020	450,000	1,020,866	854,485	182,250	3,448	2,511,049
Joseph Farmer *Former Chief Operating Officer*[3]	2020	350,000	289,997	264,277	126,000	3,528	1,033,802
Martin Huber, M.D. *Chief Medical Officer*[4]	2020	301,467	—	501,101	159,120	3,217	964,905

(1) The amounts reported in the "Stock awards" and "Option awards" columns reflect the aggregate fair value of incentive units, restricted stock and stock options awarded during the year computed in accordance with the provisions of Financial Accounting Standards Board, or FASB, Accounting Standards Codification, or ASC, Topic 718. Shares of restricted stock issued in exchange for incentive units that were awarded prior to 2020 as part of the Reorganization have been excluded from the "Stock awards" column. See Note 14 to our consolidated financial statements appearing elsewhere in this prospectus regarding assumptions underlying the valuation of equity awards.

(2) The amount reported for Dr. Russo includes health and life insurance premiums ($1,933) and phone and parking reimbursements ($1,515). The amount reported for Mr. Farmer includes health and life insurance premiums ($1,933) and phone and parking reimbursements ($1,595). The amount reported for Dr. Huber includes health and life insurance premiums ($2,417) and phone reimbursement ($800).

(3) Mr. Farmer resigned as our chief operating officer in March 2021.

(4) Dr. Huber commenced his employment with us as our chief medical officer in April 2020.

Narrative to Summary Compensation Table

Base Salary. In 2020, we paid Dr. Russo a base salary of $450,000. In 2020, we paid Mr. Farmer a base salary of $350,000. Dr. Huber commenced employment with us in April 2020 and during 2020, we paid Dr. Huber an annualized base salary of $442,000.

We use base salaries to recognize the experience, skills, knowledge and responsibilities required of all our employees, including our named executive officers. None of our named executive officers is currently party to a letter agreement or other agreement or arrangement that provides for automatic or scheduled increases in base salary.

Annual Bonus. Our board of directors may, in its discretion, award bonuses to our named executive officers from time to time. Our letter agreements with our named executive officers provide that they will be eligible for annual performance-based bonuses up to a specified percentage of their salary, subject to approval by our board of directors. We typically establish annual bonus targets based on a set of specified corporate goals for

our named executive officers and conduct an annual performance review to determine the attainment of such goals. Our management may propose bonus awards to our compensation committee primarily based on such review process. Our board of directors makes the final determination of the eligibility requirements for and the amount of such bonus awards based on the recommendation of the compensation committee. The final evaluation made by our board of directors does not involve a predetermined mathematical formula.

For 2020, the categories of corporate goals that we used to propose performance-based bonuses to our compensation committee included advancing the company's programs and product candidates, funding efforts and business development. Based on our achievement or partial achievement, on or before our projected timeline, of specific goals within each category, our board of directors determined that we achieved 90% of the specified corporate goals. Our board of directors approved performance-based bonuses for our named executive officers upon consideration of these corporate achievements, along with subjective factors related to each named executive officer's individual performance.

With respect to 2020, our board of directors awarded bonuses of $182,250, $126,000 and $159,120 to Dr. Russo, Mr. Farmer and Dr. Huber, respectively, in each case based on an assessment of each named executive officer's performance and business conditions at our company, with such amounts representing 90% of each such officer's bonus target.

Equity Incentives. Although we do not have a formal policy with respect to the grant of equity incentive awards to our executive officers, or any formal equity ownership guidelines applicable to them, we believe that equity grants provide our executives with a strong link to our long-term performance, create an ownership culture and help to align the interests of our executives and our stockholders. In addition, we believe that equity grants with a time-based vesting feature promote executive retention because this feature incents our executive officers to remain in our employment during the vesting period. Accordingly, our board of directors periodically reviews the equity incentive compensation of our executive officers, including our named executive officers, and from time to time may grant equity incentive awards to them in the form of stock options.

In July 2020, we granted options to purchase 654,286 and 1,622,898 shares of our common stock to Dr. Russo at an exercise price of $0.58 per share. These options vest in equal monthly installments over 48 months from the vesting commencement dates of May 15, 2019 and March 12, 2020, respectively, subject to continued service and further subject to the accelerated vesting schedule specified in Dr. Russo's letter agreement. In July 2020, we granted options to purchase 245,357 and 461,016 shares of our common stock to Mr. Farmer at an exercise price of $0.58 per share with a vesting commencement date of May 28, 2019 and March 12, 2020, respectively. These options vest (i) as to 25% of the shares underlying the option on the first anniversary of the applicable vesting commencement date and in equal monthly installments over the following 36 months, subject to the accelerated vesting schedule specified in Mr. Farmer's letter agreement and (ii) in equal monthly installments over 48 months, subject to the accelerated vesting schedule specified in Mr. Farmer's letter agreement, respectively, in each case, subject to continued service. Also in July 2020, we granted options to purchase 1,280,572 shares of our common stock to Dr. Huber at an exercise price of $0.58 per share. These options vested as to 25% of the shares underlying the option on April 27, 2021, with the remainder vesting in equal monthly installments over the following 36 months, subject to continued service and further subject to the accelerated vesting schedule specified in Dr. Huber's letter agreement.

Prior to this offering, our executive officers were eligible to participate in our 2020 Stock Incentive Plan, as amended, or the 2020 Plan. Through the effectiveness of the registration statement of which this prospectus forms a part, all stock options were granted pursuant to the 2020 Plan. In connection with the Reorganization, we granted shares of restricted stock to our executive officers in exchange for each executive officer's existing award of incentive units. Following this offering, our employees and executive officers will be eligible to receive stock options and other equity awards pursuant to our 2021 Stock Incentive Plan, or the 2021 Plan.

We use stock options to compensate our executive officers in the form of initial grants in connection with the commencement of employment. Prior to this offering, awards of stock options and restricted stock to our executive officers have been made by our board of directors or a committee delegated by our board of directors. The options and restricted stock that we have granted to our executive officers are typically subject to time-based vesting, generally over four years following the vesting commencement date. Upon certain terminations of employment in connection with a change of control, vesting is fully accelerated. Prior to the

exercise of a stock option, the holder has no rights as a stockholder with respect to the shares subject to such option, including no voting rights and no right to receive dividends or dividend equivalents.

We award stock options with exercise prices that are equal to the fair market value of our common stock on the date of grant as determined by our board of directors.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth information regarding all outstanding equity awards for each of our named executive officers as of December 31, 2020.

	Option awards				Stock awards	
Name	Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Option exercise price ($)	Option expiration date	Number of shares or units of stock that have not vested (#)	Market value of shares or units of stock that have not vested (#)[1]
René Russo, Pharm.D.	338,103	1,284,795[2]	0.58	7/22/2030	852,114[3]	
	272,618	381,668[4]	0.58	7/22/2030	483,969[5]	
Joseph Farmer	96,044	364,972[2][6]	0.58	7/22/2030	242,060[6][7]	
	97,120	148,237[6][8]	0.58	7/22/2030	187,971[6][9]	
Martin Huber, M.D.	—	1,280,572[10]	0.58	7/22/2030	—	—

(1) The market value of the unvested incentive stock awards is based on an assumed initial public offering price of $ per share, which is the midpoint of the price range set forth on the cover page of this prospectus.

(2) This option vests over four years, in equal monthly installments through February 12, 2024, subject to continued service. The vesting of this option award will accelerate upon a qualifying termination of Dr. Russo's or Mr. Farmer's employment, as applicable.

(3) 2,699,252 incentive units were awarded to Dr. Russo on March 12, 2020. In connection with the Reorganization, these incentive units were exchanged for 1,076,354 shares of restricted common stock. The shares vest over four years, in equal monthly installments from the vesting commencement date of March 12, 2020 through February 12, 2024, subject to continued service. The vesting of this stock award will accelerate upon a qualifying termination of Dr. Russo's employment.

(4) This option vests over four years, in equal monthly installments from the vesting commencement date of May 15, 2019 through April 15, 2023, subject to continued service. The vesting of this option award will accelerate upon a qualifying termination of Dr. Russo's employment.

(5) 1,483,947 incentive units were awarded to Dr. Russo on June 14, 2019. In connection with the Reorganization, these incentive units were exchanged for 829,661 shares of restricted common stock. The shares vest over four years, in equal monthly installments from the vesting commencement date of May 15, 2019 through April 15, 2023, subject to continued service. The vesting of this stock award will accelerate upon a qualifying termination of Dr. Russo's employment.

(6) Mr. Farmer resigned as our chief operating officer in March 2021 and entered into a consulting agreement with us at the time of his departure. As a consequence, all of the equity awards granted to Mr. Farmer during his employment with us continue to vest during the period during which he provides consulting services and are exercisable in accordance with the terms of the agreements governing such equity awards.

(7) 766,776 incentive units were awarded to Mr. Farmer on March 12, 2020. In connection with the Reorganization, these incentive units were exchanged for 305,760 shares of restricted common stock. The shares vest over four years, in equal monthly installments through February 12, 2024, subject to continued service.

(8) This option vests over four years, with 25% of the shares vested on May 28, 2020 and the remaining number of shares vesting thereafter in equal monthly installments from the vesting commencement date of March 12, 2020 through May 28, 2023, subject to continued service.

(9) 556,480 incentive units were awarded to Mr. Farmer on June 14, 2019. In connection with the Reorganization, these incentive units were exchanged for 311,123 shares of restricted common stock. 25% of the shares vested on May 28, 2020 and the remaining number of shares vest thereafter in equal monthly installments through May 28, 2023, subject to continued service.

(10) This option vests over four years, with 25% of the shares vested on April 27, 2021 and the remaining number of shares vesting thereafter in equal monthly installments through April 27, 2024, subject to continued service. The vesting of this option award will accelerate upon a qualifying termination of Dr. Huber's employment.

Employment Agreements

Letter Agreement with René Russo, Pharm.D.

In connection with our initial hiring of Dr. Russo as our chief executive officer, we entered into a letter agreement with her dated May 14, 2019, as amended on June 11, 2020. Under the letter agreement, Dr. Russo

is an at-will employee, and her employment with us can be terminated by Dr. Russo or us at any time and for any reason. The letter agreement provides that Dr. Russo is eligible, at our sole discretion, to earn an annual bonus of up to 50% of her base salary. Dr. Russo's letter agreement also provides that she was entitled to the grant of 1,483,947 incentive units of Xilio LLC, subject to a four-year vesting schedule and continued employment, which award was granted on June 14, 2019. In connection with the Reorganization, these incentive units were exchanged for 829,661 shares of restricted common stock.

Under the letter agreement, Dr. Russo is entitled, subject to her execution and nonrevocation of a release of claims in our favor, in the event of the termination of her employment by us without cause or by her for good reason, each as defined in her letter with us, to (i) continue receiving her then-current annual base salary for a period of 12 months following the date her employment with us is terminated and a prorated annual bonus for the year in which such termination occurred based on her target bonus and the number of days served during the year and (ii) continue receiving an amount equal to COBRA premiums for health benefit coverage on the same terms as were applicable to her prior to her termination until the earliest of (A) a period of 12 months following the date that her employment with us is terminated, (B) if she becomes eligible to enroll in a health benefit plan with a new employer or (C) the cessation of her continuation rights under COBRA.

In addition, in the event that Dr. Russo's employment is terminated by us without cause or by Dr. Russo for good reason, each as defined in the letter agreement, within 12 months following a change in control, Dr. Russo will be entitled under the letter agreement to (i) a lump-sum payment equal to her then-current base salary for a period of 12 months following the date her employment with us is terminated and 100% of the target annual bonus for the year in which such termination occurred regardless of whether the metrics have been established or achieved, (ii) continue receiving an amount equal to COBRA premiums for health benefit coverage on the same terms as were applicable to her prior to her termination until the earliest of (A) a period of 12 months following the date that her employment with us is terminated, (B) if she becomes eligible to enroll in a health benefit plan with a new employer or (C) the cessation of her continuation rights under COBRA and (iii) the automatic vesting and exercisability of any unvested equity awards that are subject to time-based vesting conditions then held by her on the later date of when her employment with us is terminated or the effective date of the separation agreement and release, which awards will remain exercisable for the time period set forth in the applicable grant agreement.

In the event that Dr. Russo's employment is terminated for any reason other than by us without cause or by Dr. Russo for good reason, each defined in the letter agreement, Dr. Russo will be entitled to (i) her then-current base salary and any accrued by unused vacation through her last day of employment and (ii) the amount of any documented expenses properly incurred by her on behalf of the company prior to any such termination and not yet reimbursed.

Letter Agreement with Martin Huber, M.D.

In connection with our initial hiring of Dr. Huber as our chief medical officer, we entered into a letter agreement with him dated January 9, 2020. Under the letter agreement, Dr. Huber is an at-will employee, and his employment with us can be terminated by Dr. Huber or us at any time and for any reason. The letter agreement provides that Dr. Huber is eligible, at our sole discretion, to earn an annual bonus of 40% of his base salary. Dr. Huber's letter agreement also provides that he is entitled to the award of 1,160,000 incentive units of Xilio LLC, subject to a four-year vesting schedule and continued employment. In connection with the Reorganization, Dr. Huber received a stock option award to purchase 1,280,572 shares of our common stock in lieu of his original grant of incentive units of Xilio LLC. Such stock option award was granted on July 23, 2020.

Under the letter agreement, Dr. Huber is entitled, subject to his execution and nonrevocation of a release of claims in our favor, in the event of the termination of his employment by us without cause or by him for good reason, each as defined in his letter with us, to (i) continue receiving his then-current annual base salary for a period of nine months following the date his employment with us is terminated and a prorated annual bonus for the year in which such termination occurred based on his target bonus and the number of days served during the year and (ii) continue receiving an amount equal to COBRA premiums for health benefit coverage on the same terms as were applicable to him prior to his termination until the earliest of (A) a period of nine months following the date that his employment with us is terminated, (B) if he becomes eligible to enroll in a health benefit plan with a new employer or (C) the cessation of his continuation rights under COBRA.

In addition, in the event that Dr. Huber's employment is terminated by us without cause or by Dr. Huber for good reason, each as defined in the letter agreement, within 12 months following a change in control, Dr. Huber will be entitled under the letter agreement to (i) continue receiving his then-current base salary for a period of 12 months following the date his employment with us is terminated and 100% of the annual bonus for the year in which such termination occurred regardless of whether the metrics have been established or achieved, (ii) continue receiving an amount equal to COBRA premiums for health benefit coverage on the same terms as were applicable to him prior to his termination until the earliest of (A) a period of nine months following the date that his employment with us is terminated, (B) if he becomes eligible to enroll in a health benefit plan with a new employer or (C) the cessation of his continuation rights under COBRA and (iii) the automatic vesting and exercisability of any unvested equity awards that are subject to time-based vesting conditions then held by him on the later date of when his employment with us is terminated or the effective date of the separation agreement and release, which awards will remain exercisable for the time period set forth in the applicable grant agreement.

In the event that Dr. Huber's employment is terminated for any reason other than by us without cause or by Dr. Huber for good reason, each as defined in the letter agreement, Dr. Huber will be entitled to (i) his then-current base salary and any accrued by unused vacation through his last day of employment and (ii) the amount of any documented expenses properly incurred by him on behalf of the company prior to any such termination and not yet reimbursed.

Letter Agreement with Joseph Farmer

In connection with our initial hiring of Mr. Farmer as our chief operating officer, we entered into a letter agreement with him dating May 24, 2019. Under the letter agreement, Mr. Farmer was an at-will employee, and his employment with us could be terminated by Mr. Farmer or us at any time for any reason. The letter agreement provided that Mr. Farmer was entitled to a base salary of $350,000 during his employment with us and that he was eligible, at our sole discretion, to earn an annual bonus of up to 40% of his base salary. Mr. Farmer's letter agreement also provided that he was entitled to an award of 556,480 incentive units of Xilio LLC, subject to a four-year vesting schedule and continued employment, which award was granted on June 14, 2019. In connection with the Reorganization, these incentive units were exchanged for 311,123 shares of common stock. Mr. Farmer resigned as our chief operating officer in March 2021. Mr. Farmer continues to serve as a consultant to the company, subject to the terms discussed below.

Consulting Agreement with Joseph Farmer

In connection with Mr. Farmer's resignation as our chief operating officer in March 2021, we entered into a consulting agreement with Mr. Farmer pursuant to which he agreed to provide certain consulting and advisory services related to the company's finances until November 30, 2021. As consideration for those consulting services, all of the equity awards granted to Mr. Farmer during his employment with us continue to vest during the period during which he provides consulting services and are exercisable in accordance with the terms of the agreements governing such equity awards.

Employee Non-Competition, Non-Solicitation, Confidentiality and Assignment of Inventions Agreements

Each of our executive officers has entered into a standard form of agreement with respect to non-competition, non-solicitation, confidential information and assignment of inventions. Under this agreement, each executive officer has agreed not to compete with us during his or her employment and for a period of 12 months after the termination of his or her employment, not to solicit our employees, consultants, customers, prospective customers or suppliers during his or her employment for a period of 12 months after the termination of his or her employment, and to protect our confidential and proprietary information indefinitely. In addition, under this agreement, each executive officer has agreed that we own all inventions that are developed by such executive officer during his or her employment with us that are made, conceived, discovered or developed by the executive officer, or result from or are suggested by any work performed by the executive officer for or on our behalf. Each executive officer also has agreed to provide us with a worldwide, nonexclusive, royalty-free, irrevocable, perpetual, transferable and sublicenseable (through multiple tiers) license to use any prior inventions that such executive officer incorporates into inventions assigned to us under this agreement.

Stock Option and Other Compensation Plans

In this section we describe our 2020 Plan, our 2021 Plan and our 2021 Employee Stock Purchase Plan, or the 2021 ESPP. Prior to this offering, we granted awards to eligible participants under the 2020 Plan. Following the effectiveness of the 2021 Plan, we expect to grant awards to eligible participants from time to time only under the 2021 Plan.

2020 Stock Incentive Plan

The 2020 Plan was initially approved by our board of directors and stockholders in June 2020 and was subsequently amended in January 2021 and February 2021, in each case to increase the total number of shares reserved for issuance under the plan. The 2020 Plan provides for the grant of incentive stock options, nonstatutory options, stock appreciation rights, awards of restricted stock, restricted stock units and other stock-based awards. Our employees, officers, directors, consultants and advisors are eligible to receive awards under the 2020 Plan; however, incentive stock options may only be granted to our employees. The type of award granted under the 2020 Plan and the terms of such award are set forth in the applicable award agreement. Pursuant to the terms of the 2020 Plan, our board of directors (or a committee delegated by our board of directors) administers the plan and, subject to any limitations in the plan, selects the recipients of awards and determines:

- the number of shares of our common stock covered by options and the dates upon which the options become exercisable;
- the type of options to be granted;
- the duration of options, which may not be in excess of ten years;
- the exercise price of options, which must be at least equal to the fair market value of our common stock on the date of grant; and
- the number of shares of our common stock subject to and the terms of any stock appreciation rights, restricted stock awards, restricted stock units or other stock-based awards and the terms and conditions of such awards, including conditions for repurchase, issue price and repurchase price (though the measurement price of stock appreciation rights must be at least equal to the fair market value of our common stock on the date of grant and the duration of such awards may not be in excess of ten years).

The maximum number of shares of common stock authorized for issuance under the 2020 Plan is 28,464,707 shares, plus up to 3,459,146 additional shares, which is the number of shares of restricted common stock issued as part of the Reorganization in exchange for incentive units in Xilio LLC, to the extent such shares have been or will be forfeited. Our board of directors may amend, suspend or terminate the 2020 Plan (or any portion of the 2020 Plan) at any time, except that stockholder approval may be required to comply with applicable law.

Effect of Certain Changes in Capitalization

Upon the occurrence of any stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event, or any dividend or distribution to holders of our common stock other than an ordinary cash dividend, under the terms of the 2020 Plan, we are required to equitably adjust (or make substitute awards, if applicable), in the manner determined by our board of directors:

- the number and class of securities available under the 2020 Plan;
- the number and class of securities and exercise price per share of each outstanding option;
- the share and per-share provisions and the measurement price of each outstanding stock appreciation right;
- the number of shares subject to and the repurchase price per share subject to each outstanding award of restricted stock; and
- the share and per-share-related provisions and the purchase price, if any, of each outstanding restricted stock unit award and other stock-based award.

Effect of Certain Corporate Transactions

Upon the occurrence of a merger or other reorganization event (as defined in the 2020 Plan), our board of directors may, on such terms as our board of directors determines (except to the extent specifically provided otherwise in an applicable award agreement or other agreement between the participant and us), take any one or more of the following actions pursuant to the 2020 Plan as to all or any (or any portion of) outstanding awards, other than awards of restricted stock:

- provide that outstanding awards will be assumed, or substantially equivalent awards will be substituted, by the acquiring or succeeding corporation (or an affiliate of the acquiring or succeeding corporation);
- upon written notice to a participant, provide that all of the participant's unexercised and/or unvested awards will terminate immediately prior to the consummation of the reorganization event unless exercised by the participant (to the extent then exercisable) within a specified period following the date of the notice;
- provide that outstanding awards will become exercisable, realizable or deliverable, or restrictions applicable to an award will lapse, in whole or in part, prior to or upon such reorganization event;
- in the event of a reorganization event pursuant to which holders of shares of our common stock will receive a cash payment for each share surrendered in the reorganization event, make or provide for a cash payment to participants with respect to each award held by a participant equal to (1) the number of shares of our common stock subject to the vested portion of the award (after giving effect to any acceleration of vesting that occurs upon or immediately prior to the reorganization event) multiplied by (2) the excess, if any, of the cash payment for each share surrendered in the reorganization event over the exercise, measurement or purchase price of such award and any applicable tax withholdings, in exchange for the termination of the award;
- provide that, in connection with our liquidation or dissolution, awards will convert into the right to receive liquidation proceeds (if applicable, net of the exercise measurement or purchase price thereof and any applicable tax withholdings); or
- any combination of the foregoing.

Our board of directors is not obligated under the 2020 Plan to treat all awards, all awards held by a participant, or all awards of the same type, identically.

In the case of certain restricted stock units, no assumption or substitution is permitted, and the restricted stock units will instead be settled in accordance with the terms of the applicable restricted stock unit agreement.

Upon the occurrence of a reorganization event other than our liquidation or dissolution, our repurchase and other rights with respect to outstanding restricted stock awards will continue for the benefit of the succeeding company and will, unless our board of directors determines otherwise, apply to the cash, securities, or other property which our common stock was converted into or exchanged for in the reorganization event in the same manner and to the same extent as they applied to the common stock subject to the restricted stock award. However, our board of directors may provide for the termination or deemed satisfaction of such repurchase or other rights under the restricted stock award agreement or any other agreement between a participant and us, either initially or by amendment, or provide for forfeiture of such restricted stock if issued at no cost. Upon our liquidation or dissolution, except to the extent specifically provided to the contrary in the restricted stock award agreement or any other agreement between the plan participant and us, all restrictions and conditions on all restricted stock awards then outstanding will automatically be deemed terminated or satisfied.

Our board of directors may at any time provide that any award under the 2020 Plan will become immediately exercisable in whole or in part, free of some or all restrictions or conditions, or otherwise realizable in whole or in part, as the case may be.

As of April 30, 2021, there were options to purchase 28,007,438 shares of common stock outstanding under the 2020 Plan at a weighted average exercise price of $0.63 per share, options to purchase 320,396 shares of our common stock had been exercised under the 2020 Plan and 872,632 shares of common stock were available

for future issuance under the 2020 Plan. No further awards will be made under the 2020 Plan on or after the effectiveness of the registration statement for this offering; however, awards outstanding under the 2020 Plan will continue to be governed by their existing terms.

2021 Stock Incentive Plan

We expect our board of directors to adopt and our stockholders to approve the 2021 Plan, which will become effective immediately prior to the effectiveness of the registration statement of which this prospectus forms a part. The 2021 Plan provides for the grant of incentive stock options, nonstatutory stock options, stock appreciation rights, restricted stock awards, restricted stock units and other stock-based awards. Upon effectiveness of the 2021 Plan, the number of shares of our common stock that will be reserved for issuance under the 2021 Plan will be the sum of: (1) ; plus (2) the number of shares (up to shares) as is equal to the sum of (x) the number of shares of our common stock reserved for issuance under the 2020 Plan that remain available for grant under the 2020 Plan immediately prior to the effectiveness of the registration statement of which this prospectus forms a part and (y) the number of shares of our common stock subject to outstanding awards under the 2020 Plan that expire, terminate or are otherwise surrendered, cancelled, forfeited or repurchased by us at their original issuance price pursuant to a contractual repurchase right; plus (3) an annual increase, to be added on the first day of each fiscal year, beginning with the fiscal year, commencing on January 1, 2022 and continuing until, and including, January 1, 2031, equal to the lowest of (i) % of the number of shares of our common stock outstanding on the first day of such fiscal year and (ii) the number of shares of common stock determined by our board of directors. Up to of the shares of common stock available for issuance under the 2021 Plan may be issued as incentive stock options under the 2021 Plan.

Our employees, officers, directors, consultants and advisors will be eligible to receive awards under the 2021 Plan. Incentive stock options, however, may only be granted to our employees.

Pursuant to the terms of the 2021 Plan, our board of directors (or a committee delegated by our board of directors) will administer the plan and, subject to any limitations in the plan, will select the recipients of awards and determine:

- the number of shares of our common stock covered by options and the dates upon which the options become exercisable;
- the type of options to be granted;
- the duration of options, which may not be in excess of ten years;
- the exercise price of options, which must be at least equal to the fair market value of our common stock on the date of grant; and
- the number of shares of our common stock subject to and the terms of any stock appreciation rights, restricted stock awards, restricted stock units or other stock-based awards and the terms and conditions of such awards, including conditions for repurchase, issue price and repurchase price (though the measurement price of stock appreciation rights must be at least equal to the fair market value of our common stock on the date of grant and the duration of such awards may not be in excess of ten years).

If our board of directors delegates authority to one or more of our officers to grant awards under the 2021 Plan, the officers will have the power to make awards to all of our employees, except officers and executive officers (as such terms are defined in the 2021 plan). Our board of directors will fix the terms of the awards to be granted by any such officer, the maximum number of shares subject to awards that such officer may make, and the time period in which such awards may be granted.

The 2021 Plan contains limits on awards that may be made under the 2021 Plan to our non-employee directors. In any calendar year, the maximum aggregate amount of cash and value (calculated based on grant date fair value for financial reporting purposes) of awards under the 2021 Plan granted in any calendar year to an individual non-employee director in his or her capacity as a non-employee director may not exceed $; provided, however, that such maximum aggregate amount may not exceed $ in any calendar year for any individual non-employee director in such non-employee director's initial year of service; and provided, further, however, that fees paid by us on behalf of any non-employee director in connection with regulatory

compliance and any amounts paid to a non-employee director as reimbursement of an expense will not count against the foregoing limit. However, our board of directors may make additional exceptions to this limit for individual non-employee directors in extraordinary circumstances, provided that the non-employee director receiving such additional compensation may not participate in the decision to award such compensation. This limitation may not apply to cash or awards granted to the non-employee director in his or her capacity as our advisor or consultant.

No stock option or stock appreciation right granted under the 2021 Plan may contain any provision entitling a participant to the automatic grant of additional stock options or stock appreciation rights in connection with any exercise of the respective original stock option or stock appreciation right. Furthermore, no stock option or stock appreciation right may provide for the payment or accrual of dividend equivalents. Award agreements for other stock-based awards may provide participants with the right to receive dividend equivalents. Dividend equivalents shall be credited to an account for the participant, may be settled in cash and/or shares of common stock as set forth in the applicable award agreement and shall be subject to the same restrictions on transfer and forfeitability as the other stock-based awards with respect to which paid. No interest will be paid on dividend equivalents.

Effect of Certain Changes in Capitalization

Upon the occurrence of any stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event, or any dividend or distribution to holders of our common stock other than an ordinary cash dividend, under the terms of the 2021 Plan, we are required to equitably adjust (or make substitute awards, if applicable), in the manner determined by our board of directors:

- the number and class of securities available under the 2021 Plan, and the number and class of securities available for issuance under the 2021 Plan that may be issued as incentive stock options under the 2021 Plan;
- the share counting rules of the 2021 Plan;
- the number and class of securities and exercise price per share of each outstanding option;
- the share and per-share provisions and the measurement price of each outstanding stock appreciation right;
- the number of shares subject to, and the repurchase price per share subject to, each outstanding award of restricted stock; and
- the share and per-share related provisions and the purchase price, if any, of each outstanding restricted stock unit award and other stock-based award.

Effect of Certain Corporate Transactions

Upon the occurrence of a merger or other reorganization event (as defined in the 2021 Plan), our board of directors may, on such terms as our board determines (except to the extent specifically provided otherwise in an applicable award agreement or other agreement between the participant and us), take any one or more of the following actions pursuant to the 2021 Plan as to all or any (or any portion of) outstanding awards, other than awards of restricted stock:

- provide that outstanding awards will be assumed, or substantially equivalent awards will be substituted, by the acquiring or succeeding corporation (or an affiliate of the acquiring or succeeding corporation);
- upon written notice to a participant, provide that all of the participant's unvested awards will be forfeited immediately prior to the consummation of the reorganization event, and/or that all of the participant's vested but unexercised awards will terminate immediately prior to the consummation of the reorganization event unless exercised by the participant (to the extent then exercisable) within a specified period following the date of the notice;
- provide that outstanding awards will become exercisable, realizable or deliverable, or restrictions applicable to an award will lapse, in whole or in part, prior to or upon such reorganization event;

- in the event of a reorganization event pursuant to which holders of shares of our common stock will receive a cash payment for each share surrendered in the reorganization event, make or provide for a cash payment to participants with respect to each award held by a participant equal to (1) the number of shares of our common stock subject to the vested portion of the award (after giving effect to any acceleration of vesting that occurs upon or immediately prior to such reorganization event) multiplied by (2) the excess, if any, of the cash payment for each share surrendered in the reorganization event over the exercise, measurement or purchase price of such award and any applicable tax withholdings, in exchange for the termination of such award;
- provide that, in connection with our liquidation or dissolution, awards will convert into the right to receive liquidation proceeds (if applicable, net of the exercise, measurement or purchase price thereof and any applicable tax withholdings); or
- any combination of the foregoing.

Our board of directors is not obligated under the 2021 Plan to treat all awards, all awards held by a participant, or all awards of the same type, identically.

In the case of certain restricted stock units, no assumption or substitution is permitted, and the restricted stock units will instead be settled in accordance with the terms of the applicable restricted stock unit agreement.

Upon the occurrence of a reorganization event other than our liquidation or dissolution, our repurchase and other rights with respect to outstanding awards of restricted stock will continue for the benefit of the succeeding company and will, unless our board of directors determines otherwise, apply to the cash, securities, or other property which our common stock was converted into or exchanged for pursuant to the reorganization event in the same manner and to the same extent as they applied to the common stock subject to the restricted stock award. However, our board of directors may provide for the termination or deemed satisfaction of such repurchase or other rights under the restricted stock award agreement or in any other agreement between a participant and us, either initially or by amendment. Upon our liquidation or dissolution, except to the extent specifically provided to the contrary in the restricted stock award agreement or any other agreement between the participant and us, all restrictions and conditions on all restricted stock awards then outstanding will automatically be deemed terminated or satisfied.

At any time, our board of directors may provide that any award under the 2021 Plan will become immediately exercisable in whole or in part, free of some or all restrictions or conditions, or otherwise realizable in whole or in part as the case may be.

Except with respect to certain actions requiring stockholder approval under the Internal Revenue Code of 1986, as amended, or the Code,or Nasdaq rules, our board of directors may amend, modify or terminate any outstanding award under the 2021 Plan, including but not limited to, substituting for the award another award of the same or a different type, changing the date of exercise or realization, and converting an incentive stock option to a nonstatutory stock option, subject to certain participant consent requirements. However, unless our stockholders approve such action, the 2021 Plan provides that we may not (except as otherwise permitted in connection with a change in capitalization or reorganization event):

- amend any outstanding stock option or stock appreciation right granted under the 2021 Plan to provide an exercise or measurement price per share that is lower than the then-current exercise or measurement price per share of such outstanding award;
- cancel any outstanding stock option or stock appreciation right (whether or not granted under the 2021 Plan) and grant a new award under the 2021 Plan in substitution for the cancelled award (other than substitute awards permitted in connection with a merger or consolidation of an entity with us or our acquisition of property or stock of another entity) covering the same or a different number of shares of our common stock and having an exercise or measurement price per share lower than the then-current exercise or measurement price per share of the cancelled award;
- cancel in exchange for a cash payment any outstanding option or stock appreciation right with an exercise or measurement price per share above the then-current fair market value of our common stock (valued in the manner determined by (or in the manner approved by) our board of directors); or

- take any other action that constitutes a "repricing" within the meaning of Nasdaq rules or rules of any other exchange or marketplace on which our common stock is listed or traded.

No award may be granted under the 2021 Plan on or after the date that is ten years following the effectiveness of the registration statement related to this offering. Our board of directors may amend, suspend or terminate the 2021 Plan at any time, except that stockholder approval may be required to comply with applicable law or stock market requirements.

2021 Employee Stock Purchase Plan

We expect our board of directors to adopt and our stockholders to approve the 2021 ESPP, which will become effective immediately prior to the effectiveness of the registration statement of which this prospectus forms a part. The 2021 ESPP will be administered by our board of directors or by a committee appointed by our board of directors. The 2021 ESPP initially provides participating employees with the opportunity to purchase up to an aggregate of shares of our common stock. The number of shares of our common stock reserved for issuance under the 2021 ESPP will automatically increase on the first day of each fiscal year, commencing on January 1, 2022 and continuing until, and including, January 1, 2032, in an amount equal to the lowest of (i) shares of our common stock, (ii) % of the number of shares of our common stock outstanding on such date and (iii) a number of shares of common stock determined by our board of directors.

All of our employees and employees of any designated subsidiary, as defined in the 2021 ESPP, are eligible to participate in the 2021 ESPP, provided that:

- such person is customarily employed by us or a designated subsidiary for more than 20 hours a week and for more than five months in a calendar year;
- such person has been employed by us or by a designated subsidiary for at least three months prior to enrolling in the 2021 ESPP; and
- such person was our employee or an employee of a designated subsidiary on the first day of the applicable offering period under the 2021 ESPP.

We retain the discretion to determine which eligible employees may participate in an offering under applicable regulations.

We expect to make one or more offerings to our eligible employees to purchase stock under the 2021 ESPP beginning at such time and on such dates as our board of directors may determine, or on the first business day thereafter. Each offering will consist of a six-month offering period during which payroll deductions will be made and held for the purchase of our common stock at the end of the offering period. Our board of directors or a committee designated by our board of directors may, at its discretion, choose a different period of not more than 12 months for offerings.

On each offering commencement date, each participant will be granted an option to purchase, on the last business day of the offering period, up to a number of shares of our common stock determined by multiplying $2,083 by the number of full months in the offering period and dividing that product by the closing price of our common stock on the first day of the offering period. No employee may be granted an option under the 2021 ESPP that permits the employee's rights to purchase shares under the 2021 ESPP and any other employee stock purchase plan of ours or of any of our subsidiaries to accrue at a rate that exceeds $25,000 of the fair market value of our common stock (determined as of the first day of each offering period) for each calendar year in which the option is outstanding. In addition, no employee may purchase shares of our common stock under the 2021 ESPP that would result in the employee owning 5% or more of the total combined voting power or value of our stock or the stock of any of our subsidiaries.

On the commencement date of each offering period, each eligible employee may authorize up to a maximum of 15% of his or her compensation to be deducted by us during the offering period. Each employee who continues to be a participant in the 2021 ESPP on the last business day of the offering period will be deemed to have exercised an option to purchase from us the number of whole shares of our common stock that his or her accumulated payroll deductions on such date will pay for, not in excess of the maximum numbers set forth

above. Under the terms of the 2021 ESPP, the purchase price will be determined by our board of directors or the committee for each offering period and will be at least 85% of the applicable closing price of our common stock. If our board of directors or the committee does not make a determination of the purchase price, the purchase price will be 85% of the lesser of the closing price of our common stock on the first business day of the offering period or on the last business day of the offering period.

An employee may at any time prior to the close of business on the fifteenth business day prior to the end of the offering period (or such other number of days as is determined by us), and for any reason, permanently withdraw from participating in the offering and permanently withdraw the balance accumulated in the employee's account. If an employee elects to discontinue his or her payroll deductions during an offering period but does not elect to withdraw his or her funds, funds previously deducted will be applied to the purchase of common stock at the end of the offering period. If a participating employee's employment ends before the last business day of an offering period, no additional payroll deductions will be taken and the balance in the employee's account will be paid to the employee.

We will be required to make equitable adjustments to the extent determined by our board of directors or a committee thereof to the number and class of securities available under the 2021 ESPP, the share limitations under the 2021 ESPP, and the purchase price for an offering period under the 2021 ESPP to reflect stock splits, reverse stock splits, stock dividends, recapitalizations, combinations of shares, reclassifications of shares, spin-offs and other similar changes in capitalization or events or any dividends or distributions to holders of our common stock other than ordinary cash dividends.

In connection with a merger or other reorganization event, as defined in the 2021 ESPP, our board of directors or a committee of our board of directors may take any one or more of the following actions as to outstanding options to purchase shares of our common stock under the 2021 ESPP on such terms as our board of directors or committee thereof determines:

- provide that options will be assumed, or substantially equivalent options will be substituted, by the acquiring or succeeding corporation (or an affiliate of the acquiring or succeeding corporation);
- upon written notice to employees, provide that all outstanding options will be terminated immediately prior to the consummation of such reorganization event and that all such outstanding options will become exercisable to the extent of accumulated payroll deductions as of a date specified by board of directors or committee thereof in such notice, which date will not be less than ten days preceding the effective date of the reorganization event;
- upon written notice to employees, provide that all outstanding options will be cancelled as of a date prior to the effective date of the reorganization event and that all accumulated payroll deductions will be returned to participating employees on such date;
- in the event of a reorganization event under the terms of which holders of our common stock will receive upon consummation thereof a cash payment for each share surrendered in the reorganization event, change the last day of the offering period to be the date of the consummation of the reorganization event and make or provide for a cash payment to each employee equal to (1) the cash payment for each share surrendered in the reorganization event times the number of shares of our common stock that the employee's accumulated payroll deductions as of immediately prior to the reorganization event could purchase at the applicable purchase price, where the cash payment for each share surrendered in the reorganization event is treated as the fair market value of our common stock on the last day of the applicable offering period for purposes of determining the purchase price and where the number of shares that could be purchased is subject to the applicable limitations under the 2021 ESPP minus (2) the result of multiplying such number of shares by the purchase price; and/or
- provide that, in connection with our liquidation or dissolution, options will convert into the right to receive liquidation proceeds (net of the purchase price thereof).

Our board of directors may at any time, and from time to time, amend or suspend the 2021 ESPP or any portion of the 2021 ESPP. We will obtain stockholder approval for any amendment if such approval is required by Section 423 of the Code. Further, our board of directors may not make any amendment that would cause the 2021 ESPP to fail to comply with Section 423 of the Internal Revenue Code. The 2021 ESPP may be

terminated at any time by our board of directors. Upon termination, we will refund all amounts in the accounts of participating employees.

401(k) Plan

We maintain a defined contribution employee retirement plan for our employees, including our named executive officers. The plan is intended to qualify as a tax-qualified 401(k) plan so that contributions to the 401(k) plan, and income earned on such contributions, are not taxable to participants until withdrawn or distributed from the 401(k) plan (except in the case of contributions under the 401(k) plan designated as Roth contributions). Under the 401(k) plan, each employee is fully vested in his or her deferred salary contributions and our discretionary match. Employee contributions are held and invested by the plan's trustee as directed by participants. The 401(k) plan provides us with the discretion to match employee contributions, but to date we have not provided any employer matching contributions.

Limitation of Liability and Indemnification

Our certificate of incorporation, which will become effective upon the closing of this offering, limits the personal liability of directors for breach of fiduciary duty to the maximum extent permitted by the Delaware General Corporation Law, or the DGCL, and provides that no director will have personal liability to us or to our stockholders for monetary damages for breach of fiduciary duty as a director. However, these provisions do not eliminate or limit the liability of any of our directors:

- for any breach of the director's duty of loyalty to us or our stockholders;
- for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- for voting for or assenting to unlawful payments of dividends, stock repurchases or other distributions; or
- for any transaction from which the director derived an improper personal benefit.

Any amendment to or repeal of these provisions will not eliminate or reduce the effect of these provisions in respect of any act, omission or claim that occurred or arose prior to such amendment or repeal. If the DGCL is amended to provide for further limitations on the personal liability of directors of corporations, then the personal liability of our directors will be further limited to the greatest extent permitted by the DGCL.

In addition, our certificate of incorporation, which will become effective upon the closing of this offering, provides that we must indemnify our directors and officers and we must advance expenses, including attorneys' fees, to our directors and officers in connection with legal proceedings, subject to very limited exceptions.

We maintain a general liability insurance policy that covers specified liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers. In addition, we intend to enter into new indemnification agreements with all of our directors and executive officers prior to the closing of this offering. These indemnification agreements may require us, among other things, to indemnify each such executive officer or director for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by him or her in any action or proceeding arising out of his or her service as one of our executive officers or directors.

Some of our non-employee directors may, through their relationships with their employers, be insured or indemnified against specified liabilities incurred in their capacities as members of our board of directors.

Insofar as indemnification for liabilities arising under the Securities Act of 1933, as amended, or the Securities Act, may be permitted to directors, executive officers or persons controlling us, in the opinion of the Securities and Exchange Commission, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Rule 10b5-1 Sales Plans

Our directors and executive officers may adopt written plans, known as Rule 10b5-1 plans, in which they will contract with a broker to buy or sell shares of our common stock on a periodic basis. Under a Rule 10b5-1

plan, a broker executes trades pursuant to parameters established by the director or officer when entering into the plan, without further direction from the director or officer. It also is possible that the director or officer could amend or terminate the plan when not in possession of material, nonpublic information. In addition, our directors and executive officers may buy or sell additional shares outside of a Rule 10b5-1 plan when they are not in possession of material, nonpublic information.

Director Compensation

The table below shows all compensation to our non-employee directors during the year ended December 31, 2020.

Name	Fees earned or paid in cash ($)	Stock awards ($)[1][2]	Option awards[1][2] ($)	All other compensation[3]	Total ($)
Paul J. Clancy	18,333	—	249,960	—	268,293
Daniel Curran	—	—	—	—	—
Thomas Beck[4]	—	—	—	—	—
Peter Dudek[5]	—	—	—	—	—
David Grayzel	—	—	—	—	—
Nancy Hong[6]	—	—	—	—	—
Rachel Humphrey	40,000	85,096[7]	51,478	150	176,724
Daniel S. Lynch	138,889	—	499,269	20,231	658,389
Jayson Punwani[8]	—	—	—	—	—
Michael Ross	—	—	—	—	—
Robert Weisskoff[9]	—	—	—	—	—

(1) The amounts reported represent the aggregate grant date fair value of incentive shares, restricted stock or stock options awarded in 2020, calculated in accordance with FASB ASC Topic 718. The assumptions used in calculating the grant date fair value are set forth in Note 14 to our consolidated financial statements appearing elsewhere in this prospectus. Shares of restricted stock issued in exchange for incentive units that were awarded prior to 2020 as part of the Reorganization have been excluded from the "Stock awards" column. These amounts reflect the accounting cost for these stock options and do not reflect the actual economic value that may be realized by the directors upon the vesting of the stock options, the exercise of the stock options or the sale of the common underlying such stock options.

(2) As of December 31, 2020, the aggregate number of stock options held by non-employee directors was as follows:

Director	Aggregate number of option awards
Paul J. Clancy	640,285
Daniel Curran	—
Thomas Beck	—
Peter Dudek	—
David Grayzel	—
Nancy Hong	—
Rachel Humphrey	135,279
Daniel S. Lynch	1,280,572
Jayson Punwani	—
Michael Ross	—
Robert Weisskoff	—

As of December 31, 2020, the aggregate number of restricted common stock awards held by non-employee directors was as follows:

Director	Aggregate number of restricted common stock awards
Paul J. Clancy	—
Daniel Curran	—
Thomas Beck	—
Peter Dudek	—
David Grayzel	—
Nancy Hong	—
Rachel Humphrey	89,721
Daniel S. Lynch	—
Jayson Punwani	—
Michael Ross	—
Robert Weisskoff	—

(3) The amount reported for Dr. Humphrey includes a taxi fare reimbursement ($150). The amount reported for Mr. Lynch includes a legal fee reimbursement associated with his Service Agreement (as described below) ($6,000) and phone, internet, and administrative assistant costs ($14,200).

(4) Mr. Beck resigned as a member of our board of directors in February 2020.

(5) Mr. Dudek resigned as a member of our board of directors in February 2021.

(6) Ms. Hong resigned as a member of our board of directors in February 2021.

(7) 225,000 incentive units were awarded to Dr. Humphrey on March 12, 2020. In connection with the Reorganization, these incentive units were exchanged for 89,721 shares of restricted common stock. The shares began vesting as of December 13, 2019 and vest over three years, in equal annual installments through December 13, 2022, subject to continued service.

(8) Mr. Punwani resigned as a member of our board of directors in November 2020.

(9) Mr. Weisskoff resigned as a member of our board of directors in February 2021.

Prior to this offering, we paid cash fees and granted equity awards to certain of our non-employee directors for their service on our board of directors pursuant to a non-employee and non-affiliate director compensation policy. We have historically reimbursed our non-employee directors for reasonable travel and out-of-pocket expenses incurred in connection with attending board of director and committee meetings.

We compensate Mr. Lynch, the chairman of our board of directors, pursuant to a service agreement dated June 11, 2020, or the Service Agreement. Under the Service Agreement, Mr. Lynch is entitled to an annual director service fee of $250,000. The Service Agreement also provided for Mr. Lynch to receive the grant of an option to purchase 1,280,572 shares of our common stock, vesting in equal monthly installments over four years from June 11, 2020, which option was awarded in July 2020 at an exercise price of $0.58 per share, which equaled the fair market value of our common stock on the date of grant. The Service Agreement also entitles Mr. Lynch to the grant of additional options following equity issuances by us such that he continues to own 1.5% of our common stock on a fully diluted basis, which obligation shall terminate immediately prior to the consummation of this offering. The vesting of the options granted under the Service Agreement are subject to acceleration upon the occurrence of certain events, including certain corporate transactions.

Dr. Russo also serves as our president and chief executive officer and does not receive any additional compensation for her service as a director. Dr. Russo is one of our named executive officers and, accordingly, the compensation that we pay to Dr. Russo is discussed above under "—Summary Compensation Table" and "—Narrative to Summary Compensation Table."

In , 2021, our board of directors approved a director compensation program that will become effective on the effective date of the registration statement of which this prospectus forms a part. Under this director compensation program, we will pay our non-employee directors a cash retainer for service on the board of directors and for service on each committee on which the director is a member. The chairperson of the board and of each committee will receive higher retainers for such service. These fees are payable in arrears in four equal quarterly installments on the last day of each quarter, provided that the amount of such payment will be prorated for any portion of such quarter that the director is not serving on our board of directors and

no fee will be payable in respect of any period prior to the closing of this offering. The fees paid to non-employee directors for service on the board of directors and for service on each committee of the board of directors on which the director is a member are as follows:

	Member annual fee	Chairperson annual incremental fee
Board of Directors	$	$
Audit Committee	$	$
Compensation Committee	$	$
Nominating and Corporate Governance Committee	$	$

We also will continue to reimburse our non-employee directors for reasonable travel and other expenses incurred in connection with attending meetings of our board of directors and any committee of our board of directors on which he or she serves.

In addition, under our director compensation program to be effective on the effective date of the registration statement of which this prospectus forms a part, each non-employee director will receive, upon his or her initial election or appointment to our board of directors, an option to purchase shares of our common stock under the 2021 Plan. Each of these options will vest as to % of the shares of our common stock underlying such option at the end of each successive one-month period following the grant date until the third anniversary of the grant date, subject to the non-employee director's continued service as a director. Further, on the date of the first board meeting held after each annual meeting of stockholders, each non-employee director that has served on our board of directors for at least six months will receive, under the 2021 Plan, an option to purchase shares of our common stock under the 2021 Plan. Each of these options will vest with respect to all of the shares underlying such option on the first anniversary of the grant date or, if earlier, immediately prior to the first annual meeting of stockholders occurring after the grant date, subject to the non-employee director's continued service as a director. All options issued to our non-employee directors under our director compensation program will be issued at exercise prices equal to the fair market value of our common stock on the date of grant and will become exercisable in full upon specified change in control events.

TRANSACTIONS WITH RELATED PERSONS

Since January 1, 2018, we have engaged in the following transactions in which the amounts involved exceeded $120,000 and any of our directors, executive officers or holders of more than 5% of our voting securities, or any member of the immediate family of, or person sharing the household with, the foregoing persons, had or will have a direct or indirect material interest. We believe that all of these transactions were on terms as favorable as could have been obtained from unrelated third parties.

Series A-1 Preferred Unit Financing

On January 23, 2018, we issued and sold an aggregate of 2,608,695 Series A-1 preferred units at a price per share of $1.15 in cash, for an aggregate purchase price of $3.0 million. On February 28, 2018, we issued and sold an additional 3,913,043 Series A-1 preferred units at a price per share of $1.15 in cash, for an aggregate purchase price of $4.5 million. On December 5, 2018, we issued and sold an additional 4,347,826 Series A-1 preferred units at a price per share of $1.15 in cash, for an aggregate purchase price of $5.0 million. On May 10, 2019, we issued and sold an additional 8,695,652 Series A-1 preferred units at a price per share of $1.15 in cash, for an aggregate purchase price of $10.0 million. These Series A-1 preferred units, which were issued prior to the Reorganization, converted into Series A-1 convertible preferred stock in connection with the Reorganization. See "Prospectus Summary—Reorganization." The following table sets forth the aggregate number of Series A-1 preferred units that we issued and sold to our directors, officers and 5% stockholders and their affiliates and the aggregate cash purchase price for such shares:

Purchaser[1]	Number of Series A-1 Preferred Units	Cash Purchase Price
F-Prime Capital Partners Healthcare Fund IV LP	6,521,739	$ 7,500,000
Atlas Venture Fund XI, L.P.[2]	13,043,477	14,999,999

(1) See "Principal Stockholders" for additional information about shares held by these entities.

(2) David Grayzel, a member of our board of directors, is a partner at Atlas Venture.

Each share of Series A-1 convertible preferred stock is convertible into one share of common stock.

Series B Preferred Unit and Series B Convertible Preferred Stock Financing

On December 12, 2019, we issued and sold an aggregate of 23,913,036 Series B preferred units at a price per share of $1.265 in cash, for an aggregate purchase price of $30.2 million. On December 20, 2019, we issued and sold an additional 7,905,138 Series B preferred units at a price per share of $1.265 in cash, for an aggregate purchase price of $10.0 million. On February 25, 2020, we issued and sold an additional 7,905,138 Series B preferred units at a price per share of $1.265 in cash, for an aggregate purchase price of $10.0 million. These Series B preferred units, which were issued prior to the Reorganization, converted into Series B convertible preferred stock in connection with the Reorganization. See "Prospectus Summary—Reorganization." On January 20, 2021, we issued and sold an additional 39,723,312 shares of Series B convertible preferred stock at a price per share of $1.265 in cash, for an aggregate purchase price of $50.2 million. The following table sets forth the aggregate number of Series B preferred units and shares of Series B convertible preferred stock that we issued and sold to our directors, officers and 5% stockholders and their affiliates and the aggregate cash purchase price for such shares:

Purchaser[1]	Number of Series B Preferred Units	Number of Shares of Series B Convertible Preferred Stock	Cash Purchase Price
F-Prime Capital Partners Healthcare Fund IV LP	2,964,426	2,964,426	$ 7,500,000
Atlas Venture Fund XI, L.P.[2]	2,964,426	2,964,426	7,500,000
Takeda Ventures, Inc.[3]	5,928,853	5,928,853	14,999,998
Rivervest Venture Fund IV, L.P.	3,952,569	3,952,569	10,000,000
SV7 Impact Medicine Fund LP[4]	4,743,083	4,743,083	12,000,000
MRL Ventures Fund, LLC	3,952,569	3,952,569	10,000,000

(1) See "Principal Stockholders" for additional information about shares held by these entities.

(2) David Grayzel, a member of our board of directors, is a partner at Atlas Venture.

(3) Daniel Curran, a member of our board of directors, is the head of the rare genetics and hematology therapeutic area unit at Takeda Ventures, Inc.

(4) Michael Ross, a member of our board of directors, is the managing partner at SV Health Investors LLC.

Each share of Series B convertible preferred stock is convertible into one share of common stock.

Series C Convertible Preferred Stock Financing

On February 23, 2021, we issued an aggregate of 68,271,641 shares of our Series C convertible preferred stock at a price per share of $1.3915 in cash, for an aggregate purchase price of $95.0 million. The following table sets forth the aggregate number of shares of our Series C convertible preferred stock that we issued to our directors, officers and 5% stockholders and their affiliates and the aggregate cash purchase price for such shares:

Purchaser[1]	Number of Shares of Series C Convertible Preferred Stock	Cash Purchase Price
Atlas Venture Opportunity Fund I, L.P.[2]	5,210,204	$ 7,249,999
Takeda Ventures, Inc.[3]	2,155,946	2,999,999
Rivervest Venture Fund IV, L.P.	3,413,582	4,749,999
SV7 Impact Medicine Fund LP	2,874,595	3,999,999
Entities affiliated with Bain Capital Life Sciences, LP[4]	14,372,978	19,999,999
Entities affiliated with Deerfield Management Company, L.P.	14,372,978	19,999,999
MRL Ventures Fund, LLC	1,437,297	2,000,000

(1) See "Principal Stockholders" for additional information about shares held by these entities.

(2) David Grayzel, a member of our board of directors, is a partner at Atlas Venture.

(3) Daniel Curran, a member of our board of directors, is the head of the rare genetics and hematology therapeutic area unit at Takeda Ventures, Inc.

(4) Andrew Hack, a member of our board of directors, is a managing director at Bain Capital.

Each share of Series C convertible preferred stock is convertible into one share of common stock.

Registration Rights

We are a party to a registration rights agreement with the holders of our convertible preferred stock, including our 5% stockholders and their affiliates and entities affiliated with some of our directors. This registration rights agreement provides these holders the right, subject to certain conditions, beginning six months following the closing of this offering, to demand that we file a registration statement or to request that their shares be covered by a registration statement that we are otherwise filing.

See "Description of Capital Stock—Registration Rights" for additional information regarding these registration rights.

Indemnification Agreements

Our certificate of incorporation, which will become effective upon the closing of this offering, provides that we will indemnify our directors and officers to the fullest extent permitted by Delaware law. In addition, we intend to enter into new indemnification agreements with all of our directors and executive officers prior to the closing of this offering. These indemnification agreements may require us, among other things, to indemnify each such executive officer or director for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by him or her in any action or proceeding arising out of his or her service as one of our executive officers or directors.

Employment Agreements

We have entered into letter agreements with each of our named executive officers. For more information regarding these agreements, see the section entitled “Executive Compensation—Employment Agreements.”

Policies and Procedures for Related Person Transactions

Our board of directors intends to adopt written policies and procedures for the review of any transaction, arrangement or relationship in which our company is a participant, the amount involved exceeds $120,000, and one of our executive officers, directors, director nominees or 5% stockholders, or their immediate family members, each of whom we refer to as a “related person,” has a direct or indirect material interest.

If a related person proposes to enter into such a transaction, arrangement or relationship, which we refer to as a “related person transaction,” the related person must report the proposed related person transaction to our general counsel. The policy calls for the proposed related person transaction to be reviewed and, if deemed appropriate, approved by our audit committee. Whenever practicable, the reporting, review and approval will occur prior to entry into the transaction. If advance review and approval is not practicable, the audit committee will review, and, in its discretion, may ratify the related person transaction. The policy also permits the chairperson of the audit committee to review and, if deemed appropriate, approve proposed related person transactions that arise between committee meetings, subject to ratification by the committee at its next meeting. Any related person transactions that are ongoing in nature will be reviewed annually.

A related person transaction reviewed under the policy will be considered approved or ratified if it is authorized by the audit committee after full disclosure of the related person’s interest in the transaction. As appropriate for the circumstances, the audit committee will review and consider:

- the related person’s interest in the related person transaction;
- the approximate dollar value of the amount involved in the related person transaction;
- the approximate dollar value of the amount of the related person’s interest in the transaction without regard to the amount of any profit or loss;
- whether the transaction was undertaken in the ordinary course of our business;
- whether the terms of the transaction are no less favorable to us than terms that could have been reached with an unrelated third party;
- the purpose, and the potential benefits to us, of the transaction; and
- any other information regarding the related person transaction or the related person in the context of the proposed transaction that would be material to investors in light of the circumstances of the particular transaction.

Our audit committee may approve or ratify the transaction only if it determines that, under all of the circumstances, the transaction is in, or is not inconsistent with, our best interests. Our audit committee may impose any conditions on the related person transaction that it deems appropriate.

In addition to the transactions that are excluded by the instructions to the SEC’s related person transaction disclosure rule, our board of directors has determined that the following transactions do not create a material direct or indirect interest on behalf of related persons and, therefore, are not related person transactions for purposes of this policy:

- interests arising solely from the related person’s position as an executive officer of another entity, whether or not the person is also a director of such entity, that is a participant in the transaction where the related person and all other related persons own in the aggregate less than a 10% equity interest in such entity, the related person and his or her immediate family members are not involved in the negotiation of the terms of the transaction and do not receive any special benefits as a result of the transaction and the amount involved in the transaction is less than the greater of $200,000 or 5% of the annual gross revenues of the company receiving payment under the transaction; and
- a transaction that is specifically contemplated by provisions of our certificate of incorporation or bylaws.

The policy provides that transactions involving compensation of executive officers shall be reviewed and approved by our compensation committee in the manner specified in the compensation committee's charter.

We did not have a written policy regarding the review and approval of related person transactions prior to this offering. Nevertheless, with respect to such transactions, it has been the practice of our board of directors to consider the nature of and business reasons for such transactions, how the terms of such transactions compared to those which might be obtained from unaffiliated third parties and whether such transactions were otherwise fair to and in the best interests of, or not contrary to, our best interests.

PRINCIPAL STOCKHOLDERS

The following table sets forth information with respect to the beneficial ownership of our common stock as of April 30, 2021 by:

- each of our directors;
- each of our named executive officers;
- all of our directors and executive officers as a group; and
- each person, or group of affiliated persons, who is known by us to beneficially own more than 5% of our common stock.

The column entitled "Percentage of Shares Beneficially Owned—Before Offering" is based on a total of 8,722,676 shares of our common stock outstanding as of April 30, 2021, including 1,771,303 shares of unvested restricted common stock subject to forfeiture, and assuming the automatic conversion of all outstanding shares of our convertible preferred stock into an aggregate of 174,783,481 shares of our common stock upon the closing of this offering. The column entitled "Percentage of Shares Beneficially Owned—After Offering" is based on shares of our common stock to be outstanding after this offering, including the shares of our common stock that we are selling in this offering and the 1,771,303 shares of unvested restricted common stock subject to forfeiture, but not including any additional shares issuable upon exercise of outstanding options or any additional shares issuable upon the underwriters' option to purchase additional shares.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC and includes voting or investment power with respect to our common stock. Shares of our common stock that an individual has a right to acquire within 60 days after April 30, 2021 are considered outstanding and beneficially owned by the person holding such right for the purpose of calculating the percentage ownership of that person but not for the purpose of calculating the percentage ownership of any other person, except with respect to the percentage ownership of all directors and executive officers. Except as otherwise noted, the persons and entities in this table have sole voting and investing power with respect to all of the shares of our common stock beneficially owned by them, subject to community property laws, where applicable. Unless otherwise indicated, the address of each beneficial owner is c/o Xilio Therapeutics, Inc., 828 Winter Street, Waltham, Massachusetts 02451.

Name of Beneficial Owner	Shares Beneficially Owned	Percentage of Shares Beneficially Owned	
		Before Offering	After Offering
5% Stockholders:			
Entities affiliated with Atlas Ventures[1]	24,432,533	13.3%	
F-Prime Capital Partners Healthcare Fund IV LP and affiliates[2]	18,122,893	9.9%	
Entities affiliated with Bain Capital Life Sciences[3]	14,372,978	7.8%	
Entities affiliated with Deerfield Management Company, L.P.[4]	14,372,978	7.8%	
Takeda Ventures, Inc.[5]	14,013,652	7.6%	
SV7 Impact Medicine Fund LP[6]	12,360,761	6.7%	
Rivervest Venture Fund IV, L.P.[7]	11,318,720	6.2%	
MRL Ventures Fund, LLC[8]	9,342,435	5.1%	
Directors and Named Executive Officers:			
René Russo[9]	3,082,427	1.7%	
Joseph Farmer[10]	609,683	*	
Martin Huber[11]	420,567	*	
Paul J. Clancy	—	—	
Daniel Curran[5]	14,013,652	7.6%	

Name of Beneficial Owner	Shares Beneficially Owned	Percentage of Shares Beneficially Owned	
		Before Offering	After Offering
David Gardner[12]	8,623,787	4.7%	
David Grayzel[1]	24,432,533	13.3%	
Andrew Hack[13]	—	—	
Rachel Humphrey[14]	257,544	*	
Daniel S. Lynch[15]	796,560	*	
Michael Ross[6]	12,360,761	6.7%	
Christina Rossi[16]	—	—	
All current executive officers and directors as a group (13 persons)[17]	64,289,519	34.5%	

* Less than one percent.

(1) Consists of: (i) 250,000 shares of common stock held by Atlas Venture Fund XI, L.P., or Atlas XI, (ii) 18,972,329 shares of common stock underlying shares of convertible preferred stock held by Atlas XI and (iii) 5,210,204 shares of common stock underlying shares of convertible preferred stock held by Atlas Venture Opportunity Fund I, L.P, or AVO I. Atlas Venture Associates XI, L.P., or AVA XI LP, is the general partner of Atlas XI and Atlas Venture Associates XI, LLC, or AVA XI LLC and together with Atlas XI and AVA XI LP, the Fund XI Reporting Persons, is the general partner of AVA XI LP. Each of AVA XI LP and AVA XI LLC has voting and dispositive power over the shares held by Atlas XI. As such, each of the Fund XI Reporting Persons share voting and dispositive power with respect to the shares held by Atlas XI. Atlas Venture Associates Opportunity I, L.P., or AVAO LP, is the general partner of AVO I and Atlas Venture Associates Opportunity I, LLC, or AVAO LLC and together with AVO I and AVAO LP, the Opportunity Fund Reporting Persons, is the general partner of AVAO LP. Each of AVAO LP and AVAO LLC has voting and dispositive power over the shares held by AVO I. As such, each of the Opportunity Fund Reporting Persons share voting and dispositive power with respect to the shares held by AVO I. David Grayzel, a member of our board of directors, is a member of AVA XI LLC and AVAO LLC and makes investment decisions on behalf of Atlas XI and AVO I. Mr. Grayzel disclaims beneficial ownership of such shares except to the extent of any pecuniary interest therein. The mailing address of Atlas XI and AVO I is 300 Technology Square, 8th Floor, Cambridge, MA 02139.

(2) Consists of: (i) 250,000 shares of common stock held by F-Prime Capital Partners Healthcare Fund IV LP, or F-Prime IV, (ii) 7,500,000 shares of common stock underlying shares of Series A preferred stock held by F-Prime IV, (iii) 6,521,739 shares of common stock underlying shares of Series A-1 preferred stock held by F-Prime IV, (iv) 272,687 shares of common stock underlying shares of Series B preferred stock held by F-Prime IV, (v) 3,536,046 shares of common stock underlying shares of Series B preferred stock held by Impresa Fund III Limited Partnership, and (vi) 42,421 shares of common stock underlying shares of Series B preferred stock held by F-Prime Capital Partners Healthcare Advisors Fund IV LP, or F-Prime Advisors IV. F-Prime Advisors IV is the general partner of F-Prime IV. F-Prime Advisors IV is solely managed by Impresa Management LLC, the managing member of its general partner and its investment manager. Impresa Fund III Limited Partnership is solely managed by Impresa Management LLC, its general partner and its investment manager. Impresa Management LLC is owned, directly or indirectly, by various shareholders and employees of FMR LLC. Each of the entities listed above expressly disclaims beneficial ownership of the shares listed above except to the extent of any pecuniary interest therein. The address of these entities is 245 Summer Street, Boston, Massachusetts 02210.

(3) Consists of (i) 12,812,483 shares of common stock underlying shares of convertible preferred stock held by Bain Capital Life Sciences Fund II, L.P. (“BCLS II”) and (ii) 1,560,495 shares of common stock underlying shares of convertible preferred stock held by BCIP Life Sciences Associates, LP (“BCIPLS” and, together with BCLS II, the “Bain Capital Life Sciences Entities”). Bain Capital Life Sciences Investors, LLC, whose managers are Jeffrey Schwartz and Adam Koppel, is the manager of the general partner of BCLS II and governs the investment strategy and decision-making process with respect to investments held by BCIPLS. As a result, each of Bain Capital Life Sciences Investors, LLC, Mr. Schwartz and Dr. Koppel may be deemed to share voting and dispositive power over the shares held by the Bain Capital Life Sciences Entities. The address of the Bain Capital Life Sciences Entities is c/o Bain Capital Life Sciences, LP, 200 Clarendon Street, Boston, MA 02116.

(4) Consists of (i) 7,186,489 shares of common stock underlying shares of convertible preferred stock held by Deerfield Private Design Fund V, L.P., or Deerfield Private Design and (ii) 7,186,489 shares of common stock underlying shares of convertible preferred stock held by Deerfield Partners, L.P., or Deerfield Partners, and together with Deerfield Private Design, Deerfield. Deerfield Mgmt V, L.P. is the general partner of Deerfield Private Design and Deerfield Mgmt, L.P. is the general partner of Deerfield Partners. Deerfield Management Company, L.P. is the investment manager of each of Deerfield Private Design and Deerfield Partners. Mr. James E. Flynn is the sole member of the general partner of each of Deerfield Mgmt V, L.P., Deerfield Mgmt, L.P. and Deerfield Management Company, L.P. Deerfield Mgmt V, L.P., Deerfield Management Company, L.P. and Mr. James E. Flynn may be deemed to beneficially own the securities held by Deerfield Private Design. Deerfield Mgmt, L.P., Deerfield Management Company, L.P. and Mr. James E. Flynn may be deemed to beneficially own the securities held by Deerfield Partners. The address for Deerfield is c/o Deerfield Management Company, L.P., 780 Third Avenue, 37th Floor, New York, New York 10017.

(5) Consists of shares of common stock underlying shares of convertible preferred stock. Takeda Ventures, Inc. is a wholly owned indirect subsidiary of Takeda Pharmaceutical Company Limited. Takeda Ventures, Inc. is owned directly by Takeda Pharmaceuticals U.S.A., Inc., which is owned directly by both Takeda Pharmaceutical Company Limited (72.70%) and Takeda Pharmaceuticals International AG (27.30%). Takeda Pharmaceuticals International AG is a wholly owned direct subsidiary of Takeda Pharmaceutical Company Limited. Daniel Curran, a member of our board of directors, is the Head of the Rare Genetics and Hematology Therapeutic Area Unit of Takeda, and as such may be deemed to beneficially own such shares. Mr. Curran disclaims beneficial ownership of such shares except to the extent of any pecuniary interest therein.

(6) Consists of shares of common stock underlying shares of convertible preferred stock held by SV7 Impact Medicine Fund LP, via its general partner SV7 (IMF) GP LLP. Michael Ross, a member of our board of directors, is a managing partner at SV Health Investors LLC and disclaims beneficial ownership of the shares held herein except to the extent of his pecuniary interest therein.

(7) Consists of shares of common stock underlying shares of convertible preferred stock held by RiverVest Venture Fund IV, L.P., or RiverVest. RiverVest Venture Partners IV, L.P. is the general partner of RiverVest. RiverVest Venture Partners IV, LLC, is the sole general partner of RiverVest Venture Partners IV, L.P. The individual managers of RiverVest Ventures Partners IV, LLC are Jay Schmelter, John P. McKearn, Ph.D. and Niall O'Donnell. RiverVest Partners IV, RiverVest Venture Partners IV, LLC and each of the individual managers share voting and dispositive power with regard to the securities directly held by RiverVest Venture Fund IV, L.P. The address of RiverVest is 101 South Hanley Road, Suite 1850, St. Louis, Missouri 63105.

(8) Consists of shares of common stock underlying shares of convertible preferred stock held by MRL Ventures Fund, LLC, or MRL Ventures Fund. All shares are held directly by MRL Ventures Fund, which is a subsidiary of Merck Sharp & Dohme Corp. Peter Dudek is the president of MRL Ventures Fund. The address of MRL Ventures Fund is 320 Bent Street, Cambridge, Massachusetts 02141.

(9) Consists of (i) 1,906,015 shares of restricted common stock, of which 1,097,832 will remain subject to vesting 60 days after April 30, 2021, and (ii) 1,176,412 shares of common stock issuable upon the exercise of options exercisable within 60 days after April 30, 2021.

(10) Consists of (i) 328,222 shares of restricted common stock, of which 64,258 will remain subject to vesting 60 days after April 30, 2021, and (ii) 281,461 shares of common stock issuable upon the exercise of options exercisable within 60 days after April 30, 2021. Mr. Farmer resigned as our chief operating officer in March 2021.

(11) Consists of shares of common stock issuable upon the exercise of options exercisable within 60 days after April 30, 2021.

(12) Consists of (i) 7,186,490 shares of common stock underlying shares of convertible preferred stock held by Rock Springs Capital Master Fund LP, or Master Fund, and (ii) 1,437,297 shares of common stock held by Four Pines Master Fund LP, or Four Pines, and indirectly held by Rock Springs Capital Management LP, or RSCM. RSCM serves as the investment manager to each of the Master Fund and Four Pines. Rock Springs Capital LLC, or RSC, is the general partner of RSCM. Each of RSCM and RSC may be deemed to be the indirect beneficial owners of the shares of common stock and may be deemed to have shared voting and dispositive power with respect to such shares. David Gardner, a member of our board of directors, is a senior member of the investment team at RSCM and disclaims beneficial ownership of the shares held herein except to the extent of his pecuniary interest therein. The address of RSCM and RSC is 650 South Exeter St., Suite 1070, Baltimore, MD 21202. The address of Master Fund is c/o Walkers Corporate Limited, 190 Elgin Avenue, George Town, Grand Cayman KY1-9008, Cayman Islands.

(13) Does not include shares of common stock underlying shares of convertible preferred stock held by the Bain Capital Life Sciences Entities. Dr. Hack is a managing director of Bain Capital Life Sciences Investors, LLC. As a result, by virtue of the relationships described in footnote 3 above, Dr. Hack may be deemed to share beneficial ownership of such securities held by the Bain Capital Life Sciences Entities. The address of Dr. Hack is c/o Bain Capital Life Sciences, LP, 200 Clarendon Street, Boston, Massachusetts 02116.

(14) Consists of (i) 89,721 shares of restricted common stock, of which 59,814 will remain subject to vesting 60 days after April 30, 2021, and (ii) 167,823 shares of common stock issuable upon the exercise of options exercisable within 60 days after April 30, 2021.

(15) Consists of 796,560 shares of common stock issuable upon the exercise of options exercisable within 60 days after April 30, 2021.

(16) Ms. Rossi became a member of our board of directors in April 2021 and does not hold any options exercisable within 60 days after April 30, 2021.

(17) Consists of (i) 59,180,733 shares of common stock underlying shares of convertible preferred stock, (ii) 2,387,932 shares of common stock, of which 1,204,765 will remain subject to vesting 60 days after April 30, 2021, and (iii) 2,720,854 shares of common stock issuable upon the exercise of options exercisable within 60 days after April 30, 2021.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock and provisions of our certificate of incorporation and bylaws are summaries and are qualified by reference to the certificate of incorporation and bylaws that will become effective upon the closing of this offering. We will file copies of these documents with the SEC as exhibits to our registration statement of which this prospectus is a part. The description of the capital stock reflects changes to our capital structure that will occur upon the closing of this offering.

Upon the closing of this offering, our authorized capital stock will consist of shares of our common stock, par value $0.0001 per share, and shares of our convertible preferred stock, par value $0.0001 per share, all of which convertible preferred stock will be undesignated.

As of April 30, 2021, we had issued and outstanding:

- 8,722,676 shares of our common stock held by 53 holders of record;
- 7,500,000 shares of our Series A convertible preferred stock held by one holder of record, convertible into 7,500,000 shares of our common stock;
- 19,565,216 shares of our Series A-1 convertible preferred stock held by two holders of record, convertible into 19,565,216 shares of our common stock;
- 79,446,624 shares of our Series B convertible preferred stock held by 19 holders of record, convertible into 79,446,624 shares of our common stock; and
- 68,271,641 shares of our Series C convertible preferred stock held by 17 holders of record, convertible into 68,271,641 shares of our common stock.

Upon the closing of this offering, all of the outstanding shares of our convertible preferred stock will automatically convert into an aggregate of 174,783,481 shares of our common stock.

Common Stock

Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders and do not have cumulative voting rights. Each election of directors by our stockholders will be determined by a plurality of the votes cast by the stockholders entitled to vote on the election. Holders of common stock are entitled to receive proportionately any dividends as may be declared by our board of directors, subject to any preferential dividend rights of outstanding preferred stock.

In the event of our liquidation or dissolution, the holders of our common stock are entitled to receive proportionately all assets available for distribution to stockholders after the payment of all debts and other liabilities and subject to the prior rights of any of our outstanding preferred stock. Holders of our common stock have no preemptive, subscription, redemption or conversion rights. The rights, preferences and privileges of holders of our common stock are subject to and may be adversely affected by the rights of the holders of shares of any series of our convertible preferred stock that we may designate and issue in the future.

Preferred Stock

Immediately prior to the closing of this offering, all outstanding shares of convertible preferred stock will convert into shares of our common stock. Immediately upon the closing of this offering, our certificate of incorporation will be amended and restated to delete all references to such shares of convertible preferred stock. Under the terms of our certificate of incorporation that will become effective upon the closing of this offering, our board of directors is authorized to issue shares of preferred stock in one or more series without stockholder approval. Our board of directors has the discretion to determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, of each series of preferred stock.

The purpose of authorizing our board of directors to issue preferred stock and determine its rights and preferences is to eliminate delays associated with a stockholder vote on specific issuances. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions, future financings and other corporate purposes, could have the effect of making it more difficult for a third party to acquire, or

could discourage a third party from seeking to acquire, a majority of our outstanding voting stock. Upon the closing of this offering, there will be no shares of preferred stock outstanding, and we have no present plans to issue any shares of preferred stock.

Options and Unvested Restricted Common Stock

As of April 30, 2021, options to purchase an aggregate of 28,007,438 shares of our common stock were outstanding under our 2020 Plan, at a weighted average exercise price of $0.63 per share, and 1,771,303 shares of unvested restricted common stock were outstanding. See "Executive Compensation—Stock Option and Other Compensation Plans" for additional information regarding the terms of our 2020 Plan.

Delaware Anti-Takeover Law and Certain Charter and Bylaw Provisions

Delaware Law

We are subject to Section 203 of the DGCL. Subject to certain exceptions, Section 203 prevents a publicly held Delaware corporation from engaging in a "business combination" with any "interested stockholder" for three years following the date that the person became an interested stockholder, unless either the interested stockholder attained such status with the approval of our board of directors, the business combination is approved by our board of directors and stockholders in a prescribed manner or the interested stockholder acquired at least 85% of our outstanding voting stock in the transaction in which it became an interested stockholder. A "business combination" includes, among other things, a merger or consolidation involving us and the "interested stockholder" and the sale of more than 10% of our assets. In general, an "interested stockholder" is any entity or person beneficially owning 15% or more of our outstanding voting stock and any entity or person affiliated with or controlling or controlled by such entity or person. The restrictions contained in Section 203 are not applicable to any of our existing stockholders that will own 15% or more of our outstanding voting stock upon the closing of this offering.

Staggered Board; Removal of Directors

Our certificate of incorporation and our bylaws to be effective upon the closing of this offering divide our board of directors into three classes with staggered three-year terms. In addition, our certificate of incorporation and our bylaws to be effective upon the closing of this offering provide that directors may be removed only for cause and only by the affirmative vote of the holders of at least 75% of our shares of capital stock present in person or by proxy and entitled to vote. Under our certificate of incorporation and our bylaws to be effective upon the closing of this offering, any vacancy on our board of directors, including a vacancy resulting from an enlargement of our board of directors, may be filled only by vote of a majority of our directors then in office. Furthermore, our certificate of incorporation to be effective upon the closing of this offering provides that the authorized number of directors may be changed only by the resolution of our board of directors. The classification of our board of directors and the limitations on the ability of our stockholders to remove directors, change the authorized number of directors and fill vacancies could make it more difficult for a third party to acquire, or discourage a third party from seeking to acquire, control of our company.

Stockholder Action; Special Meeting of Stockholders; Advance Notice Requirements for Stockholder Proposals and Director Nominations

Our certificate of incorporation and our bylaws to be effective upon the closing of this offering provide that any action required or permitted to be taken by our stockholders at an annual meeting or special meeting of stockholders may only be taken if it is properly brought before such meeting and may not be taken by written action in lieu of a meeting. Our certificate of incorporation and our bylaws to be effective upon the closing of this offering also provide that, except as otherwise required by law, special meetings of the stockholders can only be called by our board of directors. In addition, our bylaws to be effective upon the closing of this offering establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of stockholders, including proposed nominations of candidates for election to our board of directors. Stockholders at an annual meeting may only consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of our board of directors, or by a stockholder of

record on the record date for the meeting who is entitled to vote at the meeting and who has delivered timely written notice in proper form to our secretary of the stockholder's intention to bring such business before the meeting. These provisions could have the effect of delaying until the next stockholder meeting stockholder actions that are favored by the holders of a majority of our outstanding voting securities. These provisions also could discourage a third party from making a tender offer for our common stock because even if the third party acquired a majority of our outstanding voting stock, it would be able to take action as a stockholder, such as electing new directors or approving a merger, only at a duly called stockholders meeting and not by written consent.

Super-Majority Voting

The DGCL provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws unless a corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Our bylaws to be effective upon the closing of this offering may be amended or repealed by a majority vote of our board of directors or the affirmative vote of the holders of at least 75% of the votes that all our stockholders would be entitled to cast in any annual election of directors. In addition, the affirmative vote of the holders of at least 75% of the votes that all our stockholders would be entitled to cast in any election of directors is required to amend or repeal or to adopt any provisions inconsistent with any of the provisions of our certificate of incorporation described above.

Exclusive Forum Selection

Our certificate of incorporation to become effective upon the closing of this offering provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (or, if the Court of Chancery of the State of Delaware does not have jurisdiction, the federal district court for the District of Delaware) shall be the sole and exclusive forum for the following types of proceedings: (1) any derivative action or proceeding brought on behalf of our company, (2) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers, employees or stockholders to our company or our stockholders, (3) any action asserting a claim arising pursuant to any provision of the General Corporation Law of the State of Delaware or as to which the General Corporation Law of the State of Delaware confers jurisdiction on the Court of Chancery of the State of Delaware, or (4) any action asserting a claim arising pursuant to any provision of our certificate of incorporation or amended and restated bylaws (in each case, as they may be amended from time to time) or governed by the internal affairs doctrine. These choice of forum provisions will not apply to suits brought to enforce a duty or liability created by the Exchange Act. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all such Securities Act actions. Accordingly, both state and federal courts have jurisdiction to entertain such claims. To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, our certificate of incorporation that will become effective upon the closing of this offering provides that, unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America shall, to the fullest extent permitted by law, be the sole and exclusive forum for the resolution of any claims arising under the Securities Act. While the Delaware courts have determined that such choice of forum provisions are facially valid, a stockholder may nevertheless seek to bring a claim in a venue other than those designated in the exclusive forum provisions. In such instance, we would expect to vigorously assert the validity and enforceability of the exclusive forum provisions of our certificate of incorporation. This may require significant additional costs associated with resolving such action in other jurisdictions and there can be no assurance that the provisions will be enforced by a court in those other jurisdictions.

Registration Rights

We have entered into an amended and restated registration rights agreement dated as of February 23, 2021, or the registration rights agreement, with holders of our convertible preferred stock. This registration rights agreement provides these stockholders the right, following the closing of this offering, to require us to register their shares under the Securities Act under specified circumstances as described below under "—Demand and Form S-3 Registration Rights" and "—Incidental Registration Rights." We refer to the shares with these registration rights as registrable securities. After registration pursuant to these rights, the registrable securities

will become freely tradable without restriction under the Securities Act. After registration pursuant to these rights, these shares will become freely tradable without restriction under the Securities Act.

Demand and Form S-3 Registration Rights

Beginning 180 days after the effective date of the registration statement of which this prospectus is a part, subject to specified limitations set forth in the registration rights agreement, at any time, the holders of a majority of the then outstanding registrable securities may demand that we register registrable securities then outstanding under the Securities Act for purposes of a public offering having an aggregate offering price to the public of not less than $10.0 million. We are not obligated to file a registration statement pursuant to this provision on more than two occasions.

In addition, subject to specified limitations set forth in the registration rights agreement, at any time after we become eligible to file a registration statement on Form S-3, holders of at least 25% of the registrable securities then outstanding may request that we register their registrable securities on Form S-3 for purposes of a public offering for which the reasonably anticipated aggregate offering price to the public would exceed $3.0 million. We are not obligated to file a registration statement pursuant to this provision on more than two occasions in any 12-month period.

Incidental Registration Rights

If, at any time after the closing of this offering, we propose to register for our own account any of our securities under the Securities Act, the holders of registrable securities will be entitled to notice of the registration and, subject to specified exceptions, have the right to require us to register all or a portion of the registrable securities then held by them in that registration.

In the event that any registration in which the holders of registrable securities participate pursuant to our registration rights agreement is an underwritten public offering, we have agreed to enter into an underwriting agreement in usual and customary form and use our reasonable best efforts to facilitate such offering.

Expenses

Pursuant to the registration rights agreement, we are required to pay all registration expenses, including all registration and filing fees, exchange listing fees, printing expenses, fees and expenses not to exceed $50,000 of one counsel selected by the selling stockholders to represent the selling stockholders, but excluding underwriting discounts, selling commissions, stock transfer taxes applicable to the sale of registrable securities and the fees and expenses of the selling stockholders' own counsel (other than the counsel selected to represent all selling stockholders). If a registration is withdrawn at the request of the stockholders initiating the registration, then the stockholders will bear the expenses of the registration.

The registration rights agreement contains customary cross-indemnification provisions, pursuant to which we are obligated to indemnify the selling stockholders in the event of material misstatements or omissions in the registration statement attributable to us or any violation or alleged violation whether by action or inaction by us under the Securities Act, the Exchange Act, any state securities or Blue Sky law or any rule or regulation promulgated under the Securities Act, the Exchange Act or any state securities or Blue Sky law in connection with such registration statement or the qualification or compliance of the offering, and they are obligated to indemnify us for material misstatements or omissions in the registration statement attributable to them.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock will be .

Nasdaq Global Market

We intend to apply to have our common stock listed on the Nasdaq Global Market under the symbol "XLO."

SHARES ELIGIBLE FOR FUTURE SALE

Prior to this offering, there has been no public market for our common stock, and a liquid trading market for our common stock may not develop or be sustained after this offering. As described below, only a limited number of shares will be available for sale shortly after this offering due to contractual and legal restrictions on resale. Future sales of substantial amounts of our common stock in the public market, including shares issued upon exercise of outstanding options, or the anticipation of these sales, could adversely affect market prices prevailing from time to time and could impair our ability to raise capital through sales of equity securities.

Upon the closing of this offering, we will have outstanding shares of our common stock, based on the 8,722,676 shares of our common stock that were outstanding on April 30, 2021, including 1,771,303 shares of unvested restricted common stock subject to forfeiture, and after giving effect to the issuance of shares of our common stock in this offering, assuming no exercise by the underwriters of their option to purchase additional shares of our common stock and the automatic conversion of all outstanding shares of our convertible preferred stock into an aggregate of 174,783,481 shares of our common stock upon the closing of this offering. Of these shares, all shares sold in this offering will be freely tradable without restriction or further registration under the Securities Act unless purchased by our "affiliates," as that term is defined in Rule 144 under the Securities Act.

The remaining shares of our common stock will be "restricted securities" under Rule 144, and we expect that substantially all of these restricted securities will be subject to the 180-day lock-up period under the lock-up agreements as described below. These restricted securities may be sold in the public market upon release or waiver of any applicable lock-up agreements, which waiver may be effected with the consent of the Morgan Stanley & Co. LLC and Cowen and Company, LLC in their sole discretion at any time, and only if registered or pursuant to an exemption from registration, such as Rule 144 or Rule 701 under the Securities Act.

Rule 144

In general, under Rule 144 of the Securities Act, beginning 90 days after the date of this prospectus, any person who is not our affiliate and has held their shares for at least six months, including the holding period of any prior owner other than one of our affiliates, may sell those shares without restriction, subject to the availability of current public information about us. In addition, under Rule 144, any person who is not our affiliate and has not been our affiliate at any time during the preceding three months and has held their shares for at least one year, including the holding period of any prior owner other than one of our affiliates, would be entitled to sell an unlimited number of shares immediately upon the closing of this offering without regard to whether current public information about us is available.

Beginning 90 days after the date of this prospectus, a person who is our affiliate or who was our affiliate at any time during the preceding three months and who has beneficially owned restricted securities for at least six months, including the holding period of any prior owner other than one of our affiliates, is entitled to sell a number of shares within any three-month period that does not exceed the greater of:

- 1% of the number of shares of our common stock then outstanding, which will equal approximately shares immediately after this offering; and
- the average weekly trading volume in our common stock on the Nasdaq Global Market during the four calendar weeks preceding the date of filing of a Notice of Proposed Sale of Securities Pursuant to Rule 144 with respect to the sale.

Sales under Rule 144 by our affiliates are also subject to manner of sale provisions and notice requirements and to the availability of current public information about us.

Upon waiver or expiration of the 180-day lock-up period described below, approximately shares of our common stock will be eligible for sale under Rule 144. We cannot estimate the number of shares of our common stock that our existing stockholders will elect to sell under Rule 144.

Rule 701

In general, under Rule 701 of the Securities Act, any of our employees, consultants or advisors, other than our affiliates, who purchased shares from us in connection with a qualified compensatory stock plan or other written agreement is eligible to resell these shares 90 days after the date of this prospectus in reliance on Rule 144, but without compliance with the various restrictions, including the availability of public information about us, holding period and volume limitations, contained in Rule 144. Substantially all Rule 701 shares are subject to the 180-day lock-up period described below and will be eligible for sale in accordance with Rule 701 upon expiration of the restrictions set forth in those agreements.

Lock-up Agreements

We and each of our executive officers and directors and the holders of substantially all of our outstanding securities have agreed that, without the prior written consent of Morgan Stanley & Co. LLC and Cowen and Company, LLC, on behalf of the underwriters, we and they will not, subject to limited exceptions, during the period ending 180 days after the date of this prospectus:

- offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of our common stock beneficially owned (as such term is used in Rule 13d-3 of the Exchange Act) or any other securities so owned convertible into or exercisable or exchangeable for common stock, or make any public announcement of an intention to do any of the foregoing; or
- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of our common stock.

These agreements are subject to certain exceptions, as described in the section of this prospectus entitled “Underwriters.”

Registration Rights

Beginning 180 days after this offering, the holders of an aggregate of 175,283,481 shares of our common stock will have rights, subject to certain conditions, to require us to file registration statements covering their shares or to include their shares in registration statements that we may file for ourselves or other stockholders. After registration pursuant to these rights, these shares will become freely tradable without restriction under the Securities Act. See “Description of Capital Stock—Registration Rights” for additional information regarding these registration rights.

Stock Options and Form S-8 Registration Statement

Following this offering, we intend to file one or more registration statements on Form S-8 under the Securities Act to register all of the shares of our common stock subject to outstanding awards and reserved for future issuance under the 2020 Plan, the 2021 Plan and the 2021 ESPP. See “Executive Compensation—Stock Option and Other Compensation Plans” for additional information regarding these plans. Accordingly, shares of our common stock registered under the registration statements will be available for sale in the open market, subject to Rule 144 volume limitations applicable to affiliates, and subject to any vesting restrictions and lock-up agreements applicable to these shares.

MATERIAL U.S. FEDERAL TAX CONSIDERATIONS FOR NON-U.S. HOLDERS OF COMMON STOCK

The following is a discussion of material U.S. federal income and estate tax considerations relating to ownership and disposition of our common stock by a non-U.S. holder. For purposes of this discussion, the term "non-U.S. holder" means a beneficial owner (other than a partnership or other entity or arrangement treated as a pass-through entity) of our common stock that is not, for U.S. federal income tax purposes:

- an individual who is a citizen or resident of the United States;
- a corporation, or other entity treated as a corporation for U.S. federal income tax purposes, created or organized in or under the laws of the United States, any state thereof or the District of Columbia;
- an estate the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust, if a U.S. court is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have authority to control all substantial decisions of the trust or if the trust has a valid election in effect to be treated as a U.S. person under applicable U.S. Treasury Regulations.

This discussion is based on current provisions of the Internal Revenue Code of 1986, as amended, or the Code, existing and proposed U.S. Treasury Regulations promulgated thereunder, current administrative rulings, and judicial decisions, as in effect as of the date of this prospectus and all of which are subject to change or to differing interpretation, possibly with retroactive effect. Any change or differing interpretation could alter the tax consequences to non-U.S. holders described in this prospectus. In addition, there can be no assurance that the Internal Revenue Service, or IRS, will not challenge one or more of the tax consequences described in this prospectus.

This discussion addresses only non-U.S. holders that hold shares of our common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all aspects of U.S. federal income and estate taxation that may be relevant to a particular non-U.S. holder in light of that non-U.S. holder's individual circumstances nor does it address the alternative minimum tax, gift taxes, the Medicare tax on net investment income or any aspects of U.S. state, local, or non-U.S. taxes. This discussion also does not consider any specific facts or circumstances that may apply to a non-U.S. holder and does not address the special tax rules applicable to particular non-U.S. holders, such as:

- insurance companies;
- tax-exempt organizations;
- financial institutions;
- brokers or dealers in securities;
- pension plans;
- controlled foreign corporations;
- passive foreign investment companies;
- owners that hold our common stock as part of a straddle, hedge, conversion transaction, synthetic security, or other integrated investment;
- certain U.S. expatriates; and
- persons who acquire our common stock through the exercise of an option or otherwise as compensation.

In addition, this discussion does not address the tax treatment of partnerships or persons who hold their common stock through partnerships or other entities or arrangements that are treated as pass-through entities for U.S. federal income tax purposes. A partner in a partnership or other pass-through entity that will hold our common stock should consult his, her, or its own tax advisor regarding the tax consequences of the purchase, ownership, and disposition of our common stock through a partnership or other pass-through entity, as applicable.

Prospective investors should consult their own tax advisors regarding the U.S. federal, state, local, and non-U.S. income and other tax considerations of acquiring, holding, and disposing of our common stock.

Dividends

If we pay distributions on our common stock, those distributions generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the non-U.S. holder's investment, up to such holder's tax basis in the common stock. Any remaining excess will be treated as capital gain, subject to the tax treatment described below under the heading "—Gain on Disposition of Common Stock."

Dividends paid to a non-U.S. holder generally will be subject to withholding of U.S. federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence. A non-U.S. holder of our common stock who claims the benefit of an applicable income tax treaty between the United States and such holder's country of residence generally will be required to provide a properly executed IRS Form W-8BEN or W-8BEN-E (or successor form) and satisfy applicable certification and other requirements. This certification must be provided to us or our paying agent prior to the payment of dividends and must be updated periodically. A non-U.S. holder that is eligible for a reduced rate of U.S. withholding tax under an income tax treaty may obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim with the IRS. Non-U.S. holders are urged to consult their own tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

Dividends that are treated as effectively connected with a trade or business conducted by a non-U.S. holder within the United States and, if an applicable income tax treaty so provides, that are attributable to a permanent establishment or a fixed base maintained by the non-U.S. holder within the United States are generally exempt from the 30% withholding tax if the non-U.S. holder satisfies applicable certification and disclosure requirements. However, such U.S. effectively connected income is taxed on a net income basis at the same U.S. federal income tax rates applicable to United States persons (as defined in the Code). Any U.S. effectively connected income received by a non-U.S. holder that is a corporation may also, under certain circumstances, be subject to an additional "branch profits tax" at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence.

Gain on Disposition of Common Stock

A non-U.S. holder generally will not be subject to U.S. federal income tax on gain recognized on a disposition of our common stock unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States and, if an applicable income tax treaty so provides, the gain is attributable to a permanent establishment or fixed base maintained by the non-U.S. holder in the United States; in these cases, the non-U.S. holder will be taxed on a net income basis at the same U.S. federal income tax rates applicable to United States persons (as defined in the Code), and if the non-U.S. holder is a foreign corporation, an additional branch profits tax at a 30% rate, or such lower rate as may be specified by an applicable income tax treaty, may also apply;
- the non-U.S. holder is a nonresident alien present in the United States for 183 days or more in the taxable year of the disposition and certain other requirements are met, in which case the non-U.S. holder will be subject to a 30% tax (or such lower rate as may be specified by an applicable income tax treaty) on the net gain derived from the disposition, which may be offset by U.S.-source capital losses of the non-U.S. holder, if any, provided that the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses; or
- we are, or have been at any time during the five-year period preceding such disposition (or the non-U.S. holder's holding period, if shorter), a "U.S. real property holding corporation," unless our common stock is regularly traded on an established securities market and the non-U.S. holder held no more than 5% of our outstanding common stock, directly or indirectly, during the shorter of the five year period ending on the date of the disposition or the period that the non-U.S. holder held our common stock. If we are determined to be a U.S. real property holding corporation and the foregoing exception does not

apply, then the non-U.S. holder generally will be taxed on its net gain derived from the disposition at the U.S. federal income tax rates applicable to United States persons (as defined in the Code). Generally, a corporation is a "U.S. real property holding corporation" if the fair market value of its "U.S. real property interests" equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. Although there can be no assurance, we believe that we are not currently, and we do not anticipate becoming, a "U.S. real property holding corporation" for U.S. federal income tax purposes. No assurance can be provided that our common stock will be regularly traded on an established securities market for purposes of the rule described above.

Information Reporting and Backup Withholding

We must report annually to the IRS and to each non-U.S. holder the gross amount of the distributions on our common stock paid to such holder and the tax withheld, if any, with respect to such distributions. Non-U.S. holders may have to comply with specific certification procedures to establish that the holder is not a U.S. person (as defined in the Code) in order to avoid backup withholding at the applicable rate with respect to dividends on our common stock. Generally, a non-U.S. holder will comply with such procedures if it provides a properly executed IRS Form W-8BEN or W-8BEN-E (or other applicable Form W-8) or otherwise meets documentary evidence requirements for establishing that it is a non-U.S. holder, or otherwise establishes an exemption. Dividends paid to non-U.S. holders subject to withholding of U.S. federal income tax, as described above under the heading "—Dividends," will generally be exempt from U.S. backup withholding.

Information reporting and backup withholding generally will apply to the proceeds of a disposition of our common stock by a non-U.S. holder effected by or through the U.S. office of any broker, U.S. or foreign, unless the holder certifies its status as a non-U.S. holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a non-U.S. holder where the transaction is effected outside the United States through a non-U.S. office of a broker. However, for information reporting purposes, dispositions effected through a non-U.S. office of a broker with substantial U.S. ownership or operations generally will be treated in a manner similar to dispositions effected through a U.S. office of a broker. Non-U.S. holders should consult their own tax advisors regarding the application of the information reporting and backup withholding rules to them.

Copies of information returns may be made available to the tax authorities of the country in which the non-U.S. holder resides or is incorporated under the provisions of a specific treaty or agreement.

Backup withholding is not an additional tax. Rather, any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder can be refunded or credited against the non-U.S. holder's U.S. federal income tax liability, if any, provided that an appropriate claim is timely filed with the IRS.

FATCA

Provisions of the Code commonly referred to as the Foreign Account Tax Compliance Act, or FATCA, generally impose a 30% withholding tax on dividends on, and gross proceeds from the sale or other disposition of, our common stock if paid to a foreign entity unless (i) if the foreign entity is a "foreign financial institution," the foreign entity undertakes certain due diligence, reporting, withholding, and certification obligations, (ii) if the foreign entity is not a "foreign financial institution," the foreign entity identifies certain of its U.S. investors, or (iii) the foreign entity is otherwise excepted under FATCA.

Withholding under FATCA generally applies to payments of dividends on our common stock. While withholding under FATCA would also apply to payments of gross proceeds from a sale or other disposition of our common stock, under proposed U.S. Treasury Regulations, withholding on payments of gross proceeds is not required. Although such regulations are not final, applicable withholding agents may rely on the proposed regulations until final regulations are issued.

If withholding under FATCA is required on any payment related to our common stock, investors not otherwise subject to withholding (or that otherwise would be entitled to a reduced rate of withholding) on such payment may be required to seek a refund or credit from the IRS. An intergovernmental agreement

between the United States and an applicable foreign country may modify the requirements described in this section. Non-U.S. holders should consult their own tax advisors regarding the possible implications of FATCA on their investment in our common stock and the entities through which they hold our common stock.

Federal Estate Tax

Common stock owned or treated as owned by an individual who is a non-U.S. holder (as specially defined for U.S. federal estate tax purposes) at the time of death will be included in the individual's gross estate for U.S. federal estate tax purposes and, therefore, may be subject to U.S. federal estate tax, unless an applicable estate tax or other treaty provides otherwise.

The preceding discussion of material U.S. federal tax considerations is for prospective investors' information only. It is not tax advice. Prospective investors should consult their own tax advisors regarding the particular U.S. federal, state, local, and non-U.S. tax consequences of purchasing, holding, and disposing of our common stock, including the consequences of any proposed changes in applicable laws.

UNDERWRITERS

Under the terms and subject to the conditions in an underwriting agreement dated the date of this prospectus, the underwriters named below, for whom Morgan Stanley & Co. LLC, Cowen and Company, LLC and Guggenheim Securities, LLC are acting as representatives, have severally agreed to purchase, and we have agreed to sell to them the number of shares indicated below:

Name	Number of Shares
Morgan Stanley & Co. LLC	
Cowen and Company, LLC	
Guggenheim Securities, LLC	
Raymond James & Associates, Inc.	
Total:	

The underwriters and the representatives are collectively referred to as the "underwriters" and the "representatives," respectively. The underwriters are offering the shares of common stock subject to their acceptance of the shares from us and subject to prior sale. The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares of common stock offered by this prospectus if any such shares are taken. However, the underwriters are not required to take or pay for the shares covered by the underwriters' over-allotment option described below.

The underwriters initially propose to offer part of the shares of common stock directly to the public at the offering price listed on the cover page of this prospectus and part to certain dealers. After the initial offering of the shares of common stock, the offering price and other selling terms may from time to time be varied by the representative.

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus, to purchase up to additional shares of common stock at the public offering price listed on the cover page of this prospectus, less underwriting discounts and commissions. The underwriters may exercise this option solely for the purpose of covering over-allotments, if any, made in connection with the offering of the shares of common stock offered by this prospectus. To the extent the option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase about the same percentage of the additional shares of common stock as the number listed next to the underwriter's name in the preceding table bears to the total number of shares of common stock listed next to the names of all underwriters in the preceding table.

The following table shows the per share and total public offering price, underwriting discounts and commissions, and proceeds before expenses to us. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase up to an additional shares of common stock.

		Total	
	Per Share	No Exercise	Full Exercise
Public offering price	$	$	$
Underwriting discounts and commissions to be paid by:			
Us	$	$	$
Proceeds, before expenses, to us	$	$	$

The estimated offering expenses payable by us, exclusive of the underwriting discounts and commissions, are approximately $. We have agreed to reimburse the underwriters for expense relating to clearance of this offering with the Financial Industry Regulatory Authority up to $.

The underwriters have informed us that they do not intend sales to discretionary accounts to exceed 5% of the total number of shares of common stock offered by them.

We intend to apply to have our common stock listed on the Nasdaq Global Market under the trading symbol "XLO."

We and all directors and officers and the holders of all of our outstanding stock and stock options have agreed that, without the prior written consent of Morgan Stanley & Co. LLC and Cowen and Company, LLC, on behalf of the underwriters, we and they will not, and will not publicly disclose an intention to, during the period ending 180 days after the date of this prospectus (the "restricted period"):

- offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of, directly or indirectly, any shares of common stock or any securities convertible into or exercisable or exchangeable for shares of common stock;
- file any registration statement with the Securities and Exchange Commission relating to the offering of any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock; or
- enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock.

whether any such transaction described above is to be settled by delivery of common stock or such other securities, in cash or otherwise. In addition, we and each such person agrees that, without the prior written consent of Morgan Stanley & Co. LLC and Cowen and Company, LLC, on behalf of the underwriters, we or such other person will not, during the restricted period, make any demand for, or exercise any right with respect to, the registration of any shares of common stock or any security convertible into or exercisable or exchangeable for common stock.

The restrictions described in the immediately preceding paragraph to do not apply to:

- transfers or dispositions of shares of our common stock purchased in this offering from the underwriters (other than any issuer-directed shares of our common stock purchased in this offering by our officers or directors) or on the open market following this offering;
- transfers of shares of our common stock or any security convertible into or exercisable or exchangeable for such common stock as a bona fide gift or gifts, or for bona fide estate planning purposes;
- transfers or dispositions of shares of our common stock or any security convertible into or exercisable or exchangeable for such common stock to any member of the immediate family of the holder or any trust for the direct or indirect benefit of the holder or the immediate family of the holder, or if the holder is a trust, to any beneficiary (including such beneficiary's estate) of the holder, in a transaction not involving a disposition for value;
- transfers or dispositions of shares of our common stock or any security convertible into or exercisable or exchangeable for such common stock to any corporation, partnership, limited liability company or other entity all of the beneficial ownership interests of which are held by the holder or a member of the immediate family of the holder;
- transfers or dispositions of shares of our common stock or any security convertible into or exercisable or exchangeable for such common stock (i) by will, other testamentary document or intestate succession to the legal representative, heir, beneficiary or a member of the immediate family of the holder upon the death of the holder or (ii) in connection with a divorce settlement or solely by operation of law, such as pursuant to a qualified domestic order or court order;
- if the holder is an entity, transfers or distributions of shares of our common stock or any security convertible into such common stock to general or limited partners, members or stockholders of the holder, its direct or indirect affiliates (as defined in Rule 405 promulgated under the Securities Act of 1933, as amended) or to an investment fund or other entity that controls or manages, or is under common control with, the holder or, for certain holders, to the partners, members, managers, officers, directors and trustees of the holder and its affiliates;
- transfers or dispositions of shares of our common stock or any security convertible into or exercisable or exchangeable such common stock to us pursuant to any contractual arrangement in effect on the

date of the underwriting agreement and disclosed to the underwriters that provides for the repurchase of the holder's common stock or other securities or in connection with the termination of the holder's employment with or service to us;

- the conversion of outstanding shares of our convertible preferred stock into shares of common stock, provided that such shares of common stock received upon conversion shall be subject to the restrictions described above;
- the exercise of stock options to purchase shares of our common stock granted under any equity incentive plan described and any related transfer to us of shares of our common stock, provided that the underlying shares issuable upon exercise will continue to be subject to the restrictions described above;
- the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of shares of our common stock, provided that (i) such plan does not provide for any transfers of our common stock, and (ii) to the extent a public announcement or filing under the Exchange Act, if any, is required or voluntarily made regarding the establishment of such plan, such announcement or filing shall include a statement to the effect that no transfer of common stock may be made under such plan during the restricted period; and
- (i) transfers of shares of our common stock (or any securities convertible into or exercisable or exchangeable for such common stock) pursuant to a bona fide third-party tender offer for shares of our capital stock made to all holders of our securities, merger, consolidation or other similar transaction approved by our board of directors the result of which is that any person, or group of persons, other than us, becomes the beneficial owner of more than 50% of the total voting power of our voting stock and (ii) entry into any lock-up, voting or similar agreement pursuant to which the holder may agree to transfer, sell, tender or otherwise dispose of shares of our common stock or such other securities in connection with a transaction described in (i) above; provided that in the event that such change of control transaction is not completed, our common stock (or any security convertible into or exercisable or exchangeable for our common stock) owned by the holder shall remain subject to the restrictions described above.

Morgan Stanley & Co. LLC and Cowen and Company, LLC, in their sole discretion, may release the common stock and other securities subject to the lock-up agreements described above in whole or in part at any time.

In order to facilitate the offering of the common stock, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the common stock. Specifically, the underwriters may sell more shares than they are obligated to purchase under the underwriting agreement, creating a short position. A short sale is covered if the short position is no greater than the number of shares available for purchase by the underwriters under the over-allotment option. The underwriters can close out a covered short sale by exercising the over-allotment option or purchasing shares in the open market. In determining the source of shares to close out a covered short sale, the underwriters will consider, among other things, the open market price of shares compared to the price available under the over-allotment option. The underwriters may also sell shares in excess of the over-allotment option, creating a naked short position. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in this offering. As an additional means of facilitating this offering, the underwriters may bid for, and purchase, shares of common stock in the open market to stabilize the price of the common stock. These activities may raise or maintain the market price of the common stock above independent market levels or prevent or retard a decline in the market price of the common stock. The underwriters are not required to engage in these activities and may end any of these activities at any time.

We and the underwriters have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act.

A prospectus in electronic format may be made available on websites maintained by one or more underwriters, or selling group members, if any, participating in this offering. The representatives may agree to allocate a number of shares of common stock to underwriters for sale to their online brokerage account holders. Internet

distributions will be allocated by the representatives to underwriters that may make Internet distributions on the same basis as other allocations.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. Certain of the underwriters and their respective affiliates have, from time to time, performed, and may in the future perform, various financial advisory and investment banking services for us, for which they received or will receive customary fees and expenses.

In addition, in the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investment and securities activities may involve our securities and instruments. The underwriters and their respective affiliates may also make investment recommendations or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long or short positions in such securities and instruments.

Pricing of the Offering

Prior to this offering, there has been no public market for our common stock. The initial public offering price was determined by negotiations between us and the representatives. Among the factors considered in determining the initial public offering price were our future prospects and those of our industry in general, our sales, earnings and certain other financial and operating information in recent periods, and the price-earnings ratios, price-sales ratios, market prices of securities, and certain financial and operating information of companies engaged in activities similar to ours.

Selling Restrictions

Canada

The shares may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 *Prospectus Exemptions* or subsection 73.3(1) of the *Securities Act* (Ontario), and are permitted clients, as defined in National Instrument 31-103 *Registration Requirements, Exemptions and Ongoing Registrant Obligations*. Any resale of the shares must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 (or, in the case of securities issued or guaranteed by the government of a non-Canadian jurisdiction, section 3A.4) of National Instrument 33-105 *Underwriting Conflicts* (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

European Economic Area

In relation to each Member State of the European Economic Area (each a Relevant State), no shares of common stock have been offered or will be offered pursuant to the offering to the public in that Relevant State prior to the publication of a prospectus in relation to the shares of common stock which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and

notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation, except that the shares of common stock may be offered to the public in that Relevant State at any time:

- to any legal entity which is a qualified investor as defined under Article 2 of the Prospectus Regulation;
- to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the Prospectus Regulation), subject to obtaining the prior consent of representatives for any such offer; or
- in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of the shares of common stock shall require us or any of the representatives to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an "offer to the public" in relation to the shares of common stock in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of common stock to be offered so as to enable an investor to decide to purchase or subscribe for any shares of common stock, and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129.

United Kingdom

No shares of common stock have been offered or will be offered pursuant to the offering to the public in the United Kingdom prior to the publication of a prospectus in relation to the shares of common stock which has been approved by the Financial Conduct Authority, except that the shares of common stock may be offered to the public in the United Kingdom at any time:

(a) to any legal entity which is a qualified investor as defined under Article 2 of the UK Prospectus Regulation;

(b) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the UK Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or

(c) in any other circumstances falling within Section 86 of the FSMA.

provided that no such offer of the shares of common stock shall require the Issuer or any Manager to publish a prospectus pursuant to Section 85 of the FSMA or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation. For the purposes of this provision, the expression an "offer to the public" in relation to the shares of common stock in the United Kingdom means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of common stock to be offered so as to enable an investor to decide to purchase or subscribe for any shares of common stock and the expression "UK Prospectus Regulation" means Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018.

Hong Kong

Shares of our common stock may not be offered or sold by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), (ii) to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap.571, Laws of Hong Kong) and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a "prospectus" within the meaning of the Companies Ordinance (Cap.32, Laws of Hong Kong), and no advertisement, invitation, or document relating to shares of our common stock may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to shares of our common stock which are or are intended to be disposed of only to persons outside Hong Kong or only to "professional investors" within the meaning of the Securities and Futures Ordinance (Cap.571, Laws of Hong Kong) and any rules made thereunder.

Japan

No registration pursuant to Article 4, paragraph 1 of the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948, as amended), or the FIEL has been made or will be made with respect to the solicitation of the application for the acquisition of the shares of common stock.

Accordingly, the shares of common stock have not been, directly or indirectly, offered or sold and will not be, directly or indirectly, offered or sold in Japan or to, or for the benefit of, any resident of Japan (which term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan) or to others for re-offering or re-sale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan except pursuant to an exemption from the registration requirements, and otherwise in compliance with, the FIEL and the other applicable laws and regulations of Japan.

For Qualified Institutional Investors, or QII

Please note that the solicitation for newly-issued or secondary securities (each as described in Paragraph 2, Article 4 of the FIEL) in relation to the shares of common stock constitutes either a "QII only private placement" or a "QII only secondary distribution" (each as described in Paragraph 1, Article 23-13 of the FIEL). Disclosure regarding any such solicitation, as is otherwise prescribed in Paragraph 1, Article 4 of the FIEL, has not been made in relation to the shares of common stock. The shares of common stock may only be transferred to QIIs.

For Non-QII Investors

Please note that the solicitation for newly-issued or secondary securities (each as described in Paragraph 2, Article 4 of the FIEL) in relation to the shares of common stock constitutes either a "small number private placement" or a "small number private secondary distribution" (each as is described in Paragraph 4, Article 23-13 of the FIEL). Disclosure regarding any such solicitation, as is otherwise prescribed in Paragraph 1, Article 4 of the FIEL, has not been made in relation to the shares of common stock. The shares of common stock may only be transferred en bloc without subdivision to a single investor.

Singapore

This prospectus has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of shares of our common stock may not be circulated or distributed, nor may the shares of our common stock be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore, or the SFA, (ii) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where shares of our common stock are subscribed or purchased under Section 275 by a relevant person which is: (i) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or (ii) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor, shares, debentures, and units of shares and debentures of that corporation or the beneficiaries' rights and interest in that trust shall not be transferable for 6 months after that corporation or that trust has acquired shares of our common stock under Section 275 except: (a) to an institutional investor under Section 274 of the SFA or to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA; (b) where no consideration is given for the transfer; or (c) by operation of law.

Switzerland

The shares of common stock may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or SIX, or on any other stock exchange or regulated trading facility in Switzerland. This

document has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this document nor any other offering or marketing material relating to the shares or the offering may be publicly distributed or otherwise made publicly available in Switzerland. Neither this document nor any other offering or marketing material relating to the offering, us, or the shares have been or will be filed with or approved by any Swiss regulatory authority. In particular, this document will not be filed with, and the offer of shares will not be supervised by, the Swiss Financial Market Supervisory Authority, or FINMA, and the offer of shares has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or CISA. The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of shares.

Dubai International Financial Centre

This prospectus relates to an Exempt Offer in accordance with the Offered Securities Rules of the Dubai Financial Services Authority, or DFSA. This prospectus is intended for distribution only to persons of a type specified in the Offered Securities Rules of the DFSA. It must not be delivered to, or relied on by, any other person. The DFSA has no responsibility for reviewing or verifying any documents in connection with Exempt Offers. The DFSA has not approved this prospectus nor taken steps to verify the information set forth herein and has no responsibility for the prospectus. The shares to which this prospectus relates may be illiquid and/or subject to restrictions on their resale. Prospective purchasers of the shares offered should conduct their own due diligence on the shares. If you do not understand the contents of this prospectus you should consult an authorized financial advisor.

LEGAL MATTERS

The validity of the shares of common stock offered hereby is being passed upon for us by Wilmer Cutler Pickering Hale and Dorr LLP, Boston, Massachusetts. Cooley LLP, Boston, Massachusetts, is acting as counsel for the underwriters in connection with this offering.

EXPERTS

The consolidated financial statements of Xilio Therapeutics, Inc. at December 31, 2019 and 2020, and for each of the two years in the period ended December 31, 2020, appearing in this prospectus and registration statement have been audited by Ernst & Young LLP, or EY, independent registered public accounting firm, as set forth in their report thereon appearing elsewhere herein, and are included in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

Prior to February 23, 2021, F-Prime Capital Partners Healthcare Fund IV, or F-Prime, was a beneficial owner with decision making capacity over the financial and operating policies of the Company. During 2019 and 2020, EY entered into two business relationships with an entity under common control with F-Prime, or Entity A, which are inconsistent with the auditor independence rules of the U.S. Securities and Exchange Commission, or SEC, and Public Company Accounting Oversight Board (United States), as described below:

- Since November 2019, EY has provided fiduciary trust tax compliance and support services for certain trust and agency accounts managed by Entity A. EY was engaged by Entity A as agent for the trustee to prepare tax filings to fulfill the trustee's fiduciary filing obligation for a subset of these accounts. The fees earned by EY related to services for these accounts through February 23, 2021 were approximately $53,000.
- Since December 2020, EY and Entity A have been party to an agreement for referral services whereby Entity A may introduce its customers through links on Entity A's website to EY for personal tax services. No fees were earned or received by EY related to referral services pursuant to this agreement as of February 23, 2021.

These independence matters were resolved when F-Prime ceased to be a beneficial owner with significant influence over the operating and financial policies of the Company on February 23, 2021. The business relationships were not quantitatively or qualitatively material to EY or Entity A, and the tax services underlying the business relationships had no impact on the consolidated financial statements of the Company or EY's related audit procedures and judgments.

After careful consideration of the facts and circumstances and the applicable independence rules, EY has concluded that (i) the aforementioned matters do not impair EY's ability to exercise objective and impartial judgment in connection with its audits of the Company's consolidated financial statements, and (ii) a reasonable investor with knowledge of all relevant facts and circumstances would reach the same conclusion. After considering these matters and based on the totality of the information provided, management and the Audit Committee of the Company concurred with EY's conclusions.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-1 under the Securities Act with respect to the shares of common stock we are offering to sell. This prospectus, which constitutes part of the registration statement, does not include all of the information contained in the registration statement or the exhibits, schedules and amendments to the registration statement. For further information with respect to us and our common stock, we refer you to the registration statement and to the exhibits and schedules to the registration statement. Statements contained in this prospectus about the contents of any contract, agreement or other document are not necessarily complete, and, in each instance, we refer you to the copy of the contract, agreement or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference to such contract, agreement or document.

The SEC maintains a website, which is located at http://www.sec.gov, that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. You may access the registration statement of which this prospectus forms a part at the SEC's website. Upon closing of

this offering, we will be subject to the information reporting requirements of the Exchange Act and we will file reports, proxy statements and other information with the SEC. We plan to fulfill our obligations with respect to such requirements by filing periodic reports and other information with the SEC. We intend to furnish our stockholders with annual reports containing financial statements certified by an independent registered public accounting firm. Our website address is www.xiliotx.com, and upon completion of the offering, you may access, free of charge, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to those reports, as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. The information contained on, or that can be accessed through, our website is not a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

Index to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of Xilio Therapeutics, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Xilio Therapeutics, Inc. (the Company) as of December 31, 2019 and 2020, the related consolidated statements of operations and comprehensive loss, preferred units and convertible preferred stock and members' and stockholders' deficit, and cash flows for the years then ended, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2019 and 2020, and the results of its operations and its cash flows for the years then ended in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB and in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2020.

Boston, Massachusetts
May 24, 2021

XILIO THERAPEUTICS, INC.

CONSOLIDATED BALANCE SHEETS
(In thousands, except unit and share and per unit and per share data)

	December 31, 2019	December 31, 2020
ASSETS		
Current assets		
Cash and cash equivalents	$ 48,845	$ 19,238
Prepaid expenses	1,253	1,308
Other current assets	1,006	44
Total current assets	51,104	20,590
Restricted cash	194	1,551
Property and equipment, net	3,305	7,367
Operating lease right-of-use asset	6,568	6,309
Other non-current assets	1,551	500
Total assets	$ 62,722	$ 36,317
LIABILITIES AND MEMBERS' AND STOCKHOLDERS' DEFICIT		
Current liabilities		
Accounts payable	$ 2,518	$ 5,444
Accrued expenses	2,689	13,732
Operating lease liability, current portion	—	564
Notes payable, current portion	—	2,333
Other current liabilities	—	82
Total current liabilities	5,207	22,155
Notes payable, net of current portion	9,610	7,412
Operating lease liability, net of current portion	9,021	10,908
Other liabilities, long-term	374	1,127
Total liabilities	24,212	41,602
Commitments and contingencies (Note 10)		
Preferred units (Series A, A-1 and B), no par value, 94,283,876 units authorized and 58,883,390 units issued and outstanding at December 31, 2019; aggregate liquidation preference of $70,250 at December 31, 2019; no preferred units authorized, issued or outstanding at December 31, 2020	68,033	—
Convertible preferred stock (Series A, A-1, A-2(A), A-2(A-1) and B), $0.0001 par value, no shares authorized, issued or outstanding at December 31, 2019; 133,602,056 shares authorized and 66,788,528 shares issued and outstanding at December 31, 2020; aggregate liquidation preference of $80,250 at December 31, 2020	—	78,002
Members' and stockholders' deficit		
Common units, no par value; 98,172,319 units authorized, 4,000,000 units issued, and 3,888,443 units outstanding at December 31, 2019; no units authorized, issued or outstanding at December 31, 2020	—	—
Common stock, $0.0001 par value; no shares authorized, issued or outstanding at December, 31, 2019; 126,000,000 shares authorized, 9,252,513 shares issued, and 6,554,755 shares outstanding at December 31, 2020	—	1
Additional paid-in capital	344	1,798
Accumulated deficit	(29,867)	(85,086)
Total members' and stockholders' deficit	(29,523)	(83,287)
Total liabilities, preferred units, convertible preferred stock and members' and stockholders' deficit	$ 62,722	$ 36,317

The accompanying notes are an integral part of these consolidated financial statements.

XILIO THERAPEUTICS, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(In thousands, except unit and share and per unit and per share data)

	For the Year Ended December 31, 2019	For the Year Ended December 31, 2020
Operating expenses		
Research and development	$ 14,256	$ 43,910
General and administrative	4,771	10,653
Total operating expenses	19,027	54,563
Loss from operations	(19,027)	(54,563)
Other income (expense), net		
Gain on tranche rights	1,739	—
Other expense, net	(23)	(656)
Total other income (expense), net	1,716	(656)
Net loss and comprehensive loss	$ (17,311)	$ (55,219)
Net loss per unit, basic and diluted	$ (4.45)	
Net loss per share, basic and diluted		$ (11.10)
Weighted average common units outstanding, basic and diluted	3,888,443	
Weighted average common shares outstanding, basic and diluted		4,976,138

The accompanying notes are an integral part of these consolidated financial statements.

XILIO THERAPEUTICS, INC.

CONSOLIDATED STATEMENTS OF PREFERRED UNITS AND CONVERTIBLE PREFERRED STOCK AND MEMBERS' AND STOCKHOLDERS' DEFICIT
(In thousands, except unit and share data)

	Series A Preferred Units		Series A-1 Preferred Units		Series B Preferred Units		Series A Convertible Preferred Stock		Series A-1 Convertible Preferred Stock		Series B Convertible Preferred Stock		Common Units		Common Stock		Additional Paid-In Capital	Accumulated Deficit	Total Members' and Stockholders' Deficit
	Units	Amount	Units	Amount	Units	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Units	Amount	Shares	Amount			
Balance at December 31, 2018	7,500,000	$ 7,309	10,869,564	$ 10,756	—	$ —	—	$ —	—	$ —	—	$ —	3,888,443	$ —	—	$ —	$ 232	$ (12,556)	$ (12,324)
Issuance of Series A-1 preferred units, net of issuance costs of $16	—	—	8,695,652	9,984	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Issuance of Series B preferred units, net of issuance costs of $266	—	—	—	—	31,818,174	39,984	—	—	—	—	—	—	—	—	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	112	—	112
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(17,311)	(17,311)
Balance at December 31, 2019	7,500,000	$ 7,309	19,565,216	$ 20,740	31,818,174	$ 39,984	—	$ —	—	$ —	—	$ —	3,888,443	$ —	—	$ —	$ 344	$ (29,867)	$ (29,523)
Issuance of Series B preferred units, net of issuance costs of $31	—	—	—	—	7,905,138	9,969	—	—	—	—	—	—	—	—	—	—	—	—	—
Effect on Reorganization	(7,500,000)	(7,309)	(19,565,216)	(20,740)	(39,723,312)	(49,953)	7,500,000	7,309	19,565,216	20,740	39,723,312	49,953	(3,888,443)	—	3,888,443	1	(1)	—	—
Vesting of restricted common stock	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2,391,768	—	—	—	—
Exercise of stock options	—	—	—	—	—	—	—	—	—	—	—	—	—	—	274,544	—	159	—	159
Stock-based compensation expense	—	—	—	—	—	—	—	—	—	—	—	—	—	—			1,296	—	1,296
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—			—	(55,219)	(55,219)
Balance at December 31, 2020	—	$ —	—	$ —	—	$ —	7,500,000	$ 7,309	19,565,216	$20,740	39,723,312	$49,953	—	$ —	6,554,755	$ 1	$ 1,798	$ (85,086)	$ (83,287)

The accompanying notes are an integral part of these consolidated financial statements.

XILIO THERAPEUTICS, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	For the Year Ended December 31, 2019	For the Year Ended December 31, 2020
Cash flows from operating activities:		
Net loss	$ (17,311)	$ (55,219)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	240	1,065
Non-cash interest expense	56	39
Stock-based compensation expense	112	1,296
Change in fair value of tranche right, warrant and derivative liabilities	(1,737)	126
Changes in operating assets and liabilities:		
Prepaid and other assets	(2,748)	2,282
Operating lease right-of-use asset	217	299
Accounts payable	970	2,926
Accrued expenses and other liabilities	2,168	11,510
Operating lease liability	190	(415)
Net cash used in operating activities	(17,843)	(36,091)
Cash flows from investing activities:		
Purchases of property and equipment	(715)	(2,188)
Net cash used in investing activities	(715)	(2,188)
Cash flows from financing activities:		
Proceeds from debt issuance, net of issuance costs	9,952	—
Proceeds from issuance of Series A-1 preferred units, net of issuance costs	9,984	—
Payments of finance lease	—	(99)
Proceeds from issuance of Series B preferred units, net of issuance costs	40,084	9,969
Proceeds from exercise of stock options	—	159
Net cash provided by financing activities	60,020	10,029
Increase (decrease) in cash, cash equivalents & restricted cash	41,462	(28,250)
Cash, cash equivalents and restricted cash, beginning of period	7,577	49,039
Cash, cash equivalents and restricted cash, end of period	$ 49,039	$ 20,789
Supplemental cash flow disclosure:		
Cash paid for interest	$ 14	$ 536
Supplemental disclosure of non-cash activities:		
Right-of-use assets obtained in exchange for operating lease liabilities	$ 6,785	$ 39
Right-of-use assets obtained in exchange for finance lease liabilities	$ —	$ 423
Tenant improvements funded by landlord	$ 2,046	$ 2,827
Tenant improvement reimbursement due from landlord	$ 926	$ —
Recognition of derivative liability in connection with long-term debt facility	$ 357	$ —
Accrued Series B preferred unit issuance costs	$ 100	$ —

The accompanying notes are an integral part of these consolidated financial statements.

XILIO THERAPEUTICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Description of Business, Organization and Liquidity

Description of Business

Xilio Therapeutics, Inc., incorporated in Delaware in June 2020, is a biotechnology company focused on harnessing the immune system to achieve deep and durable clinical responses to improve the lives of patients with cancer.

For purposes of these consolidated financial statements, the "Company" refers to Xilio Therapeutics LLC (formerly Akriveia Therapeutics Inc., Akriveia Therapeutics LLC and Akrevia Therapeutics LLC) prior to the reorganization described below, and Xilio Therapeutics, Inc. after such reorganization. The Company's headquarters are in Waltham, Massachusetts.

Organization

Akriveia Therapeutics Inc. was incorporated in Delaware in June 2015. In May 2016, Akriveia Therapeutics Inc. completed its first tax free reorganization and the parent entity became Akriveia Therapeutics LLC. Akriveia Therapeutics LLC subsequently changed its name to Akrevia Therapeutics LLC in May 2018 and then to Xilio Therapeutics LLC in February 2020. In June 2020, the Company completed a series of transactions pursuant to which Xilio Therapeutics LLC became a direct, wholly owned subsidiary of Xilio Therapeutics, Inc., and all of the outstanding membership interests of Xilio Therapeutics LLC were exchanged for equity securities of Xilio Therapeutics, Inc. and Xilio Therapeutics, Inc. became the parent entity (the "Reorganization''). The purpose of the transaction was to reorganize the corporate structure so that existing investors would own capital stock in a corporation rather than equity interests in a limited liability company.

Upon consummation of the Reorganization, the historical consolidated financial statements of Xilio Therapeutics LLC became the historical consolidated financial statements of Xilio Therapeutics, Inc.

Liquidity

Since inception, the Company has devoted substantially all of its financial resources and efforts to research and development activities.

The Company is subject to risks and uncertainties common to early-stage companies in the biotechnology industry, including, but not limited to, risks associated with completing research programs and conducting additional research programs, advancing the Company's current and future product candidates into preclinical and clinical development, seeking marketing approvals for any product candidates that successfully complete clinical trials, obtaining, expanding, maintaining and defending the Company's intellectual property, and hiring additional clinical, regulatory, and scientific personnel. Programs currently under development will require significant additional research and development efforts, including preclinical and clinical testing and will need to obtain regulatory approval prior to commercialization. These efforts require significant amounts of additional capital, adequate personnel and infrastructure and extensive compliance-reporting capabilities. Even if the Company's product development efforts are successful, it is uncertain when, if ever, the Company will realize revenue from product sales.

The Company has primarily funded its operations with proceeds from private placements of preferred units, which were exchanged for shares of convertible preferred stock, private placements of convertible preferred stock and a debt financing. From inception through December 31, 2020, the Company has raised $89.6 million in aggregate cash proceeds from these transactions, net of issuance costs. In January 2021, the Company issued and sold additional shares of Series B convertible preferred stock for aggregate cash proceeds of $50.2 million, net of issuance costs. In February 2021, the Company issued and sold shares of Series C convertible preferred stock for aggregate cash proceeds of $94.7 million, net of issuance costs. The Company has determined that its existing capital resources, including the cash proceeds received from the sale of its Series B convertible preferred stock and Series C convertible preferred stock in January 2021 and February 2021, respectively, will be sufficient to meet the projected operating requirements and capital

XILIO THERAPEUTICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

1. Description of Business, Organization and Liquidity (Continued)

Liquidity (Continued)

expenditures for at least twelve months from the date of issuance of these consolidated financial statements. The Company expects to continue to generate negative cash flows from operations and net losses for the foreseeable future as it continues to invest significantly in research and development of its product candidates, including preclinical, clinical and manufacturing process development. Management's conclusion with respect to its ability to fund operations is based on estimates that are subject to risks and uncertainties that may prove to be incorrect. If actual results differ from management's estimates, the Company may be required to seek additional funding or curtail planned activities to reduce operating expenses, which may have an adverse impact on the Company's ability to achieve its business objectives.

2. Summary of Significant Accounting Policies

Basis of Presentation

These consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP"). Any reference in these notes to applicable guidance is meant to refer to the authoritative GAAP as found in the Accounting Standards Codification ("ASC") and Accounting Standards Updates ("ASUs") of the Financial Accounting Standards Board ("FASB").

In April 2012, the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act") was enacted. Section 107(b) of the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. Thus, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. The Company has elected not to "opt out" of such extended transition period, which means that when a standard is issued or revised and it has different application dates for public or private companies, the Company can adopt the new or revised standard at the time private companies adopt the new or revised standard and may do so until such time that the Company either (1) irrevocably elects to "opt out" of such extended transition period or (2) no longer qualifies as an emerging growth company. The Company may take advantage of these exemptions up until the last day of the fiscal year following the fifth anniversary of its initial public offering or such earlier time that it is no longer an emerging growth company.

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. Following the Reorganization, the accompanying consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries Xilio Therapeutics LLC, Xilio Concerto LLC ("Concerto"), Xilio Development, Inc. ("Xilio Development") and Xilio Securities Corp., which is a Massachusetts subsidiary created to buy, sell and hold securities. All intercompany accounts and transactions have been eliminated.

Use of Estimates

The preparation of financial statements in accordance with GAAP requires management to make estimates and judgments that may affect the reported amounts of assets and liabilities and related disclosures of contingent assets and liabilities at the date of the financial statements and the related reporting of expenses during the reporting period. Management considers many factors in selecting appropriate financial accounting policies and controls, and in developing the estimates and assumptions that are used in the preparation of these consolidated financial statements. Factors that may affect estimates, include expected business and operational changes, sensitivity and volatility associated with the assumptions used in developing estimates, and whether historical trends are expected to be representative of future trends. The estimation process often may yield a range of potentially reasonable estimates of the ultimate future outcomes and management must

2. Summary of Significant Accounting Policies (Continued)

Use of Estimates (Continued)

select an amount that falls within that range of reasonable estimates. Significant estimates of accounting reflected in these consolidated financial statements include, but are not limited to, estimates related to accrued expenses, the fair value of the Company's preferred unit tranche rights, contingent amounts payable to third parties upon the consummation of specified transactions, including an initial public offering, the valuation of equity-based compensation, including incentive units, stock options and restricted common stock, and income taxes. Actual results could differ from those estimates.

Segment Information

The Company has one operating segment. Operating segments are defined as components of an enterprise about which separate discrete information is available for evaluation by the chief operating decision-maker in deciding how to allocate resources and assess performance. The Company's chief operating decision-maker is its chief executive officer. The Company and its chief operating decision-maker view the Company's operations and manage its business as a single operating segment. All of the Company's long-lived assets are held in the United States.

Cash Equivalents and Restricted Cash

The Company considers all short-term, highly liquid investments with original maturities of 90 days or less at acquisition date to be cash equivalents. Cash equivalents, which consist of money market accounts, are stated at fair value. At December 31, 2020, restricted cash primarily represented a letter of credit issued to the landlord of the Company's facility lease. At December 31, 2019, restricted cash primarily represented cash held in a separate restricted bank account as collateral for the Company's credit card facility with a bank. Restricted cash is reflected in non-current assets on the accompanying consolidated balance sheets. Cash, cash equivalents and restricted cash consists of the following (in thousands):

	Balance at December 31, 2019	Balance at December 31, 2020
Cash and cash equivalents	$ 48,845	$ 19,238
Restricted cash	194	1,551
Total cash, cash equivalents and restricted cash as shown on the consolidated statement of cash flows	$ 49,039	$ 20,789

Concentrations of Credit Risk and Significant Suppliers

Financial instruments that potentially expose the Company to concentrations of credit risk consist primarily of cash and cash equivalents. The Company holds all cash and cash equivalents at accredited financial institutions. Bank accounts in the United States are insured by the Federal Deposit Insurance Corporation ("FDIC") up to $250,000. As of December 31, 2019 and 2020, certain of the Company's primary operating accounts significantly exceeded the FDIC limits. The Company does not believe that it is subject to unusual credit risk beyond the normal credit risk associated with commercial banking relationships.

The Company is dependent on third-party manufacturers to supply preclinical material for research and development. These activities and research programs could be adversely affected by a significant interruption in the supply of such products.

Fair Value Measurements

Certain assets and liabilities are carried at fair value under GAAP. Fair value is defined as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most

2. Summary of Significant Accounting Policies (Continued)

Fair Value Measurements (Continued)

advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. Financial assets and liabilities carried at fair value are to be classified and disclosed in one of the following three levels of the fair value hierarchy, of which the first two are considered observable and the last is considered unobservable:

- *Level 1*—Quoted prices in active markets for identical assets or liabilities.
- *Level 2*—Observable inputs (other than Level 1 quoted prices), such as quoted prices in active markets for similar assets or liabilities, quoted prices in markets that are not active for identical or similar assets or liabilities, or other inputs that are observable or can be corroborated by observable market data.
- *Level 3*—Unobservable inputs that are supported by little or no market activity and that are significant to determining the fair value of the assets or liabilities, including pricing models, discounted cash flow methodologies and similar techniques.

To the extent the valuation is based on models or inputs that are less observable or unobservable in the market, the determination of fair value requires more judgment. Accordingly, the degree of judgment exercised by the Company in determining fair value is greatest for instruments categorized in Level 3. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

The carrying values of the Company's cash, prepaid expenses, accounts payable and accrued expenses approximate their fair value due to their short-term nature. The carrying value of the Company's outstanding debt as of December 31, 2019 and 2020 approximates fair value based on the variable interest rate for the borrowings as well as the short duration of the term of the note. Items measured at fair value on a recurring basis include cash equivalents, the preferred unit tranche rights, the preferred warrant and contingent liabilities associated with the consummation of specified transactions, including an initial public offering.

Property and Equipment

Property and equipment is stated at cost, net of accumulated depreciation and amortization. Depreciation and amortization are calculated using the straight-line method over the estimated useful lives of the assets, which are as follows:

	Estimated Useful Life
Computers and software	3 years
Laboratory equipment	5 years
Furniture and fixtures	5 years
Leasehold improvements	Shorter of the useful life or the remaining term of the lease

Upon retirement or sale, the cost of assets disposed of and the related accumulated depreciation and amortization are removed from the accounts and any resulting gain or loss is included in loss from operations. Expenditures for repairs and maintenance that do not improve or extend the lives of the respective assets are charged to expense as incurred, while costs of major additions and betterments are capitalized.

Impairment of Long-Lived Assets

The Company periodically evaluates its long-lived assets, which consist of property and equipment, and any leased assets, for impairment whenever events or changes in circumstances indicate that a potential impairment may have occurred. If such events or changes in circumstances arise, the Company compares the carrying

2. Summary of Significant Accounting Policies (Continued)

Impairment of Long-Lived Assets (Continued)

amount of the long-lived assets to the estimated future undiscounted cash flows expected to be generated by the long-lived assets. If the estimated aggregate undiscounted cash flows are less than the carrying amount of the long-lived assets, an impairment charge, calculated as the amount by which the carrying amount of the assets exceeds the estimated fair value of the assets, is recorded. The estimated fair value of the long-lived assets is determined based on the estimated discounted cash flows expected to be generated from the long-lived assets. The Company did not recognize impairment charges during the years ended December 31, 2019 and 2020, respectively.

Leases

Under ASC Topic 842, *Leases* ("Topic 842"), which was adopted January 1, 2019, the Company determines if an arrangement is or contains a lease at inception. Operating leases are included in right-of-use lease assets ("ROU assets"), current portion of lease obligations and long-term lease obligations on the Company's consolidated balance sheets. Lease expense for operating leases is recognized on a straight-line basis over the lease term as an operating expense. Assets subject to finance leases are included in other non-current assets and the related lease obligation is included in other current liabilities and other long-term liabilities on the Company's consolidated balance sheets. Lease expense for finance leases is recognized as depreciation expense and interest expense using the effective interest method. The Company has elected the short-term lease recognition exemption for short-term leases, which allows the Company not to recognize lease liabilities and ROU assets on the consolidated balance sheets for leases with an original term of twelve months or less.

ROU assets represent the Company's right to use an underlying asset for the lease term, and lease obligations represent the Company's obligation to make lease payments arising from the lease. Operating lease liabilities and their corresponding ROU assets are initially recorded based on the present value of lease payments over the expected remaining lease term. When determining the lease term, the Company includes options to extend or terminate the lease when it is reasonably certain that the option will be exercised. Certain adjustments to the ROU asset may be required for items such as incentives received. The interest rate implicit in lease contracts is typically not readily determinable. As a result, the Company utilizes its incremental borrowing rate to discount lease payments. The incremental borrowing rate reflects the fixed rate at which the Company could borrow, on a collateralized basis, the amount of the lease payments in the same currency, for a similar term, in a similar economic environment. Prospectively, the Company will adjust the ROU assets for straight-line rent expense or any incentives received and remeasure the lease liability at the net present value using the same incremental borrowing rate that was in effect as of the lease commencement or transition date.

The Company has lease agreements with lease and non-lease components, which are accounted for as a combined element.

Research and Development Costs and Accruals

Research and development expenses are expensed as incurred and consist of costs incurred in performing research and development activities, including compensation related expenses for research and development personnel, preclinical and clinical activities including cost of supply and manufacturing process development activities, overhead expenses including facilities expenses, materials and supplies, amounts paid to consultants and outside service providers, and depreciation of equipment. Upfront payments made for the licensing of technology are expensed as research and development expenses in the period in which they are incurred. In general, contingent payments are recognized when it becomes probable the payment will be required. Any contingent payments that qualify as a derivative liability are recognized at fair value on the Company's consolidated balance sheets. Nonrefundable advance payments for goods or services to be received in the future for use in research and development activities are recorded as prepaid expenses. The prepaid amounts are expensed as the related goods are delivered or the services are performed.

XILIO THERAPEUTICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. Summary of Significant Accounting Policies (Continued)

Research and Development Costs and Accruals (Continued)

The Company records accruals for estimated ongoing research and development costs, including costs associated with contracts with third-party contract research organizations and contract manufacturing organizations. When evaluating the adequacy of the accrued liabilities, the Company analyzes progress of the preclinical studies or clinical trials, including the phase or completion of events, invoices received and contracted costs. Significant judgments and estimates are made in determining the accrued balances at the end of any reporting period. Actual results could differ from the Company's estimates. The Company's historical accrual estimates have not been materially different from the actual costs.

Acquired In-Process Research and Development ("IPR&D")

If the Company acquires an asset or group of assets under an in-licensing arrangement that does not meet the definition of a business under ASC Topic 805, *Business Combinations*, and the acquired IPR&D does not have an alternative future use, it is expensed on its acquisition date in accordance with guidance in ASC Topic 730, *Research and Development*. Contingent payments for the assets acquired are expensed or capitalized based on the nature of the associated asset at the date the payment is recognized.

Patent Costs

All patent-related costs incurred in connection with filing and prosecuting patent applications are expensed as incurred due to the uncertainty about the recovery of the expenditure. Amounts incurred are classified as general and administrative expenses in the accompanying consolidated statements of operations and comprehensive loss.

Equity-Based Compensation

The Company accounts for equity awards, including grants of incentive units, common units, restricted stock and stock options, in accordance with ASC 718, *Compensation—Stock Compensation* ("Topic 718"). Topic 718 requires all equity-based payments to employees, which includes grants of employee equity awards, to be recognized in the consolidated statements of operations and comprehensive loss based on their grant date fair values.

There are significant judgments and estimates inherent in the determination of the fair value of the common securities. As there is no public market for the Company's common stock, the estimated fair value of common stock was determined by the Company's board of directors as of the date of each equity award, with input from management, considering third-party valuations of its common stock as well as the Company's board of directors' assessment of additional objective and subjective factors that it believed were relevant and which may have changed from the date of the most recent third-party valuation through the date of the grant. These objective and subjective factors include: (i) the lack of liquidity of the Company's equity as a private company; (ii) the prices of the Company's preferred units and convertible preferred stock sold to outside investors in arm's length transactions and the rights, preferences and privileges of its preferred units and convertible preferred stock as compared to those of its common units and common stock, including the liquidation preferences of its convertible preferred stock; (iii) the progress of the Company's research and development efforts, including the status of preclinical studies for its product candidates; (iv) the Company's stage of development and business strategy and the material risks related to its business and industry; (v) the achievement of enterprise milestones, including entering into strategic collaborative and license agreements; (vi) the valuation of publicly traded companies in the life sciences and biotechnology sectors, as well as recently completed mergers and acquisitions of peer companies; (vii) any external market conditions affecting the biotechnology industry and trends within the biotechnology industry; (viii) the likelihood of achieving a liquidity event, such as an initial public offering or a sale of the Company, given prevailing market conditions; and (ix) the analysis of initial public offerings and the market performance of similar companies in the

2. Summary of Significant Accounting Policies (Continued)

Equity-Based Compensation (Continued)

biotechnology industry. These third-party valuations were performed in accordance with the guidance outlined in the American Institute of Certified Public Accountants' Accounting and Valuation Guide, *Valuation of Privately Held Company Equity Securities Issued as Compensation*. Each valuation methodology includes estimates and assumptions that require the Company's judgment. Significant changes to the key assumptions used in the valuations could result in different fair values of common securities at each valuation date.

The Company estimated the value of its equity using market approaches, including using the market adjusted equity value method, guideline initial public offering, transactions method, and the recent transaction method, which "back solves" to a preferred price. The Company used the option pricing method ("OPM") to allocate enterprise value to classes of securities. Regarding the incentive units, the OPM treats these awards as call options on the equity value of the entity, with exercise prices based on the thresholds at which the allocation amount to the various holders of the entity's equity securities change. The incentive units have value only when funds available for distribution to equity holders exceed the value of the respective thresholds over which the related class of equity participates at the time of the liquidity event. The OPM uses the Black-Scholes option pricing model to price the call options with the fair values as a function of the current fair value of the entity and certain assumptions such as the timing of a potential liquidity event and volatility of the underlying security.

The OPM treats common securities and preferred securities as call options on the enterprise's equity value, with exercise prices based on the liquidation preferences of the preferred securities. Under this method, the common securities have value only if the funds available for distribution to stockholders exceed the value of the liquidation preferences at the time of a liquidity event. The Black-Scholes model is used to price the call option, and the model includes assumptions for the time to liquidity and the volatility of equity value.

The Company estimates the fair value of stock options using the Black-Scholes option pricing model, which uses as inputs the estimated fair value of common stock, and certain management estimates, including the expected stock price volatility, the expected term of the award, the risk-free rate, and expected dividends. Expected volatility is calculated based on reported volatility data for a representative group of publicly traded companies for which historical information is available. The Company selects companies with comparable characteristics with historical share price information that approximates the expected term of the equity-based awards. The Company computes the historical volatility data using the daily closing prices for the selected companies' shares during the equivalent period that approximates the calculated expected term of the stock options. The Company will continue to apply this method until a sufficient amount of historical information regarding the volatility of its stock price becomes available. The risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant commensurate with the expected term assumption. The Company uses the simplified method, under which the expected term is presumed to be the midpoint between the vesting date and the end of the contractual term. The Company utilizes this method due to lack of historical exercise data. The expected dividend yield is assumed to be zero as the Company has no current plans to pay any dividends on common stock.

For awards with service-based vesting conditions, the Company recognizes equity-based compensation expense on a ratable basis over the vesting period. For awards subject to performance conditions, the Company recognizes equity-based compensation expense using an accelerated recognition method over the remaining service period when the Company determines the achievement of the performance condition is probable. The Company uses judgement to determine whether and, if so, how many awards are deemed probable of vesting at each reporting period. The Company recognizes forfeitures as they occur. The Company classifies equity-based compensation expense in its consolidated statements of operations and comprehensive loss consistent with the classification of the award recipient's compensation expense.

2. Summary of Significant Accounting Policies (Continued)

Preferred Units and Convertible Preferred Stock

The Company records all preferred units and shares of convertible preferred stock at their respective fair values on the dates of issuance less issuance costs. The Company classifies its preferred units and convertible preferred stock outside of members' or stockholders' deficit when the redemption of such units or shares is outside the Company's control. The Company does not adjust the carrying values of the preferred units or convertible preferred stock to the liquidation preferences of such units or stock until such time as a deemed liquidation event is probable of occurring.

Comprehensive Loss

Comprehensive loss is the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. Comprehensive loss includes net loss and the change in accumulated other comprehensive loss for the period. The Company did not have any items of comprehensive income or loss other than net loss for the years ended December 31, 2019 and 2020.

Net Loss Per Unit and Per Share

The Company applies the two-class method to compute basic and diluted net loss per unit and net loss per share because it has issued units and shares that meet the definition of participating securities. The two-class method determines net loss per unit and share for each class of common and participating securities according to dividends declared or accumulated and participation rights in undistributed earnings. The two-class method requires losses available to common unit holders and common stockholders for the period to be allocated between common and participating securities based upon their respective rights to share in the earnings as if all losses for the period had been distributed. During periods of loss, there is no allocation required under the two-class method since the participating securities do not have a contractual obligation to fund the losses of the Company.

Prior to the Reorganization, the Company calculated basic net loss per unit by dividing net loss by the weighted average number of common units outstanding. Following the Reorganization, the Company calculates basic net loss per share by dividing net loss by the weighted average number of shares of common stock outstanding, excluding unvested restricted common stock. For the year ended December 31, 2020, the weighted average number of shares of common stock outstanding includes the weighted average number of common units outstanding prior to the Reorganization. Additionally, for the year ended December 31, 2020, upon the consummation of the Reorganization, the weighted average number of shares of common stock outstanding reflects the impact of the exchange of common units to shares of common stock at a 1:1 conversion ratio and vested incentive units to shares of common stock based on the associated conversion ratio. The Company calculates diluted net loss per unit and diluted net loss per share by dividing net loss by the weighted average number of common units outstanding or weighted average number of shares of common stock outstanding, as applicable, after giving consideration to the dilutive effect of preferred units, convertible preferred stock, incentive units, stock options, restricted common stock and warrants that are outstanding during the period. The Company has generated a net loss in all periods presented, so the basic and diluted net loss per unit and net loss per share are the same, as the inclusion of the potentially dilutive securities would be anti-dilutive.

Income Taxes

Prior to the Reorganization, Xilio Therapeutics LLC elected to be treated under the partnership provisions of the Internal Revenue Code. Accordingly, all income and deductions of Xilio Therapeutics LLC were recorded on its members' individual tax returns and no taxes were recorded by Xilio Therapeutics LLC. Xilio Development and Concerto, the wholly owned subsidiaries of Xilio Therapeutics LLC, were taxed as C-corporations for federal income tax purposes and filed separate corporate income tax returns from the LLC entity. Upon the consummation of the Reorganization, Xilio Therapeutics, Inc. became the 100% owner of

XILIO THERAPEUTICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2. Summary of Significant Accounting Policies (Continued)

Income Taxes (Continued)

Xilio Therapeutics LLC, creating a new corporate parent company and a consolidated group for income tax reporting. The Reorganization and change in tax status of the reporting entity did not have an impact on the consolidated tax provision.

Income taxes for Xilio Therapeutics, Inc. are recorded in accordance with ASC Topic 740, *Income Taxes*, which provides for deferred taxes using an asset and liability approach. Under this method, deferred income tax assets and liabilities are recognized based on future income tax consequences attributable to differences between the financial statement carrying amount of existing assets and liabilities, and their respective income tax basis. Deferred income tax assets and liabilities are measured using enacted income tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect of changes in income tax rates on deferred income tax assets and liabilities is recognized as income or expense in the period that a valuation allowance for any income tax benefits of which future realization is not more likely than not.

The Company provides reserves for potential payments of tax to various tax authorities related to uncertain tax positions. The tax benefits recorded are based on a determination of whether and how much of a tax benefit taken by the Company in its tax filings or positions is "more likely than not" to be realized following resolution of any uncertainty related to the tax benefit, assuming that the matter in question will be raised by the tax authorities. At December 31, 2019 and 2020, the Company had not identified any significant uncertain tax positions.

The Company is open to examination by the Internal Revenue Service for the tax years ended December 31, 2017 to December 31, 2020. The Company is currently not under examination by the Internal Revenue Service or any other jurisdictions for any tax years. To the extent the Company has tax attribute carryforwards, the tax years in which the tax attribute was generated may still be adjusted upon examination by the Internal Revenue Service or state tax authorities to the extent utilized in a future period. The Company has not recorded any interest or penalties on any unrecognized tax benefits since its inception.

Recently Adopted Accounting Pronouncements

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers (*"Topic 606"*)*, which amends the existing accounting standards for revenue recognition. The FASB has issued several updates to the standard which: (i) clarify the application of the principal versus agent guidance, (ii) clarify the guidance relating to performance obligations and licensing, (iii) clarify the assessment of the collectability criterion, presentation of sales taxes, measurement date for non-cash consideration and completed contracts and (iv) clarify the narrow aspects of Topic 606 or correct unintended application of the guidance. Topic 606 is based on principles that govern the recognition of revenue at an amount to which an entity expects to be entitled when products and/or services are transferred to customers. The Company adopted this standard using the full retrospective adoption approach as of January 1, 2019. As the Company has not been party to any transactions that fall within the scope of Topic 606, the adoption of this standard did not have a material impact on the Company's consolidated financial statements and related disclosures.

In February 2016, the FASB issued Topic 842 which replaced the guidance in ASC Topic 840, *Leases*. The updated standard aims to increase transparency and comparability among organizations by requiring lessees to recognize lease assets and lease liabilities on the balance sheet and requiring disclosure of key information about leasing arrangements. This standard became effective for fiscal years beginning after December 15, 2018. The Company adopted the new standard effective January 1, 2019 using the modified retrospective method as of the beginning of the period of adoption. The Company has elected the package of practical expedients permitted in Topic 842. Accordingly, the Company accounted for its existing operating leases as operating leases under the new guidance, without reassessing (a) whether the contracts contain a lease under

2. Summary of Significant Accounting Policies (Continued)

Recently Adopted Accounting Pronouncements (Continued)

Topic 842, (b) whether classification of the operating leases would be different in accordance with Topic 842, or (c) whether the unamortized initial direct costs would have met the definition of initial direct costs in Topic 842 at lease commencement. The Company also elected not to include leases with an initial term of twelve months or less in the recognized ROU asset and lease liabilities. The implementation of this standard did not have a material impact on the Company's consolidated financial statements and related disclosures.

In November 2016, the FASB issued ASU No. 2016-18, *Statement of Cash Flows (Topic 230)—Restricted Cash* ("ASU 2016-18"), which requires that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and restricted cash or restricted cash equivalents. Therefore, amounts described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statements of cash flows. The Company adopted ASU 2016-18 as of January 1, 2019 and as such, the consolidated statements of cash flows include restricted cash with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on such statements.

In May 2017, the FASB issued ASU No. 2017-09, *Compensation—Stock Compensation (Topic 718)—Scope of Modification Accounting* ("ASU 2017-09"). The provisions of ASU 2017-09 provide guidance about which changes to the terms or conditions of a share-based payment award require an entity to apply modification accounting in Topic 718. An entity should account for the effects of a modification unless: (i) the fair value of the modified award is the same as the fair value of the original award, (ii) the vesting conditions of the modified award are the same as the vesting conditions of the original award, and (iii) the classification of the modified award as an equity instrument or a liability instrument is the same as the classification of the original award immediately before the original award was modified. The Company adopted ASU 2017-09 as of January 1, 2019, with prospective application to awards modified on or after the adoption date. The implementation of this standard did not have a material impact on the Company's consolidated financial statements and related disclosures.

In July 2017, the FASB issued ASU No. 2017-11, Earnings Per Share (Topic 260), *Distinguishing Liabilities from Equity (Topic 480), Derivatives and Hedging (Topic 815): (Part I) Accounting for Certain Financial Instruments with Down Round Features, (Part II) Replacement of the Indefinite Deferral for Mandatorily Redeemable Financial Instruments of Certain Nonpublic Entities and Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception* ("ASU 2017-11"). Part I of this standard applies to entities that issue financial instruments such as warrants, convertible debt or convertible preferred stock that contain down-round features. Part II of this standard replaces the indefinite deferral for certain mandatorily redeemable noncontrolling interests and mandatorily redeemable financial instruments of nonpublic entities contained within ASC Topic 480 with a scope exception and does not impact the accounting for these mandatorily redeemable instruments. ASU 2017-11 was effective for the Company for annual periods beginning on January 1, 2020 and interim periods beginning on January 1, 2021, with early adoption permitted. The Company adopted ASU 2017-11 as of January 1, 2020 and the implementation of this standard did not have a material impact on the Company's consolidated financial statements and related disclosures.

In June 2018, the FASB issued ASU No. 2018-07, *Compensation—Stock Compensation (Topic 718), Improvements to Nonemployee Share-Based Payment Accounting* ("ASU 2018-07"), which expands the scope of Topic 718 to include share-based payments to non-employees. The Company adopted this standard as of January 1, 2019. In connection with the adoption of ASU 2018-07, the Company established the fair value of share-based payments to non-employees at the adoption date for existing awards and established the fair value of share-based payments to non-employees at the grant date for awards issued subsequent to January 1, 2019. The adoption of this standard did not materially impact the Company's consolidated financial statements and related disclosures.

2. Summary of Significant Accounting Policies (Continued)

Recently Adopted Accounting Pronouncements (Continued)

In August 2018, the FASB issued ASU No. 2018-13, *Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement* ("ASU 2018-13"), which modifies the disclosure requirements on fair value measurements with respect to Level 3 rollforwards, timing of liquidation of investments in certain entities that calculate net asset value and measurement uncertainty. ASU 2018-13 was effective for the Company on January 1, 2020, with early adoption permitted. The Company adopted ASU 2018-13 on January 1, 2020, and the implementation of this standard did not have a material impact on the Company's consolidated financial statements and related disclosures.

In November 2018, the FASB issued ASU No. 2018-18, *Collaborative Arrangements (Topic 808)—Clarifying the Interaction between Topic 808 and Topic 606* ("ASU 2018-18") which clarifies that certain transactions between collaborative arrangement participants should be accounted for as revenue when the collaborative arrangement participant is a customer in the context of a unit of accounting and precludes recognizing as revenue consideration received from a collaborative arrangement participant if the participant is not a customer. The Company adopted ASU 2018-18 in conjunction with the adoption of Topic 606 as of January 1, 2019. The implementation of this standard did not have a material impact on the Company's consolidated financial statements and related disclosures.

Recently Issued Accounting Pronouncements

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments—Credit Losses (Topic 326)—Measurement of Credit Losses on Financial Instruments, which has been subsequently amended by ASU No. 2018-19, ASU No. 2019-04, ASU No. 2019-05, ASU No. 2019-10, ASU No. 2019-11, and ASU No. 2020-03* ("ASU 2016-13"). The provisions of ASU 2016-13 modify the impairment model to utilize an expected loss methodology in place of the currently used incurred loss methodology and require a consideration of a broader range of reasonable and supportable information to inform credit loss estimates. ASU 2016-13 is effective for the Company on January 1, 2023, with early adoption permitted. The Company is currently evaluating the potential impact that ASU 2016-13 may have on its consolidated financial statements and related disclosures.

In December 2019, the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740)—Simplifying the Accounting for Income Taxes* ("ASU 2019-12"), as part of its initiative to reduce complexity in the accounting standards. The amendments in ASU 2019-12 eliminate certain exceptions related to the approach for intraperiod tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. ASU 2019-12 also clarifies and simplifies other aspects of the accounting for income taxes. ASU 2019-12 is effective for the Company on January 1, 2022, with early adoption permitted. The Company is currently evaluating the potential impact that this standard may have on its consolidated financial statements and related disclosures.

In August 2020, the FASB issued ASU No. 2020-06, *Debt—Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging Contracts in Entity's Own Equity* (Subtopic 815-40) ("ASU 2020-06"), which reduces the number of accounting models for convertible debt instruments and convertible preferred stock as well as amends the derivatives scope exception for contracts in an entity's own equity. ASU 2020-06 is effective for the Company on January 1, 2024, with early adoption permitted. The Company is currently evaluating the potential impact that this standard may have on its consolidated financial statements and related disclosures.

XILIO THERAPEUTICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

3. Fair Value Measurements

The Company measures the following financial assets and liabilities at fair value on a recurring basis. The fair value of these assets and liabilities was determined as follows (in thousands):

	December 31, 2019	Quoted Prices in Active Markets for Identical Assets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Financial assets:				
Cash equivalents—money market funds	$ 310	$ 310	$ —	$ —
Total financial assets	$ 310	$ 310	$ —	$ —
Financial liabilities:				
Debt derivative liability	$ 357	$ —	$ —	$ 357
Warrant to purchase Series A preferred units	17	—	—	17
Total financial liabilities	$ 374	$ —	$ —	$ 374

	December 31, 2020	Quoted Prices in Active Markets for Identical Assets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Financial assets:				
Cash equivalents—money market funds	$ —	$ —	$ —	$ —
Total financial assets	$ —	$ —	$ —	$ —
Financial liabilities:				
Debt derivative liability	$ 396	$ —	$ —	$ 396
Other derivative liability	407	—	—	407
Warrant to purchase Series A convertible preferred stock	22	—	—	22
Total financial liabilities	$ 825	$ —	$ —	$ 825

During the years ended December 31, 2019 and 2020, the Company did not hold any investments and there were no transfers between Level 1, Level 2, and Level 3.

The fair value of the warrant liability is calculated utilizing the Black-Scholes option-pricing model and contains significant inputs not observable in the market, which represents a Level 3 measurement within the fair value hierarchy.

The fair values of the debt derivative liability and the other derivative liability that are contingently payable upon the consummation of specified transactions, including an initial public offering, are based on significant inputs not observable in the market, including estimates regarding the probability of certain potential future events and outcomes and estimates regarding timing of those events and outcomes, with an applied discount rate representative of time value that represents a Level 3 measurement within the fair value hierarchy.

The following table summarizes the changes in the fair market value of the Company's preferred unit tranche rights, warrant liability, debt derivative liability and other derivative liability, which are classified within the Level 3 fair value hierarchy (in thousands):

3. Fair Value Measurements (Continued)

	Tranche rights	Warrant liability	Debt derivative liability	Other derivative liability	Total level 3 financial liabilities
Balance at December 31, 2018	$ 1,739	$ 15	$ —	$ —	$ 1,754
Settlement of tranche rights	(1,739)	—	—	—	(1,739)
Change in fair value of warrant liability	—	2	—	—	2
Recognition of debt derivative	—	—	357	—	357
Balance at December 31, 2019	$ —	$ 17	$ 357	$ —	$ 374
Recognition of other derivative liability	—	—	—	325	325
Change in fair value of liability	—	5	39	82	126
Balance at December 31, 2020	$ —	$ 22	$ 396	$ 407	$ 825

4. Property and Equipment, Net

Property and equipment, net consists of the following as of December 31, 2019 and 2020 (in thousands):

	December 31, 2019	December 31, 2020
Laboratory equipment	$ 1,435	$ 2,925
Computers and software	—	228
Furniture & fixtures	—	482
Leasehold improvements	—	5,092
Construction in process	2,200	—
	$ 3,635	$ 8,727
Less accumulated depreciation	(330)	(1,360)
	$ 3,305	$ 7,367

The Company incurred depreciation and amortization expense of $0.2 million and $1.1 million for the years ended December 31, 2019 and 2020, respectively.

5. Accrued Expenses

Accrued expenses consist of the following (in thousands):

	December 31, 2019	December 31, 2020
External research and development	$ 1,277	$ 11,060
Personnel related	769	2,013
Professional and other	643	659
	$ 2,689	$ 13,732

6. Loan and Security Agreement

In November 2019, the Company entered into a loan and security agreement with Pacific Western Bank ("PacWest"), as amended by a first amendment dated March 12, 2021 (as amended, the "Loan Agreement"). Pursuant to the Loan Agreement, the Company borrowed $10.0 million, subject to the Company closing a

6. Loan and Security Agreement (Continued)

Series B preferred unit financing by January 2020 and certain other customary closing conditions. The Company's initial closing of the Series B preferred unit financing occurred in December 2019 (Note 11).

Interest on the outstanding loan balance accrues at a variable annual rate equal to the greater of (i) the prime rate, as defined in the Loan Agreement, plus 0.25% or (ii) 5.00%. The Company is required to make interest-only payments on the loan on a monthly basis through May 21, 2021. Subsequent to the interest-only period, the Company is required to make equal monthly payments of principal plus interest until the loan matures on November 21, 2023. In addition, under the Loan Agreement, the Company is obligated to pay a one-time $0.5 million fee to PacWest upon the occurrence of specified liquidation events, including an initial public offering. The fee represents a derivative instrument that the Company has bifurcated from the debt arrangement and is carried at fair value with any changes in such fair value recorded to other income (expense), net in the Company's consolidated statements of operations and comprehensive loss. This debt derivative is recorded as a component of other liabilities, long-term on the Company's consolidated balance sheets. Upon the closing of the loan, the fair value of the debt derivative liability was $0.4 million that, together with certain legal and other fees incurred by the Company and associated with the Loan Agreement, was recognized as a debt discount and reflected as a reduction in the carrying value of the debt. The debt discount is being accreted and recognized as additional interest expense over the term of the Loan Agreement using the effective interest method.

The Loan Agreement contains customary representations, warranties and covenants and also includes customary events of default, including payment defaults, breaches of covenants, a change of control and occurrence of a material adverse effect. As security for its obligations under the Loan Agreement, the Company granted PacWest a first priority security interest on substantially all of the Company's assets (other than intellectual property), subject to certain exceptions. The Company has determined that the risk of subjective acceleration under the material adverse effect clause was not probable and therefore has classified the long-term portion of the outstanding principal in non-current liabilities. Upon the occurrence and continuation of an event of default, a default interest rate of an additional 5% per annum may be applied to the outstanding loan balance, and the administrative agent, collateral agent, and lender may declare all outstanding obligations immediately due and payable and exercise all of their rights and remedies as set forth in the Loan Agreement and under applicable law. As of December 31, 2020, the Company was in compliance with all covenants under the Loan Agreement.

The Company has the following minimum aggregate future loan payments under the Loan Agreement at December 31, 2020 (in thousands):

	Minimum Loan Payments
2021	$ 2,333
2022	4,000
2023	3,667
Total future principal payments	10,000
Less: unamortized discount	(255)
Total notes payable	$ 9,745

During the year ended December 31, 2020, the Company recognized $0.6 million of interest expense related the Loan Agreement, which is reflected in other expense on the consolidated statements of operations and comprehensive loss.

7. Warrant Liability

In May 2016, the Company issued to a consultant a warrant to purchase 25,000 Series A preferred units at a price of $1.00 per unit (the "Warrant"). Effective upon the Reorganization, the preferred unit warrant was converted into a warrant to purchase 25,000 shares of Series A convertible preferred stock at a price of $1.00 per share.

The Warrant has a contractual life of ten years from the date of issuance and is exercisable at any time on or before the expiration date. The Company has classified the Warrant as a liability and remeasures the fair value of the liability at each reporting period using the Black-Scholes valuation method, with any changes in fair value being recorded as a component of other expense in the Company's consolidated statements of operations and comprehensive loss. The Company utilized the following weighted-average assumptions using the Black-Scholes option-pricing model to determine the estimated fair value of the warrants as of December 31, 2019 and 2020, respectively:

	December 31, 2019	December 31, 2020
Fair value of underlying preferred unit	$ 1.07	—
Fair value of underlying preferred share	—	$ 1.25
Risk-free interest rate	1.79%	0.42%
Expected volatility	67.63%	84.99%
Expected term (years)	6.4	5.4
Expected dividend yield	0.00%	0.00%

The warrant liability was $17,000 and $22,000 as of December 31, 2019 and 2020, respectively.

8. Related Party Transactions

Atlas Venture

Effective March 1, 2018, the Company entered into an employment agreement with Nessan Bermingham, an affiliate of Atlas Venture, a preferred unit holder, pursuant to which Dr. Bermingham provided part-time services to the Company as Executive Chairman of the board of directors. Under the employment agreement, Dr. Bermingham was entitled to receive an annualized base salary of $250,000 per year and an annual bonus target of 40%, subject to board of directors approval and adjustment. In addition, pursuant to the terms of the employment agreement, Dr. Bermingham was granted 605,000 incentive units, which vested in 24 equal monthly installments, subject to certain acceleration provisions and his continued provision of services to the Company on the applicable vesting date. One seventh of such incentive units, to the extent then outstanding, were subject to accelerated vesting if certain predefined goals were deemed met by the board of directors, with any remaining unvested incentive units vesting over the following 24 months. The employment agreement could be terminated by either party at any time.

In June 2019, the board of directors modified Dr. Bermingham's agreement to reflect a change in position from Executive Chairman to non-executive Chairman of the board of directors with an annual fee of $100,000 per year, paid monthly, for such services, and deemed the pre-defined goals for accelerated vesting of Dr. Bermingham's outstanding unvested incentive units had been met. As a result, one seventh of Dr. Bermingham's outstanding unvested incentive units were accelerated and the remaining incentive units began vesting equally over the following 12 months. In December 2019, Dr. Bermingham resigned from the board of directors of the Company, and pursuant to his employment agreement, an additional three months of unvested incentive units vested upon his cessation of service.

For the year ended December 31, 2019, the costs incurred under Dr. Bermingham's agreement totaled $0.2 million and were recorded as general and administrative expense in the accompanying consolidated statements of operations and comprehensive loss. There were no costs incurred under this agreement for the

8. Related Party Transactions (Continued)

Atlas Venture (Continued)

year ended December 31, 2020. As of December 31, 2019 and 2020, no amounts were owed under this agreement.

9. Intellectual Property Licenses

Cross-License Agreement with AskGene

In December 2020, Xilio Development entered into a cross-license agreement with AskGene Pharma, Inc. ("AskGene") pursuant to which AskGene granted Xilio Development certain exclusive licenses for AskGene patent rights related to non-antigen binding IL-2 products in the field of oncology and certain co-exclusive licenses for AskGene patent rights related to antigen binding IL-2 products in all fields. In addition, subject to the terms of the agreement and during the time period specified, AskGene granted Xilio Development an option to certain exclusive licenses for AskGene patent rights related to non-antigen binding IL-15 products in the field of oncology and certain co-exclusive licenses for AskGene patent rights related to antigen binding IL-15 products in all fields. Under the agreement, AskGene retains rights to the AskGene patent rights in Singapore, Thailand, Malaysia, Vietnam, the People's Republic of China, Taiwan, Macau, Hong Kong, Korea and India (the "AskGene territory"), and granted licenses to Xilio Development for the AskGene patent rights worldwide, excluding the Ask Gene territory (the "Xilio Development territory").

Under the agreement, Xilio Development is required to pay AskGene an upfront payment of $6.0 million, and for each licensed product, Xilio Development is obligated to pay AskGene up to $13.0 million in the aggregate upon the achievement of specified regulatory milestones. If Xilio Development exercises its option for the IL-15 licenses during the option period, Xilio Development will be obligated to pay AskGene a $4.0 million option exercise fee. In addition, subject to specified conditions, for any IL-2 licensed product, Xilio Development is obligated to pay AskGene percentage royalties in the mid-single digits on aggregate annual net sales of IL-2 licensed products in the Xilio Development territory during the applicable royalty term, and if Xilio Development exercises its option for AskGene's IL-15 patent rights, then for any IL-15 licensed product, Xilio Development is obligated to pay AskGene percentage royalties in the low single digits on aggregate annual net sales of IL-15 licensed products in the Xilio Development territory during the applicable royalty term.

During the term of the agreement, AskGene has agreed not to exploit the following in the field of oncology in the Xilio Development territory: (i) any non-antigen binding IL-2 product, and (ii) if Xilio Development exercises its option for AskGene's IL-15 patent rights, any non-antigen binding IL-15 product.

In addition, under the agreement, Xilio Development granted a non-exclusive, royalty-free, non-transferable, worldwide license to AskGene for specified Xilio Development patent rights related to non-antigen binding IL-2 products in the field of immunology and for specified Xilio Development patent rights related to antigen binding IL-2 products in all fields. In addition, subject to the terms of the agreement and during the time period specified, Xilio Development granted AskGene an option to obtain an exclusive, royalty-bearing, non-transferable, worldwide license for specified Xilio Development patent rights related to non-antigen binding IL-2 products in the field of immunology and an option to obtain a co-exclusive, royalty-bearing, non-transferable, worldwide license for specified Xilio Development patent rights related to antigen binding IL-2 products in all fields. If AskGene exercises its option, the parties would negotiate and enter into a license agreement, and AskGene would be obligated to pay Xilio Development up to $17.0 million in aggregate upfront and milestone payments for each licensed product. In addition, subject to specified conditions, for any IL-2 licensed product, AskGene is obligated to pay Xilio Development percentage royalties in the low single digits on aggregate annual net sales of IL-2 licensed products in the AskGene territory during the applicable royalty term.

9. Intellectual Property Licenses (Continued)

Cross-License Agreement with AskGene (Continued)

The Company accounted for the agreement as an asset acquisition, as the Company only acquired licenses to specified patents from AskGene (an input) and no additional processes or outputs as a part of the agreement. The $6.0 million upfront payment was recorded as research and development expense in the consolidated statement of operations and comprehensive loss during the year ended December 31, 2020, as the acquired licenses were determined to have no alternative future use and the technological feasibility of the intellectual property has not yet been reached. The upfront payment was paid in installments between December 2020 and February 2021, with $1.0 million paid as of December 31, 2020. The remaining $5.0 million was paid during the three months ended March 31, 2021 and was recorded within accrued expenses in the accompanying consolidated balance sheets as of December 31, 2020. Any additional payments that are contingent upon achievement of development and regulatory milestones or upon sales of licensed products will not be recognized until it becomes probable that the Company will be required to make such payments.

Amended and Restated Exclusive License Agreement with City of Hope

In August 2016, the Company entered into an amended and restated exclusive license agreement with City of Hope pursuant to which City of Hope granted the Company an exclusive worldwide license to specified patent rights related to the Company's anti-CTLA-4 monoclonal antibody program.

Under the agreement, the Company issued 228,184 common units to City of Hope. For the first three licensed products or licensed services to achieve specified development and regulatory milestones, the Company is obligated to pay City of Hope up to $10.3 million in the aggregate per licensed product or licensed service. In addition, subject to specified conditions, the Company is obligated to pay City of Hope tiered royalties in the low single digits on aggregate annual net sales of licensed products or licensed services on a country-by-country basis until the expiration of the last-to-expire patent or patent application licensed from City of Hope covering the applicable licensed product or licensed service in such country. The Company is also obligated to pay City of Hope a portion of any consideration the Company receives for the grant of sublicenses under the agreement ranging from a low double digit to mid-twenties percentage of such consideration to low double digit percentage of such consideration, subject to specified conditions under that agreement at the time that the Company grants any such sublicense. In addition, the Company is obligated to pay $0.5 million to City of Hope in connection with the consummation of specified transactions, including an initial public offering.

In each of the years ended December 31, 2019 and 2020, the Company incurred $10,000 under this agreement, which was recognized as research and development expense in the consolidated statements of operations and comprehensive loss. The Company has accounted for the $0.5 million contingent payment, which is due upon the consummation of specified transactions, including an initial public offering, as a derivative liability. The derivative liability was initially recognized at fair value with any changes in such fair value recorded to other income (expense), net in the accompanying consolidated statement of operations and comprehensive loss. The derivative liability is included in other liabilities, long term on the consolidated balance sheet as of December 31, 2020. Any additional payments that are contingent upon achievement of development and regulatory milestones or upon sales of licensed products will not be recognized until it becomes probable that the Company will be required to make such payments.

CTLA-4 Monoclonal Antibody License Agreement with WuXi Biologics

In September 2016, the Company entered into a license agreement with WuXi Biologics (Hong Kong) Limited ("WuXi Biologics"), as amended in December 2017, pursuant to which WuXi Biologics granted the Company an exclusive worldwide license to specified monoclonal antibodies and patent rights and know-how controlled by WuXi Biologics, including certain patent rights related to the Company's anti-CTLA-4 monoclonal antibody program.

9. Intellectual Property Licenses (Continued)

CTLA-4 Monoclonal Antibody License Agreement with WuXi Biologics (Continued)

For each product that exploits the rights licensed under the agreement, the Company is obligated to pay WuXi Biologics up to approximately $25.8 million in the aggregate for specified development and regulatory milestones. In addition, subject to specified conditions, the Company is obligated to pay WuXi Biologics tiered royalties in the low to mid-single digits on aggregate annual worldwide net sales of licensed products during the applicable royalty term.

The Company did not incur any costs under the agreement during the year ended December 31, 2019. The Company incurred $1.0 million in costs related to the payment of specified development milestones under the agreement during the year ended December 31, 2020. Any additional payments that are contingent upon the acheivement of development and regulatory milestones or sales of licensed products will not be recognized until it becomes probable that the Company will be required to make such payments.

10. Commitments and Contingencies

Purchase Commitments

The Company has contractual arrangements with research and development organizations and suppliers. However, these contracts are generally cancelable on 30 days' notice and the obligations under these contracts are primarily based on services performed.

Leases

The Company has an operating lease for its headquarters and a finance lease for certain lab equipment. In August 2019, the Company entered into a facility lease agreement with a landlord providing funding for tenant improvements and occupancy of approximately 27,830 square feet of office and laboratory space (the "premises") at 828 Winter Street, Waltham, Massachusetts. The initial term of the lease expires in March 2030, unless terminated earlier in accordance with the terms of the lease. The Company has a right to a five-year option to extend at then-market rates. The Company took possession of the premises in August 2019 and began tenant improvement, toward which the landlord agreed to fund a maximum of $4.9 million of such improvements. The Company included the expected landlord reimbursement amount of $4.9 million as a reduction to the amount of future minimum lease payments used to calculate the lease liability at lease commencement. The Company received reimbursement of $2.0 million and $2.9 million for tenant improvements for the years ended December 31, 2019 and 2020, respectively. Any reimbursement payments either received from the landlord, or due to be received from the landlord, have been recorded as an increase to the operating lease liability. The Company is obligated to pay its portion of real estate taxes and costs related to the premises, including costs of operations, maintenance, repair, replacement, and management of the new leased premises, which it began paying simultaneous with the rent commencement date in March 2020. In connection with the lease agreement, the Company agreed to provide the landlord with an initial cash deposit, subject to the Company converting such amount to a letter of credit within 6 months of origination of the lease. Accordingly, as of December 31, 2019, the Company had paid to the landlord a cash deposit of approximately $1.6 million, which it recorded in other non-current assets on the accompanying consolidated balance sheet. In 2020, the landlord refunded the Company in the amount of $1.6 million. As of December 31, 2020, the Company has a letter of credit for the benefit of its landlord in the amount of $1.6 million, collateralized by a money market fund.

The components of lease expense were as follows (in thousands):

	Year Ended December 31, 2019	Year Ended December 31, 2020
Operating lease cost	$ 407	$ 1,225

XILIO THERAPEUTICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

10. Commitments and Contingencies (Continued)

Leases (Continued)

	Year Ended December 31, 2019	Year Ended December 31, 2020
Variable lease cost	—	—
	$ 407	$ 1,225
Finance lease cost:		
Amortization of right of use asset	$ —	$ 35
Interest on lease liability	—	8

Supplemental balance sheet information related to the leases was as follows (in thousands, except for remaining lease term and discount rates):

	Year Ended December 31, 2019	Year Ended December 31, 2020
Operating Lease:		
Operating lease right-of-use asset	$ 6,568	$ 6,309
Operating lease liability, current portion	$ —	$ 564
Operating lease liability, long-term portion	9,021	10,908
Finance Lease:		
Property and equipment, gross	$ —	$ 423
Property and equipment, accumulated depreciation	—	(35)
Other liabilities, current	—	82
Other liabilities	—	187
Weighted-average remaining lease term (in years):		
Operating lease	10.17	9.17
Finance lease	—	3.70
Weighted-average discount rate:		
Operating lease	8.0%	8.0%
Finance lease	—	6.9%

Supplemental cash flow information related to leases was as follows (in thousands):

	Year Ended December 31, 2019	Year Ended December 31, 2020
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	—	$ 1,343
Financing cash flows from finance leases	—	99

10. Commitments and Contingencies (Continued)

Leases (Continued)

Future minimum lease payments under non-cancellable leases as of December 31, 2020 are as follows (in thousands):

	Operating Lease	Finance Lease
2021	$ 1,457	$ 85
2022	1,634	85
2023	1,683	85
2024	1,733	49
2025	1,785	—
Thereafter	8,199	—
Total future minimum lease payments	$ 16,491	$ 304
Present value adjustment	(5,019)	(36)
Present value of lease liabilities	$ 11,472	$ 268

Legal Proceedings

From time to time, the Company may be party to litigation arising in the ordinary course of business. The Company was not subject to any material legal proceedings during the years ended December 31, 2019 and 2020.

Guarantees and Indemnifications

In the ordinary course of business, the Company enters into agreements that may include indemnification provisions. Pursuant to such agreements, the Company may indemnify, hold harmless and defend an indemnified party for losses suffered or incurred by the indemnified party. Some of the provisions will limit losses to those arising from third-party actions. In some cases, the indemnification will continue after the termination of the agreement. The maximum potential amount of future payments the Company could be required to make under these provisions is not determinable. The Company has never incurred material costs to defend lawsuits or settle claims related to these indemnification provisions. The Company has also entered into indemnification agreements with its directors that may require the Company to indemnify its directors against liabilities that may arise by reason of their status or service as directors to the fullest extent permitted by Delaware corporate law. The Company currently has directors' and officers' insurance.

11. Member Units

Prior to the Reorganization, all interests of members in distributions and other amounts were represented by their units of membership in the Company as specified in its LLC Agreement. There were two classes of units, capital units and incentive units. Capital units were comprised of common units and preferred units, which represented a capital interest in the Company, while incentive units represented profits interests within the meaning of IRS Revenue Procedures 93-27 and 2001-43.

Capital Units

As of December 31, 2019, the total authorized capital units of the Company were 192,456,195, of which 98,172,319 were common units and 94,283,876 were preferred units, of which 7,525,000 were designated Series A preferred units, 19,565,216 were designated Series A-1 preferred units and 67,193,660 were designated Series B preferred units.

11. Member Units (Continued)

The various classes of capital units are described below.

Common Units

As of December 31, 2018, the Company had 3,888,443 common units outstanding. There were no additional common units issued during the years ended December 31, 2019 or 2020.

Holders of common units were entitled to one vote per unit and to receive dividends, when and if declared by the board of directors. No common unit dividends were declared. The voting, dividend and liquidation rights of the holders of the common units were subject to, and qualified by, the rights of the holders of the Series A preferred units, the Series A-1 preferred units, and the Series B preferred units.

Preferred Units

Prior to 2019, the Company sold 7,500,000 Series A preferred units and 10,869,564 Series A-1 preferred units.

Included in the terms of the January 2018 Series A-1 preferred unit purchase agreement were certain tranche rights granted to investors of the Series A-1 preferred units based on the achievement of certain milestones. Although the final milestone was not achieved, in accordance with the Series A-1 preferred unit purchase agreement, the board of directors and the Series A-1 investors agreed to waive the milestone requirement and proceeded with the closing of the final Series A-1 closing in May 2019, in which the Company issued 8,695,652 Series A-1 preferred units at $1.15 per unit for proceeds of $10.0 million, net of issuance costs. The Company concluded that the tranche rights associated with the Series A-1 preferred unit agreement met the definition of a freestanding financial instrument, as the tranche rights were legally detachable and separately exercisable from the Series A-1 preferred units. Therefore, the Company allocated the proceeds between the tranche rights and the Series A-1 preferred units. As the Series A-1 preferred units were contingently redeemable upon an event that is not completely within the control of the Company, the tranche rights were classified as an asset or liability and were initially recorded at fair value. The tranche rights were measured at fair value at each reporting period. Upon the closing of the final Series A-l tranche in May 2019, any remaining fair value of the tranche right was reclassified from being carried as a liability to being recorded as Series A-1 preferred units. The carrying value of the Series A-1 preferred units at December 31, 2019 was $20.7 million.

In December 2019, the Company entered into a Series B Preferred Unit Purchase Agreement, as amended in February 2020 (the “Series B Agreement”), to issue and sell 79,446,640 Series B preferred units at a purchase price of $1.265 per unit. Pursuant to the Series B Agreement, the units were sold at multiple closings including an initial closing, additional closings and a milestone closing. In December 2019, the Company issued 31,818,174 Series B preferred units at $1.265 per unit for proceeds of $40.0 million, net of issuance costs at the initial closing. In February 2020 as part of the additional closing, the Company issued an additional 7,905,138 Series B preferred units at $1.265 per unit for proceeds of $10.0 million net of issuance costs under the same terms as the units issued in the initial closing. In January 2021, the Company sold 39,723,312 shares of Series B convertible preferred stock for proceeds of $50.2 million, net of issuance costs (Note 18). The Company concluded that the tranche rights associated with the Series B preferred units do not represent a freestanding financial instrument as the tranche right is not legally detachable from the Series B preferred units.

The Company has evaluated the preferred units and determined that they should be considered an “equity host” and not a “debt host.” The evaluation was necessary to determine if any embedded features required bifurcation and separate accounting as a derivative financial instrument. The Company’s analysis was based on a consideration of the economic characteristics and risks and more specifically, evaluated all the stated and implied substantive terms and features including (i) whether the preferred unit included redemption features, (ii) how and when any redemption features could have been exercised, (iii) whether the preferred units were entitled to dividends, (iv) the voting rights of the preferred unit and (v) the existence and nature of any conversion rights. As a result of its evaluation that the preferred unit is an “equity host,” the various embedded conversion options are not considered a separate, embedded derivative.

XILIO THERAPEUTICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

11. Member Units (Continued)

Preferred Units (Continued)

As of December 31, 2019, the preferred units consisted of the following (in thousands, except unit amounts):

	Preferred Units Authorized	Preferred Units Issued and Outstanding	Carrying Value	Liquidation Preference	Common Units Issuable Upon Conversion
Series A preferred units	7,525,000	7,500,000	$ 7,309	$ 7,500	7,500,000
Series A-1 preferred units	19,565,216	19,565,216	20,740	22,500	19,565,216
Series B preferred units	67,193,660	31,818,174	39,984	40,250	31,818,174
	94,283,876	58,883,390	$ 68,033	$ 70,250	58,883,390

Rights and Preferences of Preferred Units

The Series A preferred units, the Series A-1 preferred units and the Series B preferred units (collectively the "Preferred Units") had the following rights and preferences:

Liquidation

In the event of any liquidation, dissolution or winding up of affairs of the Company (including a change of control), distributions would have first been made to holders of the Series B preferred units until, on a Series B preferred unit by Series B preferred unit basis, each Series B preferred unit had been distributed its original issuance price ($1.265) plus any declared but unpaid dividends. After distribution to the Series B preferred unit holders, the holders of Series A and Series A-1 preferred units would receive a distribution until, on a Series A and Series A-1 preferred unit by Series A and Series A-1 preferred unit basis, each Series A and Series A-1 preferred unit had been distributed an amount equal to the Series A or Series A-1 preferred unit original issuance price, respectively, plus any declared but unpaid dividends. The Series A and Series A-1 preferred unit issuance price was $1.00 and $1.15 per unit, respectively. After distribution to the Series A and Series A-1 holders, the holders of preferred units, common units and incentive units would receive a distribution until, on a preferred unit by preferred unit basis, each preferred unit has been distributed an amount equal to two and one-half times the sum of its respective original issuance price and declared but unpaid dividends. After such distribution, the holders of common units and incentive units would receive a distribution until, on a unit by unit basis, each common unit and incentive unit had been distributed a catch-up amount such that the aggregate distributions made to the common units and incentive units are the same as the average aggregate distributions made to the preferred units. Any remaining amounts would be distributed to the holders of Preferred Units, common units and incentive units pro rata in proportion to the number of units held by each (on an as-converted basis).

Incentive unit holders would have participated in distributions as described above only after the distribution met the strike price with respect to such unit. The strike price is an amount per incentive unit determined by the board of directors based on the amount of distributions that the holders of a common unit would have been entitled to receive in a hypothetical liquidation of the Company on the date of issuance of the incentive unit in which the Company sold its assets at fair market value, satisfied its liabilities and distributed the net proceeds to the holders of units in liquidation of the Company. The board of directors had the discretion to determine the extent to which an incentive unit would have been excluded from participating in distributions.

Conversion into Common Units

None of the Preferred Units were initially convertible into common units. However, once an investor had fulfilled its obligations to purchase all of the Series B preferred units it is required to purchase pursuant to the Series B Agreement, including at the Series B milestone closing, then all preferred units, including any Series A

XILIO THERAPEUTICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

11. Member Units (Continued)

Preferred Units (Continued)

or Series A-1 preferred units owned by such investor, would be convertible, at the option of the investor, into common units at a one-for-one ratio, subject to adjustment for certain dilutive issuances of additional units. All preferred units would have automatically converted into common units upon an initial public offering pursuant to which the public offering price is equal to one and a half (1.5) times the Series B preferred unit original issuance price, as adjusted, with gross proceeds to the Company of at least $50 million.

If an investor failed to purchase the Series B preferred units it was required to purchase pursuant to the Series B Agreement (each, a "defaulting purchaser"), then each preferred unit held by such defaulting purchaser (and by any of such defaulting purchaser's affiliates or any predecessor, transferor or assignor, successor, transferee or assign of such defaulting purchaser or such defaulting purchaser's affiliates) would have automatically converted as follows: each 10 Series B preferred units would have converted into one common unit, each Series A preferred unit would have converted into one Series A-2(A) preferred unit and each Series A-1 preferred unit would have converted into one Series A-2(A-1) preferred unit.

Prior to the Reorganization, no such default had taken place and accordingly, the Company had not authorized, created, or issued any Series A-2 preferred units.

Voting

Holders of Preferred Units voted together with the holders of common units as a single class. Any action to be taken by the members required the approval of members holding a majority of the outstanding Preferred Units and common units, voting together as a single class on an as-converted basis, unless a different threshold was specifically required by the Delaware Limited Liability Act, applicable law, or the LLC Agreement.

Dividends

If any dividends were declared by the board of directors on the Preferred Units, such dividends were to be at an annual rate of $0.060 per Series A preferred unit, $0.069 per Series A-1 preferred unit and $0.0759 per Series B preferred unit, subject in each case to appropriate adjustment in the event of any dividend, split, combination or other similar recapitalization with respect to the applicable preferred units, and were to be non-cumulative. Since inception, the Company's board of directors has not declared any dividends.

12. Reorganization

In connection with the Reorganization:

- Holders of Xilio Therapeutics LLC outstanding Series A preferred units received one share of Xilio Therapeutics, Inc. Series A convertible preferred stock for each Series A preferred unit held immediately prior to the Reorganization, with an aggregate of 7,500,000 shares of Xilio Therapeutics, Inc. Series A convertible preferred stock issued in the Reorganization;
- Holders of Xilio Therapeutics LLC outstanding Series A-1 preferred units received one share of Xilio Therapeutics, Inc. Series A-1 convertible preferred stock for each Series A-1 preferred unit held immediately prior to the Reorganization, with an aggregate of 19,565,216 shares of Xilio Therapeutics, Inc. Series A-1 convertible preferred stock issued in the Reorganization;
- Holders of Xilio Therapeutics LLC outstanding Series B preferred units received one share of Xilio Therapeutics, Inc. Series B convertible preferred stock for each Series B preferred unit held immediately prior to the Reorganization, with an aggregate of 39,723,312 shares of Xilio Therapeutics, Inc. Series B convertible preferred stock issued in the Reorganization;

12. Reorganization (Continued)

- Holders of Xilio Therapeutics LLC outstanding common units received one share of Xilio Therapeutics, Inc. common stock for each outstanding common unit held immediately prior to the Reorganization, with an aggregate of 3,888,443 shares of common stock issued in the Reorganization;
- Holders of Xilio Therapeutics LLC outstanding incentive units received shares of Xilio Therapeutics, Inc. restricted common stock in an amount equal in value of such incentive units as determined by the applicable provisions of the Xilio Therapeutics LLC Agreement in effect immediately prior to the Reorganization, with an aggregate of 5,249,596 shares of common stock and restricted stock issued in the Reorganization. The restricted common stock awards in Xilio Therapeutics, Inc. were issued with the same vesting terms as the incentive units held immediately prior to the Reorganization; and
- The outstanding warrant to purchase 25,000 Series A preferred units of Xilio Therapeutics LLC at $1.00 per unit was converted to a warrant to purchase 25,000 shares of Xilio Therapeutics, Inc. Series A convertible preferred stock at the same purchase price.

In evaluating the Reorganization, the Company considered that (i) with the exception of holders of incentive units, there were no changes in ownership interest held by each stockholder as a result of the Reorganization, (ii) the changes in the overall ownership interest of the Company resulting from the changes in ownership interest related to the holders of incentive units as a result of the Reorganization is not significant and (iii) the Reorganization occurred between a parent and wholly owned subsidiary, where the parent, Xilio Therapeutics LLC, had no substantive operations. Based on this evaluation, the Company determined that the Reorganization lacked economic substance and should be accounted for in a manner consistent with a common control transaction. Similarly, there was no significant change in fair value between the stockholders, individually or as a class, and the Company determined that the exchange of shares occurring in the Reorganization should be accounted for as a modification of equity securities.

13. Convertible Preferred Stock and Common Stock

As of December 31, 2020, the Company had authorized 126,000,000 shares of common stock and 133,602,056 shares of convertible preferred stock, which consisted of the following: 7,525,000 shares of Series A convertible preferred stock, 19,565,216 shares of Series A-1 convertible preferred stock, 7,500,000 shares of Series A-2(A) convertible preferred stock, 19,565,216 shares of Series A-2(A-1) convertible preferred stock, and 79,446,624 shares of Series B convertible preferred stock (collectively, the "Convertible Preferred Stock").

Convertible Preferred Stock

As of December 31, 2020, Convertible Preferred Stock consisted of the following (in thousands, except share amounts):

	Year Ended December 31, 2020				
	Preferred Shares Authorized	Preferred Shares Issued and Outstanding	Carrying Value	Liquidation Preference	Common Shares Issuable Upon Conversion
Series A convertible preferred stock	7,525,000	7,500,000	$ 7,309	$ 7,500	7,500,000
Series A-1 convertible preferred stock	19,565,216	19,565,216	20,740	22,500	19,565,216
Series A-2(A) convertible preferred stock	7,500,000	—	—	—	—
Series A-2(A-1) convertible preferred stock	19,565,216	—	—	—	—
Series B convertible preferred stock	79,446,624	39,723,312	49,953	50,250	39,723,312
	133,602,056	66,788,528	$ 78,002	$ 80,250	66,788,528

XILIO THERAPEUTICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

13. Convertible Preferred Stock and Common Stock (Continued)

Convertible Preferred Stock (Continued)

The terms of the Convertible Preferred Stock as of December 31, 2020 are as follows:

Liquidation

In the event of any liquidation, dissolution or winding up of affairs of the Company (including a change of control), distributions would have first been made to holders of the Series B convertible preferred stock until, on a share by share basis, each share of Series B convertible preferred stock has been distributed its original issuance price ($1.265) plus any declared but unpaid dividends. After distribution to the Series B convertible preferred stock holders, the holders of Series A, Series A-1, Series A-2(A) and Series A-2(A-1) convertible preferred stock would receive a distribution until, on a share by share basis, each share of Series A, Series A-1, Series A-2(A) and Series A-2(A-1) convertible preferred stock has been distributed an amount equal to the Series A, Series A-1, Series A-2(A) and Series A-2(A-1) convertible preferred stock original issuance price plus any declared but unpaid dividends. The Series A, Series A-1, Series A-2(A) and Series A-2(A-1) convertible preferred stock issuance price is $1.00, $1.15, $1.00, and $1.15 per stock, respectively. After distribution to the Series A, Series A-1, Series A-2(A) and Series A-2(A-1) holders, the holders of all securities as if all such securities had been converted to common stock, receive a distribution until, on a share by share basis, each share of Convertible Preferred Stock holder has been distributed an amount equal to two and one-half times the sum of its respective original issuance price and declared but unpaid dividends after which the holders of common stock receive a distribution until, on a common stock by common stock basis, each share of common stock has been distributed a catch-up amount such that the aggregate distributions made to the common stock are the same as the average aggregate distributions made to the Convertible Preferred Stock. Any remaining amounts are distributed to the holders of the common stock and Convertible Preferred Stock in proportion to the number of shares of stock held by each (on an as-converted basis).

Conversion

Shares of Convertible Preferred Stock may be converted by the holder at any time into a number of shares of common stock equal to such number of shares as determined by dividing the original issue price by the conversion price in effect at the time. The conversion price is equal to the original issue price for each series of Convertible Preferred Stock as of December 31, 2020. The conversion price is subject to adjustments in the event of any stock dividend, stock split, combination or other similar recapitalization and other adjustments as set forth in the Company's certificate of incorporation. Upon the closing of a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, in which the aggregate gross proceeds to the Company are at least $50 million, all outstanding Convertible Preferred Stock will be automatically converted into a number of shares of common stock at the then applicable conversion rate.

If a defaulting purchaser fails to purchase the Series B convertible preferred stock it is required to purchase pursuant to the Series B Agreement, then each share of Convertible Preferred Stock held by such defaulting purchaser (and by any of such defaulting purchaser's affiliates or any predecessor, transferor or assignor, successor, transferee or assign of such defaulting purchaser or such defaulting purchaser's affiliates) will automatically convert as follows: each 10 shares of Series B convertible preferred stock will convert into one share of common stock, each share of Series A convertible preferred stock will convert into one share of Series A-2(A) convertible preferred stock and each share of Series A-1 convertible preferred stock will convert into one share of Series A-2(A-1) convertible preferred stock.

Voting

Holders of Convertible Preferred Stock vote together with the holders of common stock as a single class. Any action to be taken by the stockholders requires the approval of stockholders holding a majority of the

13. Convertible Preferred Stock and Common Stock (Continued)

Convertible Preferred Stock (Continued)

outstanding shares of Convertible Preferred Stock and common stock, voting together as a single class on an as-converted basis, unless a different threshold is specifically required by law or by the Company's certificate of incorporation.

Dividends

If any dividends are declared by the board of directors on the Convertible Preferred Stock, such dividends shall be at an annual rate of $0.060 per share of Series A convertible preferred stock, $0.069 per share of Series A-1 convertible preferred stock and $0.0759 per share of Series B convertible preferred stock, subject in each case to appropriate adjustment in the event of any dividend, split, combination or other similar recapitalization with respect to the applicable series of Convertible Preferred Stock, and shall be non-cumulative. Holders of Series A-2(A) and A-2(A-1) convertible preferred stock are not entitled to receive any dividends. Since inception, the Company has not declared any dividends.

Common Stock

The voting, dividend, and liquidation rights of the holders of common stock are subject to and qualified by the rights, powers, and preferences of the holders of Convertible Preferred Stock.

The common stock has the following characteristics:

Voting

The holders of shares of common stock are entitled to one vote for each share of common stock held at any meeting of stockholders and at the time of any written action in lieu of a meeting of stockholders.

Dividends

The holders of shares of common stock are entitled to receive dividends, if and when declared by the Company's board of directors. Cash dividends may not be declared or paid to holders of shares of common stock until all unpaid dividends on Convertible Preferred Stock have been paid in accordance with their terms. No dividends have been declared by the Company's board of directors or paid by the Company to the holders of common stock since the issuance of the common stock.

Shares Reserved for Future Issuance

As of December 31, 2020, the Company had reserved shares of common stock for the conversion of outstanding Convertible Preferred Stock and for future issuance under the 2020 Stock Incentive Plan (as amended, the "2020 Plan") as follows:

Shares of common stock reserved for conversion of convertible preferred stock outstanding	66,788,528
Shares of common stock reserved for conversion of convertible preferred shares issuable upon exercise of a warrant	25,000
Shares of common stock reserved for exercise of outstanding stock options under the 2020 Plan	7,698,665
Shares of common stock reserved for future awards under the 2020 Plan	1,441,498
Total common stock reserved	75,953,691

14. Equity-Based Compensation

Incentive Units

Prior to the Reorganization, the Company periodically granted incentive units to employees, directors and non-employees. The incentive units represented a separate substantive class of equity with defined rights within the LLC Agreement then in effect. The incentive units represented profits interests in the Company, which was an interest in the increase in the value of the Company over the strike price, or threshold dollar amount, determined at the time of grant. The holder, therefore, had the right to participate in distributions of profits only in excess of the threshold dollar amount. The threshold dollar amount is based on the valuation of the Company's common units on or around the grant date. The Company determined that incentive units issued to employees, directors and non-employees were analogous to share-based payments and, as such, the Company measured and recognized the related compensation expense in a manner consistent with its accounting policy for its other equity-based awards. Pursuant to the LLC Agreement, the board of directors established a threshold dollar amount with respect to each incentive unit grant equal to the value of each common unit, determined by the amount of distributions that the holder of such a common unit would be entitled to receive in a hypothetical liquidation of the Company on the date of issuance of such incentive unit. Incentive unit grants generally vested over a four-year period. Certain grants vested upon the achievement of specific performance based milestones. If there was a liquidation or sale of the Company or one of the Company's subsidiaries, a fair market value analysis would have been performed to determine the value of the common unit. If the value of the common unit is determined to have been greater than the threshold set upon the date of grant, then the holder of the common incentive unit would have been entitled to receive proceeds from such liquidation or sale. Unvested incentive units were automatically cancelled and forfeited without any consideration upon termination of the participant's continuous service to the Company.

At December 31, 2018, 3,570,000 incentive units were authorized to be granted. In June 2019, the Company amended and restated its LLC Agreement and increased the total number of incentive units authorized for issuance to 5,830,000 incentive units. In December 2019 the Company amended its LLC Agreement to increase the authorized number of incentive units available for issuance to 14,669,430. As of December 31, 2019, the Company had issued 5,564,885 incentive units, of which 5,431,263 units were outstanding.

A summary of the Company's incentive unit activity is as follows:

	Number of units	Weighted-average threshold price per unit	Weighted-average fair value per unit
Outstanding at December 31, 2019	5,431,263	$ 0.10	$ 0.11
Granted	4,864,906	0.15	0.38
Forfeited	(28,021)	0.09	0.06
Exchanged for restricted common stock pursuant to the Reorganization	(10,268,148)	0.12	0.24
Outstanding at December 31, 2020	—		

The weighted average grant date fair value for incentive units granted in 2019 and 2020 was $0.15 and $0.38 per unit, respectively.

A summary of vested incentive units is as follows:

	Number of units
Vested at December 31, 2019	1,783,848
Vested through the date of the Reorganization	1,121,938
Vested as of the Reorganization	2,905,786

XILIO THERAPEUTICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

14. Equity-Based Compensation (Continued)

Incentive Units (Continued)

The Company recorded equity-based compensation expense for incentive units granted to employees, directors and non-employees of approximately $112,000 and $247,000 for the years ended December 31, 2019 and 2020, respectively.

The fair value of the incentive units issued was determined using a Black-Scholes option pricing model with the following assumptions (weighted-average):

	Year Ended December 31, 2019	Year Ended December 31, 2020
Grant date price per common unit	$ 0.21	$ 0.47
Threshold price per incentive unit	$ 0.11	$ 0.15
Risk-free interest rate	1.95%	0.74%
Expected dividend yield	0.00%	0.00%
Expected term (years)	6.0	6.0
Expected volatility	68.35%	69.30%

Reorganization

Pursuant to the Reorganization, outstanding vested and unvested incentive units of Xilio Therapeutics LLC were converted into restricted stock awards in Xilio Therapeutics, Inc. based upon a determined conversion ratio. The restricted common stock awards in Xilio Therapeutics, Inc. were issued with the same vesting terms as the vested and unvested incentive units held immediately prior to the Reorganization. An aggregate of 5,249,596 shares of restricted common stock were issued to holders of incentive units in connection with the Reorganization.

The following table summarizes the restricted common stock issued as part of the Reorganization:

	Number of Shares	Weighted Average Fair Value per Share at Issuance
Restricted common stock issued as part of the Reorganization	5,249,596	$ 0.58
Vested as of and after the Reorganization	(2,391,768)	0.58
Forfeited	(160,070)	0.58
Restricted common stock as of December 31, 2020	2,697,758	0.58

The Company accounted for the exchange of incentive units in Xilio Therapeutics LLC for restricted common stock of Xilio Therapeutics, Inc. as a modification in accordance with the requirements of ASC Topic 718. Accordingly, the Company determined the fair value of the replacement awards was less than the fair value of the incentive units exchanged in connection with the Reorganization and therefore no incremental compensation expense will be recognized related to the modification. As the vesting and service period of the replacement awards did not change from the originally issued incentive awards, the Company will continue to recognize the grant date fair value of the incentive units as compensation expense over the remaining vesting period.

The Company recorded equity-based compensation expense for restricted stock granted to employees, directors and non-employees of $0.3 million for the year ended December 31, 2020. There were no comparable amounts recognized for the year ended December 31, 2019. As of December 31, 2020, the Company had unrecognized equity-based compensation expense of $1.6 million related to restricted common stock issued to employees, which is expected to be recognized over 2.62 years.

14. Equity-Based Compensation (Continued)

Equity Incentive Plans

In July 2020, the Company's stockholders approved the 2020 Plan. Under the 2020 Plan, the Company may issue up to 9,414,707 shares of common stock to the Company's employees, officers, directors, consultants, and advisors in the form of options, restricted stock awards or other stock-based awards. The 2020 Plan is administered by the board of directors, which has the power to determine the terms of the awards agreements, including the vesting requirements, provided that generally the exercise price per share of stock options granted may not be less than 100% of the fair market value of a share of the Company's common stock on the date of grant, and the term of stock options granted may not exceed ten years. Vesting of stock options and restricted stock is subject to the recipient's continued employment or service. The Company has the right to repurchase any unvested shares of restricted stock held by a recipient during the vesting period if the relationship between the recipient and the Company has terminated. For any awards under the 2020 Plan that expire or are terminated, surrendered, or canceled without having been fully exercised, if forfeited in whole or in part (including as the result of shares of common stock subject to such award being repurchased by the Company), the unused common stock subject to such award shall again be available for the grant of awards under the 2020 Plan. Shares of common stock that are tendered to the Company by a participant to exercise an award are added to the number of shares of common stock available for future awards. Shares of common stock may be withheld to satisfy applicable federal, state or local employment tax withholding obligations related to equity awards. Upon stock option exercise, the Company issues new shares and delivers them to the participant.

As of December 31, 2020, the Company had issued service-based and performance-based stock options under the 2020 Plan. Stock options issued comprise awards granted to employees, non-employees, and directors.

Stock Options

A summary of stock option activity under the 2020 Plan is as follows:

	Number of Stock Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (In years)	Aggregate Intrinsic Value (In thousands)
Outstanding as of December 31, 2019	—	—	—	$ —
Granted	8,149,735	$ 0.58		
Exercised	(274,544)	0.58		
Cancelled/forfeited	(176,526)	0.58		
Outstanding as of December 31, 2020	7,698,665	0.58	9.52	$ —
Exercisable as of December 31, 2020	1,342,671	0.58	9.32	$ —
Vested and expected to vest as of December 31, 2020	7,698,665	0.58	9.52	$ —

The weighted average grant-date fair value per share of stock options granted to employees and directors for stock option awards with service-based vesting conditions, directors with performance-based vesting and to non-employees with service-based vesting conditions during the year ended December 31, 2020 was $0.38 per share. The performance conditions underlying the performance-based awards are not probable of achievement as of December 31, 2020. Therefore, no compensation expense has been recorded for these awards. At December 31, 2020, total unrecognized compensation expense related to performance-based awards was $0.2 million. The aggregate intrinsic value of stock options is calculated as the difference between the exercise

14. Equity-Based Compensation (Continued)

Stock Options (Continued)

price of the stock options and the fair value of the Company's common stock for those stock options that had exercise prices lower than the fair value of the Company's common stock.

The following assumptions were used to determine the fair value of the stock options granted to employees and directors during the year ended December 31, 2020:

Risk-free interest rate	0.16 – 0.36%
Expected dividend yield	0%
Expected term (in years)	2.25 – 6.08
Expected volatility	78.84 – 96.73%

The Company recorded equity-based compensation expense for stock options granted to employees, directors and non-employees of $0.7 million for the year ended December 31, 2020, with no comparable amount in the year ended December 31, 2019.

As of December 31, 2020, the Company had unrecognized equity-based compensation expense of $2.1 million related to stock options issued to employees and directors, excluding performance-based awards for which vesting is not considered probable, which is expected to be recognized over a weighted average period of 3.02 years.

Total Equity-Based Compensation Expense

During the years ended December 31, 2019 and 2020, the Company recorded compensation expense related to incentive units, stock options and restricted common stock for employees and non-employees, which was allocated as follows in the consolidated statements of operations and comprehensive loss (in thousands):

	Year Ended December 31,	
	2019	2020
Research and development expense	$ 42	$ 332
General and administrative expense	70	964
Total compensation expense	$ 112	$ 1,296

15. Net Loss Per Share

The following table sets forth the outstanding common unit equivalents and common stock equivalents, presented based on amounts outstanding at each period end, that were excluded from the calculation of diluted net loss per unit or per share for the periods indicated because including them would have been anti-dilutive.

	Year Ended December 31, 2019	Year Ended December 31, 2020
Preferred units	58,883,390	—
Convertible preferred stock	—	66,788,528
Outstanding incentive units	5,431,263	—
Unvested restricted common stock	—	2,697,758
Outstanding stock options	—	7,698,665
Warrants	25,000	25,000
Total common stock equivalents	64,339,653	77,209,951

16. Income Taxes

The Company has not recorded a current or deferred tax provision for the years ended December 31, 2019 and 2020. The effective income tax rate differed from the amount computed by applying the federal statutory rate to the Company's loss before income taxes as follows:

	For Year Ended December 31,	
	2019	2020
Tax effected at statutory rate	21.0%	21.0%
State taxes	8.0	6.9
Stock compensation	(0.1)	(0.4)
Non-deductible expenses	2.1	—
Federal research and development credits	3.0	1.7
Change in valuation allowance	(34.0)	(29.2)
	0.0%	0.0%

Deferred tax assets consist of the following at December 31, 2019 and 2020 (in thousands):

	For Year Ended December 31,	
	2019	2020
Long-term net deferred tax assets:		
Net operating loss carryforwards	$ 7,758	$ 20,776
Research and development credit carryforwards	789	2,101
Lease liability	2,465	3,134
Reserve and accruals	307	765
Intangible assets	—	1,912
Stock-based compensation	—	105
Total long-term net deferred tax assets:	11,319	28,793
Valuation allowance	(8,625)	(25,064)
Subtotal	2,694	3,729
Fixed assets	(806)	(1,944)
Right of use asset	(1,794)	(1,724)
Debt discount	(94)	(61)
Total net deferred tax assets	$ —	$ —

Deferred tax assets are reduced by a valuation allowance if, based on the weight of available positive and negative evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. For the years ended December 31, 2019 and 2020, the valuation allowance for deferred tax assets increased by $5.9 million and $16.4 million, respectively. This increase mainly relates to the establishment of valuation allowance against additional net operating loss and research credit carryovers generated in the current year.

As of December 31, 2020, the Company had $78.0 million and $69.6 million of federal and state operating loss carryforwards respectively. Of the federal net operating loss carryovers, $4.8 million begin to expire in 2035. The remainder of the net operating losses are not subject to expiration. The state net operating losses begin to expire in 2035. In addition, as of December 31, 2020, the Company had $1.5 million and $0.8 million of federal and state credit carryovers which begin to expire in 2037. These loss and credit carryforwards are subject to review and possible adjustment by the appropriate taxing authorities.

16. Income Taxes (Continued)

Utilization of the Company's net operating loss ("NOL") carryforwards and research and development credit carryforwards may be subject to a substantial annual limitation due to ownership change limitations that have occurred previously or that could occur in the future in accordance with Section 382 of the Internal Revenue Code of 1986, as amended ("Section 382") as well as similar state provisions. These ownership changes may limit the amount of NOL and research and development credit carryforwards that can be utilized annually to offset future taxable income and taxes, respectively. In general, an ownership change as defined by Section 382 results from transactions increasing the ownership of certain stockholders or public groups in the stock of a corporation by more than 50% over a three-year period. Since its formation, the Company has raised capital through the issuance of capital stock on several occasions. These financings could result in a change of control as defined by Section 382. The Company has not yet completed a detailed study of its inception to date ownership change activity.

The Company follows the provisions of ASC 740-10, "*Accounting for Uncertainty in Income Taxes*," which specifies how tax benefits for uncertain tax positions are to be recognized, measured, and recorded in financial statements; requires certain disclosures of uncertain tax matters; specifies how reserves for uncertain tax positions should be classified on the balance sheet; and provides transition and interim period guidance, among other provisions. As of December 31, 2019 and 2020, the Company has not recorded any amounts for uncertain tax positions. The Company's policy is to recognize interest and penalties accrued on any uncertain tax positions as a component of income tax expense, if any, in its statements of income. For the years ended December 31, 2019 and 2020, no estimated interest or penalties were recognized on uncertain tax positions. The Company has not yet conducted a study of its research and development credit carry forwards. Such a study may result in an adjustment to the Company's research and development credit carryforwards; however, until a study is completed and any adjustment is known, no amount is being presented as an uncertain tax position. A full valuation allowance has been provided against the Company's research and development credits, and, if an adjustment is required, this adjustment would be offset by an adjustment to the valuation allowance. Thus, there would be no impact to the balance sheet or statement of operations and comprehensive loss if an adjustment were required.

17. Employee Benefit Plan

In 2018, the Company established a defined contribution savings plan under Section 401(k) of the Internal Revenue Code, as amended, the Xilio Therapeutics, Inc. 401(k) Plan (the "401(k) Plan"). The 401(k) Plan covers substantially all employees who meet minimum age and service requirements and allows participants to defer a portion of their annual compensation on a pre-tax basis. The Company is not required to make and has not made any contributions to the 401(k) Plan through December 31, 2020.

18. Subsequent Events

The Company considers events and transactions that occur after the balance sheet date but prior to the issuance of the consolidated financial statements for potential recognition or disclosure in the consolidated financial statements. Subsequent events have been evaluated through May 24, 2021, the date these consolidated financial statements were issued, for potential recognition or disclosure in the consolidated financial statements.

(a) Amendment to 2020 Stock Incentive Plan

On January 27, 2021, the Company amended its 2020 Plan to increase the number of shares of common stock issuable under the 2020 Plan from 9,414,707 to 21,414,707, plus up to 3,459,146 of additional shares of common stock equal to the number of shares of unvested restricted stock issued in exchange for incentive units as part of the Reorganization, to the extent such shares have been or will be forfeited. On February 22, 2021 the Company further amended its 2020 Plan to increase the number of common stock issuable under the 2020 Plan from 21,414,707 to 28,464,707, plus up to 3,459,146 of additional shares of common stock equal to the

18. Subsequent Events (Continued)

(a) Amendment to 2020 Stock Incentive Plan (Continued)

number of shares of unvested restricted stock issued in exchange for incentive units as part of the Reorganization, to the extent such shares have been or will be forfeited.

(b) Series B Convertible Preferred Stock

On January 20, 2021, the Company issued and sold 39,723,312 shares of Series B convertible preferred stock to existing Series B holders at $1.265 per share for cash proceeds of $50.2 million, net of issuance costs.

(c) Amendment to Certificate of Incorporation

On January 27, 2021, the Company amended its certificate of incorporation to increase the authorized number of shares of common stock from 126,000,000 shares to 138,000,000 shares.

(d) Amended and Restated Certificate of Incorporation

On February 22, 2021, the Company amended and restated its certificate of incorporation to increase the authorized number of shares of common stock to 213,000,000 shares and to increase the authorized number of shares of Convertible Preferred Stock to 174,808,481 shares, of which 7,525,000 shares are designated as Series A convertible preferred stock, 19,565,216 shares are designated as Series A-1 convertible preferred stock, 79,446,624 shares are designated as Series B convertible preferred stock, and 68,271,641 shares are designated as Series C convertible preferred stock.

(e) Series C Convertible Preferred Stock

On February 23, 2021, the Company entered into a preferred stock purchase agreement with existing and new investors whereby the Company issued and sold 68,271,641 shares of Series C convertible preferred stock to investors at $1.3915 per share for cash proceeds of $94.7 million, net of issuance costs.

XILIO THERAPEUTICS, INC.

CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)
(In thousands, except share and per share data)

	December 31, 2020	March 31, 2021
ASSETS		
Current assets		
Cash and cash equivalents	$ 19,238	$ 141,222
Prepaid expenses	1,308	1,170
Other current assets	44	230
Total current assets	20,590	142,622
Restricted cash	1,551	1,553
Property and equipment, net	7,367	7,468
Operating lease right-of-use asset	6,309	6,231
Other non-current assets	500	470
Total assets	$ 36,317	$ 158,344
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current liabilities		
Accounts payable	$ 5,444	$ 2,608
Accrued expenses	13,732	9,552
Operating lease liability, current portion	564	719
Notes payable, current portion	2,333	3,333
Other current liabilities	82	82
Total current liabilities	22,155	16,294
Notes payable, net of current portion	7,412	6,448
Operating lease liability, net of current portion	10,908	10,723
Other liabilities, long-term	1,127	1,126
Total liabilities	41,602	34,591
Commitments and contingencies (Note 6)		
Convertible preferred stock (Series A, A-1, A-2(A), A-2(A-1), B and C), $0.0001 par value, 133,602,056 shares authorized and 66,788,528 shares issued and outstanding at December 31, 2020; 174,808,481 shares authorized and 174,783,481 shares issued and outstanding at March 31, 2021; aggregate liquidation preference of $80,250 and $225,500 at December 31, 2020 and March 31, 2021, respectively	78,002	222,888
Stockholders' deficit		
Common stock, $0.0001 par value; 126,000,000 shares authorized, 9,252,513 shares issued and 6,554,755 shares outstanding at December 31, 2020; 213,000,000 shares authorized, 9,253,440 shares issued and 6,863,248 shares outstanding at March 31, 2021	1	1
Additional paid-in capital	1,798	2,617
Accumulated deficit	(85,086)	(101,753)
Total stockholders' deficit	(83,287)	(99,135)
Total liabilities, convertible preferred stock and stockholders' deficit	$ 36,317	$ 158,344

The accompanying notes are an integral part of these condensed consolidated financial statements.

XILIO THERAPEUTICS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(Unaudited)
(In thousands, except unit and share and per unit and per share data)

	Three Months Ended March 31,	
	2020	2021
Operating expenses		
Research and development	$ 5,636	$ 11,621
General and administrative	2,262	4,899
Total operating expenses	7,898	16,520
Loss from operations	(7,898)	(16,520)
Other income (expense), net		
Other expense, net	(220)	(147)
Total other income (expense), net	(220)	(147)
Net loss and comprehensive loss	$ (8,118)	$ (16,667)
Net loss per unit, basic and diluted	$ (2.09)	
Net loss per share, basic and diluted		$ (2.48)
Weighted average common units outstanding, basic and diluted	3,888,443	
Weighted average common shares outstanding, basic and diluted		6,728,945

The accompanying notes are an integral part of these condensed consolidated financial statements.

XILIO THERAPEUTICS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF PREFERRED UNITS AND CONVERTIBLE PREFERRED STOCK AND MEMBERS' AND STOCKHOLDERS' DEFICIT

(Unaudited)

(In thousands, except unit and share data)

	Series A Preferred Units		Series A-1 Preferred Units		Series B Preferred Units		Series A Convertible Preferred Stock		Series A-1 Convertible Preferred Stock		Series B Convertible Preferred Stock		Series C Convertible Preferred Stock		Common Units		Common Stock		Additional Paid-In Capital	Accumulated Deficit	Total Members' and Stockholders' Deficit
	Units	Amount	Units	Amount	Units	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Shares	Amount	Units	Amount	Shares	Amount			
Balance at December 31, 2019	7,500,000	$ 7,309	19,565,216	$20,740	31,818,174	$39,984	—	$ —	—	$ —	—	$ —	—	$ —	3,888,443	$ —	—	$ —	$ 344	$ (29,867)	$ (29,523)
Issuance of Series B preferred units, net of issuance costs of $31	—	—	—	—	7,905,138	9,969	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—			96	—	96
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(8,118)	(8,118)
Balance at March 31, 2020	7,500,000	$ 7,309	19,565,216	$20,740	39,723,312	$49,953	—	$ —	—	$ —	—	$ —	—	$ —	3,888,443	$ —	—	$ —	$ 440	$ (37,985)	$ (37,545)
													—								
Balance at December 31, 2020	—	—	—	—	—	—	7,500,000	$ 7,309	19,565,216	$20,740	39,723,312	$ 49,953	—	$ —	—	—	6,554,755	$ 1	$ 1,798	$ (85,086)	$ (83,287)
Issuance of Series B convertible preferred stock, net of issuance costs of $50	—	—	—	—	—	—	—	—	—	—	39,723,312	50,200	—	—	—	—	—	—	—	—	—
Issuance of Series C convertible preferred stock, net of issuance costs of $314	—	—	—	—	—	—	—	—	—	—	—	—	68,271,641	94,686	—	—	—	—	—	—	—
Vesting of restricted common stock	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	265,986	—	—	—	—
Exercise of stock options	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	42,507	—	25	—	25
Stock-based compensation expense	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	794	—	794
Net loss	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	(16,667)	(16,667)
Balance at March 31, 2021	—	$ —	—	$ —	—	$ —	7,500,000	$ 7,309	19,565,216	$20,740	79,446,624	$100,153	68,271,641	$94,686	—	$ —	6,863,248	$ 1	$ 2,617	$ (101,753)	$ (99,135)

The accompanying notes are an integral part of these condensed consolidated financial statements.

XILIO THERAPEUTICS, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)
(In thousands)

	Three Months Ended March 31, 2020	Three Months Ended March 31, 2021
Cash flows from operating activities:		
Net loss	$ (8,118)	$ (16,667)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	131	350
Non-cash interest expense	(70)	38
Stock-based compensation expense	96	794
Change in fair value of warrant and derivative liabilities	138	15
Changes in operating assets and liabilities:		
Prepaid and other assets	2,220	153
Operating lease right-of-use asset	84	78
Accounts payable	(200)	(2,838)
Accrued expenses and other liabilities	589	(4,627)
Operating lease liability	223	(30)
Net cash used in operating activities	(4,907)	(22,734)
Cash flows from investing activities:		
Purchases of property and equipment	(790)	(170)
Net cash used in investing activities	(790)	(170)
Cash flows from financing activities:		
Payments of finance lease	—	(21)
Proceeds from issuance of shares of Series B preferred units, net of issuance costs	9,969	
Proceeds from issuance of shares of Series B convertible preferred stock, net of issuance costs	—	50,200
Proceeds from issuance of Series C convertible preferred stock, net of issuance costs	—	94,686
Proceeds from exercise of stock options	—	25
Net cash provided by financing activities	9,969	144,890
Increase in cash, cash equivalents & restricted cash	4,272	121,986
Cash, cash equivalents and restricted cash, beginning of period	49,039	20,789
Cash, cash equivalents and restricted cash, end of period	$ 53,311	$ 142,775
Supplemental cash flow disclosure:		
Cash paid for interest	$ 154	$ 125
Supplemental disclosure of non-cash activities:		
Right-of-use assets obtained in exchange for operating lease liabilities	$ 39	$ —
Tenant improvements funded by landlord	$ 2,156	$ —
Tenant improvement reimbursement due from landlord	$ 329	$ —
Capital expenditures included in accounts payable	$ 769	$ 249
Deferred offering costs included in accrued expenses	$ —	$ 201

The accompanying notes are an integral part of these condensed consolidated financial statements.

XILIO THERAPEUTICS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(unaudited)

1. Description of Business, Organization and Liquidity

Description of Business

Xilio Therapeutics, Inc., incorporated in Delaware in June 2020, is a biotechnology company focused on harnessing the immune system to achieve deep and durable clinical responses to improve the lives of patients with cancer.

For purposes of these consolidated financial statements, the "Company" refers to Xilio Therapeutics LLC (formerly Akriveia Therapeutics Inc., Akriveia Therapeutics LLC and Akrevia Therapeutics LLC) prior to the reorganization described below, and Xilio Therapeutics, Inc. after such reorganization. The Company's headquarters are based in Waltham, Massachusetts.

Organization

Akriveia Therapeutics Inc. was incorporated in Delaware in June 2015. In May 2016, Akriveia Therapeutics Inc. completed its first tax free reorganization and the parent entity became Akriveia Therapeutics LLC. Akriveia Therapeutics LLC subsequently changed its name to Akrevia Therapeutics LLC in May 2018 and then to Xilio Therapeutics LLC in February 2020. In June 2020, the Company completed a series of transactions pursuant to which Xilio Therapeutics LLC became a direct, wholly owned subsidiary of Xilio Therapeutics, Inc., and all of the outstanding membership interests of Xilio Therapeutics LLC were exchanged for equity securities of Xilio Therapeutics, Inc. and Xilio Therapeutics, Inc. became the parent entity (the "Reorganization"). The purpose of the transaction was to reorganize the corporate structure so that existing investors would own capital stock in a corporation rather than equity interests in a limited liability company.

Upon consummation of the Reorganization, the historical consolidated financial statements of Xilio Therapeutics LLC became the historical consolidated financial statements of Xilio Therapeutics, Inc.

Liquidity

Since inception, the Company has devoted substantially all of its financial resources and efforts to research and development activities.

The Company is subject to risks and uncertainties common to early-stage companies in the biotechnology industry, including but not limited to, risks associated with completing research programs and conducting additional research programs, advancing the Company's current and future product candidates into preclinical and clinical development, seeking marketing approvals for any product candidates that successfully complete clinical trials, obtaining, expanding, maintaining and defending the Company's intellectual property, and hiring additional clinical, regulatory, and scientific personnel. Programs currently under development will require significant additional research and development efforts, including preclinical and clinical testing and will need to obtain regulatory approval prior to commercialization. These efforts require significant amounts of additional capital, adequate personnel and infrastructure and extensive compliance-reporting capabilities. Even if the Company's product development efforts are successful, it is uncertain when, if ever, the Company will realize revenue from product sales.

The Company has primarily funded its operations with proceeds from private placements of preferred units, which were exchanged for shares of convertible preferred stock, private placements of convertible preferred stock and a debt financing. From inception through March 31, 2021, the Company has raised $234.5 million in aggregate cash proceeds from these transactions, net of issuance costs. The Company has determined that its existing capital resources will be sufficient to meet the projected operating requirements and capital expenditures for at least twelve months from the date of issuance of these condensed consolidated financial statements. The Company expects to continue to generate negative cash flows from operations and net losses for the foreseeable future as it continues to invest significantly in research and development of its product candidates, including preclinical, clinical and manufacturing process development. Management's conclusion

XILIO THERAPEUTICS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

1. Description of Business, Organization and Liquidity (Continued)

Liquidity (Continued)

with respect to its ability to fund operations is based on estimates that are subject to risks and uncertainties that may prove to be incorrect. If actual results differ from management's estimates, the Company may be required to seek additional funding or curtail planned activities to reduce operating expenses, which may have an adverse impact on the Company's ability to achieve its business objectives.

2. Summary of Significant Accounting Policies

Basis of Presentation

These condensed financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP"). Any reference in these notes to applicable guidance is meant to refer to the authoritative GAAP as found in the Accounting Standards Codification ("ASC") and Accounting Standards Updates ("ASUs") of the Financial Accounting Standards Board ("FASB").

In April 2012, the Jumpstart Our Business Startups Act of 2012 (the "JOBS Act") was enacted. Section 107(b) of the JOBS Act provides that an emerging growth company can take advantage of an extended transition period for complying with new or revised accounting standards. Thus, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. The Company has elected not to "opt out" of such extended transition period, which means that when a standard is issued or revised and it has different application dates for public or private companies, the Company can adopt the new or revised standard at the time private companies adopt the new or revised standard and may do so until such time that the Company either (1) irrevocably elects to "opt out" of such extended transition period or (2) no longer qualifies as an emerging growth company. The Company may take advantage of these exemptions up until the last day of the fiscal year following the fifth anniversary of its initial public offering or such earlier time that it is no longer an emerging growth company.

The Company's significant accounting policies are disclosed in the audited consolidated financial statements included elsewhere in this prospectus. Since the date of such audited consolidated financial statements, there have been no changes to the Company's significant accounting policies except as noted below.

Unaudited Interim Condensed Consolidated Financial Information

The accompanying condensed consolidated balance sheet as of March 31, 2021, the condensed consolidated statements of operations and comprehensive loss and statements of cash flows for the three months ended March 31, 2020 and 2021 and the condensed consolidated statements of preferred units and convertible preferred stock and members' and stockholders' deficit for the three months ended March 31, 2020 and 2021 are unaudited. The financial data and other information contained in the notes thereto as of and for the three months ended March 31, 2020 and 2021 are also unaudited. The condensed consolidated balance sheet data as of December 31, 2020 was derived from the Company's audited consolidated financial statements included elsewhere in this prospectus.

The unaudited interim condensed consolidated financial statements have been prepared on the same basis as the audited annual consolidated financial statements, and in the opinion of management, reflect all adjustments, which include only normal recurring adjustments necessary for the fair presentation of the Company's financial position as of March 31, 2021 and the results of its operations and cash flows for the three months ended March 31, 2020 and 2021. These unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements as of and for the year ended December 31, 2020, and the notes thereto, included elsewhere in this prospectus.

XILIO THERAPEUTICS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

2. Summary of Significant Accounting Policies (Continued)

Unaudited Interim Condensed Consolidated Financial Information (Continued)

The results for the three months ended March 31, 2021 are not necessarily indicative of results to be expected for the year ended December 31, 2021, or any other interim periods, or any future year or period.

Use of Estimates

The preparation of financial statements in accordance with GAAP requires management to make estimates and judgments that may affect the reported amounts of assets and liabilities and related disclosures of contingent assets and liabilities at the date of the financial statements and the related reporting of expenses during the reporting period. Management considers many factors in selecting appropriate financial accounting policies and controls, and in developing the estimates and assumptions that are used in the preparation of these condensed consolidated financial statements. Factors that may affect estimates, include expected business and operational changes, sensitivity and volatility associated with the assumptions used in developing estimates, and whether historical trends are expected to be representative of future trends. The estimation process often may yield a range of potentially reasonable estimates of the ultimate future outcomes and management must select an amount that falls within that range of reasonable estimates. Significant estimates of accounting reflected in these condensed consolidated financial statements include, but are not limited to, estimates related to accrued expenses, the fair value of the Company's preferred unit tranche rights, contingent liabilities associated with the consummation of specified transactions, including an initial public offering, the valuation of equity-based compensation, including incentive units, stock options and restricted common stock, and income taxes. Actual results could differ from those estimates.

Cash Equivalents and Restricted Cash

The Company considers all short-term, highly liquid investments with original maturities of 90 days or less at acquisition date to be cash equivalents. Cash equivalents, which consist of money market accounts, are stated at fair value. Restricted cash primarily represents a letter of credit issued to the landlord of the Company's facility lease and is reflected in non-current assets on the accompanying condensed consolidated balance sheets. Cash, cash equivalents and restricted cash consists of the following (in thousands):

	Balance at March 31,	
	2020	2021
Cash and cash equivalents	$ 51,668	$ 141,222
Restricted cash	1,643	1,553
Total cash, cash equivalents and restricted cash as shown on the consolidated statement of cash flows	$ 53,311	$ 142,775

Deferred Offering Costs

The Company capitalizes certain legal, professional, accounting and other third-party fees that are directly associated with in-process equity financings as deferred offering costs until the related financings are consummated. After consummation of the equity financing, such costs are reclassified as a reduction to additional paid-in capital generated as a result of the relating financing. Should an in-process equity financing be abandoned, the deferred offering costs will be expensed immediately as a charge to operating expenses in the condensed consolidated statements of operations and comprehensive loss. Deferred offering costs are presented as a component of other assets on the condensed consolidated balance sheets. As of March 31, 2021, the Company capitalized $0.2 million of deferred offering costs related to the Company's initial public offering. There were no deferred offering costs as of December 31, 2020.

XILIO THERAPEUTICS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(unaudited)

2. Summary of Significant Accounting Policies (Continued)

Deferred Offering Costs (Continued)

Comprehensive Loss

Comprehensive loss is the change in equity of a business enterprise during a period from transactions and other events and circumstances from non-owner sources. Comprehensive loss includes net loss and the change in accumulated other comprehensive loss for the period. The Company did not have any items of comprehensive loss other than net loss for the three months ended March 31, 2020 and 2021.

Equity-Based Compensation

The Company utilizes significant estimates and assumptions in determining the fair value of its equity and equity-based awards. Beginning in the three months ended March 31, 2021, the Company determined the fair value of shares of its common stock underlying stock-based awards granted using a hybrid approach. The hybrid approach is a scenario-based analysis and where one or more of the scenarios allocate the equity value utilizing the option-pricing method ("OPM"). When using the hybrid approach, the Company estimates the probability-weighted value across multiple scenarios but used the OPM to estimate the allocation of value within at least one of the scenarios. In addition to a scenario using the OPM, the hybrid method also considers an initial public offering scenario in which the shares of convertible preferred stock are assumed to convert to common stock. The future value of the common stock in the initial public offering scenario was discounted back to the valuation date at an appropriate risk adjusted discount rate. In the hybrid method, the present value indicated for each scenario was probability weighted to arrive at an indication of value for the Company's common stock.

Recently Adopted Accounting Pronouncements

The Company did not adopt any new accounting standards during the three month period ended March 31, 2021. The Company continues to evaluate accounting standards that were recently issued but not yet adopted as of March 31, 2021.

3. Fair Value Measurements

The Company measures the following financial liabilities at fair value on a recurring basis. The fair value of these liabilities was determined as follows (in thousands):

	December 31, 2020	Quoted Prices in Active Markets for Material Assets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Financial liabilities:				
Debt derivative liability	$ 396	$ —	$ —	$ 396
Other derivative liability	407	—	—	407
Warrant to purchase Series A convertible preferred stock	22	—	—	22
Total financial liabilities	$ 825	$ —	$ —	$ 825

XILIO THERAPEUTICS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(unaudited)

3. Fair Value Measurements (Continued)

	March 31, 2021	Quoted Prices in Active Markets for Material Assets Level 1	Significant Other Observable Inputs Level 2	Significant Unobservable Inputs Level 3
Financial liabilities:				
Debt derivative liability	$ 405	$ —	$ —	$ 405
Other derivative liability	413	—	—	413
Warrant to purchase Series A convertible preferred stock	22	—	—	22
Total financial liabilities	$ 840	$ —	$ —	$ 840

During the year ended December 31, 2020 and the three months ended March 31, 2021, the Company did not hold any investments and there were no transfers between Level 1, Level 2, and Level 3.

The fair value of the warrant liability is calculated utilizing the Black-Scholes option-pricing model and contains significant inputs not observable in the market, which represents a Level 3 measurement within the fair value hierarchy.

The fair values of the debt derivative liability and the other derivative liability that are contingently payable upon the consummation of specified transactions, including an initial public offering, are based on significant inputs not observable in the market, including estimates regarding the probability of certain potential future events and outcomes and estimates regarding timing of those events and outcomes, with an applied discount rate representative of time value which represents a Level 3 measurement within the fair value hierarchy.

The following table summarizes the changes in the fair market value of the Company's warrant liability, debt derivative liability and other derivative liability, which are classified within the Level 3 fair value hierarchy (in thousands):

	Warrant liability	Debt derivative liability	Other derivative liability	Total level 3 financial liabilities
Balance at December 31, 2020	$ 22	$ 396	$ 407	$ 825
Change in fair value of liability	—	9	6	15
Balance at March 31, 2021	$ 22	$ 405	$ 413	$ 840

XILIO THERAPEUTICS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

4. Property and Equipment, Net

Property and equipment, net consists of the following as of December 31, 2020 and March 31, 2021 (in thousands):

	December 31, 2020	March 31, 2021
Laboratory equipment	$ 2,925	$ 2,994
Computers and software	228	228
Furniture & fixtures	482	482
Leasehold improvements	5,092	5,092
Construction in process	—	350
	$ 8,727	$ 9,146
Less accumulated depreciation	(1,360)	(1,678)
	$ 7,367	$ 7,468

The Company incurred depreciation and amortization expense of $0.1 million and $0.4 million for the three months ended March 31, 2020 and 2021, respectively.

5. Accrued Expenses

Accrued expenses consist of the following (in thousands):

	December 31, 2020	March 31, 2021
External research and development	$ 11,060	$ 6,587
Personnel related	2,013	926
Professional and other	659	2,039
	$ 13,732	$ 9,552

6. Commitments and Contingencies

Purchase Commitments

The Company has contractual arrangements with research and development organizations and suppliers. However, these contracts are generally cancelable on 30 days' notice and the obligations under these contracts are primarily based on services performed.

Leases

The Company has an operating lease for its facility and a finance lease for certain lab equipment. As of December 31, 2020 and March 31, 2021, the Company has a letter of credit for the benefit of its landlord in the amount of $1.6 million, collateralized by a money market fund.

Legal Proceedings

From time to time, the Company may be party to litigation arising in the ordinary course of business. The Company was not subject to any material legal proceedings during the year ended December 31, 2020 or during the three months ended March 31, 2021.

6. Commitments and Contingencies (Continued)

Guarantees and Indemnifications

In the ordinary course of business, the Company enters into agreements that may include indemnification provisions. Pursuant to such agreements, the Company may indemnify, hold harmless and defend an indemnified party for losses suffered or incurred by the indemnified party. Some of the provisions will limit losses to those arising from third-party actions. In some cases, the indemnification will continue after the termination of the agreement. The maximum potential amount of future payments the Company could be required to make under these provisions is not determinable. The Company has never incurred material costs to defend lawsuits or settle claims related to these indemnification provisions. The Company has also entered into indemnification agreements with its directors that may require the Company to indemnify its directors against liabilities that may arise by reason of their status or service as directors to the fullest extent permitted by Delaware corporate law. The Company currently has directors' and officers' insurance.

7. Convertible Preferred Stock and Common Stock

Convertible Preferred Stock

As of December 31, 2020, the Company had authorized 133,602,056 shares of convertible preferred stock, which consisted of the following: 7,525,000 shares of Series A convertible preferred stock, 19,565,216 shares of Series A-1 convertible preferred stock, 7,500,000 shares of Series A-2(A) convertible preferred stock, 19,565,216 shares of Series A-2(A-1) convertible preferred stock, and 79,446,624 shares of Series B convertible preferred stock.

On January 20, 2021, the Company issued 39,723,312 shares of Series B convertible preferred stock to existing Series B convertible preferred stockholders at $1.265 per share for cash proceeds of $50.2 million, net of issuance costs.

On February 22, 2021, the Company amended and restated its certificate of incorporation to authorize 213,000,000 shares of Common Stock and 174,808,481 shares of Convertible Preferred Stock, of which 7,525,000 shares are designated as Series A convertible preferred stock, 19,565,216 shares are designated as Series A-1 convertible preferred stock, 79,446,624 shares are designated as Series B convertible preferred stock, and 68,271,641 shares are designated as Series C convertible preferred stock.

On February 23, 2021, the Company entered into a stock purchase agreement with existing and new investors whereby the Company issued and sold 68,271,641 shares of Series C convertible preferred stock to investors at $1.3915 per share for cash proceeds of $94.7 million, net of issuance costs.

The Company has evaluated the convertible preferred stock and determined that they should be considered an "equity host" and not a "debt host." The evaluation was necessary to determine if any embedded features required bifurcation and separate accounting as a derivative financial instrument. The Company's analysis was based on a consideration of the economic characteristics and risks and more specifically, evaluated all the stated and implied substantive terms and features including (i) whether the convertible preferred stock included redemption features, (ii) how and when any redemption features could have been exercised, (iii) whether the convertible preferred stock were entitled to dividends, (iv) the voting rights of the convertible preferred stock and (v) the existence and nature of any conversion rights. As a result of its evaluation that the convertible preferred stock is an "equity host," the various embedded conversion options are not considered a separate, embedded derivative.

The Company's convertible preferred stock (collectively, the "Convertible Preferred Stock") consisted of the following (in thousands, except share amounts):

XILIO THERAPEUTICS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(unaudited)

7. Convertible Preferred Stock and Common Stock (Continued)

Convertible Preferred Stock (Continued)

	As of December 31, 2020				
	Preferred Shares Authorized	Preferred Shares Issued and Outstanding	Carrying Value	Liquidation Preference	Common Shares Issuable Upon Conversion
Series A convertible preferred stock	7,525,000	7,500,000	$ 7,309	$ 7,500	7,500,000
Series A-1 convertible preferred stock	19,565,216	19,565,216	20,740	22,500	19,565,216
Series A-2(A) convertible preferred stock	7,500,000	—	—	—	—
Series A-2(A-1) convertible preferred stock	19,565,216	—	—	—	—
Series B convertible preferred stock	79,446,624	39,723,312	49,953	50,250	39,723,312
	133,602,056	66,788,528	$ 78,002	$ 80,250	66,788,528

	As of March 31, 2021				
	Preferred Shares Authorized	Preferred Shares Issued and Outstanding	Carrying Value	Liquidation Preference	Common Shares Issuable Upon Conversion
Series A convertible preferred stock	7,525,000	7,500,000	$ 7,309	$ 7,500	7,500,000
Series A-1 convertible preferred stock	19,565,216	19,565,216	20,740	22,500	19,565,216
Series B convertible preferred stock	79,446,624	79,446,624	100,153	100,500	79,446,624
Series C convertible preferred stock	68,271,641	68,271,641	94,686	95,000	68,271,641
	174,808,481	174,783,481	$ 222,888	$ 225,500	174,783,481

As of March 31, 2021, the Company's Convertible Preferred Stock has the following rights and preferences:

Liquidation

In the event of any liquidation, dissolution or winding up of affairs of the Company (including a change of control), distributions would have first been made to holders of the Series B convertible preferred stock and the Series C convertible preferred stock until, on a share by share basis, each share of Series B and Series C convertible preferred stock has been distributed its original issuance price ($1.265 for Series B convertible preferred stock and $1.3915 for Series C convertible preferred stock) plus any declared but unpaid dividends. If the distribution amount is insufficient to pay the holders of shares of Series B convertible preferred stock and Series C preferred stock, the full amount in which they are entitled, the holders of the Series B convertible preferred stock and the Series C convertible preferred stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect to the share held by them upon such distribution if all amounts payable on or with respect to such share were paid in full.

After distribution to the Series B and Series C convertible preferred stock holders, the holders of Series A and Series A-1 convertible preferred stock would receive a distribution until, on a share by share basis, each share of Series A and Series A-1 convertible preferred stock has been distributed an amount equal to the Series A and Series A-1 convertible preferred stock original issuance price plus any declared but unpaid dividends. The Series A and Series A-1 convertible preferred stock issuance price is $1.00 and $1.15 per stock, respectively. After distribution to the Series A and Series A-1 convertible preferred stockholders, any remaining amounts

XILIO THERAPEUTICS, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

7. Convertible Preferred Stock and Common Stock (Continued)

Convertible Preferred Stock (Continued)

are distributed to the holders of the common stock and convertible preferred stock in proportion to the number of shares of stock held by each (on an as-converted basis).

Conversion

Shares of Convertible Preferred Stock may be converted by the holder at any time into a number of shares of common stock equal to such number of shares as determined by dividing the original issue price by the conversion price in effect at the time. The conversion price is equal to the original issue price for each series of Convertible Preferred Stock. The conversion price is subject to adjustments in the event of any stock dividend, stock split, combination or other similar recapitalization and other adjustments as set forth in the Company's certificate of incorporation. Upon the closing of a sale of shares of common stock to the public at a price of at least $1.53065 per share, subject to adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Company's common stock or a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, in which the aggregate gross proceeds to the Company are at least $50.0 million, all outstanding Convertible Preferred Stock will be automatically converted into a number of shares of common stock at the then applicable conversion rate.

Voting

Holders of Convertible Preferred Stock vote together with the holders of common stock as a single class. Any action to be taken by the stockholders requires the approval of stockholders holding a majority of the outstanding Convertible Preferred Stock and common stock, voting together as a single class on an as-converted basis, unless a different threshold is specifically required by law or by the Company's certificate of incorporation.

Dividends

If any dividends are declared by the board of directors on the Convertible Preferred Stock, such dividends shall be at an annual rate of $0.060 per share of Series A convertible preferred stock, $0.069 per share of Series A-1 convertible preferred stock, $0.0759 per share of Series B convertible preferred stock, and $0.0835 per share of Series C convertible preferred stock, subject in each case to appropriate adjustment in the event of any dividend, split, combination or other similar recapitalization with respect to the applicable series of Convertible Preferred Stock, and shall be non-cumulative. Since inception, the Company has not declared any dividends.

Common Stock

As of March 31, 2021, the Company's Amended Certificate of Incorporation authorized the Company to issue 213,000,000 shares of $0.0001 par value common stock.

Shares Reserved for Future Issuance

The Company had reserved shares of common stock for the conversion of outstanding Convertible Preferred Stock and for future issuance under the 2020 Stock Incentive Plan (as amended, the "2020 Plan") as of the following dates:

XILIO THERAPEUTICS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

7. Convertible Preferred Stock and Common Stock (Continued)

Common Stock (Continued)

	December 31, 2020	March 31, 2021
Shares of common stock reserved for conversion of convertible preferred stock outstanding	66,788,528	174,783,481
Shares of common stock reserved for conversion of convertible preferred shares issuable upon exercise of a warrant	25,000	25,000
Shares of common stock reserved for exercise of outstanding stock options under the 2020 Stock Incentive Plan	7,698,665	26,368,873
Shares of common stock reserved for future awards under the 2020 Stock Incentive Plan	1,441,498	1,980,433
Total common stock reserved	75,953,691	203,157,787

8. Equity-Based Compensation

Equity Incentive Plans

During the three months ended March 31, 2021, the Company amended its 2020 Plan to increase the common stock issuable under the plan from 9,414,707 shares to 28,464,707 shares, plus up to 3,459,146 of additional shares of common stock equal to the number of shares of unvested restricted stock issued in exchange for incentive units as part of the Reorganization, to the extent such shares have been or will be forfeited.

Restricted Stock

A summary of the Company's restricted stock activity and related information is as follows:

	Number of Shares of Restricted Stock	Weighted Average Grant Date Fair Value
Unvested as of December 31, 2020	2,697,758	$ 0.58
Vested	(265,986)	0.58
Canceled/Forfeited	(41,580)	0.58
Unvested as of March 31, 2021	2,390,192	0.58

No restricted stock awards were issued or outstanding as of March 31, 2020. During the three months ended March 31, 2021, the aggregate fair value of restricted stock awards that vested was $164,772. As of March 31, 2021, total unrecognized compensation cost related to unvested restricted stock awards was approximately $1.2 million, which is expected to be recognized over a weighted-average period of 2.35 years.

XILIO THERAPEUTICS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(unaudited)

8. Equity-Based Compensation (Continued)

Stock Options

A summary of stock option activity under the 2020 Plan is as follows:

	Number of Stock Options	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (In years)	Aggregate Intrinsic Value (In thousands)
Outstanding as of December 31, 2020	7,698,665	$ 0.58	9.52	$ —
Granted	18,790,327	0.64		
Exercised	(42,507)	0.58		
Cancelled/forfeited	(77,612)	0.58		
Outstanding as of March 31, 2021	26,368,873	0.62	9.54	$ 2,122,849
Exercisable as of March 31, 2021	2,269,592	0.59	8.60	$ 247,554
Vested and expected to vest as of March 31, 2021	26,368,873	0.62	9.54	$ 2,122,849

Using the Black-Scholes option pricing model, the weighted average fair value of options granted to employees and directors during the three months ended March 31, 2021 was $0.64. The following assumptions were used in determining the fair value of options granted to employees during the three months ended March 31, 2021:

Risk-free interest rate	0.63 – 1.15%
Expected dividend yield	0%
Expected term (in years)	5.52 – 10.0
Expected volatility	84.61 – 85.26%

No stock options were granted during the three months ended March 31, 2020. The performance conditions underlying the performance-based awards are not probable of achievement as of March 31, 2021, therefore no compensation expense has been recorded for these awards. As of March 31, 2021, total unrecognized compensation costs related to performance based awards was $0.5 million. As of March 31, 2021, total unrecognized compensation cost related to unvested stock options, excluding performance based awards, was approximately $9.6 million, which is expected to be recognized over a weighted-average period of 3.54 years.

In March 2021, the Company entered into a separation agreement with a former employee. Pursuant to the separation agreement, the former employee terminated his employment with the Company and agreed to provide certain consulting services to the Company through November 30, 2021 during which the former employee's equity awards will continue to vest. In addition, the Company extended the former employee's period to exercise his vested option until 90 days from the termination of the consulting period.

Because the services to be performed during the consulting period are considered non-substantive, the Company concluded that the former employee's equity awards were modified. As a result of these modifications, the Company recognized $0.1 million in equity-based compensation expense in general and administrative expenses in the statement of operations and comprehensive loss during the three months ended March 31, 2021.

XILIO THERAPEUTICS, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (Continued)
(unaudited)

8. Equity-Based Compensation (Continued)

Total Equity-Based Compensation Expense

During the three months ended March 31, 2020 and 2021, the Company recorded compensation expense related to incentive units, stock options, and restricted common stock for employees and non-employees, which was allocated as follows in the consolidated statements of operations and comprehensive loss (in thousands):

	Three Months Ended March 31,	
	2020	2021
Research and development expense	$ 26	$ 135
General and administrative expense	70	659
Total compensation expense	$ 96	$ 794

9. Income Taxes

The Company did not record a provision or benefit for income taxes during the three months ended March 31, 2020 and 2021. The Company continues to maintain a full valuation allowance against all of its deferred tax assets.

The Company has evaluated the positive and negative evidence involving its ability to realize its deferred tax assets and has considered its history of cumulative net losses incurred since inception and its lack of any commercially ready products. The Company has concluded that it is more likely than not that it will not realize the benefits of its deferred tax assets. The Company reevaluates the positive and negative evidence at each reporting period.

10. Net Loss Per Share

The following table sets forth the outstanding shares of common stock equivalents, presented based on amounts outstanding at each period end, that were excluded from the calculation of diluted net loss per unit and per share attributable to common stockholders for the periods indicated because including them would have been anti-dilutive:

	Three Months Ended March 31,	
	2020	2021
Preferred units	66,788,528	—
Convertible preferred stock	—	174,783,481
Outstanding incentive units	10,276,169	—
Unvested restricted common stock	—	2,390,192
Outstanding stock options	—	26,368,873
Warrants	25,000	25,000
Total common stock equivalents	77,089,697	203,567,546

11. Subsequent Events

The Company considers events or transactions that occur after the balance sheet date but prior to the issuance of the condensed consolidated financial statements to provide additional evidence for certain estimates or to identify matters that require additional disclosure. Subsequent events have been evaluated as required through May 24, 2021, the date these condensed consolidated financial statements were issued.

Shares

Common Stock

Prospectus

Joint Book Running Managers

MORGAN STANLEY ***COWEN*** ***GUGGENHEIM SECURITIES***

Lead Manager

RAYMOND JAMES

, 2021

Through and including , 2021 (the 25th day after the date of this prospectus), all dealers effecting transactions in the Common Stock, whether or not participating in this offering, may be required to deliver a prospectus. This delivery requirement is in addition to a dealer's obligation to deliver a prospectus when acting as an underwriter and with respect to an unsold allotment or subscription.

PART II

INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth the expenses to be incurred in connection with this offering described in this registration statement, other than underwriting discounts and commissions, all of which will be paid by the registrant. All amounts are estimates except the Securities and Exchange Commission, or SEC, registration fee, the Financial Industry Regulatory Authority, Inc. filing fee and the Nasdaq Global Market initial listing fee.

	Amount
Securities and Exchange Commission registration fee	$ *
Financial Industry Regulatory Authority, Inc. filing fee	*
Nasdaq Global Market initial listing fee	*
Accountants' fees and expenses	*
Legal fees and expenses	*
Transfer agent's fees and expenses	*
Printing and engraving expenses	*
Miscellaneous	*
Total expenses	$ *

* To be filed by amendment.

Item 14. Indemnification of Directors and Officers.

Section 102 of the Delaware General Corporation Law, or the DGCL, permits a corporation to eliminate the personal liability of its directors or its stockholders for monetary damages for a breach of fiduciary duty as a director, except where the director breached his or her duty of loyalty, failed to act in good faith, engaged in intentional misconduct or knowingly violated a law, authorized the payment of a dividend or approved a stock repurchase in violation of Delaware corporate law or obtained an improper personal benefit. Our certificate of incorporation that will be effective upon the closing of this offering provides that no director shall be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duty as a director, notwithstanding any provision of law imposing such liability, except to the extent that the DGCL prohibits the elimination or limitation of liability of directors for breaches of fiduciary duty.

Section 145 of the DGCL provides that a corporation has the power to indemnify a director, officer, employee or agent of the corporation and certain other persons serving at the request of the corporation in related capacities against expenses (including attorneys' fees), judgments, fines and amounts paid in settlements actually and reasonably incurred by the person in connection with an action, suit or proceeding to which he or she is or is threatened to be made a party by reason of such position, if such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation, and, in any criminal action or proceeding, had no reasonable cause to believe his or her conduct was unlawful, except that, in the case of actions brought by or in the right of the corporation, no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or other adjudicating court determines that, despite the adjudication of liability but in view of all of the circumstances of the case, such person is fairly and reasonably entitled to indemnification for such expenses which the Court of Chancery or such other court shall deem proper.

Our certificate of incorporation that will be effective upon the closing of this offering provides that we will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of us), by reason of the fact that he or she is or was, or has agreed to become, our director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner,

employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (including any employee benefit plan) (all such persons being referred to as an Indemnitee), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), liabilities, losses, judgments, fines (including excise taxes and penalties arising under the Employee Retirement Income Security Act of 1974) and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful.

Our certificate of incorporation that will be effective upon the closing of this offering also provides that we will indemnify any Indemnitee who was or is a party or threatened to be made a party to any threatened, pending or completed an action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was, or has agreed to become, our director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (including any employee benefit plan), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to us, unless and only to the extent, that the Court of Chancery of Delaware or the court in which such action or suit was brought determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses (including attorney's fees). Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses (including attorneys' fees) actually and reasonably incurred by him or her or on his or her behalf in connection therewith. If we do not assume the defense, expenses must be advanced to an Indemnitee under certain circumstances.

In addition, we intend to enter into new indemnification agreements with all of our executive officers and directors prior to the closing of this offering. In general, these agreements provide that we will indemnify the executive officer or director to the fullest extent permitted by law for claims arising in his or her capacity as an executive officer or director of our company or in connection with his or her service at our request for another corporation or entity. The indemnification agreements also provide for procedures that will apply in the event that an executive officer or director makes a claim for indemnification and establish certain presumptions that are favorable to the executive officer or director.

We maintain a general liability insurance policy that covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers.

The underwriting agreement we will enter into in connection with this offering of common stock being registered hereby provides that the underwriters will indemnify, under certain conditions, our directors and officers (as well as certain other persons) against certain liabilities arising in connection with such offering.

Insofar as the foregoing provisions permit indemnification of directors, executive officers or persons controlling us for liability arising under the Securities Act of 1933, as amended, or the Securities Act, we have been informed that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Item 15. Recent Sales of Unregistered Securities.

Set forth below is information regarding shares of our common stock, shares of our convertible preferred stock and stock options granted by us within the past three years that were not registered under the Securities Act. Also included is the consideration, if any, received by us for such shares and options and information relating to the section of the Securities Act, or rule of the SEC, under which exemption from registration was claimed.

(a) Issuance of Convertible Preferred Stock

On January 23, 2018, we issued and sold 2,608,695 Series A-1 preferred units to one investor at a price per share of $1.15 in cash, for an aggregate purchase price of $3.0 million. On February 28, 2018, we issued and sold 3,913,043 Series A-1 preferred units to one investor at price per share of $1.15 in cash, for an aggregate purchase price of $4.5 million. On December 5, 2018, we issued and sold 4,347,826 Series A-1 preferred units to two investors at a price per share of $1.15 in cash, for an aggregate purchase price of $5.0 million. On May 10, 2019, we issued and sold 8,695,652 Series A-1 preferred units to two investors at a price per share of $1.15 in cash, for an aggregate purchase price of $10.0 million. These Series A-1 preferred units, which were issued prior to the Reorganization, converted into Series A-1 convertible preferred stock in connection with the Reorganization. See "Prospectus Summary—Reorganization."

On December 12, 2019, we issued and sold an aggregate of 23,913,036 Series B preferred units to 12 investors at a price per share of $1.265 in cash, for an aggregate purchase price of $30.2 million. On December 20, 2019, we issued and sold 7,905,138 Series B preferred units to two investors at a price per share of $1.265 in cash, for an aggregate purchase price of $10.0 million. On February 25, 2020, we issued and sold 7,905,138 Series B preferred units to two investors at a price per share of $1.265 in cash, for an aggregate purchase price of $10.0 million. These Series B preferred units, which were issued prior to the Reorganization, converted into Series B convertible preferred stock in connection with the Reorganization. See "Prospectus Summary—Reorganization." On January 20, 2021, we issued and sold an additional 39,723,312 shares of Series B convertible preferred stock to 16 investors at a price per share of $1.265 in cash, for an aggregate purchase price of $50.2 million.

On February 23, 2021, we issued and sold 68,271,641 shares of our Series C convertible preferred stock to 17 investors at a price per share of $1.3915 in cash, for an aggregate purchase price of $95.0 million.

No underwriters were involved in the foregoing issuances of securities. The securities described in this section (a) of Item 15 were issued to investors in reliance upon the exemption from the registration requirements of the Securities Act, as set forth in Section 4(a)(2) under the Securities Act and, in certain cases, Regulation D thereunder, relative to transactions by an issuer not involving any public offering, to the extent an exemption from such registration was required. The recipients of securities in each of these transactions acquired the securities for investment only and not with a view to or for sale in connection with any distribution thereof, and appropriate legends were affixed to the securities issued in these transactions. Each of the purchasers in these transactions was an accredited investor within the meaning of Rule 501 of Regulation D under the Securities Act. All purchasers received written disclosures that the securities had not been registered under the Securities Act and that any resale must be made pursuant to a registration statement or an available exemption from such registration.

(b) Issuances of Common Stock

On June 30, 2020, we issued an aggregate of 5,249,596 shares of restricted common stock for services rendered to employees, directors, and consultants in exchange for an aggregate of 10,268,148 incentive units previously issued to such employees, directors, and consultants. Also on June 30, 2020, we issued an aggregate of 3,888,443 shares of common stock in exchange for an aggregate of 3,888,443 common units previously issued to the holders of such common units. The incentive units and common units were exchanged for shares of restricted common stock and common stock, respectively, upon the consummation of the Reorganization. Between January 1, 2018 and June 30, 2020, the date of our corporate reorganization, we issued an aggregate of 9,911,041 incentive units. No additional incentive units or common units have been issued following the consummation of the Reorganization.

No underwriters were involved in the foregoing issuances of securities. The issuances of shares of common stock described in this section (b) of Item 15 were issued pursuant to written compensatory plans or arrangements with our employees, directors and consultants, in reliance on the exemption provided by Rule 701 promulgated under the Securities Act or pursuant to Section 4(a)(2) under the Securities Act. All recipients either received adequate information about our company or had access, through employment or other relationships, to such information.

(c) Stock Option Grants and Option Exercises

Between June 18, 2020, our date of incorporation, and May 24, 2021, we granted options to purchase an aggregate of 29,497,950 shares of common stock, with exercise prices ranging from $0.58 to $0.70 per share, to our employees, directors, advisors and consultants pursuant to our 2020 Stock Incentive Plan.

The stock options and the shares of common stock issued upon the exercise of stock options described in this section (b) of Item 15 were issued pursuant to written compensatory plans or arrangements with our employees, directors and consultants, in reliance on the exemption provided by Rule 701 promulgated under the Securities Act or pursuant to Section 4(a)(2) under the Securities Act. All recipients either received adequate information about our company or had access, through employment or other relationships, to such information.

Item 16. Exhibits and Financial Statement Schedules.

(a) ***Exhibits***

Exhibit Number	Description of Exhibit
1.1*	Form of Underwriting Agreement
3.1	Amended and Restated Certificate of Incorporation of the Registrant
3.2	Bylaws of the Registrant
3.3*	Form of Restated Certificate of Incorporation of the Registrant (to be effective upon the closing of this offering)
3.4*	Form of Amended and Restated Bylaws of the Registrant (to be effective upon the closing of this offering)
4.1*	Specimen Stock Certificate evidencing the shares of common stock
5.1*	Opinion of Wilmer Cutler Pickering Hale and Dorr LLP
10.1	Amended and Restated Registration Rights Agreement, dated as of February 23, 2021, by and among the Registrant and the other parties thereto
10.2	2020 Stock Incentive Plan, as amended
10.3	Form of Stock Option Agreement under 2020 Stock Incentive Plan
10.4	Form of Restricted Stock Agreement under 2020 Stock Incentive Plan
10.5*	2021 Stock Incentive Plan
10.6*	Form of Stock Option Agreement under the 2021 Stock Incentive Plan
10.7*	2021 Employee Stock Purchase Plan
10.8*	Summary of Non-Employee Director Compensation Program
10.9	Loan and Security Agreement, dated as of November 21, 2019, as amended, by and between the Registrant and Pacific Western Bank
10.10†	Cross-License Agreement, dated as of December 16, 2020, by and between the Registrant and AskGene Pharma, Inc.
10.11†	Amended and Restated Exclusive License Agreement, dated as of August 16, 2016, by and between the Registrant and City of Hope
10.12†	License Agreement, dated as of September 26, 2016, as amended, by and between the Registrant and WuXi Biologics (Hong Kong) Limited
10.13	Lease, dated as of August 26, 2019, as amended, by and between the Registrant and PPF off 828-830 Winter Street, LLC
10.14*	Letter Agreement, dated , 2021, by and between the Registrant and René Russo
10.15	Letter Agreement, dated May 24, 2019, by and between the Registrant and Joseph Farmer
10.16*	Letter Agreement, dated , 2021, by and between the Registrant and Martin Huber
10.17	Separation Agreement, dated March 12, 2021, by and between the Registrant and Joseph Farmer
10.18	Service Agreement, dated June 11, 2020, by and between the Registrant and Daniel S. Lynch
10.19*	Form of Indemnification Agreement between the Registrant and each of its Executive Officers and Directors
21.1	Subsidiaries of the Registrant

Exhibit Number	Description of Exhibit
23.1*	Consent of Ernst & Young LLP, independent registered public accounting firm
23.2*	Consent of Wilmer Cutler Pickering Hale and Dorr LLP (included in Exhibit 5.1)
24.1*	Power of Attorney (included on signature page)

* To be filed by amendment.

† Portions of this exhibit have been omitted pursuant to Item 601(b)(10)(iv) of Regulation S-K.

(b) ***Financial Statement Schedules***

No financial statement schedules are provided because the information called for is not required or is shown either in the financial statements or the related notes.

Item 17. Undertakings.

(a) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

(b) The undersigned registrant hereby undertakes that:

(1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.

(2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Waltham, Commonwealth of Massachusetts, on this day of , 2021.

XILIO THERAPEUTICS, INC.

By: _____

René Russo
President and Chief Executive Officer

SIGNATURES AND POWER OF ATTORNEY

We, the undersigned officers and directors of Xilio Therapeutics, Inc., hereby severally constitute and appoint René Russo, Salvatore Giovine and Chris Frankenfield, and each of them singly (with full power to each of them to act alone), our true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution in each of them for him or her and in his or her name, place and stead, and in any and all capacities, to sign any and all amendments (including post-effective amendments) to this Registration Statement, and any other registration statement for the same offering that is to be effective upon filing pursuant to Rule 462(b) under the Securities Act of 1933, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, and each of them, full power and authority to do and perform each and every act and thing requisite or necessary to be done in and about the premises, as full to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents or any of them, or their, his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities held on the dates indicated.

Signature	Title	Date
_____ René Russo	President and Chief Executive Officer, Director (Principal Executive Officer)	, 2021
_____ Salvatore Giovine	Chief Financial Officer (Principal Financial and Accounting Officer)	, 2021
_____ Daniel S. Lynch	Chairman of the Board	, 2021
_____ Paul J. Clancy	Director	, 2021
_____ Daniel Curran	Director	, 2021
_____ David Gardner	Director	, 2021
_____ David Grayzel	Director	, 2021
_____ Andrew Hack	Director	, 2021

Signature	Title	Date
Rachel Humphrey	Director	, 2021
Michael Ross	Director	, 2021
Christina Rossi	Director	, 2021

Exhibit 3.1

AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
XILIO THERAPEUTICS, INC.

(Pursuant to Sections 242 and 245 of the
General Corporation Law of the State of Delaware)

Xilio Therapeutics, Inc., a corporation organized and existing under and by virtue of the provisions of the General Corporation Law of the State of Delaware (the "**General Corporation Law**"),

DOES HEREBY CERTIFY:

1. That the name of this corporation is Xilio Therapeutics, Inc., and that this corporation was originally incorporated pursuant to the General Corporation Law on June 18, 2020.

2. That the Board of Directors duly adopted resolutions proposing to amend and restate the Certificate of Incorporation of this corporation, declaring said amendment and restatement to be advisable and in the best interests of this corporation and its stockholders, and authorizing the appropriate officers of this corporation to solicit the consent of the stockholders therefor, which resolution setting forth the proposed amendment and restatement is as follows:

RESOLVED, that the Certificate of Incorporation of this corporation be amended and restated in its entirety to read as follows:

FIRST: The name of this corporation is Xilio Therapeutics, Inc. (the "**Corporation**").

SECOND: The address of the registered office of the Corporation in the State of Delaware is 1209 Orange Street, in the City of Wilmington, County of New Castle, 19801. The name of its registered agent at such address is The Corporation Trust Company.

THIRD: The nature of the business or purposes to be conducted or promoted is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law.

FOURTH: The total number of shares of all classes of stock which the Corporation shall have authority to issue is (i) 213,000,000 shares of Common Stock, $0.0001 par value per share ("**Common Stock**"), and (ii) 174,808,481 shares of Preferred Stock, $0.0001 par value per share ("**Preferred Stock**").

The following is a statement of the designations and the powers, privileges and rights, and the qualifications, limitations or restrictions thereof in respect of each class of capital stock of the Corporation.

A. COMMON STOCK

1. General. The voting, dividend and liquidation rights of the holders of the Common Stock are subject to and qualified by the rights, powers and preferences of the holders of the Preferred Stock set forth herein.

2. Voting. The holders of the Common Stock are entitled to one vote for each share of Common Stock held at all meetings of stockholders (and written actions in lieu of meetings); provided, however, that, except as otherwise required by law, holders of Common Stock, as such, shall not be entitled to vote on any amendment to this Amended and Restated Certificate of Incorporation that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series are entitled, either separately or together with the holders of one or more other such series, to vote thereon pursuant to this Amended and Restated Certificate of Incorporation or pursuant to the General Corporation Law. There shall be no cumulative voting. The number of authorized shares of Common Stock may be increased or decreased (but not below the number of shares thereof then outstanding) by (in addition to any vote of the holders of one or more series of Preferred Stock that may be required by the terms of this Amended and Restated Certificate of Incorporation) the affirmative vote of the holders of shares of capital stock of the Corporation representing a majority of the votes represented by all outstanding shares of capital stock of the Corporation entitled to vote, irrespective of the provisions of Section 242(b)(2) of the General Corporation Law.

B. PREFERRED STOCK

7,525,000 shares of the authorized Preferred Stock are hereby designated "**Series A Preferred Stock**," 19,565,216 shares of the authorized Preferred Stock are hereby designated "**Series A-1 Preferred Stock**," 79,446,624 shares of the authorized Preferred Stock are hereby designated "**Series B Preferred Stock**" and 68,271,641 shares of the authorized Preferred Stock are hereby designated "**Series C Preferred Stock**." The Preferred Stock shall have the following rights, preferences, powers, privileges and restrictions, qualifications and limitations. Unless otherwise indicated, references to "sections" or "subsections" in this Part B of this Article Fourth refer to sections and subsections of Part B of this Article Fourth.

1. Dividends.

1.1 From and after the date of issuance of any shares of Preferred Stock, each holder of Preferred Stock shall be entitled to receive dividends, out of any assets legally available therefor, prior and in preference to any declaration or payment of any dividend (payable other than in Common Stock or other securities and rights convertible into or entitling the holder thereof to receive, directly or indirectly, additional shares of Common Stock), at the rate of $0.060 per share of Series A Preferred Stock held by such holder per annum (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series A Preferred Stock), $0.069 per share of Series A-1 Preferred Stock held by such holder per annum (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series A-1 Preferred Stock), $0.0759 per share of Series B Preferred Stock held by such holder per annum (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series B Preferred Stock) and $0.0835 per share of Series C Preferred Stock held by such holder per annum (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series C Preferred Stock), in each case payable only when, as and if declared by the Board of Directors of the Corporation. The right to receive such dividends on the Preferred Stock shall not be cumulative and, therefore, if not declared in any year, the right to receive such dividends shall terminate and not carry forward into the next year.

1.2 The Corporation shall not declare, pay or set aside any dividends on shares of any other class or series of capital stock of the Corporation (other than dividends on shares of Common Stock payable in shares of Common Stock) unless (in addition to the obtaining of any consents required elsewhere in this Amended and Restated Certificate of Incorporation) the holders of the Preferred Stock then outstanding shall first receive, or simultaneously receive, a dividend on each outstanding share of Preferred Stock in an amount at least equal to (i) in the case of a dividend on Common Stock or any class or series that is convertible into Common Stock, that dividend per share of Preferred Stock as would equal the product of (A) the dividend payable on each share of such class or series determined, if applicable, as if all shares of such class or series had been converted into Common Stock and (B) the number of shares of Common Stock issuable upon conversion of a share of Preferred Stock, in each case calculated on the record date for determination of holders entitled to receive such dividend or (ii) in the case of a dividend on any class or series that is not convertible into Common Stock, at a rate per share of Preferred Stock determined by (A) dividing the amount of the dividend payable on each share of such class or series of capital stock by the original issuance price of such class or series of capital stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to such class or series) and (B) multiplying such fraction by an amount equal to the Applicable Original Issue Price (as defined below); provided that, if the Corporation declares, pays or sets aside, on the same date, a dividend on shares of more than one class or series of capital stock of the Corporation, the dividend payable to the holders of Preferred Stock pursuant to this Subsection 1.2 shall be calculated based upon the dividend on the class or series of capital stock that would result in the highest dividend on such series of Preferred Stock.

2. Liquidation, Dissolution or Winding Up; Certain Mergers, Consolidations and Asset Sales.

2.1 Payments to Holders of Series B Preferred Stock and Series C Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution, winding up of the Corporation or Deemed Liquidation Event, the holders of shares of Series B Preferred Stock and Series C Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders, before any payment shall be made to the holders of Series A Preferred Stock, Series A-1 Preferred Stock or Common Stock by reason of their ownership thereof, an amount per share equal to (i) in the case of the Series B Preferred Stock, the Series B Original Issue Price, plus any dividends declared but unpaid thereon, and (ii) in the case of the Series C Preferred Stock, the Series C Original Issue Price, plus any dividends declared but unpaid thereon (the amount payable to shares of Series B Preferred Stock pursuant to this sentence together with any amounts payable with respect to shares of Series B Preferred Stock pursuant to Subsection 2.3, if applicable, is hereinafter referred to as the "**Series B Liquidation Amount**" and the amount payable to shares of Series C Preferred Stock pursuant to this sentence together with any amounts payable with respect to shares of Series C Preferred Stock pursuant to Subsection 2.3, if applicable, is hereinafter referred to as the "**Series C Liquidation Amount**"). If upon any such liquidation, dissolution, winding up of the Corporation or Deemed Liquidation Event, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series B Preferred Stock and Series C Preferred Stock the full amount to which they shall be entitled under this Subsection 2.1, the holders of shares of Series B Preferred Stock and Series C Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

2.2 Payments to Holders of Series A Preferred Stock and Series A-1 Preferred Stock. In the event of any voluntary or involuntary liquidation, dissolution, winding up of the Corporation or Deemed Liquidation Event, after the payment in full of all amounts required to be paid pursuant to Subsection 2.1, the holders of shares of Series A Preferred Stock and Series A-1 Preferred Stock then outstanding shall be entitled to be paid out of the assets of the Corporation available for distribution to its stockholders, before any payment shall be made to the holders of Common Stock by reason of their ownership thereof, an amount per share equal to (i) in the case of the Series A Preferred Stock, the Series A Original Issue Price, plus any dividends declared but unpaid thereon, and (ii) in the case of the Series A-1 Preferred Stock, the Series A-1 Original Issue Price, plus any dividends declared but unpaid thereon (the amount payable to shares of Series A Preferred Stock pursuant to this sentence together with any amounts payable with respect to shares of Series A Preferred Stock pursuant to Subsection 2.3, if applicable, is hereinafter referred to as the "**Series A Liquidation Amount**" and the amount payable to shares of Series A-1 Preferred Stock pursuant to this sentence together with any amounts payable with respect to shares of Series A-1 Preferred Stock pursuant to Subsection 2.3, if applicable, is hereinafter referred to as the "**Series A-1 Liquidation Amount**"). If upon any such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, the assets of the Corporation available for distribution to its stockholders shall be insufficient to pay the holders of shares of Series A Preferred Stock and Series A-1 Preferred Stock the full amount to which they shall be entitled under this Subsection 2.1, the holders of shares of Series A Preferred Stock and Series A-1 Preferred Stock shall share ratably in any distribution of the assets available for distribution in proportion to the respective amounts which would otherwise be payable in respect of the shares held by them upon such distribution if all amounts payable on or with respect to such shares were paid in full.

2.3 Distribution of Remaining Assets. In the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event, after the payment in full of all amounts required to be paid pursuant to Subsections 2.1 and 2.2, the remaining assets of the Corporation available for distribution to its stockholders shall be distributed among the holders of the shares of Series C Preferred Stock, Series B Preferred Stock, Series A Preferred Stock, Series A-1 Preferred Stock and Common Stock, in proportion to the respective number of shares held by such holder, treating solely for purposes of this Subsection 2.3 all such securities as if they had been converted to Common Stock pursuant to the terms of this Amended and Restated Certificate of Incorporation immediately prior to such liquidation, dissolution or winding up of the Corporation or Deemed Liquidation Event.

2.4 Deemed Liquidation Events.

2.4.1 Definition. Each of the following events shall be considered a "**Deemed Liquidation Event**" unless the holders of at least 75% of the outstanding shares of Preferred Stock (the "**Requisite Preferred Holders**") elect otherwise by written notice sent to the Corporation at least 30 days prior to the effective date of any such event:

(a) a merger or consolidation in which

(i) the Corporation is a constituent party or

(ii) a subsidiary of the Corporation is a constituent party and the Corporation issues shares of its capital stock pursuant to such merger or consolidation,

except any such merger or consolidation involving the Corporation or a subsidiary in which the shares of capital stock of the Corporation outstanding immediately prior to such merger or consolidation continue to represent, or are converted into or exchanged for shares of capital stock that represent, immediately following such merger or consolidation, a majority, by voting power, of the capital stock of (1) the surviving or resulting corporation; or (2) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such surviving or resulting corporation; or

(b) (1) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Corporation or any subsidiary of the Corporation of all or substantially all the assets of the Corporation and its subsidiaries taken as a whole, or (2) the sale or disposition (whether by merger, consolidation or otherwise, and whether in a single transaction or a series of related transactions) of one or more subsidiaries of the Corporation if substantially all of the assets of the Corporation and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, except where such sale, lease, transfer, exclusive license or other disposition is to a wholly owned subsidiary of the Corporation.

2.4.2 Effecting a Deemed Liquidation Event.

(a) The Corporation shall not have the power to effect a Deemed Liquidation Event referred to in Subsection 2.4.1(a)(i) unless the agreement or plan of merger or consolidation for such transaction (the "**Merger Agreement**") provides that the consideration payable to the stockholders of the Corporation in such Deemed Liquidation Event shall be paid to the holders of capital stock of the Corporation in accordance with Subsections 2.1, 2.2 and 2.3.

(b) In the event of a Deemed Liquidation Event referred to in Subsection 2.4.1(a)(ii) or 2.4.1(b), if the Corporation does not effect a dissolution of the Corporation under the General Corporation Law within ninety (90) days after such Deemed Liquidation Event, then (i) the Corporation shall send a written notice to each holder of Preferred Stock no later than the ninetieth (90^{th}) day after the Deemed Liquidation Event advising such holders of their right (and the requirements to be met to secure such right) pursuant to the terms of the following clause (ii) to require the redemption of such shares of Preferred Stock, and (ii) if the Requisite Preferred Holders so request in a written instrument delivered to the Corporation not later than one hundred twenty (120) days after such Deemed Liquidation Event, the Corporation shall use the consideration received by the Corporation for such Deemed Liquidation Event (net of any retained liabilities associated with the assets sold or technology licensed, as determined in good faith by the Board of Directors of the Corporation)**,** together with any other assets of the Corporation available for distribution to its stockholders, all to the extent permitted by Delaware law governing distributions to stockholders (the "**Available Proceeds**"), on the one hundred fiftieth (150^{th}) day after such Deemed Liquidation Event, to redeem all outstanding shares of each series of Preferred Stock at a price per share equal to the Series A Liquidation Amount, Series A-1 Liquidation Amount, Series B Liquidation Amount or Series C Liquidation Amount, as applicable. Notwithstanding the foregoing, in the event of a redemption pursuant to the preceding sentence, if the Available Proceeds are not sufficient to redeem all outstanding shares of Preferred Stock, the Corporation shall redeem a pro rata portion of each holder's shares of Preferred Stock to the fullest extent of such Available Proceeds, based on the respective amounts which would otherwise be payable in respect of the shares to be redeemed if the Available Proceeds were sufficient to redeem all such shares, and shall redeem the remaining shares as soon as it may lawfully do so under Delaware law governing distributions to stockholders. Prior to the distribution or redemption provided for in this Subsection 2.4.2(b), the Corporation shall not expend or dissipate the consideration received for such Deemed Liquidation Event, except to discharge expenses incurred in connection with such Deemed Liquidation Event or in the ordinary course of business.

2.4.3 Amount Deemed Paid or Distributed. The amount deemed paid or distributed to the holders of capital stock of the Corporation upon any such merger, consolidation, sale, transfer, exclusive license, other disposition or redemption shall be the cash or the value of the property, rights or securities to be paid or distributed to such holders pursuant to such Deemed Liquidation Event. The value of such property, rights or securities shall be determined in good faith by the Board of Directors of the Corporation, including the approval of a majority of the directors designated by certain holders of Preferred Stock pursuant to an Amended and Restated Voting Agreement to be entered into by and among the Corporation and the other parties to be named therein, as the same may be amended and/or restated from time to time (the "**Preferred Directors**").

2.4.4 Allocation of Escrow and Contingent Consideration. In the event of a Deemed Liquidation Event pursuant to Subsection 2.4.1(a)(i), if any portion of the consideration payable to the stockholders of the Corporation is payable only upon satisfaction of contingencies (the "**Additional Consideration**"), the Merger Agreement shall provide that (a) the portion of such consideration that is not Additional Consideration (such portion, the "**Initial Consideration**") shall be allocated among the holders of capital stock of the Corporation in accordance with Subsections 2.1, 2.2 and 2.3 as if the Initial Consideration were the only consideration payable in connection with such Deemed Liquidation Event; and (b) any Additional Consideration which becomes payable to the stockholders of the Corporation upon satisfaction of such contingencies shall be allocated among the holders of capital stock of the Corporation in accordance with Subsections 2.1, 2.2 and 2.3 after taking into account the previous payment of the Initial Consideration as part of the same transaction. For the purposes of this Subsection 2.4.4, consideration placed into escrow or retained as a holdback to be available for satisfaction of indemnification or similar obligations in connection with such Deemed Liquidation Event shall be deemed to be Additional Consideration.

2.5 Definitions. The following terms have the following meanings in this Amended and Restated Certificate of Incorporation:

2.5.1 "**Applicable Original Issue Price**" shall mean the Series A Original Issue Price, in the case of Series A Preferred Stock, the Series A-1 Original Issue Price, in the case of Series A-1 Preferred Stock, the Series B Original Issue Price, in the case of Series B Preferred Stock, and the Series C Original Issue Price, in the case of Series C Preferred Stock.

2.5.2 "**Series A Original Issue Price**" shall mean $1.00 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series A Preferred Stock.

2.5.3 "**Series A-1 Original Issue Price**" shall mean $1.15 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series A-1 Preferred Stock.

2.5.4 "**Series B Original Issue Price**" shall mean $1.265 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series B Preferred Stock.

2.5.5 "**Series C Original Issue Price**" shall mean $1.3915 per share, subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Series C Preferred Stock.

3. Voting.

3.1 General. On any matter presented to the stockholders of the Corporation for their action or consideration at any meeting of stockholders of the Corporation (or by written consent of stockholders in lieu of meeting), each holder of outstanding shares of Preferred Stock shall be entitled to cast the number of votes equal to the number of whole shares of Common Stock into which the shares of Preferred Stock held by such holder are convertible as of the record date for determining stockholders entitled to vote on such matter. Except as provided by law or by the other provisions of this Amended and Restated Certificate of Incorporation, holders of Preferred Stock shall vote together with the holders of Common Stock as a single class and on an as-converted to Common Stock basis.

3.2 Election of Directors. The holders of record of the shares of Common Stock and of any other class or series of voting stock (including the Preferred Stock), exclusively and voting together as a single class, shall be entitled to elect the directors of the Corporation. At any meeting held for the purpose of electing a director, the presence in person or by proxy of the holders of a majority of the outstanding shares of the class or series entitled to elect such director shall constitute a quorum for the purpose of electing such director. Except as otherwise provided in this Subsection 3.2, a vacancy in any directorship filled by the holders of any class or series shall be filled only by vote or written consent in lieu of a meeting of the holders of such class or series or by any remaining director or directors elected by the holders of such class or series pursuant to this Subsection 3.2.

3.3 Preferred Stock Protective Provisions. At any time when at least 43,695,870 shares of Preferred Stock (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Preferred Stock) are outstanding, the Corporation shall not, and shall not permit any subsidiary to, either directly or indirectly by amendment, merger, consolidation or otherwise, do any of the following without (in addition to any other vote required by law or this Amended and Restated Certificate of Incorporation) the written consent or affirmative vote of the Requisite Preferred Holders given in writing or by vote at a meeting, consenting or voting (as the case may be) separately as a class:

3.3.1 liquidate, dissolve or wind-up the affairs of the Corporation, whether voluntarily or involuntarily, or effect any merger or consolidation or any other Deemed Liquidation Event or consent or enter into any agreement to do any of the foregoing;

3.3.2 amend, alter or repeal any provision of this Amended and Restated Certificate of Incorporation or Bylaws of the Corporation if it would adversely alter the rights, preferences, privileges or powers of or restrictions on any series of Preferred Stock;

3.3.3 create or authorize the creation of, or issue, or incur any obligation to issue, any other security convertible into or exercisable for, any equity security, having rights, preferences or privileges senior to or on parity with any series of Preferred Stock, including with respect to redemption and distributions to be made on liquidation or otherwise, or increase the authorized number of shares of Preferred Stock;

3.3.4 reclassify, alter or amend any existing security of the Corporation that is pari passu with any series of Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to such Preferred Stock in respect of any such right, preference, or privilege or (ii) reclassify, alter or amend any existing security of the Corporation that is junior to any series of Preferred Stock in respect of the distribution of assets on the liquidation, dissolution or winding up of the Corporation, the payment of dividends or rights of redemption, if such reclassification, alteration or amendment would render such other security senior to or pari passu with such Preferred Stock in respect of any such right, preference or privilege;

3.3.5 purchase or redeem or pay or declare any dividend or make any distribution on, any shares of capital stock of the Corporation other than (i) redemptions of or dividends or distributions on the Preferred Stock as expressly authorized herein, (ii) dividends or other distributions payable on the Common Stock solely in the form of additional shares of Common Stock and (iii) repurchases of stock from employees, officers, directors, consultants or other persons who performed services for the Corporation or any subsidiary in connection with the cessation of such employment or service at the lower of the original purchase price or the then-current fair market value thereof or (iv) as approved by the Board of Directors, including the approval of a majority of the Preferred Directors;

3.3.6 create or authorize the creation of any debt security other than equipment leases in the ordinary course of business;

3.3.7 create or hold an equity interest in any subsidiary, including a wholly owned subsidiary, or dispose of any subsidiary equity or all or substantially all of any subsidiary assets;

3.3.8 increase or decrease the authorized number of directors constituting the Board of Directors; or

3.3.9 grant or create any lien or security interests in any of the assets of the Corporation or any subsidiary other than equipment in connection with equipment leases in the ordinary course of business and permitted encumbrances.

4. Optional Conversion.

The holders of the Preferred Stock shall have conversion rights as follows (the "**Conversion Rights**"):

4.1 Right to Convert.

4.1.1 Conversion Ratio. Each share of Preferred Stock shall be convertible, at the option of the holder thereof, at any time and from time to time, and without the payment of additional consideration by the holder thereof, into such number of fully paid and non-assessable shares of Common Stock as is determined by dividing the Applicable Original Issue Price by the Applicable Conversion Price (as defined below) in effect at the time of conversion. The "**Series A Conversion Price**" shall initially be equal to $1.00. Such initial Series A Conversion Price, and the rate at which shares of Series A Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below. The "**Series A-1 Conversion Price**" shall initially be equal to $1.15. Such initial Series A-1 Conversion Price, and the rate at which shares of Series A-1 Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below. The "**Series B Conversion Price**" shall initially be equal to $1.265. Such initial Series B Conversion Price, and the rate at which shares of Series B Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below. The "**Series C Conversion Price**" shall initially be equal to $1.3915. Such initial Series C Conversion Price, and the rate at which shares of Series C Preferred Stock may be converted into shares of Common Stock, shall be subject to adjustment as provided below. The "**Applicable Conversion Price**" shall mean the Series A Conversion Price, in the case of Series A Preferred Stock, the Series A-1 Conversion Price, in the case of Series A-1 Preferred Stock, the Series B Conversion Price, in the case of Series B Preferred Stock, and the Series C Conversion Price, in the case of Series C Preferred Stock.

4.1.2 Termination of Conversion Rights. In the event of a liquidation, dissolution or winding up of the Corporation or a Deemed Liquidation Event, the Conversion Rights shall terminate at the close of business on the last full day preceding the date fixed for the payment of any such amounts distributable on such event to the holders of Preferred Stock.

4.2 Fractional Shares. No fractional shares of Common Stock shall be issued upon conversion of the Preferred Stock. In lieu of any fractional shares to which the holder would otherwise be entitled, the Corporation shall pay cash equal to such fraction multiplied by the fair market value of a share of Common Stock as determined in good faith by the Board of Directors of the Corporation. Whether or not fractional shares would be issuable upon such conversion shall be determined on the basis of the total number of shares of Preferred Stock the holder is at the time converting into Common Stock and the aggregate number of shares of Common Stock issuable upon such conversion.

4.3 Mechanics of Conversion.

4.3.1 Notice of Conversion. In order for a holder of Preferred Stock to voluntarily convert shares of Preferred Stock into shares of Common Stock, such holder shall (a) provide written notice to the Corporation's transfer agent at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent) that such holder elects to convert all or any number of such holder's shares of Preferred Stock and, if applicable, any event on which such conversion is contingent and (b), if such holder's shares are certificated, surrender the certificate or certificates for such shares of Preferred Stock (or, if such registered holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate), at the office of the transfer agent for the Preferred Stock (or at the principal office of the Corporation if the Corporation serves as its own transfer agent). Such notice shall state such holder's name or the names of the nominees in which such holder wishes the shares of Common Stock to be issued. If required by the Corporation, any certificates surrendered for conversion shall be endorsed or accompanied by a written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or his, her or its attorney duly authorized in writing. The close of business on the date of receipt by the transfer agent (or by the Corporation if the Corporation serves as its own transfer agent) of such notice and, if applicable, certificates (or lost certificate affidavit and agreement) shall be the time of conversion (the "**Conversion Time**"), and the shares of Common Stock issuable upon conversion of the specified shares shall be deemed to be outstanding of record as of such date. The Corporation shall, as soon as practicable after the Conversion Time (i) issue and deliver to such holder of Preferred Stock, or to his, her or its nominees, a notice of issuance of uncertificated shares and may, upon written request, issue and deliver a certificate for the number of full shares of Common Stock issuable upon such conversion in accordance with the provisions hereof and, may, if applicable and upon written request, issue and deliver a certificate for the number (if any) of the shares of Preferred Stock represented by any surrendered certificate that were not converted into Common Stock, (ii) pay in cash such amount as provided in Subsection 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and (iii) pay all declared but unpaid dividends on the shares of Preferred Stock converted.

4.3.2 Reservation of Shares. The Corporation shall at all times when the Preferred Stock shall be outstanding, reserve and keep available out of its authorized but unissued capital stock, for the purpose of effecting the conversion of the Preferred Stock, such number of its duly authorized shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding Preferred Stock; and if at any time the number of authorized but unissued shares of Common Stock shall not be sufficient to effect the conversion of all then outstanding shares of the Preferred Stock, the Corporation shall take such corporate action as may be necessary to increase its authorized but unissued shares of Common Stock to such number of shares as shall be sufficient for such purposes, including, without limitation, engaging in best efforts to obtain the requisite stockholder approval of any necessary amendment to this Amended and Restated Certificate of Incorporation. Before taking any action which would cause an adjustment reducing a Conversion Price below the then par value of the shares of Common Stock issuable upon conversion of the applicable series of Preferred Stock, the Corporation will take any corporate action which may, in the opinion of its counsel, be necessary in order that the Corporation may validly and legally issue fully paid and non-assessable shares of Common Stock at such adjusted Conversion Price.

4.3.3 Effect of Conversion. All shares of Preferred Stock which shall have been surrendered for conversion as herein provided shall no longer be deemed to be outstanding and all rights with respect to such shares shall immediately cease and terminate at the Conversion Time, except only the right of the holders thereof to receive shares of Common Stock in exchange therefor, to receive payment in lieu of any fraction of a share otherwise issuable upon such conversion as provided in Subsection 4.2 and to receive payment of any dividends declared but unpaid thereon. Any shares of Preferred Stock so converted shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

4.3.4 No Further Adjustment. Upon any such conversion, no adjustment to the Applicable Conversion Price shall be made for any declared but unpaid dividends on the applicable series of Preferred Stock surrendered for conversion or on the Common Stock delivered upon conversion.

4.3.5 Taxes. The Corporation shall pay any and all issue and other similar taxes that may be payable in respect of any issuance or delivery of shares of Common Stock upon conversion of shares of Preferred Stock pursuant to this Section 4. The Corporation shall not, however, be required to pay any tax which may be payable in respect of any transfer involved in the issuance and delivery of shares of Common Stock in a name other than that in which the shares of Preferred Stock so converted were registered, and no such issuance or delivery shall be made unless and until the person or entity requesting such issuance has paid to the Corporation the amount of any such tax or has established, to the satisfaction of the Corporation, that such tax has been paid.

4.4 Adjustments to Applicable Conversion Price for Diluting Issues.

4.4.1 Special Definitions. For purposes of this Article Fourth, the following definitions shall apply:

(a) "**Option**" shall mean rights, options or warrants to subscribe for, purchase or otherwise acquire Common Stock or Convertible Securities.

(b) "**Series C Original Issue Date**" shall mean the date on which the first share of Series C Preferred Stock was issued.

(c) "**Convertible Securities**" shall mean any evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for Common Stock, but excluding Options.

(d) "**Additional Shares of Common Stock**" shall mean all shares of Common Stock issued (or, pursuant to Subsection 4.4.3 below, deemed to be issued) by the Corporation after the Series C Original Issue Date, other than (1) the following shares of Common Stock and (2) shares of Common Stock deemed issued pursuant to the following Options and Convertible Securities (clauses (1) and (2), collectively, "**Exempted Securities**"):

(i) shares of Common Stock, Options or Convertible Securities issued as a dividend or distribution on Preferred Stock;

(ii) shares of Common Stock, Options or Convertible Securities issued by reason of a dividend, stock split, split-up or other distribution on shares of Common Stock that is covered by Subsection 4.5, 4.6, 4.7 or 4.8**;**

(iii) shares of Common Stock or Options issued to employees or directors of, or consultants or advisors to, the Corporation or any of its subsidiaries pursuant to a plan, agreement or arrangement approved by the Board of Directors of the Corporation, including the approval of a majority of the Preferred Directors;

(iv) shares of Common Stock or Convertible Securities actually issued upon the exercise of Options or shares of Common Stock actually issued upon the conversion or exchange of Convertible Securities, in each case provided such issuance is pursuant to the terms of such Option or Convertible Security;

(v) shares of Common Stock, Options or Convertible Securities issued to banks, equipment lessors or other financial institutions, or to real property lessors, pursuant to a debt financing, equipment leasing or real property leasing transaction approved by the Board of Directors of the Corporation, including the approval of a majority of the Preferred Directors; or

(vi) shares of Common Stock, Options or Convertible Securities issued to suppliers or third party service providers in connection with the provision of goods or services pursuant to transactions approved by the Board of Directors of the Corporation, including the approval of a majority of the Preferred Directors;

(vii) shares of Common Stock, Options or Convertible Securities issued as acquisition consideration pursuant to the acquisition of another corporation by the Corporation by merger, purchase of substantially all of the assets or other reorganization or to a joint venture agreement, provided that such issuances are approved by the Board of Directors of the Corporation, including the approval of a majority of the Preferred Directors;

(viii) shares of Common Stock, Options or Convertible Securities issued in connection with sponsored research, collaboration, technology license, development, OEM, marketing or other similar agreements or strategic partnerships approved by the Board of Directors of the Corporation, including the approval of a majority of the Preferred Directors; or

(ix) shares of Common Stock issued or issuable pursuant to that Warrant to Purchase Series A Preferred Stock held by Walter Greenblatt & Associates.

4.4.2 No Adjustment of Applicable Conversion Price. No adjustment in the Applicable Conversion Price shall be made as the result of the issuance or deemed issuance of Additional Shares of Common Stock if the Corporation receives written notice from the Requisite Preferred Holders agreeing that no such adjustment shall be made as the result of the issuance or deemed issuance of such Additional Shares of Common Stock.

4.4.3 Deemed Issue of Additional Shares of Common Stock.

(a) If the Corporation at any time or from time to time after the Series C Original Issue Date shall issue any Options or Convertible Securities (excluding Options or Convertible Securities which are themselves Exempted Securities) or shall fix a record date for the determination of holders of any class of securities entitled to receive any such Options or Convertible Securities, then the maximum number of shares of Common Stock (as set forth in the instrument relating thereto, assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability but without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or, in the case of Convertible Securities and Options therefor, the conversion or exchange of such Convertible Securities, shall be deemed to be Additional Shares of Common Stock issued as of the time of such issue or, in case such a record date shall have been fixed, as of the close of business on such record date.

(b) If the terms of any Option or Convertible Security, the issuance of which resulted in an adjustment to a Conversion Price pursuant to the terms of Subsection 4.4.4, are revised as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase or decrease in the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any such Option or Convertible Security or (2) any increase or decrease in the consideration payable to the Corporation upon such exercise, conversion and/or exchange, then, effective upon such increase or decrease becoming effective, the Conversion Price computed upon the original issue of such Option or Convertible Security (or upon the occurrence of a record date with respect thereto) shall be readjusted to such Conversion Price as would have been obtained had such revised terms been in effect upon the original date of issuance of such Option or Convertible Security. Notwithstanding the foregoing, no readjustment pursuant to this clause (b) shall have the effect of increasing the Applicable Conversion Price to an amount which exceeds the lower of (i) the Applicable Conversion Price in effect immediately prior to the original adjustment made as a result of the issuance of such Option or Convertible Security, or (ii) such Conversion Price that would have resulted from any issuances of Additional Shares of Common Stock (other than deemed issuances of Additional Shares of Common Stock as a result of the issuance of such Option or Convertible Security) between the original adjustment date and such readjustment date.

(c) If the terms of any Option or Convertible Security (excluding Options or Convertible Securities which are themselves Exempted Securities), the issuance of which did not result in an adjustment to a Conversion Price pursuant to the terms of Subsection 4.4.4 (either because the consideration per share (determined pursuant to Subsection 4.4.5) of the Additional Shares of Common Stock subject thereto was equal to or greater than the Applicable Conversion Price then in effect, or because such Option or Convertible Security was issued before the Series C Original Issue Date), are revised after the Series C Original Issue Date as a result of an amendment to such terms or any other adjustment pursuant to the provisions of such Option or Convertible Security (but excluding automatic adjustments to such terms pursuant to anti-dilution or similar provisions of such Option or Convertible Security) to provide for either (1) any increase in the number of shares of Common Stock issuable upon the exercise, conversion or exchange of any such Option or Convertible Security or (2) any decrease in the consideration payable to the Corporation upon such exercise, conversion or exchange, then such Option or Convertible Security, as so amended or adjusted, and the Additional Shares of Common Stock subject thereto (determined in the manner provided in Subsection 4.4.3(a)) shall be deemed to have been issued effective upon such increase or decrease becoming effective.

(d) Upon the expiration or termination of any unexercised Option or unconverted or unexchanged Convertible Security (or portion thereof) which resulted (either upon its original issuance or upon a revision of its terms) in an adjustment to a Conversion Price pursuant to the terms of Subsection 4.4.4, such Conversion Price shall be readjusted to such Conversion Price as would have been obtained had such Option or Convertible Security (or portion thereof) never been issued.

(e) If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, is calculable at the time such Option or Convertible Security is issued or amended but is subject to adjustment based upon subsequent events, any adjustment to a Conversion Price provided for in this Subsection 4.4.3 shall be effected at the time of such issuance or amendment based on such number of shares or amount of consideration without regard to any provisions for subsequent adjustments (and any subsequent adjustments shall be treated as provided in clauses (b) and (c) of this Subsection 4.4.3). If the number of shares of Common Stock issuable upon the exercise, conversion and/or exchange of any Option or Convertible Security, or the consideration payable to the Corporation upon such exercise, conversion and/or exchange, cannot be calculated at all at the time such Option or Convertible Security is issued or amended, any adjustment to a Conversion Price that would result under the terms of this Subsection 4.4.3 at the time of such issuance or amendment shall instead be effected at the time such number of shares and/or amount of consideration is first calculable (even if subject to subsequent adjustments), assuming for purposes of calculating such adjustment to such Conversion Price that such issuance or amendment took place at the time such calculation can first be made.

4.4.4 Adjustment of Applicable Conversion Price Upon Issuance of Additional Shares of Common Stock. In the event the Corporation shall at any time after the Series C Original Issue Date issue Additional Shares of Common Stock (including Additional Shares of Common Stock deemed to be issued pursuant to Subsection 4.4.3), without consideration or for a consideration per share less than the Applicable Conversion Price in effect immediately prior to such issuance or deemed issuance, then the Applicable Conversion Price shall be reduced, concurrently with such issue, to a price (calculated to the nearest one-hundredth of a cent) determined in accordance with the following formula:

$$CP_2 = CP_1 * (A + B) \div (A + C).$$

For purposes of the foregoing formula, the following definitions shall apply:

(a) "CP_2" shall mean the Applicable Conversion Price in effect immediately after such issuance or deemed issuance of Additional Shares of Common Stock

(b) "CP_1" shall mean the Applicable Conversion Price in effect immediately prior to such issuance or deemed issuance of Additional Shares of Common Stock;

(c) "A" shall mean the number of shares of Common Stock outstanding immediately prior to such issuance or deemed issuance of Additional Shares of Common Stock (treating for this purpose as outstanding all shares of Common Stock issuable upon exercise of Options outstanding immediately prior to such issuance or deemed issuance or upon conversion or exchange of Convertible Securities (including the Preferred Stock) outstanding (assuming exercise of any outstanding Options therefor) immediately prior to such issue);

(d) "B" shall mean the number of shares of Common Stock that would have been issued if such Additional Shares of Common Stock had been issued or deemed issued at a price per share equal to CP_1 (determined by dividing the aggregate consideration received by the Corporation in respect of such issue by CP_1); and

(e) "C" shall mean the number of such Additional Shares of Common Stock issued in such transaction.

4.4.5 Determination of Consideration. For purposes of this Subsection 4.4, the consideration received by the Corporation for the issuance or deemed issuance of any Additional Shares of Common Stock shall be computed as follows:

(a) Cash and Property: Such consideration shall:

(i) insofar as it consists of cash, be computed at the aggregate amount of cash received by the Corporation, excluding amounts paid or payable for accrued interest;

(ii) insofar as it consists of property other than cash, be computed at the fair market value thereof at the time of such issue, as determined in good faith by the Board of Directors of the Corporation; and

(iii) in the event Additional Shares of Common Stock are issued together with other shares or securities or other assets of the Corporation for consideration which covers both, be the proportion of such consideration so received, computed as provided in clauses (i) and (ii) above, as determined in good faith by the Board of Directors of the Corporation.

(b) Options and Convertible Securities. The consideration per share received by the Corporation for Additional Shares of Common Stock deemed to have been issued pursuant to Subsection 4.4.3, relating to Options and Convertible Securities, shall be determined by dividing:

(i) The total amount, if any, received or receivable by the Corporation as consideration for the issue of such Options or Convertible Securities, plus the minimum aggregate amount of additional consideration (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such consideration) payable to the Corporation upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities, by

(ii) the maximum number of shares of Common Stock (as set forth in the instruments relating thereto, without regard to any provision contained therein for a subsequent adjustment of such number) issuable upon the exercise of such Options or the conversion or exchange of such Convertible Securities, or in the case of Options for Convertible Securities, the exercise of such Options for Convertible Securities and the conversion or exchange of such Convertible Securities.

4.4.6 Multiple Closing Dates. In the event the Corporation shall issue on more than one date Additional Shares of Common Stock that are a part of one transaction or a series of related transactions and that would result in an adjustment to a Conversion Price pursuant to the terms of Subsection 4.4.4, and such issuance dates occur within a period of no more than ninety (90) days from the first such issuance to the final such issuance, then, upon the final such issuance, such Conversion Price shall be readjusted to give effect to all such issuances as if they occurred on the date of the first such issuance (and without giving effect to any additional adjustments as a result of any such subsequent issuances within such period).

4.5 Adjustment for Stock Splits and Combinations. If the Corporation shall at any time or from time to time after the Series C Original Issue Date effect a subdivision of the outstanding Common Stock, each Conversion Price in effect immediately before that subdivision shall be proportionately decreased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be increased in proportion to such increase in the aggregate number of shares of Common Stock outstanding. If the Corporation shall at any time or from time to time after the Series C Original Issue Date combine the outstanding shares of Common Stock, each Conversion Price in effect immediately before the combination shall be proportionately increased so that the number of shares of Common Stock issuable on conversion of each share of such series shall be decreased in proportion to such decrease in the aggregate number of shares of Common Stock outstanding. Any adjustment under this subsection shall become effective at the close of business on the date the subdivision or combination becomes effective.

4.6 Adjustment for Certain Dividends and Distributions. In the event the Corporation at any time or from time to time after the Series C Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable on the Common Stock in additional shares of Common Stock, then and in each such event each Conversion Price in effect immediately before such event shall be decreased as of the time of such issuance or, in the event such a record date shall have been fixed, as of the close of business on such record date, by multiplying the Applicable Conversion Price then in effect by a fraction:

(1) the numerator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date, and

(2) the denominator of which shall be the total number of shares of Common Stock issued and outstanding immediately prior to the time of such issuance or the close of business on such record date plus the number of shares of Common Stock issuable in payment of such dividend or distribution.

Notwithstanding the foregoing: (a) if such record date shall have been fixed and such dividend is not fully paid or if such distribution is not fully made on the date fixed therefor, each Conversion Price shall be recomputed accordingly as of the close of business on such record date and thereafter each Conversion Price shall be adjusted pursuant to this subsection as of the time of actual payment of such dividends or distributions; and (b) no such adjustment shall be made if the holders of Preferred Stock simultaneously receive a dividend or other distribution of shares of Common Stock in a number equal to the number of shares of Common Stock as they would have received if all outstanding shares of Preferred Stock had been converted into Common Stock on the date of such event.

4.7 Adjustments for Other Dividends and Distributions. In the event the Corporation at any time or from time to time after the Series C Original Issue Date shall make or issue, or fix a record date for the determination of holders of Common Stock entitled to receive, a dividend or other distribution payable in securities of the Corporation (other than a distribution of shares of Common Stock in respect of outstanding shares of Common Stock) or in other property and the provisions of Section 1 do not apply to such dividend or distribution, then and in each such event the holders of Preferred Stock shall receive, simultaneously with the distribution to the holders of Common Stock, a dividend or other distribution of such securities or other property in an amount equal to the amount of such securities or other property as they would have received if all outstanding shares of Preferred Stock had been converted into Common Stock on the date of such event.

4.8 Adjustment for Merger or Reorganization, etc. Subject to the provisions of Subsection 2.4, if there shall occur any reorganization, recapitalization, reclassification, consolidation or merger involving the Corporation in which the Common Stock (but not the Preferred Stock) is converted into or exchanged for securities, cash or other property (other than a transaction covered by Subsections 4.5, 4.6 or 4.7), then, following any such reorganization, recapitalization, reclassification, consolidation or merger, each share of Preferred Stock shall thereafter be convertible in lieu of the Common Stock into which it was convertible prior to such event into the kind and amount of securities, cash or other property which a holder of the number of shares of Common Stock of the Corporation issuable upon conversion of one share of Preferred Stock immediately prior to such reorganization, recapitalization, reclassification, consolidation or merger would have been entitled to receive pursuant to such transaction; and, in such case, appropriate adjustment (as determined in good faith by the Board of Directors of the Corporation) shall be made in the application of the provisions in this Section 4 with respect to the rights and interests thereafter of the holders of the Preferred Stock, to the end that the provisions set forth in this Section 4 (including provisions with respect to changes in and other adjustments of the Conversion Prices) shall thereafter be applicable, as nearly as reasonably may be, in relation to any securities or other property thereafter deliverable upon the conversion of the Preferred Stock.

4.9 Certificate as to Adjustments. Upon the occurrence of each adjustment or readjustment of a Conversion Price pursuant to this Section 4, the Corporation at its expense shall, as promptly as reasonably practicable but in any event not later than ten (10) days thereafter, compute such adjustment or readjustment in accordance with the terms hereof and furnish to each holder of the applicable series of Preferred Stock a certificate setting forth such adjustment or readjustment (including the kind and amount of securities, cash or other property into which the applicable series of Preferred Stock is convertible) and showing in detail the facts upon which such adjustment or readjustment is based. The Corporation shall, as promptly as reasonably practicable after the written request at any time of any holder of Preferred Stock (but in any event not later than ten (10) days thereafter), furnish or cause to be furnished to such holder a certificate setting forth (i) the Applicable Conversion Price then in effect, and (ii) the number of shares of Common Stock and the amount, if any, of other securities, cash or property which then would be received upon the conversion of the applicable series of Preferred Stock.

4.10 Notice of Record Date. In the event:

(a) the Corporation shall take a record of the holders of its Common Stock (or other capital stock or securities at the time issuable upon conversion of the Preferred Stock) for the purpose of entitling or enabling them to receive any dividend or other distribution, or to receive any right to subscribe for or purchase any shares of capital stock of any class or any other securities, or to receive any other security;

(b) of any capital reorganization of the Corporation, any reclassification of the Common Stock of the Corporation, or any Deemed Liquidation Event; or

(c) of the voluntary or involuntary dissolution, liquidation or winding-up of the Corporation,

then, and in each such case, the Corporation will send or cause to be sent to the holders of the Preferred Stock a notice specifying, as the case may be, (i) the record date for such dividend, distribution or right, and the amount and character of such dividend, distribution or right, or (ii) the effective date on which such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up is proposed to take place, and the time, if any is to be fixed, as of which the holders of record of Common Stock (or such other capital stock or securities at the time issuable upon the conversion of the Preferred Stock) shall be entitled to exchange their shares of Common Stock (or such other capital stock or securities) for securities or other property deliverable upon such reorganization, reclassification, consolidation, merger, transfer, dissolution, liquidation or winding-up, and the amount per share and character of such exchange applicable to the Preferred Stock and the Common Stock. Such notice shall be sent at least ten (10) days prior to the record date or effective date for the event specified in such notice.

5. Mandatory Conversion.

5.1 Trigger Events. Upon either (a) the closing of the sale of shares of Common Stock to the public at a price of at least $1.53065 per share (subject to appropriate adjustment in the event of any stock dividend, stock split, combination or other similar recapitalization with respect to the Common Stock), in a firm-commitment underwritten public offering pursuant to an effective registration statement under the Securities Act of 1933, as amended, resulting in at least $50,000,000 of gross proceeds to the Corporation and in connection with such offering the Common Stock is listed for trading on the Nasdaq Global Market, the Nasdaq Capital Market, the New York Stock Exchange or another exchange or marketplace approved the Board of Directors or (b) the date and time, or the occurrence of an event, specified by vote or written consent of the Requisite Preferred Holders (the time of such closing or the date and time specified or the time of the event specified in such vote or written consent is referred to herein as the "**Mandatory Conversion Time**"), then (i) all outstanding shares of Preferred Stock shall automatically be converted into shares of Common Stock, at the then effective conversion rate as calculated pursuant to Subsection 4.1.1, and (ii) such shares may not be reissued by the Corporation.

5.2 Procedural Requirements. All holders of record of shares of Preferred Stock shall be sent written notice of the Mandatory Conversion Time and the place designated for mandatory conversion of all such shares of Preferred Stock pursuant to this Section 5. Such notice need not be sent in advance of the occurrence of the Mandatory Conversion Time. Upon receipt of such notice, each holder of shares of Preferred Stock in certificated form shall surrender his, her or its certificate or certificates for all such shares (or, if such holder alleges that such certificate has been lost, stolen or destroyed, a lost certificate affidavit and agreement reasonably acceptable to the Corporation to indemnify the Corporation against any claim that may be made against the Corporation on account of the alleged loss, theft or destruction of such certificate) to the Corporation at the place designated in such notice. If so required by the Corporation, any certificates surrendered for conversion shall be endorsed or accompanied by written instrument or instruments of transfer, in form satisfactory to the Corporation, duly executed by the registered holder or by his, her or its attorney duly authorized in writing. All rights with respect to the Preferred Stock converted pursuant to Subsection 5.1, including the rights, if any, to receive notices and vote (other than as a holder of Common Stock), will terminate at the Mandatory Conversion Time (notwithstanding the failure of the holder or holders thereof to surrender any certificates at or prior to such time), except only the rights of the holders thereof, upon surrender of any certificate or certificates of such holders (or lost certificate affidavit and agreement) therefor, to receive the items provided for in the next sentence of this Subsection 5.2. As soon as practicable after the Mandatory Conversion Time and, if applicable, the surrender of any certificate or certificates (or lost certificate affidavit and agreement) for Preferred Stock, the Corporation shall (a) issue and deliver to such holder, or to his, her or its nominees, a notice of issuance of uncertificated shares and may, upon written request, issue and deliver a certificate for the number of full shares of Common Stock issuable upon such conversion in accordance with the provisions hereof and (b) pay cash as provided in Subsection 4.2 in lieu of any fraction of a share of Common Stock otherwise issuable upon such conversion and the payment of any declared but unpaid dividends on the shares of Preferred Stock converted. Such converted Preferred Stock shall be retired and cancelled and may not be reissued as shares of such series, and the Corporation may thereafter take such appropriate action (without the need for stockholder action) as may be necessary to reduce the authorized number of shares of Preferred Stock accordingly.

6. Redemption. Except as expressly provided in this Amended and Restated Certificate of Incorporation, the shares of Preferred Stock shall not be redeemable

7. Redeemed or Otherwise Acquired Shares. Any shares of Preferred Stock that are redeemed, converted or otherwise acquired by the Corporation or any of its subsidiaries shall be automatically and immediately cancelled and retired and shall not be reissued, sold or transferred. Neither the Corporation nor any of its subsidiaries may exercise any voting or other rights granted to the holders of Preferred Stock following redemption, conversion or acquisition.

8. Waiver. Any of the rights, powers, preferences and other terms of the Preferred Stock set forth herein may be waived on behalf of all holders of Preferred Stock by the affirmative written consent or vote of the Requisite Preferred Holders.

9. Notices. Any notice required or permitted by the provisions of this Article Fourth to be given to a holder of shares of Preferred Stock shall be mailed, postage prepaid, to the post office address last shown on the records of the Corporation, or given by electronic communication in compliance with the provisions of the General Corporation Law, and shall be deemed sent upon such mailing or electronic transmission.

FIFTH: Subject to any additional vote required by this Amended and Restated Certificate of Incorporation or Bylaws, in furtherance and not in limitation of the powers conferred by statute, the Board of Directors is expressly authorized to make, repeal, alter, amend and rescind any or all of the Bylaws of the Corporation.

SIXTH: Subject to any additional vote required by this Amended and Restated Certificate of Incorporation, the number of directors of the Corporation shall be determined in the manner set forth in the Bylaws of the Corporation.

SEVENTH: Elections of directors need not be by written ballot unless the Bylaws of the Corporation shall so provide.

EIGHTH: Meetings of stockholders may be held within or without the State of Delaware, as the Bylaws of the Corporation may provide. The books of the Corporation may be kept outside the State of Delaware at such place or places as may be designated from time to time by the Board of Directors or in the Bylaws of the Corporation.

NINTH: To the fullest extent permitted by law, a director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director. If the General Corporation Law or any other law of the State of Delaware is amended after approval by the stockholders of this Article Ninth to authorize corporate action further eliminating or limiting the personal liability of directors, then the liability of a director of the Corporation shall be eliminated or limited to the fullest extent permitted by the General Corporation Law as so amended.

Any repeal or modification of the foregoing provisions of this Article Ninth by the stockholders of the Corporation shall not adversely affect any right or protection of a director of the Corporation existing at the time of, or increase the liability of any director of the Corporation with respect to any acts or omissions of such director occurring prior to, such repeal or modification.

TENTH: The following indemnification provisions shall apply to the persons enumerated below.

1. Right to Indemnification of Directors and Officers. The Corporation shall indemnify and hold harmless, to the fullest extent permitted by applicable law as it presently exists or may hereafter be amended, any person (an "**Indemnified Person**") who was or is made or is threatened to be made a party or is otherwise involved in any action, suit or proceeding, whether civil, criminal, administrative or investigative (a "**Proceeding**"), by reason of the fact that such person, or a person for whom such person is the legal representative, is or was a director or officer of the Corporation or, while a director or officer of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, limited liability company, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys" fees) reasonably incurred by such Indemnified Person in such Proceeding. Notwithstanding the preceding sentence, except as otherwise provided in Section 3 of this Article Tenth the Corporation shall be required to indemnify an Indemnified Person in connection with a Proceeding (or part thereof) commenced by such Indemnified Person only if the commencement of such Proceeding (or part thereof) by the Indemnified Person was authorized in advance by the Board of Directors.

2. Prepayment of Expenses of Directors and Officers. The Corporation shall pay the expenses (including attorneys' fees) incurred by an Indemnified Person in defending any Proceeding in advance of its final disposition, provided, however, that, to the extent required by law, such payment of expenses in advance of the final disposition of the Proceeding shall be made only upon receipt of an undertaking by the Indemnified Person to repay all amounts advanced if it should be ultimately determined that the Indemnified Person is not entitled to be indemnified under this Article Tenth or otherwise.

3. Claims by Directors and Officers. If a claim for indemnification or advancement of expenses under this Article Tenth is not paid in full within thirty (30) days after a written claim therefor by the Indemnified Person has been received by the Corporation, the Indemnified Person may file suit to recover the unpaid amount of such claim and, if successful in whole or in part, shall be entitled to be paid the expense of prosecuting such claim. In any such action the Corporation shall have the burden of proving that the Indemnified Person is not entitled to the requested indemnification or advancement of expenses under applicable law.

4. Indemnification of Employees and Agents. The Corporation may indemnify and advance expenses to any person who was or is made or is threatened to be made or is otherwise involved in any Proceeding by reason of the fact that such person, or a person for whom such person is the legal representative, is or was an employee or agent of the Corporation or, while an employee or agent of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, limited liability company, trust, enterprise or nonprofit entity, including service with respect to employee benefit plans, against all liability and loss suffered and expenses (including attorneys' fees) reasonably incurred by such person in connection with such Proceeding. The ultimate determination of entitlement to indemnification of persons who are non-director or officer employees or agents shall be made in such manner as is determined by the Board of Directors in its sole discretion. Notwithstanding the foregoing sentence, the Corporation shall not be required to indemnify a person in connection with a Proceeding initiated by such person if the Proceeding was not authorized in advance by the Board of Directors.

5. Advancement of Expenses of Employees and Agents. The Corporation may pay the expenses (including attorneys' fees) incurred by an employee or agent in defending any Proceeding in advance of its final disposition on such terms and conditions as may be determined by the Board of Directors.

6. Non-Exclusivity of Rights. The rights conferred on any person by this Article Tenth shall not be exclusive of any other rights which such person may have or hereafter acquire under any statute, provision of this Amended and Restated Certificate of Incorporation, the Bylaws of the Corporation, or any agreement, or pursuant to any vote of stockholders or disinterested directors or otherwise.

7. Other Indemnification. The Corporation's obligation, if any, to indemnify any person who was or is serving at its request as a director, officer or employee of another Corporation, partnership, limited liability company, joint venture, trust, organization or other enterprise shall be reduced by any amount such person may collect as indemnification from such other Corporation, partnership, limited liability company, joint venture, trust, organization or other enterprise.

8. Insurance. The Board of Directors may, to the full extent permitted by applicable law as it presently exists, or may hereafter be amended from time to time, authorize an appropriate officer or officers to purchase and maintain at the Corporation's expense insurance: (a) to indemnify the Corporation for any obligation which it incurs as a result of the indemnification of directors, officers and employees under the provisions of this Article Tenth; and (b) to indemnify or insure directors, officers and employees against liability in instances in which they may not otherwise be indemnified by the Corporation under the provisions of this Article Tenth.

9. Amendment or Repeal. Any repeal or modification of the foregoing provisions of this Article Tenth shall not adversely affect any right or protection hereunder of any person in respect of any act or omission occurring prior to the time of such repeal or modification. The rights provided hereunder shall inure to the benefit of any Indemnified Person and such person's heirs, executors and administrators.

ELEVENTH: The Corporation renounces, to the fullest extent permitted by law, any interest or expectancy of the Corporation in, or in being offered, an opportunity to participate in, any matter, transaction or interest that is presented to, or acquired, created or developed by, or which otherwise comes into the possession of, (i) any director of the Corporation who is not an employee or consultant of the Corporation or any of its subsidiaries, or (ii) any holder of Preferred Stock or any partner, member, director, stockholder, officer, employee or agent of any such holder, other than someone who is an employee of the Corporation or any of its subsidiaries (collectively, the persons referred to in clauses (i) and (ii) are "**Covered Persons**"), unless such matter, transaction or interest is presented to, or acquired, created or developed by, or otherwise comes into the possession of, a Covered Person expressly and solely in such Covered Person's capacity as a director of the Corporation (an "**Investor Business Opportunity**"). To the fullest extent permitted by law, and solely in connection therewith, the Corporation hereby waives any claim against a Covered Person, and agrees to indemnify all Covered Persons against any claim, that is based on fiduciary duties, the corporate opportunity doctrine or any other legal theory which could limit any Covered Person from pursuing or engaging in any Investor Business Opportunity.

TWELFTH: Unless the Corporation consents in writing to the selection of an alternative forum, the Court of Chancery in the State of Delaware shall be the sole and exclusive forum for any stockholder (including a beneficial owner) to bring (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any action asserting a claim of breach of fiduciary duty owed by any director, officer or other employee of the Corporation to the Corporation or the Corporation's stockholders, (iii) any action asserting a claim against the Corporation, its directors, officers or employees arising pursuant to any provision of the Delaware General Corporation Law or the Corporation's certificate of incorporation or bylaws or (iv) any action asserting a claim against the Corporation, its directors, officers or employees governed by the internal affairs doctrine, except for, as to each of (i) through (iv) above, any claim as to which the Court of Chancery determines that there is an indispensable party not subject to the jurisdiction of the Court of Chancery (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery within ten days following such determination), which is vested in the exclusive jurisdiction of a court or forum other than the Court of Chancery, or for which the Court of Chancery does not have subject matter jurisdiction. If any provision or provisions of this Article Twelfth shall be held to be invalid, illegal or unenforceable as applied to any person or entity or circumstance for any reason whatsoever, then, to the fullest extent permitted by law, the validity, legality and enforceability of such provisions in any other circumstance and of the remaining provisions of this Article Twelfth (including, without limitation, each portion of any sentence of this Article Twelfth containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) and the application of such provision to other persons or entities and circumstances shall not in any way be affected or impaired thereby.

* * *

3. That the foregoing amendment and restatement was approved by the holders of the requisite number of shares of this corporation in accordance with Section 228 of the General Corporation Law.

4. That this Amended and Restated Certificate of Incorporation, which restates and integrates and further amends the provisions of this Corporation's Certificate of Incorporation, has been duly adopted in accordance with Sections 242 and 245 of the General Corporation Law.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, this Amended and Restated Certificate of Incorporation has been executed by a duly authorized officer of this corporation on this 22nd day of February, 2021.

By: /s/ Rene Russo
Name: Rene Russo
Title: Chief Executive Officer

Exhibit 3.2

BYLAWS

OF

XILIO THERAPEUTICS, INC.

(a Delaware corporation)

TABLE OF CONTENTS

ARTICLE I

STOCKHOLDERS

1.1 Place of Meetings. All meetings of stockholders shall be held at such place, if any, as may be designated from time to time by the Board of Directors, the Chairman of the Board, the Chief Executive Officer or the President or, if not so designated, at the principal executive office of the corporation. The Board of Directors may, in its sole discretion, determine that a meeting shall not be held at any place, but shall instead be held solely by means of remote communication in a manner consistent with the General Corporation Law of the State of Delaware.

1.2 Annual Meeting. The annual meeting of stockholders for the election of directors and for the transaction of such other business as may properly be brought before the meeting shall be held on a date and at a time designated by the Board of Directors, the Chairman of the Board, the Chief Executive Officer or the President. The Board of Directors may postpone, reschedule or cancel any previously scheduled annual meeting of stockholders.

1.3 Special Meetings. Special meetings of stockholders for any purpose or purposes may be called at any time only by the Board of Directors, the Chairman of the Board, the Chief Executive Officer or the President, and may not be called by any other person or persons. Business transacted at any special meeting of stockholders shall be limited to matters relating to the purpose or purposes stated in the notice of meeting. The Board of Directors may postpone, reschedule or cancel any previously scheduled special meeting of stockholders.

1.4 Notice of Meetings. Except as otherwise provided by law, the Certificate of Incorporation or these Bylaws, notice of each meeting of stockholders, whether annual or special, shall be given not less than 10 nor more than 60 days before the date of the meeting to each stockholder entitled to vote at such meeting. Without limiting the manner by which notice otherwise may be given to stockholders, any notice shall be effective if given by a form of electronic transmission consented to (in a manner consistent with the General Corporation Law of the State of Delaware) by the stockholder to whom the notice is given. The notices of all meetings shall state the place, if any, date and time of the meeting and the means of remote communications, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such meeting. The notice of a special meeting shall state, in addition, the purpose or purposes for which the meeting is called. If notice is given by mail, such notice shall be deemed given when deposited in the United States mail, postage prepaid, directed to the stockholder at such stockholder’s address as it appears on the records of the corporation. If notice is given by electronic transmission, such notice shall be deemed given at the time specified in Section 232 of the General Corporation Law of the State of Delaware.

1.5 Voting List. The corporation shall prepare, at least 10 days before every meeting of stockholders, a complete list of the stockholders entitled to vote at the meeting, arranged in alphabetical order, and showing the address of each stockholder and the number of shares registered in the name of each stockholder. Such list shall be open to the examination of any stockholder, for any purpose germane to the meeting, for a period of at least 10 days prior to the meeting: (a) on a reasonably accessible electronic network, provided that the information required to gain access to such list is provided with the notice of the meeting, or (b) during ordinary business hours, at the principal place of business of the corporation. If the meeting is to be held at a physical location (and not solely by means of remote communication), then the list shall be produced and kept at the time and place of the meeting during the whole time thereof, and may be examined by any stockholder who is present. If the meeting is to be held solely by means of remote communication, then the list shall also be open to the examination of any stockholder during the whole time of the meeting on a reasonably accessible electronic network, and the information required to access such list shall be provided with the notice of the meeting. Except as otherwise provided by law, such list shall be the only evidence as to who are the stockholders entitled to examine the list of stockholders required by this Section 1.5 or to vote in person or by proxy at any meeting of stockholders.

1.6 Quorum. Except as otherwise provided by law, the Certificate of Incorporation or these Bylaws, the holders of a majority in voting power of the shares of the capital stock of the corporation issued and outstanding and entitled to vote at the meeting, present in person, present by means of remote communication in a manner, if any, authorized by the Board of Directors in its sole discretion, or represented by proxy, shall constitute a quorum for the transaction of business; provided, however, that where a separate vote by a class or classes or series of capital stock is required by law or the Certificate of Incorporation, the holders of a majority in voting power of the shares of such class or classes or series of the capital stock of the corporation issued and outstanding and entitled to vote on such matter, present in person, present by means of remote communication in a manner, if any, authorized by the Board of Directors in its sole discretion, or represented by proxy, shall constitute a quorum entitled to take action with respect to the vote on such matter. A quorum, once established at a meeting, shall not be broken by the withdrawal of enough votes to leave less than a quorum.

1.7 Adjournments. Any meeting of stockholders may be adjourned from time to time to reconvene at any other time and to any other place at which a meeting of stockholders may be held under these Bylaws by the chairman of the meeting or by the stockholders present or represented at the meeting and entitled to vote, although less than a quorum. It shall not be necessary to notify any stockholder of any adjournment of less than 30 days if the time and place, if any, of the adjourned meeting, and the means of remote communication, if any, by which stockholders and proxyholders may be deemed to be present in person and vote at such adjourned meeting, are announced at the meeting at which adjournment is taken, unless after the adjournment a new record date is fixed for the adjourned meeting. At the adjourned meeting, the corporation may transact any business that might have been transacted at the original meeting. If the adjournment is for more than 30 days, a notice of the adjourned meeting shall be given to each stockholder of record entitled to vote at the meeting.

1.8 Voting and Proxies. Each stockholder shall have one vote upon the matter in question for each share of stock entitled to vote held of record by such stockholder and a proportionate vote for each fractional share so held, unless otherwise provided by law or the Certificate of Incorporation. Each stockholder of record entitled to vote at a meeting of stockholders, or to express consent or dissent to corporate action without a meeting, may vote or express such consent or dissent in person (including by means of remote communications, if any, by which stockholders may be deemed to be present in person and vote at such meeting) or may authorize another person or persons to vote or act for such stockholder by a proxy executed or transmitted in a manner permitted by the General Corporation Law of the State of Delaware by the stockholder or such stockholder's authorized agent and delivered (including by electronic transmission) to the Secretary of the corporation. No such proxy shall be voted or acted upon after three years from the date of its execution, unless the proxy expressly provides for a longer period.

1.9 Action at Meeting. When a quorum is present at any meeting, any matter other than the election of directors to be voted upon by the stockholders at such meeting shall be decided by the vote of the holders of shares of stock having a majority in voting power of the votes cast by the holders of all of the shares of stock present or represented at the meeting and voting affirmatively or negatively on such matter (or if there are two or more classes or series of stock entitled to vote as separate classes, then in the case of each such class or series, the holders of a majority in voting power of the shares of stock of that class or series present or represented at the meeting and voting affirmatively or negatively on such matter), except when a different vote is required by law, the Certificate of Incorporation or these Bylaws. When a quorum is present at any meeting, any election by stockholders of directors shall be determined by a plurality of the votes cast by the stockholders entitled to vote on the election.

1.10 Conduct of Meetings.

(a) Chairman of Meeting. Unless otherwise provided by the Board of Directors, meetings of stockholders shall be presided over by the Chairman of the Board, if any, or in the Chairman's absence by the Vice Chairman of the Board, if any, or in the Vice Chairman's absence by the Chief Executive Officer, or in the Chief Executive Officer's absence, by the President, or in the President's absence by a Vice President, or in the absence of all of the foregoing persons by a chairman designated by the Board of Directors, or in the absence of such designation by a chairman chosen by vote of the stockholders at the meeting. The Secretary shall act as secretary of the meeting, but in the Secretary's absence the chairman of the meeting may appoint any person to act as secretary of the meeting.

(b) Rules, Regulations and Procedures. The Board of Directors may adopt by resolution such rules, regulations and procedures for the conduct of any meeting of stockholders of the corporation as it shall deem appropriate including, without limitation, such guidelines and procedures as it may deem appropriate regarding the participation by means of remote communication of stockholders and proxyholders not physically present at a meeting. Except to the extent inconsistent with such rules, regulations and procedures as adopted by the Board of Directors, the chairman of any meeting of stockholders shall have the right and authority to convene and (for any or no reason) to recess and/or adjourn the meeting and prescribe such rules, regulations and procedures and to do all such acts as, in the judgment of such chairman, are appropriate for the proper conduct of the meeting. Such rules, regulations or procedures, whether adopted by the Board of Directors or prescribed by the chairman of the meeting, may include, without limitation, the following: (i) the establishment of an agenda or order of business for the meeting; (ii) rules and procedures for maintaining order at the meeting and the safety of those present; (iii) limitations on attendance at or participation in the meeting to stockholders entitled to vote at the meeting, their duly authorized and constituted proxies or such other persons as shall be determined; (iv) restrictions on entry to the meeting after the time fixed for the commencement thereof; and (v) limitations on the time allotted to questions or comments by participants. Unless and to the extent determined by the Board of Directors or the chairman of the meeting, meetings of stockholders shall not be required to be held in accordance with the rules of parliamentary procedure.

1.11 Action without Meeting.

(a) Taking of Action by Consent. Any action required or permitted to be taken at any annual or special meeting of stockholders of the corporation may be taken without a meeting, without prior notice and without a vote, if a consent or consents in writing, setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote on such action were present and voted. Except as otherwise provided by the Certificate of Incorporation, stockholders may act by written consent to elect directors; provided, however, that, if such consent is less than unanimous, such action by written consent may be in lieu of holding an annual meeting only if all of the directorships to which directors could be elected at an annual meeting held at the effective time of such action are vacant and are filled by such action.

(b) Electronic Transmission of Consents. A telegram, cablegram or other electronic transmission consenting to an action to be taken and transmitted by a stockholder or proxyholder, or by a person or persons authorized to act for a stockholder or proxyholder, shall be deemed to be written, signed and dated for the purposes of this section, provided that any such telegram, cablegram or other electronic transmission sets forth or is delivered with information from which the corporation can determine (i) that the telegram, cablegram or other electronic transmission was transmitted by the stockholder or proxyholder or by a person or persons authorized to act for the stockholder or proxyholder and (ii) the date on which such stockholder or proxyholder or authorized person or persons transmitted such telegram, cablegram or electronic transmission. The date on which such telegram, cablegram or electronic transmission is transmitted shall be deemed to be the date on which such consent was signed. No consent given by telegram, cablegram or other electronic transmission shall be deemed to have been delivered until such consent is reproduced in paper form and until such paper form shall be delivered to the corporation by delivery to its registered office in the State of Delaware, its principal place of business or an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded. Delivery made to a corporation's registered office shall be made by hand or by certified or registered mail, return receipt requested. Notwithstanding the foregoing limitations on delivery, consents given by telegram, cablegram or other electronic transmission may be otherwise delivered to the principal place of business of the corporation or to an officer or agent of the corporation having custody of the book in which proceedings of meetings of stockholders are recorded if, to the extent and in the manner provided by resolution of the Board of Directors. Any copy, facsimile or other reliable reproduction of a consent in writing may be substituted or used in lieu of the original writing for any and all purposes for which the original writing could be used, provided that such copy, facsimile or other reproduction shall be a complete reproduction of the entire original writing.

(c) Notice of Taking of Corporate Action. Prompt notice of the taking of corporate action without a meeting by less than unanimous written consent shall be given to those stockholders who have not consented in writing and who, if the action had been taken at a meeting, would have been entitled to notice of the meeting if the record date for such meeting had been the date that written consents signed by a sufficient number of holders to take the action were delivered to the corporation.

ARTICLE II

DIRECTORS

2.1 General Powers. The business and affairs of the corporation shall be managed by or under the direction of a Board of Directors, who may exercise all of the powers of the corporation except as otherwise provided by law or the Certificate of Incorporation.

2.2 Number, Election and Qualification. Subject to the rights of holders of any series of Preferred Stock to elect directors, the number of directors of the corporation shall be established from time to time by the stockholders or the Board of Directors. The directors shall be elected at the annual meeting of stockholders by such stockholders as have the right to vote on such election. Election of directors need not be by written ballot. Directors need not be stockholders of the corporation.

2.3 Chairman of the Board; Vice Chairman of the Board. The Board of Directors may appoint from its members a Chairman of the Board and a Vice Chairman of the Board, neither of whom need be an employee or officer of the corporation. If the Board of Directors appoints a Chairman of the Board, such Chairman shall perform such duties and possess such powers as are assigned by the Board of Directors and, if the Chairman of the Board is also designated as the corporation's Chief Executive Officer, shall have the powers and duties of the Chief Executive Officer prescribed in Section 3.7 of these Bylaws. If the Board of Directors appoints a Vice Chairman of the Board, such Vice Chairman shall perform such duties and possess such powers as are assigned by the Board of Directors or the Chairman of the Board. Unless otherwise provided by the Board of Directors, the Chairman of the Board or, in the Chairman's absence, the Vice Chairman of the Board, if any, shall preside at all meetings of the Board of Directors.

2.4 Tenure. Each director shall hold office until the next annual meeting of stockholders and until a successor is elected and qualified, or until such director's earlier death, resignation or removal.

2.5 Quorum. The greater of (a) a majority of the directors at any time in office and (b) one-third of the number of directors fixed pursuant to Section 2.2 of these Bylaws shall constitute a quorum of the Board of Directors. If at any meeting of the Board of Directors there shall be less than such a quorum, a majority of the directors present may adjourn the meeting from time to time without further notice other than announcement at the meeting, until a quorum shall be present.

2.6 Action at Meeting. Every act or decision done or made by a majority of the directors present at a meeting duly held at which a quorum is present shall be regarded as the act of the Board of Directors, unless a greater number is required by law or by the Certificate of Incorporation.

2.7 Removal. Except as otherwise provided by the General Corporation Law of the State of Delaware, any one or more or all of the directors of the corporation may be removed, with or without cause, by the holders of a majority of the shares then entitled to vote at an election of directors, except that the directors elected by the holders of a particular class or series of stock may be removed without cause only by vote of the holders of a majority of the outstanding shares of such class or series.

2.8 Vacancies. Subject to the rights of holders of any series of Preferred Stock to elect directors, unless and until filled by the stockholders, any vacancy or newly-created directorship on the Board of Directors, however occurring, may be filled by vote of a majority of the directors then in office, although less than a quorum, or by a sole remaining director. A director elected to fill a vacancy shall be elected for the unexpired term of such director's predecessor in office, and a director chosen to fill a position resulting from a newly-created directorship shall hold office until the next annual meeting of stockholders and until a successor is elected and qualified, or until such director's earlier death, resignation or removal.

2.9 Resignation. Any director may resign by delivering a resignation in writing or by electronic transmission to the corporation at its principal executive office or to the Chairman of the Board, the Chief Executive Officer, the President or the Secretary. Such resignation shall be effective upon receipt unless it is specified to be effective at some later time or upon the happening of some later event.

2.10 Regular Meetings. Regular meetings of the Board of Directors may be held without notice at such time and place as shall be determined from time to time by the Board of Directors; provided that any director who is absent when such a determination is made shall be given notice of the determination. A regular meeting of the Board of Directors may be held without notice immediately after and at the same place as the annual meeting of stockholders.

2.11 Special Meetings. Special meetings of the Board of Directors may be held at any time and place designated in a call by the Chairman of the Board, the Chief Executive Officer, the President, two or more directors, or by one director in the event that there is only a single director in office.

2.12 Notice of Special Meetings. Notice of the date, place and time of any special meeting of directors shall be given to each director by the Secretary or by the officer or one of the directors calling the meeting. Notice shall be duly given to each director (a) in person or by telephone at least 24 hours in advance of the meeting, (b) by sending an electronic transmission, or delivering written notice by hand or reputable overnight delivery service, to such director's last known business, home or electronic transmission address at least 48 hours in advance of the meeting, or (c) by sending written notice by first-class mail to such director's last known business or home address at least 72 hours in advance of the meeting. A notice or waiver of notice of a meeting of the Board of Directors need not specify the purposes of the meeting.

2.13 Meetings by Conference Communications Equipment. Directors may participate in meetings of the Board of Directors or any committee thereof by means of conference telephone or other communications equipment by means of which all persons participating in the meeting can hear each other, and participation by such means shall constitute presence in person at such meeting.

2.14 Action by Consent. Any action required or permitted to be taken at any meeting of the Board of Directors or of any committee thereof may be taken without a meeting, if all members of the Board of Directors or committee, as the case may be, consent to the action in writing or by electronic transmission, and the written consents or electronic transmissions are filed with the minutes of proceedings of the Board of Directors or committee. Such filing shall be in paper form if the minutes are maintained in paper form and shall be in electronic form if the minutes are maintained in electronic form.

2.15 Committees. The Board of Directors may designate one or more committees, each committee to consist of one or more of the directors of the corporation with such lawfully delegable powers and duties as the Board of Directors thereby confers, to serve at the pleasure of the Board of Directors. The Board of Directors may designate one or more directors as alternate members of any committee, who may replace any absent or disqualified member at any meeting of the committee. In the absence or disqualification of a member of a committee, the member or members of the committee present at any meeting and not disqualified from voting, whether or not such member or members constitute a quorum, may unanimously appoint another member of the Board of Directors to act at the meeting in the place of any such absent or disqualified member. Any such committee, to the extent provided in the resolution of the Board of Directors and subject to the provisions of law, shall have and may exercise all the powers and authority of the Board of Directors in the management of the business and affairs of the corporation and may authorize the seal of the corporation to be affixed to all papers that may require it. Each such committee shall keep minutes and make such reports as the Board of Directors may from time to time request. Except as the Board of Directors may otherwise determine, any committee may make rules for the conduct of its business, but unless otherwise provided by the directors or in such rules, its business shall be conducted as nearly as possible in the same manner as is provided in these Bylaws for the Board of Directors. Except as otherwise provided in the Certificate of Incorporation, these Bylaws, or the resolution of the Board of Directors designating the committee, a committee may create one or more subcommittees, each subcommittee to consist of one or more members of the committee, and delegate to a subcommittee any or all of the powers and authority of the committee.

2.16 Compensation of Directors. Directors may be paid such compensation for their services and such reimbursement for expenses of attendance at meetings as the Board of Directors may from time to time determine. No such payment shall preclude any director from serving the corporation or any of its parent or subsidiary entities in any other capacity and receiving compensation for such service.

ARTICLE III

OFFICERS

3.1 Titles. The officers of the corporation shall consist of a Chief Executive Officer, a President, a Secretary, a Treasurer and such other officers with such other titles as the Board of Directors shall determine, including one or more Vice Presidents, Assistant Treasurers and Assistant Secretaries. The Board of Directors may appoint such other officers as it may deem appropriate.

3.2 Election. The Chief Executive Officer, President, Treasurer and Secretary shall be elected annually by the Board of Directors at its first meeting following the annual meeting of stockholders. Other officers may be appointed by the Board of Directors at such meeting or at any other meeting.

3.3 Qualification. No officer need be a stockholder. Any two or more offices may be held by the same person.

3.4 Tenure. Except as otherwise provided by law, by the Certificate of Incorporation or by these Bylaws, each officer shall hold office until such officer's successor is elected and qualified, unless a different term is specified in the resolution electing or appointing such officer, or until such officer's earlier death, resignation or removal.

3.5 Resignation and Removal. Any officer may resign by delivering a resignation in writing or by electronic transmission to the corporation at its principal executive office or to the Chief Executive Officer, the President or the Secretary. Such resignation shall be effective upon receipt unless it is specified to be effective at some later time or upon the happening of some later event. Any officer may be removed at any time, with or without cause, by vote of a majority of the directors then in office. Except as the Board of Directors may otherwise determine, no officer who resigns or is removed shall have any right to any compensation as an officer for any period following such officer's resignation or removal, or any right to damages on account of such removal, whether such officer's compensation be by the month or by the year or otherwise, unless such compensation is expressly provided for in a duly authorized written agreement with the corporation.

3.6 Vacancies. The Board of Directors may fill any vacancy occurring in any office for any reason and may, in its discretion, leave unfilled for such period as it may determine any offices. Each such successor shall hold office for the unexpired term of such officer's predecessor and until a successor is elected and qualified, or until such officer's earlier death, resignation or removal.

3.7 President; Chief Executive Officer. Unless the Board of Directors has designated another person as the corporation's Chief Executive Officer, the President shall be the Chief Executive Officer of the corporation. The Chief Executive Officer shall have general charge and supervision of the business of the corporation subject to the direction of the Board of Directors, and shall perform all duties and have all powers that are commonly incident to the office of the chief executive or that are delegated to such officer by the Board of Directors. The President shall perform such other duties and shall have such other powers as the Board of Directors or the Chief Executive Officer (if the President is not the Chief Executive Officer) may from time to time prescribe. In the event of the absence, inability or refusal to act of the Chief Executive Officer or the President (if the President is not the Chief Executive Officer), the Vice President (or if there shall be more than one, the Vice Presidents in the order determined by the Board of Directors) shall perform the duties of the Chief Executive Officer and when so performing such duties shall have all the powers of and be subject to all the restrictions upon the Chief Executive Officer.

3.8 Vice Presidents. Each Vice President shall perform such duties and possess such powers as the Board of Directors or the Chief Executive Officer may from time to time prescribe. The Board of Directors may assign to any Vice President the title of Executive Vice President, Senior Vice President or any other title selected by the Board of Directors.

3.9 Secretary and Assistant Secretaries. The Secretary shall perform such duties and shall have such powers as the Board of Directors or the Chief Executive Officer may from time to time prescribe. In addition, the Secretary shall perform such duties and have such powers as are incident to the office of the secretary, including without limitation the duty and power to give notices of all meetings of stockholders and special meetings of the Board of Directors, to attend all meetings of stockholders and the Board of Directors and keep a record of the proceedings, to maintain a stock ledger and prepare lists of stockholders and their addresses as required, to be custodian of corporate records and the corporate seal and to affix and attest to the same on documents.

Any Assistant Secretary shall perform such duties and possess such powers as the Board of Directors, the Chief Executive Officer or the Secretary may from time to time prescribe. In the event of the absence, inability or refusal to act of the Secretary, the Assistant Secretary (or if there shall be more than one, the Assistant Secretaries in the order determined by the Board of Directors) shall perform the duties and exercise the powers of the Secretary.

In the absence of the Secretary or any Assistant Secretary at any meeting of stockholders or directors, the chairman of the meeting shall designate a temporary secretary to keep a record of the meeting.

3.10 Treasurer and Assistant Treasurers. The Treasurer shall perform such duties and shall have such powers as may from time to time be assigned by the Board of Directors or the Chief Executive Officer. In addition, the Treasurer shall perform such duties and have such powers as are incident to the office of treasurer, including without limitation the duty and power to keep and be responsible for all funds and securities of the corporation, to deposit funds of the corporation in depositories selected in accordance with these Bylaws, to disburse such funds as ordered by the Board of Directors, to make proper accounts of such funds, and to render as required by the Board of Directors statements of all such transactions and of the financial condition of the corporation.

The Assistant Treasurers shall perform such duties and possess such powers as the Board of Directors, the Chief Executive Officer or the Treasurer may from time to time prescribe. In the event of the absence, inability or refusal to act of the Treasurer, the Assistant Treasurer (or if there shall be more than one, the Assistant Treasurers in the order determined by the Board of Directors) shall perform the duties and exercise the powers of the Treasurer.

3.11 Salaries. Officers of the corporation shall be entitled to such salaries, compensation or reimbursement as shall be fixed or allowed from time to time by the Board of Directors.

3.12 Delegation of Authority. The Board of Directors may from time to time delegate the powers or duties of any officer to any other officer or agent, notwithstanding any provision hereof.

ARTICLE IV

CAPITAL STOCK

4.1 Issuance of Stock. Subject to the provisions of the Certificate of Incorporation, the whole or any part of any unissued balance of the authorized capital stock of the corporation or the whole or any part of any shares of the authorized capital stock of the corporation held in the corporation's treasury may be issued, sold, transferred or otherwise disposed of by vote of the Board of Directors in such manner, for such lawful consideration and on such terms as the Board of Directors may determine.

4.2 Stock Certificates; Uncertificated Shares. The shares of the corporation shall be represented by certificates, provided that the Board of Directors may provide by resolution or resolutions that some or all of any or all classes or series of the corporation's stock shall be uncertificated shares. Any such resolution shall not apply to shares represented by a certificate until such certificate is surrendered to the corporation. Every holder of stock of the corporation represented by certificates shall be entitled to have a certificate, in such form as may be prescribed by law and by the Board of Directors, representing the number of shares held by such holder registered in certificate form. Each such certificate shall be signed in a manner that complies with Section 158 of the General Corporation Law of the State of Delaware.

Each certificate for shares of stock that are subject to any restriction on transfer pursuant to the Certificate of Incorporation, these Bylaws, applicable securities laws or any agreement among any number of stockholders or among such holders and the corporation shall have conspicuously noted on the face or back of the certificate either the full text of the restriction or a statement of the existence of such restriction.

If the corporation shall be authorized to issue more than one class of stock or more than one series of any class, the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights shall be set forth in full or summarized on the face or back of each certificate representing shares of such class or series of stock, provided that in lieu of the foregoing requirements there may be set forth on the face or back of each certificate representing shares of such class or series of stock a statement that the corporation will furnish without charge to each stockholder who so requests a copy of the full text of the powers, designations, preferences and relative, participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

Within a reasonable time after the issuance or transfer of uncertificated shares, the registered owner thereof shall be given a notice, in writing or by electronic transmission, containing the information required to be set forth or stated on certificates pursuant to Sections 151, 156, 202(a) or 218(a) of the General Corporation Law of the State of Delaware or, with respect to Section 151 of the General Corporation Law of the State of Delaware, a statement that the corporation will furnish without charge to each stockholder who so requests the powers, designations, preferences and relative participating, optional or other special rights of each class of stock or series thereof and the qualifications, limitations or restrictions of such preferences and/or rights.

4.3 Transfers. Shares of stock of the corporation shall be transferable in the manner prescribed by law and in these Bylaws. Transfers of shares of stock of the corporation shall be made only on the books of the corporation or by transfer agents designated to transfer shares of stock of the corporation. Subject to applicable law, shares of stock represented by certificates shall be transferred only on the books of the corporation by the surrender to the corporation or its transfer agent of the certificate representing such shares properly endorsed or accompanied by a written assignment or power of attorney properly executed, and with such proof of authority or the authenticity of signature as the corporation or its transfer agent may reasonably require. Uncertificated shares may be transferred by delivery of a written assignment or power of attorney properly executed, and with such proof of authority or the authenticity of signature as the corporation or its transfer agent may reasonably require. Except as may be otherwise required by law, by the Certificate of Incorporation or by these Bylaws, the corporation shall be entitled to treat the record holder of stock as shown on its books as the owner of such stock for all purposes, including the payment of dividends and the right to vote with respect to such stock, regardless of any transfer, pledge or other disposition of such stock until the shares have been transferred on the books of the corporation in accordance with the requirements of these Bylaws.

4.4 Lost, Stolen or Destroyed Certificates. The corporation may issue a new certificate of stock in place of any previously issued certificate alleged to have been lost, stolen or destroyed, upon such terms and conditions as the corporation may prescribe, including the presentation of reasonable evidence of such loss, theft or destruction and the giving of such indemnity and posting of such bond as the corporation may require for the protection of the corporation or any transfer agent or registrar.

4.5 Record Date. The Board of Directors may fix in advance a date as a record date for the determination of the stockholders entitled to notice of or to vote at any meeting of stockholders or to express consent (or dissent) to corporate action without a meeting, or entitled to receive payment of any dividend or other distribution or allotment of any rights in respect of any change, conversion or exchange of stock, or for the purpose of any other lawful action. Such record date shall not precede the date on which the resolution fixing the record date is adopted, and such record date shall not be more than 60 nor less than 10 days before the date of such meeting, nor more than 10 days after the date of adoption of a record date for a consent without a meeting, nor more than 60 days prior to any other action to which such record date relates.

If no record date is fixed, the record date for determining stockholders entitled to notice of or to vote at a meeting of stockholders shall be at the close of business on the day before the day on which notice is given, or, if notice is waived, at the close of business on the day before the day on which the meeting is held. If no record date is fixed, the record date for determining stockholders entitled to express consent to corporate action without a meeting, when no prior action by the Board of Directors is necessary, shall be the day on which the first consent is properly delivered to the corporation. If no record date is fixed, the record date for determining stockholders for any other purpose shall be at the close of business on the day on which the Board of Directors adopts the resolution relating to such purpose.

A determination of stockholders of record entitled to notice of or to vote at a meeting of stockholders shall apply to any adjournment of the meeting; provided, however, that the Board of Directors may fix a new record date for the adjourned meeting.

4.6 Regulations. The issue, transfer, conversion and registration of shares of stock of the corporation shall be governed by such other regulations as the Board of Directors may establish.

ARTICLE V

GENERAL PROVISIONS

5.1 Fiscal Year. Except as from time to time otherwise designated by the Board of Directors, the fiscal year of the corporation shall begin on the first day of January of each year and end on the last day of December in each year.

5.2 Corporate Seal. The corporate seal shall be in such form as shall be approved by the Board of Directors.

5.3 Waiver of Notice. Whenever notice is required to be given by law, by the Certificate of Incorporation or by these Bylaws, a written waiver, signed by the person entitled to notice, or a waiver by electronic transmission by the person entitled to notice, whether provided before, at or after the time of the event for which notice is to be given, shall be deemed equivalent to notice required to be given to such person. Neither the business nor the purpose of any meeting need be specified in any such waiver. Attendance of a person at a meeting shall constitute a waiver of notice of such meeting, except when the person attends a meeting for the express purpose of objecting at the beginning of the meeting, to the transaction of any business because the meeting is not lawfully called or convened.

5.4 Voting of Securities. Except as the Board of Directors may otherwise designate, the Chief Executive Officer, the President or the Treasurer may waive notice of, vote, or appoint any person or persons to vote, on behalf of the corporation at, and act as, or appoint any person or persons to act as, proxy or attorney-in-fact for this corporation (with or without power of substitution) at, any meeting of stockholders or securityholders of any other entity, the securities of which may be held by this corporation, or with respect to the execution of any written or electronic consent in the name of the corporation as a holder of such securities.

5.5 Evidence of Authority. A certificate by the Secretary, or an Assistant Secretary, or a temporary Secretary, as to any action taken by the stockholders, directors, a committee or any officer or representative of the corporation shall as to all persons who rely on the certificate in good faith be conclusive evidence of such action.

5.6 Certificate of Incorporation. All references in these Bylaws to the Certificate of Incorporation shall be deemed to refer to the Certificate of Incorporation of the corporation, as amended and in effect from time to time.

5.7 Severability. Any determination that any provision of these Bylaws is for any reason inapplicable, illegal or ineffective shall not affect or invalidate any other provision of these Bylaws.

5.8 Pronouns. All pronouns used in these Bylaws shall be deemed to refer to the masculine, feminine or neuter, singular or plural, as the identity of the person or persons may require.

ARTICLE VI

AMENDMENTS

6.1 By the Board of Directors. These Bylaws may be altered, amended or repealed, in whole or in part, or new bylaws may be adopted by the Board of Directors.

6.2 By the Stockholders. These Bylaws may be altered, amended or repealed, in whole or in part, or new bylaws may be adopted by the affirmative vote of the holders of a majority of the shares of the capital stock of the corporation issued and outstanding and entitled to vote at any annual meeting of stockholders, or at any special meeting of stockholders, provided notice of such alteration, amendment, repeal or adoption of new bylaws shall have been stated in the notice of such special meeting.

Exhibit 10.1

EXECUTION VERSION

XILIO THERAPEUTICS, INC.

AMENDED AND RESTATED REGISTRATION RIGHTS AGREEMENT

FEBRUARY 23, 2021

AMENDED AND RESTATED REGISTRATION RIGHTS AGREEMENT

THIS AMENDED AND RESTATED REGISTRATION RIGHTS AGREEMENT (this "**Agreement**") is made as of the 23rd day of February, 2021, by and among Xilio Therapeutics, Inc., a Delaware corporation (the "**Company**"), each of the investors listed on Schedule A hereto, each of which is referred to in this Agreement as an "**Investor,**" and any person that becomes a party to this Agreement in accordance with Section 3.9 hereof.

RECITALS

WHEREAS, certain of the Investors (the "**Existing Investors**") hold shares of the Company's Preferred Stock (as defined below), and possess registration rights and other rights with respect to the Common Stock issued or issuable to the Existing Investors pursuant to a Registration Rights Agreement dated as of June 30, 2020 between the Company and such Investors (the "**Prior Agreement**");

WHEREAS, the Existing Investors are holders of a majority of the Registrable Securities of the Company (as defined in the Prior Agreement), and desire to amend and restate the Prior Agreement in its entirety and to accept the rights created pursuant to this Agreement in lieu of the rights granted to them under the Prior Agreement;

WHEREAS, certain of the Investors are party to that certain Series C Preferred Stock Purchase Agreement of even date herewith between the Company and such Investors (the "**Purchase Agreement**"), under which the Company's and such Investors' obligations are conditioned upon the execution and delivery of this Agreement by the Investors party to the Purchase Agreement, Existing Investors holding a majority of the Registrable Securities, and the Company; and

WHEREAS, the Existing Investors hereby agree that the Prior Agreement shall be amended and restated in its entirety by this Agreement.

NOW, THEREFORE, for good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree as follows:

1. Definitions. For purposes of this Agreement:

1.1 "**Affiliate**" means a Person that directly, or indirectly through one or more intermediaries, Controls, is Controlled by or is under common Control with the Person specified, including without limitation any general partner, limited partner, member, managing member, manager, employee, officer or director of such Person or any trust for the benefit of any of the foregoing or any Affiliate of the foregoing, and any venture capital or other investment fund now or hereafter existing that is controlled by or under common control with one or more general partners or managing members of, or shares the same management company or investment advisor with, such Person.

1.2 "**Board of Directors**" means the Board of Directors of the Company.

1.3 "**Certificate of Incorporation**" means the Company's certificate of incorporation (as amended and in effect).

1.4 "**Common Stock**" means shares of the Company's common stock, par value $0.0001 per share.

1.5 "**Control**" of a Person means the possession, direct or indirect, of the power to vote in excess of 50% of the voting power of such Person, to appoint the majority of the managers, general partners or the equivalent of such Person, or to direct or cause the direction of the management and policies of such Person (e.g., as managing member or in a similar capacity but not including an advisory or management agreement (in the case of a managed account)).

1.6 "**Damages**" means any loss, damage, claim, or liability (joint or several) to which a party hereto may become subject under the Securities Act, the Exchange Act, or other federal or state law, insofar as such loss, damage, claim, or liability (or any action in respect thereof) arises out of or is based upon: (i) any untrue statement or alleged untrue statement of a material fact contained in any registration statement of the Company, including any preliminary prospectus or final prospectus contained therein or any amendments or supplements thereto; (ii) an omission or alleged omission to state therein a material fact required to be stated therein, or necessary to make the statements therein not misleading; or (iii) any violation or alleged violation by the indemnifying party (or any of its agents or Affiliates) of the Securities Act, the Exchange Act, any state securities law, or any rule or regulation promulgated under the Securities Act, the Exchange Act, or any state securities law.

1.7 "**Exchange Act**" means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

1.8 "**Excluded Registration**" means: (i) a registration relating to the sale of securities to employees of the Company or a subsidiary pursuant to a stock option, stock purchase, or similar plan; (ii) a registration relating to an SEC Rule 145 transaction; (iii) a registration on any form that does not include substantially the same information as would be required to be included in a registration statement covering the sale of the Registrable Securities; or (iv) a registration in which the only Common Stock being registered is Common Stock issuable upon conversion of debt securities that are also being registered.

1.9 "**Form S-1**" means such registration form under the Securities Act as in effect on the date hereof or any successor registration form under the Securities Act subsequently adopted by the SEC.

1.10 "**Form S-3**" means such registration form under the Securities Act as in effect on the date hereof or any registration form under the Securities Act subsequently adopted by the SEC that permits incorporation of substantial information by reference to other documents filed by the Company with the SEC.

1.11 "**Holder**" means any holder of Registrable Securities who is a party to this Agreement.

1.12 "**Immediate Family Member**" means a child, stepchild, grandchild, parent, stepparent, grandparent, spouse, life partner or similar statutorily recognized domestic partner, sibling, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law, or sister-in-law, including adoptive relationships of a natural person referred to herein.

1.13 "**Initiating Holders**" means, collectively, Holders who properly initiate a registration request under this Agreement.

1.14 "**IPO**" means the Company's first underwritten public offering of its Common Stock under the Securities Act.

1.15 "**Person**" means any individual, corporation, partnership, limited liability company, firm, joint venture, association, joint-stock company, trust, estate, unincorporated organization, governmental or regulatory body or other entity.

1.16 "**Preferred Stock**" means, collectively, shares of the Company's Series A Preferred Stock, Series A-1 Preferred Stock, Series B Preferred Stock and Series C Preferred Stock.

1.17 "**Registrable Securities**" means (i) the Common Stock issuable or issued upon conversion of the Preferred Stock; (ii) any Common Stock, or any Common Stock issued or issuable (directly or indirectly) upon conversion and/or exercise of any other securities of the Company held by the Investors; and (iii) any Common Stock issued as (or issuable upon the conversion or exercise of any warrant, right, or other security that is issued as) a dividend or other distribution with respect to, or in exchange for or in replacement of, the shares referenced in clauses (i) and (ii) above; excluding in all cases, however, any Registrable Securities sold by a Person in a transaction in which the applicable rights under this Agreement are not assigned pursuant to Section 3.1, and excluding for purposes of Section 2 any securities for which registration rights have terminated pursuant to Section 2.13 of this Agreement.

1.18 "**Registrable Securities then outstanding**" means the number of shares determined by adding the number of shares of outstanding Common Stock that are Registrable Securities and the number of shares of Common Stock issuable (directly or indirectly) pursuant to then exercisable and/or convertible securities that are Registrable Securities.

1.19 "**Restricted Securities**" means the securities of the Company required to bear the legends set forth in Section 2.12(b) hereof.

1.20 "**Sale Event**" means:

(a) a merger or consolidation in which

(i) the Company is a constituent party; or

(ii) a subsidiary of the Company is a constituent party and the Company issues shares of its capital stock pursuant to such merger or consolidation,

except any such merger or consolidation involving the Company or a subsidiary in which the shares of capital stock of the Company outstanding immediately prior to such merger or consolidation continue to represent, or are converted into or exchanged for shares of capital stock that represent, immediately following such merger or consolidation, a majority, by voting power, of the capital stock of (1) the surviving or resulting corporation or (2) if the surviving or resulting corporation is a wholly owned subsidiary of another corporation immediately following such merger or consolidation, the parent corporation of such surviving or resulting corporation (provided that, all shares of Common Stock issuable upon exercise of options outstanding immediately prior to such merger or consolidation or upon conversion of convertible securities outstanding immediately prior to such merger or consolidation shall be deemed to be outstanding immediately prior to such merger or consolidation and, if applicable, converted or exchanged in such merger or consolidation on the same terms as the actual outstanding shares of Common Stock are converted or exchanged); or

(b) the sale, lease, transfer, exclusive license or other disposition, in a single transaction or series of related transactions, by the Company or any subsidiary of the Company of all or substantially all the assets of the Company and its subsidiaries taken as a whole, or the sale or disposition (whether by merger or otherwise) of one or more subsidiaries of the Company if substantially all of the assets of the Company and its subsidiaries taken as a whole are held by such subsidiary or subsidiaries, except where such sale, lease, transfer, exclusive license or other disposition is to a wholly owned subsidiary of the Company.

1.21 "**SEC**" means the Securities and Exchange Commission.

1.22 "**SEC Rule 144**" means Rule 144 promulgated by the SEC under the Securities Act.

1.23 "**SEC Rule 145**" means Rule 145 promulgated by the SEC under the Securities Act.

1.24 "**Securities Act**" means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

1.25 "**Selling Expenses**" means all underwriting discounts, selling commissions, and stock transfer taxes applicable to the sale of Registrable Securities, and fees and disbursements of counsel for any Holder, except for the fees and disbursements of the Selling Holder Counsel (as defined herein) borne and paid by the Company as provided in Section 2.6.

1.26 "**Series A Preferred Stock**" means the Series A Preferred Stock of the Company, par value $0.0001 per share.

1.27 "**Series A-1 Preferred Stock**" means the Series A-1 Preferred Stock of the Company, par value $0.0001 per share.

1.28 "**Series B Preferred Stock**" means the Series B Preferred Stock of the Company, par value $0.0001 per share.

1.29 "**Series C Preferred Stock**" means the Series C Preferred Stock of the Company, par value $0.0001 per share.

2. Registration Rights. The Company covenants and agrees as follows:

2.1 Demand Registration.

(a) Form S-1 Demand. If at any time after one hundred eighty (180) days after the effective date of the registration statement for the IPO, the Company receives a request from Holders of a majority of the Registrable Securities then outstanding that the Company file a Form S-1 registration statement with respect to outstanding Registrable Securities of such Holders having an anticipated aggregate offering price of at least $10.0 million (prior to deduction of Selling Expenses), then the Company shall: (i) within ten (10) days after the date such request is given, give notice thereof (the "**Demand Notice**") to all Holders other than the Initiating Holders; and (ii) as soon as practicable, and in any event within sixty (60) days after the date such request is given by the Initiating Holders, file a Form S-1 registration statement under the Securities Act covering all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days after the date the Demand Notice is given, and in each case, subject to the limitations of Section 2.1(c) and Section 2.3.

(b) Form S-3 Demand. If at any time when it is eligible to use a Form S-3 registration statement, the Company receives a request from Holders of at least twenty-five percent (25%) of the Registrable Securities then outstanding that the Company file a Form S-3 registration statement with respect to outstanding Registrable Securities of such Holders having an anticipated aggregate offering price of at least $3.0 million (prior to deduction of Selling Expenses), then the Company shall: (i) within ten (10) days after the date such request is given, give a Demand Notice to all Holders other than the Initiating Holders; and (ii) as soon as practicable, and in any event within forty-five (45) days after the date such request is given by the Initiating Holders, file a Form S-3 registration statement under the Securities Act covering all Registrable Securities that the Initiating Holders requested to be registered and any additional Registrable Securities requested to be included in such registration by any other Holders, as specified by notice given by each such Holder to the Company within twenty (20) days after the date the Demand Notice is given, and in each case, subject to the limitations of Section 2.1(c) and Section 2.3.

(c) Notwithstanding the foregoing obligations, if the Company furnishes to Holders requesting a registration pursuant to this Section 2.1 a certificate signed by the Company's chief executive officer or other most senior executive officer stating that in the good faith judgment of the Board of Directors it would be materially detrimental to the Company and its stockholders for such registration statement to either become effective or remain effective for as long as such registration statement otherwise would be required to remain effective, because such action would: (i) materially interfere with a significant acquisition, corporate reorganization, or other similar transaction involving the Company; (ii) require premature disclosure of material information that the Company has a bona fide business purpose for preserving as confidential; or (iii) render the Company unable to comply with requirements under the Securities Act or Exchange Act, then the Company shall have the right to defer taking action with respect to such filing, and any time periods with respect to filing or effectiveness thereof shall be tolled correspondingly, for a period of not more than sixty (60) days after the request of the Initiating Holders is given; provided, however, that the Company may not invoke this right more than twice in any twelve (12) month period; and provided, further, that the Company shall not register any securities for its own account or that of any other stockholder during such sixty (60) day period other than an Excluded Registration.

(d) The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Section 2.1(a): (i) during the period that is sixty (60) days before the Company's good faith estimate of the date of filing of, and ending on a date that is one hundred eighty (180) days after the effective date of, a Company-initiated registration; provided, that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; (ii) if the Company has effected two (2) demand registrations pursuant to Section 2.1(a); or (iii) if the Initiating Holders propose to dispose of shares of Registrable Securities that may be immediately registered on Form S-3 pursuant to a request made pursuant to Section 2.1(b). The Company shall not be obligated to effect, or to take any action to effect, any registration pursuant to Section 2.1(b): (A) during the period that is thirty (30) days before the Company's good faith estimate of the date of filing of, and ending on a date that is ninety (90) days after the effective date of, a Company-initiated registration; provided, that the Company is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective; or (B) if the Company has effected two (2) registrations pursuant to Section 2.1(b) within the twelve (12) month period immediately preceding the date of such request. A registration shall not be counted as "effected" for purposes of this Section 2.1(d) until such time as the applicable registration statement has been declared effective by the SEC, unless the Initiating Holders withdraw their request for such registration, elect not to pay the registration expenses therefor, and forfeit their right to one (1) demand registration statement pursuant to Section 2.6, in which case such withdrawn registration statement shall be counted as "effected" for purposes of this Section 2.1(d).

2.2 Company Registration. If the Company proposes to register (including, for this purpose, a registration effected by the Company for stockholders other than the Holders) any of its securities under the Securities Act in connection with the public offering of such securities solely for cash (other than in an Excluded Registration), the Company shall, at such time, promptly give each Holder notice of such registration. Upon the request of each Holder given within twenty (20) days after such notice is given by the Company, the Company shall, subject to the provisions of Section 2.3, cause to be registered all of the Registrable Securities that each such Holder has requested to be included in such registration. The Company shall have the right to terminate or withdraw any registration initiated by it under this Section 2.2 before the effective date of such registration, whether or not any Holder has elected to include Registrable Securities in such registration. The expenses (other than Selling Expenses) of such withdrawn registration shall be borne by the Company in accordance with Section 2.6.

2.3 Underwriting Requirements.

(a) If, pursuant to Section 2.1, the Initiating Holders intend to distribute the Registrable Securities covered by their request by means of an underwriting, they shall so advise the Company as a part of their request made pursuant to Section 2.1, and the Company shall include such information in the Demand Notice. The underwriter(s) will be selected by the Company and shall be reasonably acceptable to a majority in interest of the Initiating Holders. In such event, the right of any Holder to include such Holder's Registrable Securities in such registration shall be conditioned upon such Holder's participation in such underwriting and the inclusion of such Holder's Registrable Securities in the underwriting to the extent provided herein. All Holders proposing to distribute their securities through such underwriting shall (together with the Company as provided in Section 2.4(e)) enter into an underwriting agreement in customary form with the underwriter(s) selected for such underwriting. Notwithstanding any other provision of this Section 2.3, if the managing underwriter(s) advise(s) the Initiating Holders in writing that marketing factors require a limitation on the number of shares to be underwritten, then the Initiating Holders shall so advise all Holders of Registrable Securities that otherwise would be underwritten pursuant hereto, and the number of Registrable Securities that may be included in the underwriting shall be allocated among such Holders of Registrable Securities, including the Initiating Holders, in proportion (as nearly as practicable) to the number of Registrable Securities owned by each Holder or in such other proportion as shall mutually be agreed to by all such selling Holders; provided, however, that the number of Registrable Securities held by the Holders to be included in such underwriting shall not be reduced unless all other securities of the Company are first entirely excluded from the underwriting. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest one hundred (100) shares.

(b) In connection with any offering involving an underwriting of shares of the Company's capital stock pursuant to Section 2.2, the Company shall not be required to include any of the Holders' Registrable Securities in such underwriting unless the Holders accept the terms of the underwriting as agreed upon between the Company and its underwriters, and then only in such quantity as the underwriters in their sole discretion determine will not jeopardize the success of the offering by the Company. If the total number of securities, including Registrable Securities, requested by stockholders to be included in such offering exceeds the number of securities to be sold (other than by the Company) that the underwriters in their reasonable discretion determine is compatible with the success of the offering, then the Company shall be required to include in the offering only that number of such securities, including Registrable Securities, which the underwriters and the Company in their sole discretion determine will not jeopardize the success of the offering. If the underwriters determine that less than all of the Registrable Securities requested to be registered can be included in such offering, then the Registrable Securities that are included in such offering shall be allocated among the selling Holders in proportion (as nearly as practicable to) the number of Registrable Securities owned by each selling Holder or in such other proportions as shall mutually be agreed to by all such selling Holders. To facilitate the allocation of shares in accordance with the above provisions, the Company or the underwriters may round the number of shares allocated to any Holder to the nearest one hundred (100) shares. Notwithstanding the foregoing, in no event shall (i) the number of Registrable Securities included in the offering be reduced unless all other securities (other than securities to be sold by the Company) are first entirely excluded from the offering or (ii) the number of Registrable Securities included in the offering be reduced below thirty percent (30%) of the total number of securities included in such offering, unless such offering is the IPO, in which case the selling Holders may be excluded further if the underwriters make the determination described above and no other stockholder's securities are included in such offering. For purposes of the provisions in this Section 2.3(b) and Section 2.3(a) concerning apportionment, for any selling Holder that is a partnership, limited liability company, or corporation, the partners, members, retired partners, retired members, stockholders, and Affiliates of such Holder, or the estates and Immediate Family Members of any such partners, retired partners, members, and retired members and any trusts for the benefit of any of the foregoing Persons, shall be deemed to be a single "selling Holder," and any pro rata reduction with respect to such "selling Holder" shall be based upon the aggregate number of Registrable Securities owned by all Persons included in such "selling Holder," as defined in this sentence.

(c) For purposes of Section 2.1, a registration shall not be counted as "effected" if, as a result of an exercise of the underwriter's cutback provisions in Section 2.3(a), fewer than fifty percent (50%) of the total number of Registrable Securities that Holders have requested to be included in such registration statement are actually included.

2.4 Obligations of the Company. Whenever required under this Section 2 to effect the registration of any Registrable Securities, the Company shall, as expeditiously as reasonably possible:

(a) prepare and file with the SEC a registration statement with respect to such Registrable Securities and use its commercially reasonable efforts to cause such registration statement to become effective and, upon the request of the Holders of a majority of the Registrable Securities registered thereunder, keep such registration statement effective for a period of up to one hundred twenty (120) days or, if earlier, until the distribution contemplated in the registration statement has been completed; provided, however, that (i) such one hundred twenty (120) day period shall be extended for a period of time equal to the period the Holder refrains, at the request of an underwriter of Common Stock (or other securities) of the Company, from selling any securities included in such registration, and (ii) in the case of any registration of Registrable Securities on Form S-3 that are intended to be offered on a continuous or delayed basis, subject to compliance with applicable SEC rules, such one hundred twenty (120) day period shall be extended for up to sixty (60) days, if necessary, to keep the registration statement effective until all such Registrable Securities are sold;

(b) prepare and file with the SEC such amendments and supplements to such registration statement, and the prospectus used in connection with such registration statement, as may be necessary to comply with the Securities Act in order to enable the disposition of all securities covered by such registration statement;

(c) furnish to the selling Holders such numbers of copies of a prospectus, including a preliminary prospectus, as required by the Securities Act, and such other documents as the Holders may reasonably request in order to facilitate their disposition of their Registrable Securities;

(d) use its commercially reasonable efforts to register and qualify the securities covered by such registration statement under such other securities or blue-sky laws of such jurisdictions as shall be reasonably requested by the selling Holders; provided that the Company shall not be required to qualify to do business or to file a general consent to service of process in any such states or jurisdictions, unless the Company is already subject to service in such jurisdiction and except as may be required by the Securities Act;

(e) in the event of any underwritten public offering, enter into and perform its obligations under an underwriting agreement, in usual and customary form, with the underwriter(s) of such offering;

(f) use its commercially reasonable efforts to cause all such Registrable Securities covered by such registration statement to be listed on a national securities exchange or trading system and each securities exchange and trading system (if any) on which similar securities issued by the Company are then listed;

(g) provide a transfer agent and registrar for all Registrable Securities registered pursuant to this Agreement and provide a CUSIP number for all such Registrable Securities, in each case not later than the effective date of such registration;

(h) promptly make available for inspection by the selling Holders, any managing underwriter(s) participating in any disposition pursuant to such registration statement, and any attorney or accountant or other agent retained by any such underwriter or selected by the selling Holders, all financial and other records, pertinent corporate documents, and properties of the Company, and cause the Company's officers, directors, employees, and independent accountants to supply all information reasonably requested by any such seller, underwriter, attorney, accountant, or agent, in each case, as necessary or advisable to verify the accuracy of the information in such registration statement and to conduct appropriate due diligence in connection therewith;

(i) notify each selling Holder, promptly after the Company receives notice thereof, of the time when such registration statement has been declared effective or a supplement to any prospectus forming a part of such registration statement has been filed; and

(j) after such registration statement becomes effective, notify each selling Holder of any request by the SEC that the Company amend or supplement such registration statement or prospectus.

In addition, the Company shall ensure that, at all times after any registration statement covering a public offering of securities of the Company under the Securities Act shall have become effective, its insider trading policy shall provide that the Company's executive officers and directors may implement a trading program under Rule 10b5-1 of the Exchange Act.

2.5 Furnish Information. It shall be a condition precedent to the obligations of the Company to take any action pursuant to this Section 2 with respect to the Registrable Securities of any selling Holder that such Holder shall furnish to the Company such information regarding itself, the Registrable Securities held by it, and the intended method of disposition of such securities as is reasonably required to effect the registration of such Holder's Registrable Securities.

2.6 Expenses of Registration. All expenses (other than Selling Expenses) incurred in connection with registrations, filings, or qualifications pursuant to Section 2, including all registration, filing, and qualification fees; printers' and accounting fees; fees and disbursements of counsel for the Company; and the reasonable fees and disbursements, not to exceed $50,000.00, of one counsel for the selling Holders (the "**Selling Holder Counsel**"), shall be borne and paid by the Company; provided, however, that the Company shall not be required to pay for any expenses of any registration proceeding begun pursuant to Section 2.1 if the registration request is subsequently withdrawn at the request of the Holders of a majority of the Registrable Securities to be registered (in which case all selling Holders shall bear such expenses pro rata based upon the number of Registrable Securities that were to be included in the withdrawn registration), unless the Holders of a majority of the Registrable Securities agree to forfeit their right to one registration pursuant to Section 2.1(a) or Section 2.1(b), as the case may be; provided, further that if, at the time of such withdrawal, the Holders shall have learned of a material adverse change in the condition, business, or prospects of the Company from that known to the Holders at the time of their request and have withdrawn the request with reasonable promptness after learning of such information then the Holders shall not be required to pay any of such expenses and shall not forfeit their right to one registration pursuant to Section 2.1(a) or Section 2.1(b). All Selling Expenses relating to Registrable Securities registered pursuant to this Section 2 shall be borne and paid by the Holders pro rata on the basis of the number of Registrable Securities registered on their behalf.

2.7 Delay of Registration. No Holder shall have any right to obtain or seek an injunction restraining or otherwise delaying any registration pursuant to this Agreement as the result of any controversy that might arise with respect to the interpretation or implementation of this Section 2.

2.8 Indemnification. If any Registrable Securities are included in a registration statement under this Section 2:

(a) To the extent permitted by law, the Company will indemnify and hold harmless each selling Holder, and the partners, members, officers, directors, and stockholders of each such Holder; legal counsel and accountants for each such Holder; any underwriter (as defined in the Securities Act) for each such Holder; and each Person, if any, who controls such Holder or underwriter within the meaning of the Securities Act or the Exchange Act, against any Damages, and the Company will pay to each such Holder, underwriter, controlling Person, or other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Section 2.8(a) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Company, which consent shall not be unreasonably withheld, nor shall the Company be liable for any Damages to the extent that they arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of any such Holder, underwriter, controlling Person, or other aforementioned Person expressly for use in connection with such registration.

(b) To the extent permitted by law, each selling Holder, severally and not jointly, will indemnify and hold harmless the Company, and each of its directors, each of its officers who has signed the registration statement, each Person (if any), who controls the Company within the meaning of the Securities Act, legal counsel and accountants for the Company, any underwriter (as defined in the Securities Act), any other Holder selling securities in such registration statement, and any controlling Person of any such underwriter or other Holder, against any Damages, in each case only to the extent that such Damages arise out of or are based upon actions or omissions made in reliance upon and in conformity with written information furnished by or on behalf of such selling Holder expressly for use in connection with such registration; and each such selling Holder will pay to the Company and each other aforementioned Person any legal or other expenses reasonably incurred thereby in connection with investigating or defending any claim or proceeding from which Damages may result, as such expenses are incurred; provided, however, that the indemnity agreement contained in this Section 2.8(b) shall not apply to amounts paid in settlement of any such claim or proceeding if such settlement is effected without the consent of the Holder, which consent shall not be unreasonably withheld; and provided, further that in no event shall the aggregate amounts payable by any Holder by way of indemnity or contribution under Sections 2.8(b) and 2.8(d) exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of fraud or willful misconduct by such Holder.

(c) Promptly after receipt by an indemnified party under this Section 2.8 of notice of the commencement of any action (including any governmental action) for which a party may be entitled to indemnification hereunder, such indemnified party will, if a claim in respect thereof is to be made against any indemnifying party under this Section 2.8, give the indemnifying party notice of the commencement thereof. The indemnifying party shall have the right to participate in such action and, to the extent the indemnifying party so desires, participate jointly with any other indemnifying party to which notice has been given, and to assume the defense thereof with counsel mutually satisfactory to the parties; provided, however, that an indemnified party (together with all other indemnified parties that may be represented without conflict by one counsel) shall have the right to retain one separate counsel, with the fees and expenses to be paid by the indemnifying party, if representation of such indemnified party by the counsel retained by the indemnifying party would be inappropriate due to actual or potential differing interests between such indemnified party and any other party represented by such counsel in such action. The failure to give notice to the indemnifying party within a reasonable time of the commencement of any such action shall relieve such indemnifying party of any liability to the indemnified party under this Section 2.8, to the extent that such failure materially prejudices the indemnifying party's ability to defend such action. The failure to give notice to the indemnifying party will not relieve it of any liability that it may have to any indemnified party otherwise than under this Section 2.8.

(d) To provide for just and equitable contribution to joint liability under the Securities Act in any case in which either (i) any party otherwise entitled to indemnification hereunder makes a claim for indemnification pursuant to this Section 2.8 but it is judicially determined (by the entry of a final judgment or decree by a court of competent jurisdiction and the expiration of time to appeal or the denial of the last right of appeal) that such indemnification may not be enforced in such case, notwithstanding the fact that this Section 2.8 provides for indemnification in such case, or (ii) contribution under the Securities Act may be required on the part of any party hereto for which indemnification is provided under this Section 2.8, then, and in each such case, such parties will contribute to the aggregate losses, claims, damages, liabilities, or expenses to which they may be subject (after contribution from others) in such proportion as is appropriate to reflect the relative fault of each of the indemnifying party and the indemnified party in connection with the statements, omissions, or other actions that resulted in such loss, claim, damage, liability, or expense, as well as to reflect any other relevant equitable considerations. The relative fault of the indemnifying party and of the indemnified party shall be determined by reference to, among other things, whether the untrue or allegedly untrue statement of a material fact, or the omission or alleged omission of a material fact, relates to information supplied by the indemnifying party or by the indemnified party and the parties' relative intent, knowledge, access to information, and opportunity to correct or prevent such statement or omission; provided, however, that, in any such case, (x) no Holder will be required to contribute any amount in excess of the public offering price of all such Registrable Securities offered and sold by such Holder pursuant to such registration statement, and (y) no Person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any Person who was not guilty of such fraudulent misrepresentation; and provided, further that in no event shall a Holder's liability pursuant to this Section 2.8(d), when combined with the amounts paid or payable by such Holder pursuant to Section 2.8(b), exceed the proceeds from the offering received by such Holder (net of any Selling Expenses paid by such Holder), except in the case of willful misconduct or fraud by such Holder.

(e) Notwithstanding the foregoing, to the extent that the provisions on indemnification and contribution contained in the underwriting agreement entered into in connection with the underwritten public offering are in conflict with the foregoing provisions, the provisions in the underwriting agreement shall control.

(f) Unless otherwise superseded by an underwriting agreement entered into in connection with the underwritten public offering, the obligations of the Company and Holders under this Section 2.8 shall survive the completion of any offering of Registrable Securities in a registration under this Section 2, and otherwise shall survive the termination of this Agreement.

2.9 Reports Under Exchange Act. With a view to making available to the Holders the benefits of SEC Rule 144 and any other rule or regulation of the SEC that may at any time permit a Holder to sell securities of the Company to the public without registration or pursuant to a registration on Form S-3, the Company shall:

(a) make and keep available adequate current public information, as those terms are understood and defined in SEC Rule 144, at all times after the effective date of the registration statement filed by the Company for the IPO;

(b) use commercially reasonable efforts to file with the SEC in a timely manner all reports and other documents required of the Company under the Securities Act and the Exchange Act (at any time after the Company has become subject to such reporting requirements); and

(c) furnish to any Holder, so long as the Holder owns any Registrable Securities, forthwith upon request: (i) to the extent accurate, a written statement by the Company that it has complied with the reporting requirements of SEC Rule 144 (at any time after ninety (90) days after the effective date of the registration statement filed by the Company for the IPO), the Securities Act, and the Exchange Act (at any time after the Company has become subject to such reporting requirements), or that it qualifies as a registrant whose securities may be resold pursuant to Form S-3 (at any time after the Company so qualifies); (ii) a copy of the most recent annual or quarterly report of the Company and such other reports and documents so filed by the Company; and (iii) such other information as may be reasonably requested in availing any Holder of any rule or regulation of the SEC that permits the selling of any such securities without registration (at any time after the Company has become subject to the reporting requirements under the Exchange Act) or pursuant to Form S-3 (at any time after the Company so qualifies to use such form).

2.10 Limitations on Subsequent Registration Rights. From and after the date of this Agreement, the Company shall not, without the prior written consent of the Holders of a majority of the Registrable Securities then outstanding, enter into any agreement with any holder or prospective holder of any securities of the Company that would provide to such holder the right to include securities in any registration on other than on a subordinate basis after all Holders have had the opportunity to include in the registration and offering all shares of Registrable Securities that they wish to so include; provided that this limitation shall not apply to any additional Investor who becomes a party to this Agreement in accordance with Section 3.9.

2.11 "Market Stand-off" Agreement. Each Holder hereby agrees that it will not, without the prior written consent of the managing underwriter, during the period commencing on the date of the final prospectus relating to the registration by the Company of shares of Common Stock in its IPO, and ending on the date specified by the Company and the managing underwriter (such period not to exceed one hundred eighty (180) days plus up to an additional eighteen (18) days to the extent necessary to comply with applicable regulatory requirements following the IPO), (i) lend, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right, or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable (directly or indirectly) for Common Stock held immediately before the effective date of the registration statement for the IPO or (ii) enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of such securities, whether any such transaction described in clause (i) or (ii) above is to be settled by delivery of Common Stock or other securities, in cash, or otherwise. The foregoing provisions of this Section 2.11 shall not apply to transactions relating to securities acquired in the IPO or securities acquired in open market or other transactions from and after the IPO, the sale of any shares to an underwriter pursuant to an underwriting agreement, or the transfer of any shares to any trust for the direct or indirect benefit of the Holder or an Immediate Family Member of the Holder, provided that the trustee of the trust agrees to be bound in writing by the restrictions set forth herein, and provided, further, that any such transfer shall not involve a disposition for value, and shall be applicable to the Holders only if all officers and directors are subject to the same restrictions and the Company obtains a similar agreement from all stockholders individually owning one percent (1%) or more of the Company's outstanding Common Stock (after giving effect to conversion into Common Stock of all outstanding shares of the Preferred Stock). The underwriters in connection with the IPO are intended third party beneficiaries of this Section 2.11 and shall have the right, power, and authority to enforce the provisions hereof as though they were a party hereto. Each Holder further agrees to execute such agreements as may be reasonably requested by the underwriters in connection with the IPO that are consistent with this Section 2.11 or that are necessary to give further effect thereto. If any of the obligations described in this Section 2.11 are waived or terminated on a discretionary basis by the Company or any of the underwriters with respect to any of the securities of any such Holder, officer, director or greater than one-percent stockholder (in any such case, the "**Released Securities**"), the foregoing provisions shall be waived or terminated, as applicable, to the same extent and with respect to the same percentage of securities of each Holder as the percentage of Released Securities represent with respect to the securities held by the applicable Holder, officer, director or greater than one-percent stockholder that are subject to such obligations.

2.12 Restrictions on Transfer.

(a) The Preferred Stock and the Registrable Securities shall not be sold, pledged, or otherwise transferred, and the Company shall not recognize and shall issue stop-transfer instructions to its transfer agent with respect to any such sale, pledge, or transfer, except upon the conditions specified in this Agreement, which conditions are intended to ensure compliance with the provisions of the Securities Act. A transferring Holder will cause any proposed purchaser, pledgee, or transferee of the Preferred Stock and the Registrable Securities held by such Holder to agree to take and hold such securities subject to the provisions and upon the conditions specified in this Agreement. Notwithstanding the foregoing, the Company shall not require any transferee of shares pursuant to an effective registration statement or, following the IPO, SEC Rule 144, in each case, to be bound by the terms of this Agreement.

(b) Each certificate, instrument or book entry representing (i) the Preferred Stock, (ii) the Registrable Securities, and (iii) any other securities issued in respect of the securities referenced in clauses (i) and (ii), upon any stock split, stock dividend, recapitalization, merger, consolidation, or similar event, shall (unless otherwise permitted by the provisions of Section 2.12(c)) be notated with legends substantially in the following forms:

THE SECURITIES REPRESENTED HEREBY HAVE BEEN ACQUIRED FOR INVESTMENT AND HAVE NOT BEEN REGISTERED UNDER THE SECURITIES ACT OF 1933. SUCH SHARES MAY NOT BE SOLD, PLEDGED, OR TRANSFERRED IN THE ABSENCE OF SUCH REGISTRATION OR A VALID EXEMPTION FROM THE REGISTRATION AND PROSPECTUS DELIVERY REQUIREMENTS OF SAID ACT.

THE SECURITIES REPRESENTED HEREBY MAY BE TRANSFERRED ONLY IN ACCORDANCE WITH THE TERMS OF AN AGREEMENT OR AGREEMENTS BETWEEN THE COMPANY AND THE STOCKHOLDER, A COPY OF WHICH IS ON FILE WITH THE SECRETARY OF THE COMPANY.

The Holders consent to the Company making a notation in its records and giving instructions to any transfer agent of the Restricted Securities in order to implement the restrictions on transfer set forth in this Section 2.12.

(c) The holder of such Restricted Securities, by acceptance of ownership thereof, agrees to comply in all respects with the provisions of this Section 2. Before any proposed sale, pledge, or transfer of any Restricted Securities, unless there is in effect a registration statement under the Securities Act covering the proposed transaction or following the IPO, the transfer is made pursuant to SEC Rule 144, the Holder thereof shall give notice to the Company of such Holder's intention to effect such sale, pledge, or transfer, provided that no such notice shall be required if the intended sale, pledge or transfer complies with SEC Rule 144. Each such notice shall describe the manner and circumstances of the proposed sale, pledge, or transfer in sufficient detail and, if reasonably requested by the Company, shall be accompanied at such Holder's expense by either: (i) a written opinion of legal counsel who shall, and whose legal opinion shall, be reasonably satisfactory to the Company, addressed to the Company, to the effect that the proposed transaction may be effected without registration under the Securities Act; (ii) a "no action" letter from the SEC to the effect that the proposed sale, pledge, or transfer of such Restricted Securities without registration will not result in a recommendation by the staff of the SEC that action be taken with respect thereto; or (iii) any other evidence reasonably satisfactory to counsel to the Company to the effect that the proposed sale, pledge, or transfer of the Restricted Securities may be effected without registration under the Securities Act, whereupon the Holder of such Restricted Securities shall be entitled to sell, pledge, or transfer such Restricted Securities in accordance with the terms of the notice given by the Holder to the Company. The Company will not require such a notice, legal opinion or "no action" letter (x) in any transaction in compliance with SEC Rule 144 or (y) in any transaction in which such Holder distributes Restricted Securities to an Affiliate of such Holder for no consideration; provided that each transferee agrees in writing to be subject to the terms of this Section 2.12. Each certificate, instrument or book entry the Restricted Securities transferred as above provided shall be notated with, except if such transfer is made pursuant to SEC Rule 144, the appropriate restrictive legend set forth in Section 2.12(b), except that such certificate, instrument or book entry shall not be notated with such restrictive legend if, in the opinion of counsel for such Holder and the Company, such legend is not required in order to establish compliance with any provisions of the Securities Act.

2.13 Termination of Registration Rights. The right of any Holder to request registration or inclusion of Registrable Securities in any registration pursuant to Section 2.1 or Section 2.2 shall terminate upon the earliest to occur of:

(a) the closing of a Sale Event;

(b) at such time following the IPO when a Holder (and its Affiliates) holds less than one percent (1%) of the Company's outstanding Common Stock or all Registrable Securities held by such Holder (and its Affiliates) can be sold in any three (3) month period without registration and limitation in compliance with SEC Rule 144 or another similar exemption; or

(c) on the fifth (5th) anniversary of the consummation of the IPO.

3. Miscellaneous.

3.1 Successors and Assigns. The rights under this Agreement may be assigned (but only with all related obligations) by a Holder to a transferee of Registrable Securities that (i) is an Affiliate, partner, member, limited partner, retired partner, retired member, or stockholder of a Holder; or (ii) is a Holder's Immediate Family Member or trust for the benefit of an individual Holder or one or more of such Holder's Immediate Family Members; or (iii) after such transfer, holds at least 6,700,000 shares of Registrable Securities (subject to appropriate adjustment for stock splits, stock dividends, combinations, and other recapitalizations), or, if less, all of the Registrable Securities held by such Holder; provided, however, that (x) the Company is, within a reasonable time after such transfer, furnished with written notice of the name and address of such transferee and the Registrable Securities with respect to which such rights are being transferred; and (y) such transferee agrees in a written instrument delivered to the Company to be bound by and subject to the terms and conditions of this Agreement, including the provisions of Section 2.11. For the purposes of determining the number of shares of Registrable Securities held by a transferee, the holdings of a transferee (1) that is an Affiliate, limited partner, retired partner, member, retired member, or stockholder of a Holder; (2) who is a Holder's Immediate Family Member; or (3) that is a trust for the benefit of an individual Holder or such Holder's Immediate Family Member shall be aggregated together and with those of the transferring Holder; provided, further, that all transferees who would not qualify individually for assignment of rights shall have a single attorney-in-fact for the purpose of exercising any rights, receiving notices, or taking any action under this Agreement. The terms and conditions of this Agreement inure to the benefit of and are binding upon the respective successors and permitted assignees of the parties. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assignees any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided herein.

3.2 Governing Law. This Agreement is governed by and shall be construed in accordance with the law of the State of Delaware, exclusive of its conflict-of-laws principles.

3.3 Counterparts. This Agreement may be executed in two (2) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Counterparts may be delivered via facsimile, electronic mail (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, e.g., www.docusign.com) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

3.4 Titles and Subtitles. Titles or captions of Sections contained in this Agreement are inserted as a matter of convenience and for reference, and in no way define, limit, extend or describe the scope of this Agreement or the intent of any provision hereof.

3.5 Notices. All notices and other communications given or made pursuant to this Agreement shall be in writing and shall be deemed effectively given upon the earlier of actual receipt or: (a) upon personal delivery to the party to be notified; (b) when sent, if sent by electronic mail or facsimile during the recipient's normal business hours, and if not sent during normal business hours, then on the recipient's next business day; (c) five (5) days after having been sent by registered or certified mail, return receipt requested, postage prepaid; or (d) one (1) business day after the business day of deposit with a nationally recognized overnight courier, freight prepaid, specifying next-day delivery, with written verification of receipt. All communications shall be sent to the respective parties at their addresses as set forth on Schedule A hereto, or to the principal office of the Company and to the attention of the President or Chief Executive Officer, in the case of the Company, or to such email address, facsimile number, or address as subsequently modified by written notice given in accordance with this Section 3.5. If notice is given to the Company, a copy (which shall not constitute notice) shall also be sent to Cynthia T. Mazareas, Wilmer Cutler Pickering Hale and Dorr LLP, 60 State Street, Boston, Massachusetts 02109, email address: Cynthia.Mazareas@wilmerhale.com, facsimile number: 617-526-5000.

3.6 Amendments and Waivers. Any term of this Agreement may be amended and the observance of any term of this Agreement may be waived (either generally or in a particular instance, and either retroactively or prospectively) only with the written consent of the Company and the holders of a majority of the Registrable Securities then outstanding; provided that the Company may in its sole discretion waive compliance with Section 2.12(c) (and the Company's failure to object promptly in writing after notification of a proposed assignment allegedly in violation of Section 2.12(c) shall be deemed to be a waiver); and provided, further, that any provision hereof may be waived by any waiving party on such party's own behalf, without the consent of any other party. Notwithstanding the foregoing, this Agreement may not be amended, modified or terminated and the observance of any term hereof may not be waived with respect to any Holder without the written consent of such Holder, unless such amendment, modification, termination, or waiver applies to all Holders in the same fashion. The Company shall give prompt notice of any amendment or termination hereof or waiver hereunder to any party hereto that did not consent in writing to such amendment, termination, or waiver. Any amendment, termination, or waiver effected in accordance with this Section 3.6 shall be binding on all parties hereto, regardless of whether any such party has consented thereto. No waivers of or exceptions to any term, condition, or provision of this Agreement, in any one or more instances, shall be deemed to be or construed as a further or continuing waiver of any such term, condition, or provision.

3.7 Severability. In case any one or more of the provisions contained in this Agreement is for any reason held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality, or unenforceability shall not affect any other provision of this Agreement, and such invalid, illegal, or unenforceable provision shall be reformed and construed so that it will be valid, legal, and enforceable to the maximum extent permitted by law.

3.8 Aggregation of Stock. All shares of Registrable Securities held or acquired by Affiliates shall be aggregated together for the purpose of determining the availability of any rights under this Agreement and such Affiliated persons may apportion such rights as among themselves in any manner they deem appropriate.

3.9 Additional Investors. Notwithstanding anything to the contrary contained herein, if the Company issues additional shares of Preferred Stock after the date hereof, any purchaser of such shares of Preferred Stock who is not already a party to this Agreement may become a party to this Agreement by executing and delivering an additional counterpart signature page to this Agreement, and thereafter shall be deemed an "Investor" for all purposes hereunder. No action or consent by the Investors shall be required for such joinder to this Agreement by such additional Investor, so long as such additional Investor has agreed in writing to be bound by all of the obligations as an "Investor" hereunder.

3.10 Entire Agreement. This Agreement (including any Schedules hereto) constitutes the full and entire understanding and agreement among the parties with respect to the subject matter hereof, and any other written or oral agreement relating to the subject matter hereof existing between the parties is expressly canceled. Upon the effectiveness of this Agreement, the Prior Agreement shall be deemed amended and restated and superseded and replaced in its entirety by this Agreement, and shall be of no further force or effect.

3.11 Dispute Resolution. The parties (a) hereby irrevocably and unconditionally submit to the jurisdiction of the state courts of Delaware and to the jurisdiction of the United States District Court for the District of Delaware for the purpose of any suit, action or other proceeding arising out of or based upon this Agreement, (b) agree not to commence any suit, action or other proceeding arising out of or based upon this Agreement except in the state courts of Delaware or the United States District Court for the District of Delaware, and (c) hereby waive, and agree not to assert, by way of motion, as a defense, or otherwise, in any such suit, action or proceeding, any claim that it is not subject personally to the jurisdiction of the above-named courts, that its property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that this Agreement or the subject matter hereof may not be enforced in or by such court.

3.12 Delays or Omissions. No delay or omission to exercise any right, power, or remedy accruing to any party under this Agreement, upon any breach or default of any other party under this Agreement, shall impair any such right, power, or remedy of such nonbreaching or nondefaulting party, nor shall it be construed to be a waiver of or acquiescence to any such breach or default, or to any similar breach or default thereafter occurring, nor shall any waiver of any single breach or default be deemed a waiver of any other breach or default theretofore or thereafter occurring. All remedies, whether under this Agreement or by law or otherwise afforded to any party, shall be cumulative and not alternative.

3.13 Further Assurances. At any time or from time to time after the date hereof, the parties agree to cooperate with each other, and at the request of any other party, to execute and deliver any further instruments or documents and to take all such further action as the other party may reasonably request in order to evidence or effectuate the consummation of the transactions contemplated hereby and to otherwise carry out the intent of the parties hereunder.

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IN WITNESS WHEREOF, the parties have executed this Agreement as of the date first written above.

XILIO THERAPEUTICS, INC.

By:/s/ Rene Russo

Name: Rene Russo

Title: Chief Executive Officer

INVESTORS:

ATLAS VENTURE FUND XI, L.P.

By: Atlas Venture Associates XI, L.P., Its General Partner

By: Atlas Venture Associates XI, LLC, Its General Partner

By: /s/ Ommer Chohan
Name: Ommer Chohan
Title: CFO

INVESTORS:

ATLAS VENTURE OPPORTUNITY FUND I, L.P.

By: Atlas Venture Associates Opportunity I, L.P., its General Partner

By: Atlas Venture Associates Opportunity I, LLC, its General Partner

By: /s/ Ommer Chohan
Name: Ommer Chohan
Title: CFO

INVESTORS:

F-PRIME CAPITAL PARTNERS HEALTHCARE FUND IV LP

By: F-Prime Capital Partners Healthcare Advisors
Fund IV LP, its general partner

By: Impresa Holdings LLC, its general partner

By: Impresa Management LLC, its managing member

By: /s/ Mary Bevelock Pendergast
Name: Mary Bevelock Pendergast
Title: Vice President

INVESTORS:

TAKEDA VENTURES, INC.

By: /s/ Dan Curran
Name: Dan Curran
Title: Head, Rare Genetics & Hematology

INVESTORS:

MERCK VENTURES B.V.

By: /s/ Jasper Bos
Name: Jasper Bos
Title: Managing Director

By: /s/ Keno Gutierrez
Name: Keno Gutierrez
Title: Director

INVESTORS:

AJU LIFE SCIENCE 3.0 VENTURE FUND C/O AJU 18 INVESTMENT

By: /s/ Ji-Won Kim
Name: Ji-Won Kim
Title: CEO

INVESTORS:

MRL VENTURES FUND, LLC

By: /s/ Peter Dudek
Name: Peter Dudek
Title: Partner

INVESTORS:

RIVERVEST VENTURE FUND IV, L.P.

By: RiverVest Venture Partners IV, L.P., its general partner

By: RiverVest Venture Partners IV, LLC, its general partner

By: /s/ Nancy Hong
Name: Nancy Hong
Title: Authorized Person

INVESTORS:

SV 7 IMPACT MEDICINE FUND LP
acting by its General Partner SV7 (IMF) GP LLP acting by its designated member

By: /s/ James Costine
Name: James Costine
Title: Member

INVESTORS:

BAY CITY CAPITAL GF XINDE INTERNATIONAL LIFE SCIENCES USD FUND, L.P.

By: Bay City Capital GF XINDE Investment Management Co.

Its: General Partner

By: /s/ Fred Craves
Name: Fred Craves
Title: Director

INVESTORS:

ROCK SPRINGS CAPITAL MASTER FUND LP

By: Rock Springs General Partner LLC, its general partner

By: /s/ Kris Jenner
Name: Kris Jenner
Title: Member

FOUR PINES MASTER FUND LP

By: Four Pines General Partner LLC, its general partner

By: /s/ Kris Jenner
Name: Kris Jenner
Title: Member

INVESTORS:

SOLEUS PRIVATE EQUITY FUND II, L.P.

By: Soleus Private Equity GP II, LLC, its General Partner

By: /s/ Steven J. Musumeci
Name: Steven J. Musumeci
Title: Chief Operating Officer

INVESTORS:

RA CAPITAL HEALTHCARE FUND, L.P.

By: RA Capital Healthcare Fund GP, LLC
Its General Partner

By: /s/ Rajeev Shah
Name: Rajeev Shah
Title: Manager

INVESTORS:

RA CAPITAL NEXUS FUND II, L.P.

By: RA Capital Nexus Fund II GP, LLC
Its: General Partner

By: /s/ Rajeev Shah
Name: Rajeev Shah
Title: Manager

INVESTORS:

BAIN CAPITAL LIFE SCIENCES FUND II, L.P.
By: Bain Capital Life Sciences Investors II, LLC
its general partner
By: Bain Capital Life Sciences Investors, LLC
its manager

By: /s/ Andrew Hack
Name: Andrew Hack
Title: Managing Director

INVESTORS:

BCIP LIFE SCIENCES ASSOCIATES, LP
By: Boylston Coinvestors, LLC
its general partner

By: /s/ Andrew Hack
Name: Andrew Hack
Title: Authorized Signatory

INVESTORS:

DEERFIELD PRIVATE DESIGN FUND V, L.P.
By: Deerfield Mgmt V, L.P.
General Partner
By: J.E. Flynn Capital V, LLC
General Partner

By: /s/ David J. Clark
Name: David J. Clark
Title: Authorized Signatory

DEERFIELD PARTNERS, L.P.
By: Deerfield Mgmt, L.P., General Partner
By: J.E. Flynn Capital, LLC, General Partner

By: /s/ David J. Clark
Name: David J. Clark
Title: Authorized Signatory

SCHEDULE A

INVESTORS

Name, Contact Information and Address

Atlas Venture Fund XI, L.P.
400 Technology Square
Cambridge, MA 02139

Atlas Venture Opportunity Fund I, L.P.
400 Technology Square
Cambridge, MA 02139

F-Prime Capital Partners Healthcare Fund IV LP
1 Main Street
13th Floor
Cambridge, MA 02142

Four Pines Master Fund LP
650 South Exeter Street, Suite 1070
Baltimore, MD 21202
[**]

Takeda Ventures, Inc.
435 Tasso Street, Suite 300
Palo Alto, CA 94301

M Ventures B.V.
Gustav Mahlerplein 102
Toyo lto Building, 20th Floor
1082 MA Amsterdam
The Netherlands
[**]

Aju Life Science 3.0 Venture Fund
c/o Aju 18 Investment
201 Teheran-ro, 5th Floor
Gangham-gu, Seoul, Korea, 06141

Ipsen Biopharmaceuticals, Inc.
106 Allen Road, 4th Floor
Basking Ridge, NJ 07920

Alexandria V.I.
Alexandria Real Estate Equities, Inc.
1700 Owens St., Suite 590
San Francisco, CA 94158

Harvard Management Private Equity Corporation
600 Atlantic Avenue
Boston, MA 02210-2203

The Trustees of Columbia University in the City of New York
211 Low Library
535 West 116th Street
Mail Code 4324
New York, NY 10027
Mirae Asset-Celltrion New Growth Fund I
Mirae-Asset Center 1 Bldg
19F, East Tower, 26, Eulji-ro-5-gil
Jung-gu, Seoul, Korea (Postal Code 0439)

Mirae Asset Capital Co., Ltd.
Mirae-Asset Center 1 Bldg
19F, East Tower, 26, Eulji-ro-5-gil
Jung-gu, Seoul, Korea (Postal Code 0439)

Meritz NS Global Bio Fund
Suite 501, 22 Sejong-Daero 21-Gil
Junggu, Seoul, Republic of Korea 04519

MRL Ventures Fund, LLC
Merck Research Laboratories
320 Bent Street, 4th Floor
Cambridge, MA 02141

Rivervest Venture Fund IV, L.P.
101 Hanley Rd., Ste. 1850
St. Louis, MO 63105

Rock Springs Capital Master Fund LP
650 South Exeter Street, Suite 1070
Baltimore, MD 21202
[**]

SV7 Impact Medicine Fund LP
71 Kingsway
Holborn, London
WC2B 6ST

Bay City Capital GF Xinde International Life Sciences USD Fund, L.P.
750 Battery Street, Suite 400
San Francisco, CA 94111

Soleus Private Equity Fund II, L.P.
104 Field Point Road, Second Floor
Greenwich, CT 06830

RA Capital Healthcare Fund, L.P.
c/o RA Capital Management, L.P.
200 Berkeley Street, 18th Floor
Boston, MA 02116

RA Capital Nexus Fund II, L.P.
c/o RA Capital Management, L.P.
200 Berkeley Street, 18th Floor
Boston, MA 02116

Bain Capital Life Sciences Fund II, L.P.
BCIP Life Sciences Associates, LP
c/o Bain Capital Life Sciences, LP
200 Clarendon Street
Boston, MA 02116
[**]

Deerfield Private Design Fund V, L.P.
Deerfield Partners, L.P.
c/o Deerfield Management Company, L.P.
345 Park Avenue South, 12th Floor
New York, NY 10010
[**]

and

c/o Deerfield Management Company, L.P.
345 Park Avenue South, 12th Floor
New York, NY 10010
[**]

Exhibit 10.2

2020 Stock Incentive Plan

of

Xilio Therapeutics, Inc.

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2020 Stock Incentive Plan

of

Xilio Therapeutics, Inc.

1. Purpose

The purpose of this 2020 Stock Incentive Plan (the "**Plan**") of Xilio Therapeutics, Inc., a Delaware corporation (the "**Company**"), is to advance the interests of the Company's stockholders by enhancing the Company's ability to attract, retain and motivate persons who are expected to make important contributions to the Company and by providing such persons with equity ownership opportunities and performance-based incentives that are intended to better align the interests of such persons with those of the Company's stockholders. Except where the context otherwise requires, the term "**Company**" shall include any of the Company's present and future parent or subsidiary corporations as defined in Sections 424(e) or (f) of the Internal Revenue Code of 1986, as amended, and any regulations thereunder (the "**Code**") and any other business venture (including, without limitation, joint venture or limited liability company) in which the Company has a controlling interest, as determined by the Board of Directors of the Company (the "**Board**"); *provided*, *however*, that such other business ventures shall be limited to entities that, where required by Section 409A of the Code, are eligible issuers of service recipient stock (as defined in Treas. Reg. Section 1.409A-1(b)(5)(iii)(E), or applicable successor regulation).

2. Eligibility

All of the Company's employees, officers and directors, as well as consultants and advisors to the Company (as such terms consultants and advisors are defined and interpreted for purposes of Rule 701 under the Securities Act of 1933, as amended (the "**Securities Act**") (or any successor rule)) are eligible to be granted Awards under the Plan. Each person who is granted an Award under the Plan is deemed a "**Participant**." "**Award**" means Options (as defined in Section 5), SARs (as defined in Section 6), Restricted Stock (as defined in Section 7), Restricted Stock Units (as defined in Section 7) and Other Stock-Based Awards (as defined in Section 8).

3. Administration and Delegation

(a) Administration by the Board. The Plan will be administered by the Board. The Board shall have authority to grant Awards and to adopt, amend and repeal such administrative rules, guidelines and practices relating to the Plan as it shall deem advisable. The Board may construe and interpret the terms of the Plan and any Award agreements entered into under the Plan. The Board may correct any defect, supply any omission or reconcile any inconsistency in the Plan or any Award in the manner and to the extent it shall deem expedient to carry the Plan into effect and it shall be the sole and final judge of such expediency. All actions and decisions by the Board with respect to the Plan and any Awards shall be made in the Board's discretion and shall be final and binding on all Participants and any other persons having or claiming any interest in the Plan or in any Award.

(b) Appointment of Committees. To the extent permitted by applicable law, the Board may delegate any or all of its powers under the Plan to one or more committees or subcommittees of the Board (each, a "**Committee**"). All references in the Plan to the "**Board**" shall mean the Board or a Committee to the extent that the Board's powers or authority under the Plan have been delegated to such Committee.

4. Stock Available for Awards

(a) Number of Shares. Subject to adjustment under Section 9, Awards may be made under the Plan for up to 9,414,707 shares of common stock, $0.0001 par value per share, of the Company (the "**Common Stock**"), any or all of which Awards may be in the form of Incentive Stock Options (as defined in Section 5(b)). If any Award expires or is terminated, surrendered or canceled without having been fully exercised, is forfeited in whole or in part (including as the result of shares of Common Stock subject to such Award being repurchased by the Company at the original issuance price pursuant to a contractual repurchase right), or results in any Common Stock not being issued, the unused Common Stock subject to such Award shall again be available for the grant of Awards under the Plan. Further, shares of Common Stock tendered to the Company by a Participant to exercise an Award or to satisfy tax withholding obligations arising with respect to an Award shall be added to the number of shares of Common Stock available for the grant of Awards under the Plan. However, in the case of Incentive Stock Options, the two immediately preceding sentences shall be subject to any limitations under the Code. Shares issued under the Plan may consist in whole or in part of authorized but unissued shares or treasury shares.

(b) Substitute Awards. In connection with a merger or consolidation of an entity with the Company or the acquisition by the Company of property or stock of an entity, the Board may grant Awards in substitution for any options or other stock or stock-based awards granted by such entity or an affiliate thereof. Substitute Awards may be granted on such terms as the Board deems appropriate in the circumstances, notwithstanding any limitations on Awards contained in the Plan. Substitute Awards shall not count against the overall share limit set forth in Section 4(a), except as may be required by reason of Section 422 and related provisions of the Code.

5. Stock Options

(a) General. The Board may grant options to purchase Common Stock (each, an "**Option**") and determine the number of shares of Common Stock to be subject to each Option, the exercise price of each Option and the conditions and limitations applicable to the exercise of each Option, including conditions relating to applicable federal or state securities laws, as it considers necessary or advisable.

(b) Incentive Stock Options. An Option that the Board intends to be an "incentive stock option" as defined in Section 422 of the Code (an "**Incentive Stock Option**") shall only be granted to employees of Xilio Therapeutics, Inc., any of Xilio Therapeutics, Inc.'s present and future parent or subsidiary corporations as defined in Sections 424(e) or (f) of the Code, and any other entities the employees of which are eligible to receive Incentive Stock Options under the Code, and shall be subject to and shall be construed consistently with the requirements of Section 422 of the Code. An Option that is not intended to be an Incentive Stock Option shall be designated non-statutory stock option (a "**Nonstatutory Stock Option)**." The Company shall have no liability to a Participant, or any other person, if an Option (or any part thereof) that is intended to be an Incentive Stock Option is not an Incentive Stock Option or if the Company converts an Incentive Stock Option to a Nonstatutory Stock Option.

(c) Exercise Price. The Board shall establish the exercise price of each Option and specify the exercise price in the applicable Option agreement. The exercise price shall be not less than 100% of the Grant Date Fair Market Value (as defined below) of the Common Stock on the date the Option is granted; provided that if the Board approves the grant of an Option with an exercise price to be determined on a future date, the exercise price shall not be less than 100% of the Grant Date Fair Market Value on such future date. The "**Grant Date Fair Market Value**" of a share of Common Stock for purposes of the Plan will be determined as follows:

(1) if the Common Stock is not publicly traded, the Board will determine the Fair Market Value for purposes of the Plan using any measure of value it determines to be appropriate (including, as it considers appropriate, relying on appraisals) in a manner consistent with the valuation principles under Code Section 409A, except as the Board may expressly determine otherwise;

(2) if the Common Stock is listed on a national securities exchange, the closing sale price (for the primary trading session) on the date of grant; or

(3) if the Common Stock is not listed on any such exchange, the average of the closing bid and asked prices as reported by an authorized OTCBB market data vendor as listed on the OTCBB website (otcbb.com) on the date of grant.

For any date that is not a trading day, the Grant Date Fair Market Value of a share of Common Stock for such date will be determined by using the closing sale price or average of the bid and asked prices, as appropriate, for the immediately preceding trading day and with the timing in the formulas above adjusted accordingly. The Board can substitute a particular time of day or other measure of "closing sale price" or "bid and asked prices" if appropriate because of exchange or market procedures or can, in its discretion, use weighted averages either on a daily basis or such longer period as complies with Code Section 409A.

The Board has discretion to determine the Grant Date Fair Market Value for purposes of the Plan, and all Awards are conditioned on the applicable Participant's agreement that the Board's determination is conclusive and binding even though others might make a different determination.

(d) Duration of Options. Each Option shall be exercisable at such times and subject to such terms and conditions as the Board may specify in the applicable option agreement; *provided*, *however*, that no Option will be granted with a term in excess of 10 years.

(e) Exercise of Options. Options may be exercised by delivery to the Company of a notice of exercise in a form of notice (which may be electronic) approved by the Company, together with payment in full (in the manner specified in Section 5(f)) of the exercise price for the number of shares for which the Option is exercised. Shares of Common Stock subject to the Option will be delivered by the Company as soon as practicable following exercise.

(f) Payment Upon Exercise. Common Stock purchased upon the exercise of an Option granted under the Plan shall be paid for as follows:

(1) in cash or by check, payable to the order of the Company;

(2) when the Common Stock is registered under the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), except as may otherwise be provided in the applicable Option agreement or approved by the Board, in its discretion, by (i) delivery of an irrevocable and unconditional undertaking by a creditworthy broker to deliver promptly to the Company sufficient funds to pay the exercise price and any required tax withholding or (ii) delivery by the Participant to the Company of a copy of irrevocable and unconditional instructions to a creditworthy broker to deliver promptly to the Company cash or a check sufficient to pay the exercise price and any required tax withholding;

(3) when the Common Stock is registered under the Exchange Act and to the extent provided for in the applicable Option agreement or approved by the Board, in its discretion, by delivery (either by actual delivery or attestation) of shares of Common Stock owned by the Participant valued at their fair market value (valued in the manner determined by (or in a manner approved by) the Board), *provided* (i) such method of payment is then permitted under applicable law, (ii) such Common Stock, if acquired directly from the Company, was owned by the Participant for such minimum period of time, if any, as may be established by the Board in its discretion and (iii) such Common Stock is not subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements;

(4) to the extent provided for in the applicable Nonstatutory Stock Option agreement or approved by the Board in its discretion, by delivery of a notice of "net exercise" to the Company, as a result of which the Participant would receive (i) the number of shares underlying the portion of the Option being exercised, less (ii) such number of shares as is equal to (A) the aggregate exercise price for the portion of the Option being exercised divided by (B) the fair market value of the Common Stock (valued in the manner determined by (or in a manner approved by) the Board) on the date of exercise;

(5) to the extent permitted by applicable law and provided for in the applicable Option agreement or approved by the Board, in its discretion, by (i) delivery of a promissory note of the Participant to the Company on terms determined by the Board, or (ii) payment of such other lawful consideration as the Board may determine; or

(6) by any combination of the above permitted forms of payment.

6. Stock Appreciation Rights

(a) General. The Board may grant Awards consisting of stock appreciation rights ("**SARs**") entitling the Participant, upon exercise, to receive an amount of Common Stock or cash or a combination thereof (such form to be determined by the Board) determined by reference to appreciation, from and after the date of grant, in the fair market value of a share of Common Stock (valued in the manner determined by (or in a manner approved by) the Board) over the measurement price established pursuant to Section 6(b). The date as of which such appreciation is determined shall be the exercise date.

(b) Measurement Price. The Board shall establish the measurement price of each SAR and specify it in the applicable SAR agreement. The measurement price shall not be less than 100% of the Grant Date Fair Market Value of a share of Common Stock on the date the SAR is granted; *provided*, that if the Board approves the grant of an SAR effective as of a future date, the measurement price shall not be less than 100% of the Grant Date Fair Market Value on such future date.

(c) Duration of SARs. Each SAR shall be exercisable at such times and subject to such terms and conditions as the Board may specify in the applicable SAR agreement; *provided*, *however*, that no SAR will be granted with a term in excess of 10 years.

(d) Exercise of SARs. SARs may be exercised by delivery to the Company of a notice of exercise in a form (which may be electronic) approved by the Company, together with any other documents required by the Board.

7. Restricted Stock; Restricted Stock Units

(a) General. The Board may grant Awards entitling Participants to acquire shares of Common Stock ("**Restricted Stock**"), subject to the right of the Company to repurchase all or part of such shares at their issue price or other stated or formula price (or to require forfeiture of such shares if issued at no cost) from the Participant in the event that conditions specified by the Board in the applicable Award are not satisfied prior to the end of the applicable restriction period or periods established by the Board for such Award. The Board may also grant Awards entitling the Participant to receive shares of Common Stock or cash to be delivered at the time such Award vests ("**Restricted Stock Units**") (Restricted Stock and Restricted Stock Units are each referred to herein as a "**Restricted Stock Award**").

(b) Terms and Conditions for All Restricted Stock Awards. The Board shall determine the terms and conditions of a Restricted Stock Award, including the conditions for vesting and repurchase (or forfeiture) and the issue price, if any.

(c) Additional Provisions Relating to Restricted Stock.

(1) Dividends. Unless otherwise provided in the applicable Award agreement, any dividends (whether paid in cash, stock or property) declared and paid by the Company with respect to shares of Restricted Stock ("**Accrued Dividends**") shall be paid to the Participant only if and when such shares become free from the restrictions on transferability and forfeitability that apply to such shares. Each payment of Accrued Dividends will be made no later than the end of the calendar year in which the dividends are paid to stockholders of that class of stock or, if later, the 15th day of the third month following the lapsing of the restrictions on transferability and the forfeitability provisions applicable to the underlying shares of Restricted Stock.

(2) Stock Certificates. The Company may require that any stock certificates issued in respect of shares of Restricted Stock, as well as dividends or distributions paid on such Restricted Stock, shall be deposited in escrow by the Participant, together with a stock power endorsed in blank, with the Company (or its designee). At the expiration of the applicable restriction periods, the Company (or such designee) shall deliver the certificates no longer subject to such restrictions to the Participant or if the Participant has died, to Participant's Designated Beneficiary. "**Designated Beneficiary**" means (i) the beneficiary designated, in a manner determined by the Board, by a Participant to receive amounts due or exercise rights of the Participant in the event of the Participant's death or (ii) in the absence of an effective designation by a Participant, "**Designated Beneficiary**" means the Participant's estate.

(d) Additional Provisions Relating to Restricted Stock Units.

(1) Settlement. Upon the vesting of and/or lapsing of any other restrictions (i.e., settlement) with respect to each Restricted Stock Unit, the Participant shall be entitled to receive from the Company the number of shares of Common Stock specified in the Award agreement or (if so provided in the applicable Award agreement or otherwise determined by the Board) an amount of cash equal to the fair market value (valued in the manner determined by (or in a manner approved by) the Board) of such number of shares of Common Stock or a combination thereof. The Board may, in its discretion, provide that settlement of Restricted Stock Units shall be deferred, on a mandatory basis or at the election of the Participant in a manner that complies with Section 409A of the Code.

(2) Voting Rights. A Participant shall have no voting rights with respect to any Restricted Stock Units.

(3) Dividend Equivalents. The Award agreement for Restricted Stock Units may provide Participants with the right to receive an amount equal to any dividends or other distributions declared and paid on an equal number of outstanding shares of Common Stock ("**Dividend Equivalents**"). Dividend Equivalents may be paid currently or credited to an account for the Participants, may be settled in cash and/or shares of Common Stock and may be subject to the same restrictions on transfer and forfeitability as the Restricted Stock Units with respect to which paid, in each case to the extent provided in the applicable Award agreement.

8. Other Stock-Based Awards

(a) General. The Board may grant other Awards of shares of Common Stock, and other Awards that are valued in whole or in part by reference to, or are otherwise based on, shares of Common Stock or other property ("**Other Stock-Based Awards**"). Such Other Stock-Based Awards shall also be available as a form of payment in the settlement of other Awards granted under the Plan or as payment in lieu of compensation to which a Participant is otherwise entitled. Other Stock-Based Awards may be paid in shares of Common Stock or cash, as the Board shall determine.

(b) Terms and Conditions. Subject to the provisions of the Plan, the Board shall determine the terms and conditions of each Other Stock-Based Award, including any purchase price applicable thereto.

9. Adjustments for Changes in Common Stock and Certain Other Events

(a) Changes in Capitalization. In the event of any stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event, or any dividend or distribution to holders of Common Stock other than an ordinary cash dividend, (i) the number and class of securities available under the Plan, (ii) the number and class of securities and exercise price per share of each outstanding Option, (iii) the share and per-share provisions and the measurement price of each outstanding SAR, (iv) the number of shares subject to and the repurchase price per share subject to each outstanding Award of Restricted Stock and (v) the share and per-share-related provisions and the purchase price, if any, of each outstanding Award of Restricted Stock Unit and each outstanding Other Stock-Based Award, shall be equitably adjusted by the Company (or substituted Awards may be made, if applicable) in the manner determined by the Board. Without limiting the generality of the foregoing, in the event the Company effects a split of the Common Stock by means of a stock dividend and the exercise price of and the number of shares subject to an outstanding Option are adjusted as of the date of the distribution of the dividend (rather than as of the record date for such dividend), then an optionee who exercises an Option between the record date and the distribution date for such stock dividend shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Common Stock acquired upon such Option exercise, notwithstanding the fact that such shares were not outstanding as of the close of business on the record date for such stock dividend.

(b) Reorganization Events.

(1) Definition. A "**Reorganization Event**" shall mean: (a) any merger or consolidation of the Company with or into another entity as a result of which all of the Common Stock of the Company is converted into or exchanged for the right to receive cash, securities or other property or is cancelled, (b) any transfer or disposition of all of the Common Stock of the Company for cash, securities or other property pursuant to a share exchange or other transaction or (c) any liquidation or dissolution of the Company.

(2) Consequences of a Reorganization Event on Awards Other than Restricted Stock.

(i) In connection with a Reorganization Event, the Board may take any one or more of the following actions as to all or any (or any portion of) outstanding Awards other than Restricted Stock on such terms as the Board determines (except to the extent specifically provided otherwise in an applicable Award agreement or another agreement between the Company and the Participant): (i) provide that such Awards shall be assumed, or substantially equivalent Awards shall be substituted, by the acquiring or succeeding corporation (or an affiliate thereof), (ii) upon written notice to a Participant, provide that all of the Participant's unexercised and/or unvested Awards will terminate immediately prior to the consummation of such Reorganization Event unless exercised by the Participant (to the extent then exercisable) within a specified period following the date of such notice, (iii) provide that outstanding Awards shall become exercisable, realizable, or deliverable, or restrictions applicable to an Award shall lapse, in whole or in part prior to or upon such Reorganization Event, (iv) in the event of a Reorganization Event under the terms of which holders of Common Stock will receive upon consummation thereof a cash payment for each share surrendered in the Reorganization Event (the "**Acquisition Price**"), make or provide for a cash payment to Participants with respect to each Award held by a Participant equal to (A) the number of shares of Common Stock subject to the vested portion of the Award (after giving effect to any acceleration of vesting that occurs upon or immediately prior to such Reorganization Event) multiplied by (B) the excess, if any, of (I) the Acquisition Price over (II) the exercise, measurement or purchase price of such Award and any applicable tax withholdings, in exchange for the termination of such Award, (v) provide that, in connection with a liquidation or dissolution of the Company, Awards shall convert into the right to receive liquidation proceeds (if applicable, net of the exercise, measurement or purchase price thereof and any applicable tax withholdings) and (vi) any combination of the foregoing. In taking any of the actions permitted under this Section 9(b)(2), the Board shall not be obligated by the Plan to treat all Awards, all Awards held by a Participant, or all Awards of the same type, identically.

(ii) Notwithstanding the terms of Section 9(b)(2)(i), in the case of outstanding Restricted Stock Units that are subject to Section 409A of the Code: (i) if the applicable Restricted Stock Unit agreement provides that the Restricted Stock Units shall be settled upon a "change in control event" within the meaning of Treasury Regulation Section 1.409A-3(i)(5)(i), and the Reorganization Event constitutes such a "change in control event", then no assumption or substitution shall be permitted pursuant to Section 9(b)(2)(i) and the Restricted Stock Units shall instead be settled in accordance with the terms of the applicable Restricted Stock Unit agreement; and (ii) the Board may only undertake the actions set forth in clauses (iii), (iv) or (v) of Section 9(b)(2)(i) if the Reorganization Event constitutes a "change in control event" as defined under Treasury Regulation Section 1.409A-3(i)(5)(i) and such action is permitted or required by Section 409A of the Code; if the Reorganization Event is not a "change in control event" as so defined or such action is not permitted or required by Section 409A of the Code, and the acquiring or succeeding corporation does not assume or substitute the Restricted Stock Units pursuant to clause (i) of Section 9(b)(2)(i), then the unvested Restricted Stock Units shall terminate immediately prior to the consummation of the Reorganization Event without any payment in exchange therefor.

(iii) For purposes of Section 9(b)(2)(i), an Award (other than Restricted Stock) shall be considered assumed if, following consummation of the Reorganization Event, such Award confers the right to purchase or receive pursuant to the terms of such Award, for each share of Common Stock subject to the Award immediately prior to the consummation of the Reorganization Event, the consideration (whether cash, securities or other property) received as a result of the Reorganization Event by holders of Common Stock for each share of Common Stock held immediately prior to the consummation of the Reorganization Event (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding shares of Common Stock); *provided, however*, that if the consideration received as a result of the Reorganization Event is not solely common stock of the acquiring or succeeding corporation (or an affiliate thereof), the Company may, with the consent of the acquiring or succeeding corporation, provide for the consideration to be received upon the exercise or settlement of the Award to consist solely of such number of shares of common stock of the acquiring or succeeding corporation (or an affiliate thereof) that the Board determined to be equivalent in value (as of the date of such determination or another date specified by the Board) to the per share consideration received by holders of outstanding shares of Common Stock as a result of the Reorganization Event.

(3) Consequences of a Reorganization Event on Restricted Stock. Upon the occurrence of a Reorganization Event other than a liquidation or dissolution of the Company, the repurchase and other rights of the Company with respect to outstanding Restricted Stock shall inure to the benefit of the Company's successor and shall, unless the Board determines otherwise, apply to the cash, securities or other property which the Common Stock was converted into or exchanged for pursuant to such Reorganization Event in the same manner and to the same extent as they applied to such Restricted Stock; *provided*, *however*, that the Board may provide for termination or deemed satisfaction of such repurchase or other rights under the instrument evidencing any Restricted Stock or any other agreement between a Participant and the Company, either initially or by amendment, or provide for forfeiture of such Restricted Stock if issued at no cost. Upon the occurrence of a Reorganization Event involving the liquidation or dissolution of the Company, except to the extent specifically provided to the contrary in the instrument evidencing any Restricted Stock or any other agreement between a Participant and the Company, all restrictions and conditions on all Restricted Stock then outstanding shall automatically be deemed terminated or satisfied.

10. General Provisions Applicable to Awards.

(a) Transferability of Awards. Awards (or any interest in an Award, including, prior to exercise, any interest in shares of Common Stock issuable upon exercise of an Option or SAR) shall not be sold, assigned, transferred (including by establishing any short position, put equivalent position (as defined in Rule 16a-1 issued under the Exchange Act) or call equivalent position (as defined in Rule 16a-1 issued under the Exchange Act)), pledged, hypothecated or otherwise encumbered by the person to whom they are granted, either voluntarily or by operation of law, and, during the life of the Participant, shall be exercisable only by the Participant; except that Awards, other than Awards subject to Section 409A of the Code, may be transferred to family members (as defined in Rule 701(c)(3) under the Securities Act) through gifts or (other than Incentive Stock Options) domestic relations orders or to an executor or guardian upon the death or disability of the Participant. The Company shall not be required to recognize any such permitted transfer until such time as such permitted transferee shall deliver to the Company a written instrument, as a condition to such transfer, in form and substance satisfactory to the Company confirming that such transferee shall be bound by all of the terms and conditions of the Award. References to a Participant, to the extent relevant in the context, shall include references to authorized transferees. For the avoidance of doubt, nothing contained in this Section 10(a) shall be deemed to restrict a transfer to the Company.

(b) Documentation. Each Award shall be evidenced in such form (written, electronic or otherwise) as the Board shall determine. Each Award may contain terms and conditions in addition to those set forth in the Plan.

(c) Board Discretion. Except as otherwise provided by the Plan, each Award may be made alone or in addition or in relation to any other Award. The terms of each Award need not be identical, and the Board need not treat Participants uniformly.

(d) Termination of Status. The Board shall determine the effect on an Award of the disability, death, termination or other cessation of employment, authorized leave of absence or other change in the employment or other status of a Participant and the extent to which, and the period during which, the Participant, or the Participant's legal representative, conservator, guardian or Designated Beneficiary, may exercise rights under the Award.

(e) Withholding. The Participant must satisfy all applicable federal, state, and local or other income and employment tax withholding obligations before the Company will deliver stock certificates or otherwise recognize ownership of Common Stock under an Award. The Company may elect to satisfy the withholding obligations through additional withholding on salary or wages. If the Company elects not to or cannot withhold from other compensation, the Participant must pay the Company the full amount, if any, required for withholding or have a broker tender to the Company cash equal to the withholding obligations. Payment of withholding obligations is due before the Company will issue any shares on exercise, vesting or release from forfeiture of an Award or at the same time as payment of the exercise or purchase price unless the Company determines otherwise. If provided for in an Award or approved by the Board in its discretion, a Participant may satisfy such tax obligations in whole or in part by delivery (either by actual delivery or attestation) of shares of Common Stock, including shares retained from the Award creating the tax obligation, valued at their fair market value (valued in the manner determined by (or in a manner approved by) the Company); *provided*, *however*, except as otherwise provided by the Board, that the total tax withholding where stock is being used to satisfy such tax obligations cannot exceed the Company's minimum statutory withholding obligations (based on minimum statutory withholding rates for federal and state tax purposes, including payroll taxes, that are applicable to such supplemental taxable income), *except that*, to the extent that the Company is able to retain shares of Common Stock having a fair market value (valued in the manner determined by (or in a manner approved by) the Company) that exceeds the statutory minimum applicable withholding tax without financial accounting implications or the Company is withholding in a jurisdiction that does not have a statutory minimum withholding tax, the Company may retain such number of shares of Common Stock (up to the number of shares having a fair market value (valued in the manner determined by (or in a manner approved by) the Company) equal to the maximum individual statutory rate of tax) as the Company shall determine in its discretion to satisfy the tax liability associated with any Award. Shares used to satisfy tax withholding requirements cannot be subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements.

(f) Amendment of Award.

(1) The Board may amend, modify or terminate any outstanding Award, including but not limited to, substituting therefor another Award of the same or a different type, changing the date of exercise or realization, and converting an Incentive Stock Option to a Nonstatutory Stock Option. The Participant's consent to such action shall be required unless (i) the Board determines that the action, taking into account any related action, does not materially and adversely affect the Participant's rights under the Plan or (ii) the change is permitted under Section 9.

(2) The Board may, without stockholder approval, amend any outstanding Award granted under the Plan to provide an exercise price per share that is lower than the then-current exercise price per share of such outstanding Award. The Board may also, without stockholder approval, cancel any outstanding award (whether or not granted under the Plan) and grant in substitution therefor new Awards under the Plan covering the same or a different number of shares of Common Stock and having an exercise price per share lower than the then-current exercise price per share of the cancelled award.

(g) Conditions on Delivery of Stock. The Company will not be obligated to deliver any shares of Common Stock pursuant to the Plan or to remove restrictions from shares previously issued or delivered under the Plan until (i) all conditions of the Award have been met or removed to the satisfaction of the Company, (ii) in the opinion of the Company's counsel, all other legal matters in connection with the issuance and delivery of such shares have been satisfied, including any applicable securities laws and regulations and any applicable stock exchange or stock market rules and regulations, and (iii) the Participant has executed and delivered to the Company such representations or agreements as the Company may consider appropriate to satisfy the requirements of any applicable laws, rules or regulations.

(h) Acceleration. The Board may at any time provide that any Award shall become immediately exercisable in whole or in part, free of some or all restrictions or conditions, or otherwise realizable in whole or in part, as the case may be.

11. Miscellaneous.

(a) No Right To Employment or Other Status. No person shall have any claim or right to be granted an Award by virtue of the adoption of the Plan, and the grant of an Award shall not be construed as giving a Participant the right to continued employment or any other relationship with the Company. The Company expressly reserves the right at any time to dismiss or otherwise terminate its relationship with a Participant free from any liability or claim under the Plan, except as expressly provided in the applicable Award.

(b) No Rights As Stockholder. Subject to the provisions of the applicable Award, no Participant or Designated Beneficiary shall have any rights as a stockholder with respect to any shares of Common Stock to be distributed with respect to an Award until becoming the record holder of such shares.

(c) Effective Date and Term of Plan. The Plan shall become effective on the date on which it is adopted by the Board. No Awards shall be granted under the Plan after the expiration of 10 years from the earlier of (i) the date on which the Plan was adopted by the Board or (ii) the date the Plan was approved by the Company's stockholders, but Awards previously granted may extend beyond that date.

(d) Amendment of Plan. The Board may amend, suspend or terminate the Plan or any portion thereof at any time; *provided* that if at any time the approval of the Company's stockholders is required as to any modification or amendment under Section 422 of the Code or any successor provision with respect to Incentive Stock Options, the Board may not effect such modification or amendment without such approval. Unless otherwise specified in the amendment, any amendment to the Plan adopted in accordance with this Section 11(d) shall apply to, and be binding on the holders of, all Awards outstanding under the Plan at the time the amendment is adopted, provided the Board determines that such amendment, taking into account any related action, does not materially and adversely affect the rights of Participants under the Plan.

(e) Authorization of Sub-Plans (including Grants to non-U.S. Employees). The Board may from time to time establish one or more sub-plans under the Plan for purposes of satisfying applicable securities, tax or other laws of various jurisdictions. The Board shall establish such sub-plans by adopting supplements to the Plan containing (i) such limitations on the Board's discretion under the Plan as the Board deems necessary or desirable or (ii) such additional terms and conditions not otherwise inconsistent with the Plan as the Board shall deem necessary or desirable. All supplements adopted by the Board shall be deemed to be part of the Plan, but each supplement shall apply only to Participants within the affected jurisdiction and the Company shall not be required to provide copies of any supplement to Participants in any jurisdiction which is not the subject of such supplement.

(f) Compliance with Section 409A of the Code. If and to the extent (i) any portion of any payment, compensation or other benefit provided to a Participant pursuant to the Plan in connection with Participant's employment termination constitutes "nonqualified deferred compensation" within the meaning of Section 409A of the Code and (ii) the Participant is a specified employee as defined in Section 409A(a)(2)(B)(i) of the Code, in each case as determined by the Company in accordance with its procedures, by which determinations the Participant (through accepting the Award) agrees that the Participant is bound, such portion of the payment, compensation or other benefit shall not be paid before the day that is six months plus one day after the date of "separation from service" (as determined under Section 409A of the Code) (the "**New Payment Date**"), except as Section 409A of the Code may then permit. The aggregate of any payments that otherwise would have been paid to the Participant during the period between the date of separation from service and the New Payment Date shall be paid to the Participant in a lump sum on such New Payment Date, and any remaining payments will be paid on their original schedule.

The Company makes no representations or warranty and shall have no liability to the Participant or any other person if any provisions of or payments, compensation or other benefits under the Plan are determined to constitute nonqualified deferred compensation subject to Section 409A of the Code but do not to satisfy the conditions of that section.

(g) Limitations on Liability. Notwithstanding any other provisions of the Plan, no individual acting as a director, officer, other employee, or agent of the Company will be liable to any Participant, former Participant, spouse, beneficiary, or any other person for any claim, loss, liability, or expense incurred in connection with the Plan, nor will such individual be personally liable with respect to the Plan because of any contract or other instrument such individual executes in such individual's capacity as a director, officer, other employee, or agent of the Company. The Company will indemnify and hold harmless each director, officer, other employee, or agent of the Company to whom any duty or power relating to the administration or interpretation of the Plan has been or will be delegated, against any cost or expense (including attorneys' fees) or liability (including any sum paid in settlement of a claim with the Board's approval) arising out of any act or omission to act concerning the Plan unless arising out of such person's own fraud or bad faith.

(h) Governing Law. The provisions of the Plan and all Awards made hereunder shall be governed by and interpreted in accordance with the laws of the State of Delaware, excluding choice-of-law principles of the law of such state that would require the application of the laws of a jurisdiction other than the State of Delaware.

* * * *

XILIO THERAPEUTICS, INC.
2020 STOCK INCENTIVE PLAN

CALIFORNIA SUPPLEMENT

Pursuant to Section 11(e) of the Plan, the Board has adopted this supplement for purposes of satisfying the requirements of Section 25102(o) of the California Law:

Any Awards granted under the Plan to a Participant who is a resident of the State of California on the date of grant (a "**California Participant**") shall be subject to the following additional limitations, terms and conditions:

1. Additional Limitations on Options.

(a) Maximum Duration of Options. No Options granted to California Participants shall have a term in excess of 10 years measured from the Option grant date.

(b) Minimum Exercise Period Following Termination. Unless a California Participant's employment is terminated for cause (as defined by applicable law, the terms of the Plan or option grant or a contract of employment), in the event of termination of employment of such Participant, such Participant shall have the right to exercise an Option, to the extent that such Participant is entitled to exercise such Option on the date employment terminated, until the earlier of: (i) at least six months from the date of termination, if termination was caused by such Participant's death or disability, (ii) at least 30 days from the date of termination, if termination was caused other than by such Participant's death or disability and (iii) the Option expiration date.

2. Additional Limitations for Other Stock-Based Awards. The terms of all Awards granted to a California Participant under Section 8 of the Plan shall comply, to the extent applicable, with Section 260.140.46 of the California Code of Regulations.

3. Additional Limitations on Timing of Awards. No Award granted to a California Participant shall become exercisable, vested or realizable, as applicable to such Award, unless the Plan has been approved by the holders of a majority of the Company's outstanding voting securities by the later of (i) within 12 months before or after the date the Plan was adopted by the Board, or (ii) prior to or within 12 months of the granting of any Award to a California Participant.

4. Additional Restriction Regarding Recapitalizations, Stock Splits, Etc. For purposes of Section 9 of the Plan, in the event of a stock split, reverse stock split, stock dividend, recapitalization, combination, reclassification or other distribution of the Company's securities underlying the Award without the receipt of consideration by the Company, the number of securities purchasable, and in the case of Options, the exercise price of such Options, shall be proportionately adjusted.

5. Additional Limitations on Transferability of Awards. Notwithstanding the provisions of Section 10(a) of the Plan, an Award granted to a California Participant may not be transferred to an executor or guardian upon the disability of the Participant.

* * * *

XILIO THERAPEUTICS, INC.

AMENDMENT NO. 1 TO 2020 STOCK INCENTIVE PLAN

Approved by the Board of Directors of the Corporation on January 22, 2021
Approved by the Stockholders of the Corporation on January 27, 2021

1. The first sentence of Section 4(a) of the 2020 Stock Incentive Plan of Xilio Therapeutics, Inc. (the "**Plan**") is hereby deleted in its entirety and the following is inserted in lieu thereof:

"Subject to adjustment under Section 9, Awards may be made under the Plan for up to 21,414,707 shares of common stock, $0.0001 par value per share, of the Company (the "**Common Stock**"), any or all of which Awards may be in the form of Incentive Stock Options (as defined in Section 5(b)), plus such additional number of shares of Common Stock (up to 3,459,146 shares) as is equal to the number of shares of Common Stock issued in respect of incentive shares in Xilio Therapeutics LLC, a Delaware limited liability company ("**Xilio LLC**"), that are subject to vesting immediately prior to the effective time of the Merger (as defined in that certain Agreement and Plan of Merger, dated as of June 19, 2020, by and among the Company, Xilio LLC and Xilio Merger LLC, a Delaware limited liability company) which awards are forfeited to the Company."

2. Except as expressly amended herein, the Plan and all of the provisions contained therein shall remain in full force and effect.

XILIO THERAPEUTICS, INC.

AMENDMENT NO. 2 TO 2020 STOCK INCENTIVE PLAN

Approved by the Board of Directors of the Corporation on February 21, 2021
Approved by the Stockholders of the Corporation on February 22, 2021

1. The first sentence of Section 4(a) of the 2020 Stock Incentive Plan of Xilio Therapeutics, Inc. (the "**Plan**") is hereby deleted in its entirety and the following is inserted in lieu thereof:

"Subject to adjustment under Section 9, Awards may be made under the Plan for up to 28,464,707 shares of common stock, $0.0001 par value per share, of the Company (the "**Common Stock**"), any or all of which Awards may be in the form of Incentive Stock Options (as defined in Section 5(b)), plus such additional number of shares of Common Stock (up to 3,459,146 shares) as is equal to the number of shares of Common Stock issued in respect of incentive shares in Xilio Therapeutics LLC, a Delaware limited liability company ("**Xilio LLC**"), that are subject to vesting immediately prior to the effective time of the Merger (as defined in that certain Agreement and Plan of Merger, dated as of June 19, 2020, by and among the Company, Xilio LLC and Xilio Merger LLC, a Delaware limited liability company) which awards are forfeited to the Company."

2. Except as expressly amended herein, the Plan and all of the provisions contained therein shall remain in full force and effect.

Exhibit 10.3

XILIO THERAPEUTICS, INC.

STOCK OPTION AGREEMENT
GRANTED UNDER 2020 STOCK INCENTIVE PLAN

This Stock Option Agreement (this "**Agreement**") is made between Xilio Therapeutics, Inc., a Delaware corporation (the "**Company**"), and the Participant pursuant to the 2020 Stock Incentive Plan (the "**Plan**").

NOTICE OF GRANT

I. Participant Information

Participant:	
Participant Address:	

II. Grant Information

Grant Date:	
Number of Shares:	
Exercise Price Per Share:	
Vesting Commencement Date:	
Type of Option:	[Incentive Stock Option][Nonstatutory Stock Option]

III. Vesting Table[1]

Vesting Date	Shares that Vest(1)
[____] anniversary of the Vesting Commencement Date	[# of shares]
End of each successive [__] month period following the [____] anniversary of the Vesting Commencement Date until the [____] anniversary of the Vesting Commencement Date	[# of Shares]

(1) The number of shares is subject to adjustment for any changes in the Company's capitalization as set forth in Section 9 of the Plan.

IV. Final Exercise Date

5:00 pm Eastern time on Date:	[Date is ten years minus one day from Grant Date]

This Agreement includes this Notice of Grant and the following Exhibits, which are expressly incorporated by reference in their entirety herein:

Exhibit A – General Terms and Conditions
Exhibit B – Notice of Stock Option Exercise
Exhibit C – Xilio Therapeutics, Inc. 2020 Stock Incentive Plan

[1] Vesting Table to reflect vesting schedule approved by Board of Directors.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement.

XILIO THERAPEUTICS, INC.	PARTICIPANT	SPOUSAL CONSENT[2]
Name: Title:	Name:	Name:

[2] If the Participant resides in a community property state, it is desirable to have the Participant's spouse also accept the option. The following are community property states: Arizona, California, Idaho, Louisiana, Nevada, New Mexico, Texas, and Washington. Although Wisconsin is not formally a community property state, it has laws governing the division of marital property similar to community property states and it may be desirable to have a Wisconsin Participant's spouse accept the option.

EXHIBIT A

GENERAL TERMS AND CONDITIONS

For valuable consideration, receipt of which is acknowledged, the parties hereto agree as follows:

1. Grant of Option. This Agreement evidences the grant by the Company, on the grant date (the "**Grant Date**") set forth in the Notice of Grant that forms part of this Agreement (the "**Notice of Grant**"), to the Participant of an option to purchase, in whole or in part, on the terms provided herein and in the Company's 2020 Stock Incentive Plan (the "**Plan**"), the number of shares set forth in the Notice of Grant (the "**Shares**") of common stock, $0.0001 par value per share, of the Company ("**Common Stock**") at the exercise price per Share set forth in the Notice of Grant (the "**Exercise Price**"). Unless earlier terminated, this option shall expire at the time and on the date set forth in the Notice of Grant (the "**Final Exercise Date**").

It is intended that the option evidenced by this Agreement shall be an incentive stock option as defined in Section 422 of the Internal Revenue Code of 1986, as amended, and any regulations promulgated thereunder (the "**Code**") solely to the extent set forth in the Notice of Grant. To the extent not designated as an incentive stock option, or to the extent that the option does not qualify as an incentive stock option, the option shall be a nonstatutory stock option. Except as otherwise indicated by the context, the term "Participant", as used in this option, shall be deemed to include any person who acquires the right to exercise this option validly under its terms.

2. Vesting Schedule. This option will become exercisable ("**vest**") in accordance with the Vesting Table set forth in the Notice of Grant.

The right of exercise shall be cumulative so that to the extent the option is not exercised in any period to the maximum extent permissible it shall continue to be exercisable, in whole or in part, with respect to all Shares for which it is vested until the earlier of the Final Exercise Date or the termination of this option under Section 3 hereof or the Plan.

3. Exercise of Option.

(a) Form of Exercise. Each election to exercise this option shall be accompanied by a completed Notice of Stock Option Exercise in the form attached hereto as Exhibit B, signed by the Participant, and received by the Company at its principal office, accompanied by this Agreement, and payment in full in the manner provided in the Plan. The Participant may purchase less than the number of Shares covered hereby, provided that no partial exercise of this option may be for any fractional share or for fewer than ten whole shares (unless the number of Shares that remain subject to this option at the time of exercise is less than ten whole shares, in which case the Participant may purchase the total number of whole shares that remain subject to this option).

(b) Continuous Relationship with the Company Required. Except as otherwise provided in this Section 3, this option may not be exercised unless the Participant, at the time he or she exercises this option, is, and has been at all times since the Grant Date, an employee, officer or director of, or consultant or advisor to, the Company or any parent or subsidiary of the Company as defined in Section 424(e) or (f) of the Code or any other entity the employees, officers, directors, consultants, or advisors of which are eligible to receive option grants under the Plan (an "**Eligible Participant**").

(c) Termination of Relationship with the Company. If the Participant ceases to be an Eligible Participant for any reason, then, except as provided in paragraphs (d) and (e) below, the right to exercise this option shall terminate three months after such cessation (but in no event after the Final Exercise Date), provided that this option shall be exercisable only to the extent that the Participant was entitled to exercise this option on the date of such cessation. Notwithstanding the foregoing, if the Participant, prior to the Final Exercise Date, violates the non-competition or confidentiality provisions of any employment contract, confidentiality and nondisclosure agreement or other agreement between the Participant and the Company, the right to exercise this option shall terminate immediately upon such violation.

(d) Exercise Period Upon Death or Disability. If the Participant dies or becomes disabled (within the meaning of Section 22(e)(3) of the Code) prior to the Final Exercise Date while he or she is an Eligible Participant and the Company has not terminated such service relationship for "**cause**" as specified in paragraph (e) below, this option shall be exercisable, within the period of one year following the date of death or disability of the Participant, by the Participant (or in the case of death by an authorized transferee), provided that this option shall be exercisable only to the extent that this option was exercisable by the Participant on the date of his or her death or disability, and further provided that this option shall not be exercisable after the Final Exercise Date.

(e) Termination for Cause. If, prior to the Final Exercise Date, the Participant's service relationship with the Company is terminated by the Company for Cause (as defined below), the right to exercise this option shall terminate immediately upon the effective date of such termination. If, prior to the Final Exercise Date, the Participant is given notice by the Company of the termination of his or her service relationship by the Company for Cause, and the effective date of such termination is subsequent to the date of the delivery of such notice, the right to exercise this option shall be suspended from the time of the delivery of such notice until the earlier of (i) such time as it is determined or otherwise agreed that the Participant's service relationship shall not be terminated for Cause as provided in such notice or (ii) the effective date of such termination (in which case the right to exercise this option shall, pursuant to the preceding sentence, terminate immediately upon the effective date of such termination). If the Participant is party to an employment, consulting or severance agreement with the Company or subject to a severance plan maintained by the Company, in either case, that contains a definition of "cause" for termination of service, "Cause" shall have the meaning ascribed to such term in such agreement or plan. Otherwise, "Cause" shall mean willful misconduct by the Participant or willful failure by the Participant to perform his or her responsibilities to the Company (including, without limitation, breach by the Participant of any provision of any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Participant and the Company), as determined by the Company, which determination shall be conclusive. The Participant's service relationship shall be considered to have been terminated for "Cause" if the Company determines, within 30 days after the Participant's termination of service, that termination for Cause was warranted.

4. Company Right of First Refusal.

(a) Notice of Proposed Transfer. If the Participant proposes to sell, assign, transfer, pledge, hypothecate or otherwise dispose of, by operation of law or otherwise (collectively, "**transfer**") any Shares acquired upon exercise of this option, then the Participant shall first give written notice of the proposed transfer (the "**Transfer Notice**") to the Company. The Transfer Notice shall name the proposed transferee and state the number of such Shares the Participant proposes to transfer (the "**Offered Shares**"), the price per share and all other material terms and conditions of the transfer.

(b) Company Right to Purchase. For 30 days following its receipt of such Transfer Notice, the Company shall have the option to purchase all or part of the Offered Shares at the price and upon the terms set forth in the Transfer Notice. In the event the Company elects to purchase all or part of the Offered Shares, it shall give written notice of such election to the Participant within such 30-day period. Within 10 days after his or her receipt of such notice, the Participant shall tender to the Company at its principal offices the certificate or certificates representing the Offered Shares to be purchased by the Company, duly endorsed in blank by the Participant or with duly endorsed stock powers attached thereto, all in a form suitable for transfer of the Offered Shares to the Company. Promptly following receipt of such certificate or certificates, the Company shall deliver or mail to the Participant a check in payment of the purchase price for such Offered Shares; provided that if the terms of payment set forth in the Transfer Notice were other than cash against delivery, the Company may pay for the Offered Shares on the same terms and conditions as were set forth in the Transfer Notice; and provided further that any delay in making such payment shall not invalidate the Company's exercise of its option to purchase the Offered Shares.

(c) Shares Not Purchased By Company. If the Company does not elect to acquire all of the Offered Shares, the Participant may, within the 30-day period following the expiration of the option granted to the Company under subsection (b) above, transfer the Offered Shares which the Company has not elected to acquire to the proposed transferee, provided that such transfer shall not be on terms and conditions more favorable to the transferee than those contained in the Transfer Notice. Notwithstanding any of the above, all Offered Shares transferred pursuant to this Section 4 shall remain subject to the right of first refusal set forth in this Section 4 and such transferee shall, as a condition to such transfer, deliver to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of this Section 4.

(d) Consequences of Non-Delivery. After the time at which the Offered Shares are required to be delivered to the Company for transfer to the Company pursuant to subsection (b) above, the Company shall not pay any dividend to the Participant on account of such Offered Shares or permit the Participant to exercise any of the privileges or rights of a stockholder with respect to such Offered Shares, but shall, insofar as permitted by law, treat the Company as the owner of such Offered Shares.

(e) Exempt Transactions. The following transactions shall be exempt from the provisions of this Section 4:

(1) any transfer of Shares to or for the benefit of any spouse, child or grandchild of the Participant, or to a trust for their benefit;

(2) any transfer pursuant to an effective registration statement filed by the Company under the Securities Act of 1933, as amended (the "**Securities Act**"); and

(3) the sale of all or substantially all of the outstanding shares of capital stock of the Company (including pursuant to a merger or consolidation);

provided, however, that in the case of a transfer pursuant to clause (1) above, such Shares shall remain subject to the right of first refusal set forth in this Section 4.

(f) Assignment of Company Right. The Company may assign its rights to purchase Offered Shares in any particular transaction under this Section 4 to one or more persons or entities.

(g) Termination. The provisions of this Section 4 shall terminate upon the earlier of the following events:

(1) the closing of the sale of shares of Common Stock in an underwritten public offering pursuant to an effective registration statement filed by the Company under the Securities Act; or

(2) the sale of all or substantially all of the outstanding shares of capital stock, assets or business of the Company, by merger, consolidation, sale of assets or otherwise (other than a merger or consolidation in which all or substantially all of the individuals and entities who were beneficial owners of the Company's voting securities immediately prior to such transaction beneficially own, directly or indirectly, more than 50% (determined on an as-converted basis) of the outstanding securities entitled to vote generally in the election of directors of the resulting, surviving or acquiring corporation in such transaction).

(h) No Obligation to Recognize Invalid Transfer. The Company shall not be required (1) to transfer on its books any of the Shares which shall have been sold or transferred in violation of any of the provisions set forth in this Section 4, or (2) to treat as owner of such Shares or to pay dividends to any transferee to whom any such Shares shall have been so sold or transferred.

(i) Legends. The certificate representing Shares shall bear a legend substantially in the following form (in addition to, or in combination with, any legend required by applicable federal and state securities laws and agreements relating to the transfer of the Company securities):

"The shares represented by this certificate are subject to a right of first refusal in favor of the Company, as provided in a certain stock option agreement with the Company."

5. Agreement in Connection with Initial Public Offering.

The Participant agrees, in connection with the initial underwritten public offering of the Common Stock pursuant to a registration statement under the Securities Act, (i) not to (a) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any other securities of the Company or (b) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of shares of Common Stock or other securities of the Company, whether any transaction described in clause (a) or (b) is to be settled by delivery of securities, in cash or otherwise, during the period beginning on the date of the filing of such registration statement with the Securities and Exchange Commission and ending 180 days after the date of the final prospectus relating to the offering (plus up to an additional 34 days to the extent requested by the managing underwriters for such offering in order to address NASD Rule 2711(f)(4) or NYSE Rule 472(f)(4) or any similar successor provision), and (ii) to execute any agreement reflecting clause (i) above as may be requested by the Company or the managing underwriters at the time of such offering. The Company may impose stop-transfer instructions with respect to the shares of Common Stock or other securities subject to the foregoing restriction until the end of the "lock-up" period.

6. Tax Matters.

(a) Withholding. No Shares will be issued pursuant to the exercise of this option unless and until the Participant pays to the Company, or makes provision satisfactory to the Company for payment of, any federal, state or local withholding taxes required by law to be withheld in respect of this option.

(b) Disqualifying Disposition. If this option satisfies the requirements to be treated as an incentive stock option under the Code and the Participant disposes of Shares acquired upon exercise of this option within two years from the Grant Date or one year after such Shares were acquired pursuant to exercise of this option, the Participant shall notify the Company in writing of such disposition.

7. Transfer Restrictions.

(a) This option may not be sold, assigned, transferred, pledged or otherwise encumbered by the Participant, either voluntarily or by operation of law, except by will or the laws of descent and distribution, and, during the lifetime of the Participant, this option shall be exercisable only by the Participant.

(b) The Participant agrees that he or she will not transfer any Shares issued pursuant to the exercise of this option unless the transferee, as a condition to such transfer, delivers to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of Section 4 and Section 5; provided that such a written confirmation shall not be required with respect to (1) Section 4 after such provision has terminated in accordance with Section 4(g) or (2) Section 5 after the completion of the lock-up period in connection with the Company's initial underwritten public offering.

8. Provisions of the Plan.

This option is subject to the provisions of the Plan (including the provisions relating to amendments to the Plan), a copy of which is attached hereto as Exhibit C.

[Remainder of Page Intentionally Left Blank]

EXHIBIT B

NOTICE OF STOCK OPTION EXERCISE

[DATE][3]

Xilio Therapeutics, Inc.
828 Winter Street
Waltham, MA 02451
Attention: [Treasurer]

Dear Sir or Madam:

I am the holder of [_____][4] Stock Option granted to me under the Xilio Therapeutics, Inc. (the "**Company**") 2020 Stock Incentive Plan on [_____][5] for the purchase of [_____][6] shares of Common Stock of the Company at a purchase price of $[_____][7] per share.

I hereby exercise my option to purchase [_____][8] shares of Common Stock (the "**Shares**"), for which I have enclosed [_____][9] in the amount of [_____][10]. Please register my stock certificate as follows:

Name(s): _____[11]

_____

_____

Address: _____

I represent, warrant and covenant as follows:

1. I am purchasing the Shares for my own account for investment only, and not with a view to, or for sale in connection with, any distribution of the Shares in violation of the Securities Act of 1933 (the "**Securities Act**"), or any rule or regulation under the Securities Act.

3 Enter date of exercise.

4 Enter either "an Incentive" or "a Nonstatutory" or both.

5 Enter the date of grant.

6 Enter the total number of shares of Common Stock for which the option was granted.

7 Enter the option exercise price per share of Common Stock.

8 Enter the number of shares of Common Stock to be purchased upon exercise of all or part of the option.

9 Enter "cash", "personal check" or if permitted by the option or Plan, "stock certificates No. XXXX and XXXX".

10 Enter the dollar amount (price per share of Common Stock times the number of shares of Common Stock to be purchased), or the number of shares tendered. Fair market value of shares tendered, together with cash or check, must cover the purchase price of the shares issued upon exercise.

11 Enter name(s) to appear on stock certificate in one of the following formats: (a) your name only (i.e., John Doe); (b) your name and other name (i.e., John Doe and Jane Doe, Joint Tenants with Right to Survivorship); or for Nonstatutory Stock Options only, (c) a child's name, with you as custodian (i.e. Jane Doe, Custodian for Tommy Doe). Note: There may be income and/or gift tax consequences for registering shares in a child's name.

2. I have had such opportunity as I have deemed adequate to obtain from representatives of the Company such information as is necessary to permit me to evaluate the merits and risks of my investment in the Company.

3. I have sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.

4. I can afford a complete loss of the value of the Shares and am able to bear the economic risk of holding such Shares for an indefinite period.

5. I understand that (i) the Shares have not been registered under the Securities Act and are "restricted securities" within the meaning of Rule 144 under the Securities Act, (ii) the Shares cannot be sold, transferred or otherwise disposed of unless they are subsequently registered under the Securities Act or an exemption from registration is then available; (iii) in any event, the exemption from registration under Rule 144 will not be available for at least six months and even then will not be available unless a public market then exists for the Common Stock, adequate information concerning the Company is then available to the public, and other terms and conditions of Rule 144 are complied with; and (iv) there is now no registration statement on file with the Securities and Exchange Commission with respect to any stock of the Company and the Company has no obligation or current intention to register the Shares under the Securities Act.

[By the execution and delivery of this Notice of Stock Option Exercise, I shall be, and hereby agree to be, bound by the (i) Voting Agreement, dated [_____], 2020, by and among the Company and the other signatories thereto, as amended and/or restated from time to time (the "**Voting Agreement**"), as a "Key Holder" and "Stockholder" (each as defined in the Voting Agreement) for all purposes under the Voting Agreement and (ii) Right of First Refusal and Co-Sale Agreement, dated [_____], 2020, by and among the Company and the other signatories thereto, as amended and/or restated from time to time (the "**ROFR and Co-Sale Agreement**"), as a "Key Holder" (as defined in the ROFR and Co-Sale Agreement) for all purposes under the ROFR and Co-Sale Agreement. In addition to the foregoing, I shall execute and deliver to the Company (i) an Adoption Agreement in the form attached to the Voting Agreement, thereby agreeing to be bound by and subject to the terms of the Voting Agreement as a "Key Holder" and "Stockholder" (each as defined in the Voting Agreement) and (ii) a counterpart signature page to the ROFR and Co-Sale Agreement, thereby agreeing to be bound by and subject to the terms of the ROFR and Co-Sale Agreement as a "Key Holder" (as defined in the ROFR and Co-Sale Agreement). I acknowledge and agree that I have received a copy of the Voting Agreement and the ROFR and Co-Sale Agreement.][12]

[12] Include this provision if the Participant is a 1% stockholder (calculated on a fully diluted basis). In addition, the Participant should receive a copy of the Voting Agreement and ROFR and Co-Sale Agreement and also execute and deliver the Adoption Agreement pursuant to the terms of the Voting Agreement and a counterpart signature page to the ROFR and Co-Sale Agreement.

Very truly yours,

Exhibit 10.4

XILIO THERAPEUTICS, INC.

RESTRICTED STOCK AGREEMENT
GRANTED UNDER 2020 STOCK INCENTIVE PLAN

This Restricted Stock Agreement (the "**Agreement**") is made this [____] day of [_____], 20[ ], between Xilio Therapeutics, Inc., a Delaware corporation (the "**Company**"), and [_____] (the "**Participant**").

For valuable consideration, receipt of which is acknowledged, the parties hereto agree as follows:

1. Purchase of Shares.

The Company shall issue and sell to the Participant, and the Participant shall purchase from the Company, subject to the terms and conditions set forth in this Agreement and in the Company's 2020 Stock Incentive Plan (the "**Plan**"), [_____] shares (the "**Shares**") of common stock, $0.0001 par value, of the Company ("**Common Stock**"), at a purchase price of $[_____] per share. The aggregate purchase price for the Shares shall be paid by the Participant by check payable to the order of the Company or such other method as may be acceptable to the Company. Upon receipt by the Company of payment for the Shares, the Company shall issue to the Participant one or more certificates in the name of the Participant for that number of Shares purchased by the Participant. The Participant agrees that the Shares shall be subject to the purchase options set forth in Sections 3 and 6 of this Agreement and the restrictions on transfer set forth in Section 5 of this Agreement.

2. Certain Definitions.

(a) ["**Cause**" shall exist upon (i) a good faith finding by the Board of Directors of the Company (A) of repeated and willful failure of the Participant after written notice to perform the Participant's reasonably assigned duties for the Company, or (B) that the Participant has engaged in dishonesty, gross negligence or misconduct, which dishonesty, gross negligence or misconduct has had a material adverse effect on the business affairs of the Company; (ii) the conviction of the Participant of, or the entry of a pleading of guilty or nolo contendere by the Participant to, any crime involving moral turpitude or any felony; or (iii) a breach by the Participant of any material provision of any invention and non-disclosure agreement or non-competition and non-solicitation agreement with the Company, which breach is not cured within ten days written notice thereof.] [1]

(b) "**Change in Control**" shall mean the sale of all or substantially all of the outstanding shares of capital stock, assets or business of the Company, by merger, consolidation, sale of assets or otherwise (other than a merger or consolidation in which all or substantially all of the individuals and entities who were beneficial owners of the Company's voting securities immediately prior to such transaction beneficially own, directly or indirectly, more than 50% (determined on an as-converted basis) of the outstanding securities entitled to vote generally in the election of directors of the resulting, surviving or acquiring corporation in such transaction).

[1] Delete definition if acceleration is not being used.

(c) [“**Good Reason**” shall exist upon (i) the relocation of the Company’s offices such that the Participant's daily commute is increased by at least thirty (30) miles each way without the written consent of the Participant; (ii) material reduction of the Participant’s annual base salary without the prior consent of the Participant (other than in connection with, and substantially proportionate to, reductions by the Company of the annual base salary of more than fifty percent (50%) of its employees); or (iii) material diminution in the Participant’s duties, authority or responsibilities without the prior consent of the Participant, other than changes in duties, authority or responsibilities resulting from the Participant’s misconduct; provided, however, that any reduction in duties, authority or responsibilities or reduction in the level of management to which the Participant reports resulting solely from a Change in Control which results in the Company being acquired by and made a part of a larger entity shall not constitute Good Reason; provided, further, however, that no such events or conditions shall constitute Good Reason unless (x) the Participant gives the Company a written notice of termination for Good Reason not more than ninety (90) days after the initial existence of the event or condition, (y) the grounds for termination, if susceptible to correction, are not corrected by the Company within thirty (30) days of its receipt of such notice and (z) the Participant’s termination of Service occurs within six months following the Company’s receipt of such notice.][2]

(d) “**Service**” shall mean employment by or the provision of services to the Company or a parent or subsidiary thereof as an advisor, officer, consultant or member of the Board of Directors.

(e) “**Vesting Commencement Date**” shall mean [_____].

3. Purchase Option.

(a) In the event that the Participant ceases to provide Service for any reason or no reason, with or without Cause, prior to [_____][3], the Company shall have the right and option (the “**Purchase Option**”) to purchase from the Participant, for a sum of $0.0001 per share (the “**Option Price**”), some or all of the Shares as set forth herein.

(b) [_____] [4].

(c) [[_____] [5].]

4. Exercise of Purchase Option and Closing.

(a) The Company may exercise the Purchase Option by delivering or mailing to the Participant (or the Participant’s estate), within 180 days after the termination of the Service of the Participant, a written notice of exercise of the Purchase Option. Such notice shall specify the number of Shares to be purchased. If and to the extent the Purchase Option is not so exercised by the giving of such a notice within such 180-day period, the Purchase Option shall automatically expire and terminate effective upon the expiration of such 180-day period.

[2] Delete definition if acceleration is not being used.

[3] The end of the vesting period as established in Section 3(b).

[4] Vesting schedule to be completed.

[5] Acceleration terms (if applicable) to be completed.

(b) Within ten (10) days after delivery to the Participant of the Company's notice of the exercise of the Purchase Option pursuant to subsection (a) above, the Participant (or the Participant's estate) shall, pursuant to the provisions of the Joint Escrow Instructions referred to in Section 8 below, tender to the Company at its principal offices the certificate or certificates representing the Shares that the Company has elected to purchase in accordance with the terms of this Agreement, duly endorsed in blank or with duly endorsed stock powers attached thereto, all in form suitable for the transfer of such Shares to the Company. Promptly following its receipt of such certificate or certificates, the Company shall pay to the Participant the aggregate Option Price for such Shares (provided that any delay in making such payment shall not invalidate the Company's exercise of the Purchase Option with respect to such Shares).

(c) After the time at which any Shares are required to be delivered to the Company for transfer to the Company pursuant to subsection (b) above, the Company shall not pay any dividend to the Participant on account of such Shares or permit the Participant to exercise any of the privileges or rights of a stockholder with respect to such Shares, but shall, in so far as permitted by law, treat the Company as the owner of such Shares.

(d) The Option Price may be payable, at the option of the Company, in cancellation of all or a portion of any outstanding indebtedness of the Participant to the Company or in cash (by check) or both.

(e) The Company shall not purchase any fraction of a Share upon exercise of the Purchase Option, and any fraction of a Share resulting from a computation made pursuant to Section 3 of this Agreement shall be rounded to the nearest whole Share (with any one-half Share being rounded upward).

(f) The Company may assign its Purchase Option to one or more persons or entities.

5. Restrictions on Transfer.

(a) The Participant shall not sell, assign, transfer, pledge, hypothecate or otherwise dispose of, by operation of law or otherwise (collectively "**transfer**") any Shares, or any interest therein, that are subject to the Purchase Option, except that the Participant may transfer such Shares (i) to or for the benefit of any spouse, children, parents, uncles, aunts, siblings, grandchildren and any other relatives approved by the Board of Directors (collectively, "**Approved Relatives**") or to a trust established solely for the benefit of the Participant and/or Approved Relatives, provided that such Shares shall remain subject to this Agreement (including without limitation the restrictions on transfer set forth in this Section 5, the Purchase Option and the right of first refusal set forth in Section 6) and such permitted transferee shall, as a condition to such transfer, deliver to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of this Agreement or (ii) as part of the sale of all or substantially all of the shares of capital stock of the Company (including pursuant to a merger or consolidation), provided that, in accordance with the Plan, the securities or other property received by the Participant in connection with such transaction shall remain subject to this Agreement.

(b) The Participant shall not transfer any Shares, or any interest therein, that are no longer subject to the Purchase Option, except in accordance with Section 6 below.

6. Right of First Refusal.

(a) If the Participant proposes to transfer any Shares that are no longer subject to the Purchase Option (either because they are free from the Purchase Option pursuant to Section 3 or because the Purchase Option expired unexercised pursuant to Section 4), then the Participant shall first give written notice of the proposed transfer (the "**Transfer Notice**") to the Company. The Transfer Notice shall name the proposed transferee and state the number of such Shares the Participant proposes to transfer (the "**Offered Shares**"), the price per share and all other material terms and conditions of the transfer.

(b) For 30 days following its receipt of such Transfer Notice, the Company shall have the option to purchase all or part of the Offered Shares at the price and upon the terms set forth in the Transfer Notice. In the event the Company elects to purchase all or part of the Offered Shares, it shall give written notice of such election to the Participant within such 30-day period. Within 10 days after the Participant's receipt of such notice, the Participant shall tender to the Company at its principal offices the certificate or certificates representing the Offered Shares to be purchased by the Company, duly endorsed in blank by the Participant or with duly endorsed stock powers attached thereto, all in a form suitable for transfer of the Offered Shares to the Company. Promptly following receipt of such certificate or certificates, the Company shall deliver or mail to the Participant a check in payment of the purchase price for such Offered Shares; provided that if the terms of payment set forth in the Transfer Notice were other than cash against delivery, the Company may pay for the Offered Shares on the same terms and conditions as were set forth in the Transfer Notice; and provided further that any delay in making such payment shall not invalidate the Company's exercise of its option to purchase the Offered Shares.

(c) If the Company does not elect to acquire all of the Offered Shares, the Participant may, within the 30-day period following the expiration of the option granted to the Company under subsection (b) above, transfer the Offered Shares which the Company has not elected to acquire to the proposed transferee, provided that such transfer shall not be on terms and conditions more favorable to the transferee than those contained in the Transfer Notice. Notwithstanding any of the above, all Offered Shares transferred pursuant to this Section 6 shall remain subject to this Agreement (including without limitation the restrictions on transfer set forth in Section 5 and the right of first refusal set forth in this Section 6) and such transferee shall, as a condition to such transfer, deliver to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of this Agreement.

(d) After the time at which the Offered Shares are required to be delivered to the Company for transfer to the Company pursuant to subsection (b) above, the Company shall not pay any dividend to the Participant on account of such Offered Shares or permit the Participant to exercise any of the privileges or rights of a stockholder with respect to such Offered Shares, but shall, insofar as permitted by law, treat the Company as the owner of such Offered Shares.

(e) The following transactions shall be exempt from the provisions of this Section 6:

(1) a transfer of Shares to or for the benefit of any Approved Relatives, or to a trust established solely for the benefit of the Participant and/or Approved Relatives;

(2) any transfer pursuant to an effective registration statement filed by the Company under the Securities Act of 1933, as amended (the "**Securities Act**"); and

(3) the sale of all or substantially all of the outstanding shares of capital stock of the Company (including pursuant to a merger or consolidation);

provided, however, that in the case of a transfer pursuant to clause (1) above, such Shares shall remain subject to this Agreement (including without limitation the restrictions on transfer set forth in Section 5 and the right of first refusal set forth in this Section 6) and such transferee shall, as a condition to such transfer, deliver to the Company a written instrument confirming that such transferee shall be bound by all of the terms and conditions of this Agreement.

(f) The Company may assign its rights to purchase Offered Shares in any particular transaction under this Section 6 to one or more persons or entities.

(g) The provisions of this Section 6 shall terminate upon the earlier of the following events:

(1) the closing of the sale of shares of Common Stock in an underwritten public offering pursuant to an effective registration statement filed by the Company under the Securities Act; or

(2) a Change in Control.

(h) The Company shall not be required (1) to transfer on its books any of the Shares which shall have been sold or transferred in violation of any of the provisions set forth in this Agreement, or (2) to treat as owner of such Shares or to pay dividends to any transferee to whom any such Shares shall have been so sold or transferred.

7. Agreement in Connection with Initial Public Offering.

The Participant agrees, in connection with the initial underwritten public offering of the Common Stock pursuant to a registration statement under the Securities Act, (i) not to (a) offer, pledge, announce the intention to sell, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, or otherwise transfer or dispose of, directly or indirectly, any shares of Common Stock or any securities convertible into or exercisable or exchangeable for shares of Common Stock or (b) enter into any swap or other agreement that transfers, in whole or in part, any of the economic consequences of ownership of shares of Common Stock, whether any transaction described in clause (a) or (b) is to be settled by delivery of shares of Common Stock or other securities, in cash or otherwise, during the period beginning on the date of the filing of such registration statement with the Securities and Exchange Commission and ending 180 days from the date of the final prospectus relating to the offering (plus up to an additional 34 days to the extent requested by the managing underwriters for such offering in order to address NASD Rule 2711(f)(4) or NYSE Rule 472(f)(4) or any similar successor provision), and (ii) to execute any agreement reflecting clause (i) above as may be requested by the Company or the managing underwriters at the time of such offering. The Company may impose stop-transfer instructions with respect to the shares of Common Stock or other securities subject to the foregoing restriction until the end of the "lock-up" period.

8. Escrow.

The Participant shall, upon the execution of this Agreement, execute Joint Escrow Instructions in the form attached to this Agreement as Exhibit A. The Joint Escrow Instructions shall be delivered to the Secretary of the Company, as escrow agent thereunder. The Participant shall deliver to such escrow agent a stock assignment duly endorsed in blank, in the form attached to this Agreement as Exhibit B, and hereby instructs the Company to deliver to such escrow agent, on behalf of the Participant, the certificate(s) evidencing the Shares issued hereunder. Such materials shall be held by such escrow agent pursuant to the terms of such Joint Escrow Instructions.

9. Restrictive Legends.

All certificates representing Shares shall have affixed thereto legends in substantially the following form, in addition to any other legends that may be required under federal or state securities laws:

> "The shares of stock represented by this certificate are subject to restrictions on transfer and an option to purchase set forth in a certain Restricted Stock Agreement between the corporation and the registered owner of these shares (or such owner's predecessor in interest), and such Agreement is available for inspection without charge at the office of the Secretary of the corporation."
>
> "The shares represented by this certificate have not been registered under the Securities Act of 1933, as amended, and may not be sold, transferred or otherwise disposed of in the absence of an effective registration statement under such Act or an opinion of counsel satisfactory to the corporation to the effect that such registration is not required."

10. Provisions of the Plan.

This Agreement is subject to the provisions of the Plan, a copy of which is furnished to the Participant with this Agreement.

11. Investment Representations.

The Participant represents, warrants and covenants as follows:

(a) The Participant is purchasing the Shares for Participant's own account for investment only, and not with a view to, or for sale in connection with, any distribution of the Shares in violation of the Securities Act, or any rule or regulation under the Securities Act.

(b) The Participant has had such opportunity as Participant has deemed adequate to obtain from representatives of the Company such information as is necessary to permit him to evaluate the merits and risks of Participant's investment in the Company.

(c) The Participant has sufficient experience in business, financial and investment matters to be able to evaluate the risks involved in the purchase of the Shares and to make an informed investment decision with respect to such purchase.

(d) The Participant can afford a complete loss of the value of the Shares and is able to bear the economic risk of holding such Shares for an indefinite period.

(e) The Participant understands that (i) the Shares have not been registered under the Securities Act and are "restricted securities" within the meaning of Rule 144 under the Securities Act; (ii) the Shares cannot be sold, transferred or otherwise disposed of unless they are subsequently registered under the Securities Act or an exemption from registration is then available; (iii) in any event, the exemption from registration under Rule 144 will not be available for at least one year and even then will not be available unless a public market then exists for the Common Stock, adequate information concerning the Company is then available to the public, and other terms and conditions of Rule 144 are complied with; and (iv) there is now no registration statement on file with the Securities and Exchange Commission with respect to any stock of the Company and the Company has no obligation or current intention to register the Shares under the Securities Act.

12. Withholding Taxes; Section 83(b) Election.

(a) The Participant acknowledges and agrees that the Company has the right to deduct from payments of any kind otherwise due to the Participant any federal, state or local taxes of any kind required by law to be withheld with respect to the purchase of the Shares by the Participant or the lapse of the Purchase Option.

(b) The Participant has reviewed with the Participant's own tax advisors the federal, state, local and foreign tax consequences of this investment and the transactions contemplated by this Agreement. The Participant is relying solely on such advisors and not on any statements or representations of the Company or any of its agents. The Participant understands that the Participant (and not the Company) shall be responsible for the Participant's own tax liability that may arise as a result of this investment or the transactions contemplated by this Agreement. The Participant understands that it may be beneficial in many circumstances to elect to be taxed at the time the Shares are granted by the Company rather than when and as the Company's Purchase Option expires by filing an election under Section 83(b) of the Internal Revenue Code of 1986 with the I.R.S. within 30 days from the date of grant by the Company.

THE PARTICIPANT ACKNOWLEDGES THAT IT IS SOLELY THE PARTICIPANT'S RESPONSIBILITY AND NOT THE COMPANY'S TO FILE TIMELY THE ELECTION UNDER SECTION 83(b), EVEN IF THE PARTICIPANT REQUESTS THE COMPANY OR ITS REPRESENTATIVES TO MAKE THIS FILING ON THE PARTICIPANT'S BEHALF.

13. Miscellaneous.

(a) No Rights to Employment. The Participant acknowledges and agrees that the vesting of the Shares pursuant to Section 3 hereof is earned only by the Participant's continuous Service (not through the act of being hired or purchasing the Shares hereunder). The Participant further acknowledges and agrees that the transactions contemplated hereunder and the vesting schedule set forth herein do not constitute an express or implied promise of continued engagement as an employee or consultant for the vesting period, for any period, or at all.

(b) Severability. The invalidity or unenforceability of any provision of this Agreement shall not affect the validity or enforceability of any other provision of this Agreement, and each other provision of this Agreement shall be severable and enforceable to the extent permitted by law.

(c) Waiver. Any provision for the benefit of the Company contained in this Agreement may be waived, either generally or in any particular instance, by the Board of Directors of the Company.

(d) Binding Effect. This Agreement shall be binding upon and inure to the benefit of the Company and the Participant and their respective heirs, executors, administrators, legal representatives, successors and assigns, subject to the restrictions on transfer set forth in Sections 5 and 6 of this Agreement.

(e) Notice. All notices required or permitted hereunder shall be in writing and deemed effectively given upon personal delivery or five days after deposit in the United States Post Office, by registered or certified mail, postage prepaid, addressed to the other party hereto at the address shown beneath his or her or its respective signature to this Agreement, or at such other address or addresses as either party shall designate to the other in accordance with this Section 13(e).

(f) Pronouns. Whenever the context may require, any pronouns used in this Agreement shall include the corresponding masculine, feminine or neuter forms, and the singular form of nouns and pronouns shall include the plural, and vice versa.

(g) Entire Agreement. This Agreement and the Plan constitute the entire agreement between the parties, and supersedes all prior agreements and understandings, relating to the subject matter of this Agreement.

(h) Amendment. This Agreement may be amended or modified only by a written instrument executed by both the Company and the Participant.

(i) Governing Law. This Agreement shall be construed, interpreted and enforced in accordance with the internal laws of the State of Delaware without regard to any applicable conflict of law principles.

(j) Participant's Acknowledgments. The Participant acknowledges that he or she: (i) has read this Agreement; (ii) has been represented in the preparation, negotiation, and execution of this Agreement by legal counsel of the Participant's own choice or has voluntarily declined to seek such counsel; (iii) understands the terms and consequences of this Agreement; (iv) is fully aware of the legal and binding effect of this Agreement; and (v) understands that the law firm of WilmerHale is acting as counsel to the Company in connection with the transactions contemplated by the Agreement, and is not acting as counsel for the Participant.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties hereto have executed the Restricted Stock Agreement as of the date and year first above written. The Participant hereby agrees to the terms and conditions thereof. The Participant hereby acknowledges receipt of a copy of the Company's 2020 Stock Incentive Plan.

COMPANY:

XILIO THERAPEUTICS, INC.

BY: _____

Name: _____

Title: _____

Address: [_____]
[_____]

PARTICIPANT:

By: _____

Name: _____

Address: [_____]
[_____]

SPOUSAL CONSENT:

By: _____

Name: _____

Address: [_____]
[_____]

EXHIBIT A

JOINT ESCROW INSTRUCTIONS

XILIO THERAPEUTICS, INC. JOINT ESCROW INSTRUCTIONS

[_____, 20__]

Xilio Therapeutics, Inc.
828 Winter Street
Waltham, MA 02451

Attention: Secretary

Dear Secretary:

As Escrow Agent for Xilio Therapeutics, Inc., a Delaware corporation (the "**Company**"), and its successors in interest under the Restricted Stock Agreement (the "**Agreement**") of even date herewith, to which a copy of these Joint Escrow Instructions is attached, and the undersigned person ("**Holder**"), you are hereby authorized and directed to hold the documents delivered to you pursuant to the terms of the Agreement in accordance with the following instructions:

1. Appointment. Holder irrevocably authorizes the Company to deposit with you any certificates evidencing Shares (as defined in the Agreement) to be held by you hereunder and any additions and substitutions to said Shares. For purposes of these Joint Escrow Instructions, "**Shares**" shall be deemed to include any additional or substitute property. Holder does hereby irrevocably constitute and appoint you as his or her attorney-in-fact and agent for the term of this escrow to execute with respect to such Shares all documents necessary or appropriate to make such Shares negotiable and to complete any transaction herein contemplated. Subject to the provisions of this Section 1 and the terms of the Agreement, Holder shall exercise all rights and privileges of a stockholder of the Company while the Shares are held by you.

2. Closing of Purchase.

(a) Upon any purchase by the Company of the Shares pursuant to the Agreement, the Company shall give to Holder and you a written notice specifying the number of Shares to be purchased, the purchase price for the Shares, as determined pursuant to the Agreement, and the time for a closing hereunder (the "**Closing**") at the principal office of the Company. Holder and the Company hereby irrevocably authorize and direct you to close the transaction contemplated by such notice in accordance with the terms of said notice.

(b) At the Closing, you are directed (i) to date the stock assignment form or forms necessary for the transfer of the Shares, (ii) to fill in on such form or forms the number of Shares being transferred, and (iii) to deliver the same, together with the certificate or certificates evidencing the Shares to be transferred, to the Company against the simultaneous delivery to you of the purchase price for the Shares being purchased pursuant to the Agreement.

3. Withdrawal. The Holder shall have the right to withdraw from this escrow any Shares as to which the Purchase Option (as defined in the Agreement) has terminated or expired.

4. Duties of Escrow Agent.

(a) Your duties hereunder may be altered, amended, modified or revoked only by a writing signed by all of the parties hereto.

(b) You shall be obligated only for the performance of such duties as are specifically set forth herein and may rely and shall be protected in relying or refraining from acting on any instrument reasonably believed by you to be genuine and to have been signed or presented by the proper party or parties. You shall not be personally liable for any act you may do or omit to do hereunder as Escrow Agent or as attorney-in-fact of Holder while acting in good faith and in the exercise of your own good judgment, and any act done or omitted by you pursuant to the advice of your own attorneys shall be conclusive evidence of such good faith.

(c) You are hereby expressly authorized to disregard any and all warnings given by any of the parties hereto or by any other person or entity, excepting only orders or process of courts of law, and are hereby expressly authorized to comply with and obey orders, judgments or decrees of any court. If you are uncertain of any actions to be taken or instructions to be followed, you may refuse to act in the absence of an order, judgment or decrees of a court. In case you obey or comply with any such order, judgment or decree of any court, you shall not be liable to any of the parties hereto or to any other person or entity, by reason of such compliance, notwithstanding any such order, judgment or decree being subsequently reversed, modified, annulled, set aside, vacated or found to have been entered without jurisdiction.

(d) You shall not be liable in any respect on account of the identity, authority or rights of the parties executing or delivering or purporting to execute or deliver the Agreement or any documents or papers deposited or called for hereunder.

(e) You shall be entitled to employ such legal counsel and other experts as you may deem necessary properly to advise you in connection with your obligations hereunder and may rely upon the advice of such counsel.

(f) Your rights and responsibilities as Escrow Agent hereunder shall terminate if (i) you cease to be Secretary of the Company or (ii) you resign by written notice to each party. In the event of a termination under clause (i), your successor as Secretary shall become Escrow Agent hereunder; in the event of a termination under clause (ii), the Company shall appoint a successor Escrow Agent hereunder.

(g) If you reasonably require other or further instruments in connection with these Joint Escrow Instructions or obligations in respect hereto, the necessary parties hereto shall join in furnishing such instruments.

(h) It is understood and agreed that if you believe a dispute has arisen with respect to the delivery and/or ownership or right of possession of the securities held by you hereunder, you are authorized and directed to retain in your possession without liability to anyone all or any part of said securities until such dispute shall have been settled either by mutual written agreement of the parties concerned or by a final order, decree or judgment of a court of competent jurisdiction after the time for appeal has expired and no appeal has been perfected, but you shall be under no duty whatsoever to institute or defend any such proceedings.

(i) These Joint Escrow Instructions set forth your sole duties with respect to any and all matters pertinent hereto and no implied duties or obligations shall be read into these Joint Escrow Instructions against you.

(j) The Company shall indemnify you and hold you harmless against any and all damages, losses, liabilities, costs, and expenses, including attorneys' fees and disbursements, (including without limitation the fees of counsel retained pursuant to Section 4(e) above, for anything done or omitted to be done by you as Escrow Agent in connection with this Agreement or the performance of your duties hereunder, except such as shall result from your gross negligence or willful misconduct.

5. Notice. Any notice required or permitted hereunder shall be given in writing and shall be deemed effectively given upon personal delivery or upon deposit in the United States Post Office, by registered or certified mail with postage and fees prepaid, addressed to each of the other parties thereunto entitled at the following addresses, or at such other addresses as a party may designate by ten days' advance written notice to each of the other parties hereto.

COMPANY:	Notices to the Company shall be sent to the address set forth in the salutation hereto, Attn: President
HOLDER:	Notices to Holder shall be sent to the address set forth below Holder's signature below.
ESCROW AGENT:	Notices to the Escrow Agent shall be sent to the address set forth in the salutation hereto.

6. Miscellaneous.

(a) By signing these Joint Escrow Instructions, you become a party hereto only for the purpose of said Joint Escrow Instructions, and you do not become a party to the Agreement.

(b) This instrument shall be binding upon and inure to the benefit of the parties hereto and their respective successors and permitted assigns.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties hereto have executed these Joint Escrow Instructions as of the day and year first above written.

Very truly yours,

COMPANY:

XILIO THERAPEUTICS, INC.

BY: _____
Name: _____
Title: _____

HOLDER:

By: _____
Name: _____

Address: [_____]
[_____]

ESCROW AGENT:

By: _____
Name: _____
Title: Secretary

SIGNATURE PAGE TO JOINT ESCROW INSTRUCTIONS

EXHIBIT B

STOCK ASSIGNMENT SEPARATE FROM CERTIFICATE

STOCK ASSIGNMENT SEPARATE FROM CERTIFICATE

FOR VALUE RECEIVED, I hereby sell, assign and transfer unto _____ (_____) shares of Common Stock, $0.0001 par value per share, of Xilio Therapeutics, Inc. (the "**Corporation**") standing in my name on the books of the Corporation represented by Certificate(s) Number _____ herewith, and do hereby irrevocably constitute and appoint Wilmer Cutler Pickering Hale and Dorr LLP attorney to transfer the said stock on the books of the Corporation with full power of substitution in the premises.

Dated: _____

PARTICIPANT:

_____

[Name]

_____

Name of Spouse (if any):

Instructions to Participant: Please do not fill in any blanks other than the signature line(s). The purpose of the Stock Assignment Separate from Certificate is to enable the Company to acquire the Shares upon exercise of its Right of First Refusal and/or Purchase Option without requiring additional signatures on the part of the Participant or Participant's spouse, if any. The signature(s) to this assignment must correspond with the name as written upon the face of the certificate, in every particular, without alteration, enlargement, or any change whatever.

NOTICE ON 83(B) ELECTIONS

IF YOU WISH TO MAKE A SECTION 83(B) ELECTION, THE FILING OF SUCH ELECTION IS YOUR RESPONSIBILITY.

THE FORM FOR MAKING THIS SECTION 83(B) ELECTION IS ATTACHED TO THIS AGREEMENT. YOU MUST FILE THIS FORM WITHIN 30 DAYS OF THE GRANT DATE.

YOU (AND NOT THE COMPANY, ANY OF ITS AGENTS OR ANY OTHER PERSON) SHALL BE SOLELY RESPONSIBLE FOR FILING SUCH FORM WITH THE IRS, EVEN IF YOU REQUEST THE COMPANY, ITS AGENTS OR ANY OTHER PERSON TO MAKE THIS FILING ON YOUR BEHALF AND EVEN IF THE COMPANY, ANY OF ITS AGENTS OR ANY OTHER PERSON HAS PREVIOUSLY MADE THIS FILING ON YOUR BEHALF.

The 83(b) election should be filed by mailing a signed election form by certified mail, return receipt requested to the IRS Service Center where you file your tax returns. See www.irs.gov.

SECTION 83(B) ELECTION

The undersigned hereby makes an election pursuant to Section 83(b) of the Internal Revenue Code of 1986, as amended, with respect to the property described below and supplies the following information in accordance with Treas. Reg. § 1.83-2:

1. The name, address, and taxpayer identification number of the undersigned are:

   [Name]
   [Address]
   [City, State Zip]

   Taxpayer Identification Number: _____

2. The property with respect to which this election is being made is [_____] shares of common stock, $0.0001 par value per share, of Xilio Therapeutics, Inc., a Delaware corporation (the "**Company**").

3. The date on which the property was transferred or the date on which the restrictions on such property were imposed, whichever is later, is _____, 20[__] and the taxable year for which this election is being made is the calendar year 20[__].

4. The property is subject to vesting provisions and may be forfeited under the terms of a stock restriction agreement executed between the undersigned and the Company.

5. The fair market value of the property at the time of the transfer or the date on which the restrictions on such property were imposed, whichever is later, (determined without regard to any lapse restriction, as defined in Treas. Reg. § 1.83-3(i)) is $**[_____]**, equal to a fair market value of $[_____] per share.

6. The amount paid for the property by the undersigned is $[_____], equal to a purchase price of $[_____] per share.

7. This statement is executed on _____, 20[__].

In accordance with Treas. Reg. § 1.83-2(d) & (e)(7), a copy of this statement has been furnished to the Company.

_____ _____

Signature of Taxpayer Signature of Spouse (if any)

Section 83(b) Election

Background Information

Section 83(b) of the Internal Revenue Code permits persons who receive restricted property, such as restricted stock, in connection with the performance of services to include the value of such property in their gross income for the year the property is received. Such persons who purchase stock of the company subject to a stock restriction agreement providing for the vesting of such stock over a period of time are entitled to make this election. Any person who makes a timely Section 83(b) election will recognize compensation income on the date of grant (the date listed in item 3 of the election form) equal to the difference, if any, between the fair market value of the stock and the amount paid for the stock. A person who pays taxes in connection with an election and subsequently forfeits the stock, however, will not receive a refund or other tax benefit for the taxes previously paid.

Any person who does not make the election will be required to include the value of the stock in gross income in the year in which the stock vests. In particular, when the stock vests, the person will recognize compensation income in an amount equal to the difference between the fair market value of the stock on the vesting date and the amount paid for the stock. As a result, if the value of the stock increases, a person who does not make a timely Section 83(b) election will have compensation income at the time each installment of stock vests.

Each person should consult with his or her tax or legal advisor regarding the advisability and timing of filing the election. **The original, signed and dated Section 83(b) election must be filed within 30 days of the grant date but may be filed prior to the grant date**. The election should be filed by certified mail, return receipt requested, with the Internal Revenue Service at the service center where the electing person ordinarily files his or her annual tax return. A copy of the Section 83(b) election, as filed, must be returned to the company. A copy of the Section 83(b) election must also be included with the person's federal income tax return for the year of grant (each person should check with his or her tax preparer regarding this and any state, local, foreign or other filing requirements).

Please also note that the certified mailing receipt for the Section 83(b) election should be retained. This receipt is essential if the Internal Revenue Service does not receive the Section 83(b) election and challenges the election.

Exhibit 10.9

AKREVIA THERAPEUTICS INC.

AKREVIA CONCERTO LLC

LOAN AND SECURITY AGREEMENT

This LOAN AND SECURITY AGREEMENT (the "Agreement") is entered into as of November 21, 2019, by and between PACIFIC WESTERN BANK, a California state chartered bank ("Bank"), and Akrevia Therapeutics Inc. and Akrevia Concerto LLC (individually and collectively referred to as "Borrower").

RECITALS

Borrower wishes to obtain credit from time to time from Bank, and Bank desires to extend credit to Borrower. This Agreement sets forth the terms on which Bank will advance credit to Borrower, and Borrower will repay the amounts owing to Bank.

AGREEMENT

The parties agree as follows:

1. DEFINITIONS AND CONSTRUCTION.

1.1 Definitions. As used in this Agreement, all capitalized terms shall have the definitions set forth on Exhibit A. Any term used in the Code and not defined herein shall have the meaning given to the term in the Code.

1.2 Accounting Terms. Any accounting term not specifically defined on Exhibit A shall be construed in accordance with GAAP and all calculations shall be made in accordance with GAAP (except for non-compliance with FAS 123R in monthly reporting). The term "financial statements" shall include the accompanying notes and schedules.

2. LOAN AND TERMS OF PAYMENT.

2.1 Credit Extensions.

(a) Promise to Pay. Borrower promises to pay to Bank, in lawful money of the United States of America, the aggregate unpaid principal amount of all Credit Extensions made by Bank to Borrower, together with interest on the unpaid principal amount of such Credit Extensions at rates in accordance with the terms hereof.

(b) Term Loan.

(i) Subject to and upon the terms and conditions of this Agreement, Bank agrees to make one (1) term loan to Borrower in the aggregate principal amount of Ten Million Dollars ($10,000,000) (the "Term Loan"). The proceeds of the Term Loan shall be used for general corporate purposes.

(ii) Interest shall accrue from the date of the Term Loan at the rate specified in Section 2.3(a), and through the Interest-Only End Date shall be payable monthly in arrears beginning on the 21st day of the month next following the Term Loan, and continuing on the same day of each month thereafter. Any portion of the Term Loan that is outstanding on the Interest-Only End Date shall be payable in 30 equal monthly installments of principal, plus all accrued but unpaid interest, beginning on the date that is one month immediately following the Interest-Only End Date, and continuing on the same day of each month thereafter through the Term Loan Maturity Date, at which time all outstanding amounts due in connection with the Term Loan and any other outstanding amounts due under this Agreement shall be immediately due and payable. The Term Loan, once repaid, may not be reborrowed. Borrower may prepay all or any portion of the Term Loan without penalty or premium.

(iii) Borrower hereby requests that Bank make the Term Loan on the Closing Date or as soon as practicable thereafter. To further document this request, Borrower shall notify Bank (which notice shall be irrevocable) by email to be received no later than 3:30 p.m. Eastern time on the day on which the Term Loan is to be made. Such notice shall be given by a Loan Advance Request Form in substantially the form of Exhibit C. The notice shall be signed by an Authorized Officer. Bank shall be entitled to rely on any notice given by a person whom Bank reasonably believes to be an Authorized Officer, and Borrower shall indemnify and hold Bank harmless for any damages, loss, costs, and expenses suffered by Bank as a result of such reliance.

(c) Usage of Credit Card Services Under Credit Card Line.

(i) Usage Period. Subject to and upon the terms and conditions of this Agreement, at any time through the Credit Card Maturity Date, Borrower may use the Credit Card Services (as defined below) in amounts and upon terms as provided in Section 2.1(c)(ii) below.

(ii) Credit Card Services. Subject to and upon the terms and conditions of this Agreement, Borrower may request corporate credit cards services from Bank (the "Credit Card Services"). The aggregate limit of the corporate credit cards shall not exceed the Credit Card Line. The terms and conditions (including repayment and fees) of such Credit Card Services shall be subject to the terms and conditions of Bank's standard forms of application and agreement for the Credit Card Services, which Borrower hereby agrees to execute.

(iii) Collateralization of Obligations Extending Beyond Maturity. Borrower shall take such actions as Bank may reasonably request to cause its obligations with respect to any Credit Card Services to be secured to Bank's reasonable satisfaction as of the Credit Card Maturity Date. If Borrower has not cash secured its obligations with respect to any Credit Card Services by the Credit Card Maturity Date, then, effective as of such date, the balance in any of Borrower's deposit accounts held by Bank and the certificates of deposit or time deposit accounts issued by Bank in Borrower's name (and any interest paid thereon or proceeds thereof, including any amounts payable upon the maturity or liquidation of such certificates or accounts) shall automatically secure such obligations to the extent of the then continuing or outstanding Credit Card Services. Borrower authorizes Bank to hold such balances in pledge and to decline to honor any drafts thereon or any requests by Borrower or any other Person to pay or otherwise transfer any part of such balances for so long as the applicable Credit Card Services are outstanding or continue.

2.2 [Reserved].

2.3 Interest Rates, Payments, and Calculations.

(a) Interest Rates.

(i) Term Loan. Except as set forth in Section 2.3(b), the Term Loan shall bear interest, on the outstanding daily balance thereof, at a variable annual rate equal to the greater of: (A) 0.25% above the Prime Rate then in effect; or (B) 5.00%.

(b) Late Fee; Default Rate. If any payment is not made within 15 days after the date such payment is due, at Bank's election, Borrower shall pay Bank a late fee equal to the lesser of (i) 5% of the amount of such unpaid amount or (ii) the maximum amount permitted to be charged under applicable law. At Bank's election, after the occurrence and during the continuance of an Event of Default, all Obligations shall bear interest, upon notice of such increase given by Bank, at a rate equal to five (5) percentage points above the interest rate applicable immediately prior to the occurrence of the Event of Default (such rate, the "Default Rate"); provided, that, from and after the occurrence of any Event of Default described in Section 8.5, such increase shall be automatic and without the requirement of any notice from Bank. In all such events, and notwithstanding the date on which application of the Default Rate is communicated to Borrower, the Default Rate may be accrued (at the election of Bank) from the initial date of any Event of Default until all existing Events of Default are waived in writing in accordance with the terms of this Agreement.

(c) Payments. Borrower authorizes Bank, at Bank's option, to charge all interest, all Bank Expenses, all Periodic Payments, and any other amounts due and owing in accordance with the terms of this Agreement, in each case if and when due, against, first, a deposit account designated by Borrower in writing, and second, if insufficient funds remain in such account, against any of Borrower's other deposit accounts. Any interest not paid when due shall be compounded by becoming a part of the Obligations, and such interest shall thereafter accrue interest at the rate then applicable hereunder.

(d) Computation. In the event the Prime Rate is changed from time to time hereafter, the applicable rate of interest hereunder shall be increased or decreased, effective as of the day the Prime Rate is changed, by an amount equal to such change in the Prime Rate. All interest chargeable under the Loan Documents shall be computed on the basis of a 360 day year for the actual number of days elapsed.

2.4 Crediting Payments. Prior to the occurrence of an Event of Default that is continuing, Bank shall credit a wire transfer of funds, check or other item of payment to such deposit account or Obligation as Borrower specifies**.** After the occurrence and during the continuance of an Event of Default, Bank shall have the right, in its reasonable discretion, to immediately apply any wire transfer of funds, check, or other item of payment Bank may receive to conditionally reduce Obligations, but such applications of funds shall not be considered a payment on account unless such payment is of immediately available federal funds or unless and until such check or other item of payment is honored when presented for payment. Notwithstanding anything to the contrary contained herein, any wire transfer or payment received by Bank after 3:30 p.m. Eastern time shall be deemed to have been received by Bank as of the opening of business on the immediately following Business Day. Whenever any payment to Bank under the Loan Documents would otherwise be due (except by reason of acceleration) on a date that is not a Business Day, such payment shall instead be due on the next Business Day, and additional fees or interest, as the case may be, shall accrue and be payable for the period of such extension.

2.5 Fees. Borrower shall pay to Bank the following:

(a) Bank Expenses. On the Closing Date, all Bank Expenses incurred through the Closing Date, provided that Borrower shall be responsible for no more than $25,000 of such Bank Expenses; and, after the Closing Date, all Bank Expenses, as and when they become due; and

(b) Success Fee. Upon a Success Fee Event, Borrower shall pay to Bank a one-time fee of $500,000 (the "Success Fee"). This Section 2.5(b) shall survive any termination of this Agreement. If this Agreement is terminated prior to payment of the Success Fee, Borrower shall give Bank written notice of the first Success Fee Event to occur thereafter and pay the Success Fee upon the consummation of such Success Fee Event.

2.6 Term. This Agreement shall become effective on the Closing Date and, subject to Section 12.7, shall continue in full force and effect for so long as any Obligations (other than inchoate indemnity obligations) remain outstanding or Bank has any obligation to make Credit Extensions under this Agreement. Notwithstanding the foregoing, Bank shall have the right to terminate its obligation to make Credit Extensions under this Agreement immediately and without notice upon the occurrence and during the continuance of an Event of Default. Upon payment in full in cash of the Obligations (other than inchoate indemnity obligations) Borrower may simultaneously with such payment terminate this agreement upon 3 Business Days written notice to Bank. Following such payment in full in cash of the Obligations (other than inchoate indemnity obligations) at such time as Bank's obligation to make Credit Extensions has terminated, Bank shall release its Liens in the Collateral and Bank shall promptly take such action reasonably requested by Borrower, at Borrower's sole cost and expense, in order to cause such Liens to be terminated of record (including by filing UCC-3 or similar termination statements with respect to such Liens), and all rights therein shall revert to Borrower.

3. CONDITIONS OF LOANS.

3.1 Conditions Precedent to Closing. The agreement of Bank to enter into this Agreement on the Closing Date is subject to the condition precedent that Bank shall have received, in form and substance satisfactory to Bank, each of the following items and completed each of the following requirements:

(a) this Agreement;

(b) an officer's certificate of each Borrower with respect to incumbency and resolutions authorizing the execution and delivery of this Agreement;

(c) a financing statement (Form UCC-1);

(d) Borrower shall have opened and funded not less than $50,000 in deposit accounts held with Bank;

(e) a Loan Advance Request Form, delivered in the form and manner required by Section 2.1(b)(iii) of this Agreement, requesting that Bank make the Term Loan on or about the Closing Date;

(f) current SOS Reports indicating that, except for Permitted Liens, there are no other security interests or Liens of record in the Collateral;

(g) current financial statements, including Borrower-prepared statements for Borrower's most recently ended fiscal year and Borrower-prepared consolidated and consolidating balance sheets and income statements for each of the preceding 12 months; and such other updated financial information as Bank may reasonably request;

(h) a current Compliance Certificate in accordance with Section 6.2;

(i) a Borrower Information Certificate for each Borrower and Parent Guarantor;

(j) the Parent Guaranty, duly executed by Parent Guarantor, together with an officer's certificate of Parent Guarantor with respect to incumbency and resolutions authorizing the execution and delivery of the Parent Guaranty; and

(k) such other documents or certificates, and completion of such other matters, as Bank may have reasonably requested.

3.2 Conditions Precedent to all Credit Extensions. The obligation of Bank to make each Credit Extension, including the initial Credit Extension, is contingent upon Borrower's compliance with Section 3.1 above, and is further subject to the following conditions:

(a) timely receipt by Bank of the Loan Advance/Paydown Request Form as provided in Section 2.1(b)(iii);

(b) in Bank's sole but reasonable discretion, there has not been a Material Adverse Effect; and

(c) the representations and warranties contained in Section 5 shall be true and correct in all material respects on and as of the date of such Loan Advance/Paydown Request Form and on the effective date of each Credit Extension as though made at and as of each such date, and no Event of Default shall have occurred and be continuing, or would result from such Credit Extension (provided, however, that those representations and warranties expressly referring to another date shall be true and correct in all material respects as of such date, and provided further that any representation or warranty that contains a materiality qualification therein shall be true and correct in all respects). The making of each Credit Extension shall be deemed to be a representation and warranty by Borrower on the date of such Credit Extension as to the accuracy of the facts referred to in this Section 3.2.

4. CREATION OF SECURITY INTEREST.

4.1 Grant of Security Interest. Borrower grants and pledges to Bank a continuing security interest in the Collateral to secure prompt repayment of any and all Obligations and to secure prompt performance by Borrower of each of its covenants and duties under the Loan Documents. Except for Permitted Liens or as disclosed in the Schedule, such security interest constitutes a valid, first priority security interest in the presently existing Collateral, and will constitute a valid, first priority security interest in later-acquired Collateral. Borrower also hereby agrees not to sell, transfer, assign, mortgage, pledge, lease, grant a security interest in, or encumber any of its Intellectual Property, other than Permitted Liens. Notwithstanding any termination of this Agreement or of any filings undertaken related to Bank's rights under the Code, Bank's Lien on the Collateral shall remain in effect for so long as any Obligations (other than inchoate indemnity obligations) are outstanding. Upon request by Borrower and payment in full in cash of the Obligations (other than inchoate indemnity obligations) and at such time as Bank's obligation to make Credit Extensions has terminated, Bank shall release its liens and interests in the Collateral, and Bank shall take such actions as reasonably requested by Borrower in order to cause such Liens to be terminated of record (including filing UCC-3 or similar termination statements with respect to such Liens).

4.2 Perfection of Security Interest. Borrower authorizes Bank to file at any time financing statements, continuation statements, and amendments thereto that (i) either specifically describe the Collateral or describe the Collateral as all assets of Borrower of the kind pledged hereunder, and (ii) contain any other information required by the Code for the sufficiency of filing office acceptance of any financing statement, continuation statement, or amendment, including whether Borrower is an organization, the type of organization and any organizational identification number issued to Borrower, if applicable. Borrower shall have possession of the Collateral, except goods transferred in the ordinary course of business where expressly otherwise provided in this Agreement or where Bank chooses to perfect its security interest by possession in addition to the filing of a financing statement. Where Collateral is in possession of a third party bailee, Borrower shall take such steps as Bank reasonably requests for Bank to (i) subject to Section 7.11 below, obtain an acknowledgment, in form and substance reasonably satisfactory to Bank, of the bailee that the bailee holds such Collateral for the benefit of Bank, and (ii) subject to Section 6.6, obtain "control" of any Collateral consisting of investment property, deposit accounts, letter-of-credit rights or electronic chattel paper (as such items and the term "control" are defined in Revised Article 9 of the Code) by causing the securities intermediary or depositary institution or issuing bank to execute a control agreement in form and substance reasonably satisfactory to Bank. Borrower will not create any chattel paper without placing a legend on the chattel paper acceptable to Bank indicating that Bank has a security interest in the chattel paper. Borrower from time to time may deposit with Bank specific cash collateral to secure specific Obligations; Borrower authorizes Bank to hold such specific balances in pledge and to decline to honor any drafts thereon or any request by Borrower or any other Person to pay or otherwise transfer any part of such balances for so long as such specific Obligations are outstanding. Borrower shall take such other actions as Bank reasonably requests to perfect its security interests granted under this Agreement.

5. REPRESENTATIONS AND WARRANTIES.

Borrower represents and warrants as follows:

5.1 Due Organization and Qualification. Borrower and each Subsidiary is duly existing under the laws of the state in which it is organized and qualified and licensed to do business in any state in which the conduct of its business or its ownership of property requires that it be so qualified, except where the failure to do so would not reasonably be expected to cause a Material Adverse Effect.

5.2 Due Authorization; No Conflict. The execution, delivery, and performance of the Loan Documents are within Borrower's powers, have been duly authorized, and are not in conflict with nor constitute a breach of any provision contained in Borrower's Certificate of Incorporation or Bylaws, nor will they constitute an event of default under any material agreement by which Borrower is bound. Borrower is not in default under any agreement by which it is bound, except to the extent such default would not reasonably be expected to cause a Material Adverse Effect.

5.3 Collateral. Borrower has rights in or the power to transfer the Collateral, and its title to the Collateral is free and clear of Liens, adverse claims, and restrictions on transfer or pledge except for Permitted Liens. Other than movable items of personal property used by Borrower's employees in the ordinary course of business, such as laptop computers, all Collateral is located solely in the United States. All Inventory is in all material respects of good and merchantable quality, free from all material defects, except for Inventory for which adequate reserves have been made. Except as set forth in the Schedule or as permitted under Section 6.6, none of Borrower's Cash is maintained or invested with a Person other than Bank or Bank's affiliates.

5.4 Intellectual Property Collateral. Borrower is the sole owner of the intellectual property created or purchased by Borrower, except for (a) licenses permitted hereunder or granted by Borrower to its customers in the ordinary course of business, (b) over the counter software that is commercially available to the public, and (c) material intellectual property licensed to Borrower and noted on a Borrower Information Certificate. The intellectual property owned or licensed by Borrower constitutes all intellectual property material to the conduct of Borrower's business as now conducted and as presently proposed to be conducted. To the best of Borrower's knowledge, each of the Copyrights, Trademarks, and Patents created or purchased by Borrower is valid and enforceable, and no part of the intellectual property created or purchased by Borrower has been judged invalid or unenforceable, in whole or in part, and no claim has been made to Borrower that any part of the intellectual property created or purchased by Borrower violates the rights of any third party except, in each case, to the extent such claim would not reasonably be expected to cause a Material Adverse Effect.

5.5 Name; Location of Chief Executive Office. Except as disclosed in the Schedule or for which notice has been provided in accordance with Section 7.2, Borrower has not done business under any name other than that specified on the signature page hereof, and its exact legal name is as set forth in the first paragraph of this Agreement. The chief executive office of Borrower is located at the address indicated in Section 10 hereof.

5.6 Litigation. Except as set forth in the Schedule, there are no actions or proceedings pending by or against Borrower or any Subsidiary before any court or administrative agency in which a likely adverse decision would reasonably be expected to have a Material Adverse Effect.

5.7 No Material Adverse Change in Financial Statements. All consolidated and consolidating, if applicable, financial statements related to Borrower and any Subsidiary that are delivered by Borrower to Bank fairly present in all material respects Borrower's consolidated and consolidating, if applicable, financial condition as of the date thereof and Borrower's consolidated and consolidating, if applicable, results of operations for the period then ended. There has not been a material adverse change in the consolidated or in the consolidating financial condition of Borrower since the date of the most recent of such financial statements submitted to Bank.

5.8 Solvency, Payment of Debts. Borrower is able to pay its debts (including trade debts) as they mature; the fair saleable value of Borrower's assets (including goodwill minus disposition costs) exceeds the fair value of its liabilities; and Borrower is not left with unreasonably small capital after the transactions contemplated by this Agreement.

5.9 Compliance with Laws and Regulations. Borrower and each Subsidiary have met the minimum funding requirements of ERISA with respect to any employee benefit plans subject to ERISA. No event has occurred resulting from Borrower's failure to comply with ERISA that is reasonably likely to result in Borrower's incurring any liability that could have a Material Adverse Effect. Borrower is not an "investment company" or a company "controlled" by an "investment company" within the meaning of the Investment Company Act of 1940. Borrower is not engaged principally, or as one of its important activities, in the business of extending credit for the purpose of purchasing or carrying margin stock (within the meaning of Regulations T and U of the Board of Governors of the Federal Reserve System). Borrower has not violated any statutes, laws, ordinances or rules applicable to it, the violation of which would reasonably be expected to have a Material Adverse Effect. Borrower and each Subsidiary have filed or caused to be filed all tax returns required to be filed, and have paid, or have made adequate provision for the payment of, all taxes reflected therein except, in each case, those being contested in good faith with adequate reserves under GAAP or where the failure to file such returns or pay such taxes would not reasonably be expected to have a Material Adverse Effect.

5.10 Subsidiaries. Borrower does not own any stock, partnership interest or other equity securities of any Person, except for Permitted Investments.

5.11 Government Consents. Borrower and each Subsidiary have obtained all consents, approvals and authorizations of, made all declarations or filings with, and given all notices to, all governmental authorities that are necessary for the continued operation of Borrower's business as currently conducted, except where the failure to do so would not reasonably be expected to cause a Material Adverse Effect.

5.12 Inbound Licenses. Except as disclosed on the Schedule or as disclosed pursuant to Section 6.9, Borrower is not a party to, nor is bound by, any material license or other material agreement important for the conduct of Borrower's business that prohibits or otherwise restricts Borrower from granting a security interest in Borrower's interest in such license or agreement or any other property important for the conduct of Borrower's business, other than this Agreement or the other Loan Documents.

5.13 Full Disclosure. No representation, warranty or other statement made by Borrower in any certificate or written statement furnished to Bank taken together with all such certificates and written statements furnished to Bank contains any untrue statement of a material fact or omits to state a material fact necessary in order to make the statements contained in such certificates or statements not misleading in light of the circumstances in which they were made, it being recognized by Bank that the projections and forecasts provided by Borrower in good faith and based upon reasonable assumptions are not to be viewed as facts and that actual results during the period or periods covered by any such projections and forecasts may differ from the projected or forecasted results.

6. AFFIRMATIVE COVENANTS.

Borrower covenants that, until payment in full of all outstanding Obligations (other than inchoate indemnity obligations), and for so long as Bank may have any commitment to make a Credit Extension hereunder, Borrower shall do all of the following:

6.1 Good Standing and Government Compliance. Borrower shall maintain its and each of its Subsidiaries' organizational existence and good standing in their respective states of formation, shall maintain qualification and good standing in each other jurisdiction in which the failure to so qualify would reasonably be expected to have a Material Adverse Effect, and shall furnish to Bank the organizational identification number issued to Borrower by the authorities of the state in which Borrower is organized, if applicable. Borrower shall meet, and shall cause each Subsidiary to meet, the minimum funding requirements of ERISA with respect to any employee benefit plans subject to ERISA. Borrower shall comply, and shall cause each Subsidiary to comply, with all statutes, laws, ordinances and government rules and regulations to which it is subject, and shall maintain, and shall cause each of its Subsidiaries to maintain, in force all licenses, approvals and agreements, in each case, the loss of which or failure to comply with which would reasonably be expected to have a Material Adverse Effect.

6.2 Financial Statements, Reports, Certificates, Collateral Audits.

(a) Borrower shall deliver to Bank: (i) as soon as available, but in any event within 30 days after the end of each calendar month, a company prepared consolidated and consolidating, as applicable, balance sheet and income statement covering Borrower's operations during such period, in a form reasonably acceptable to Bank and certified by a Responsible Officer; (ii) as soon as available, but in any event within 180 days after the end of Borrower's fiscal year, audited consolidated and consolidating, as applicable, financial statements of Borrower prepared in accordance with GAAP, consistently applied, together with an opinion which is either unqualified, qualified only for going concern related solely to Borrower's liquidity position, or otherwise consented to in writing by Bank on such financial statements from an independent certified public accounting firm reasonably acceptable to Bank; provided that, for Borrower's 2019 fiscal year, Borrower need provide only Borrower-prepared financial statements; (iii) an annual budget approved by Borrower's board of directors as soon as available but not later than 60 days after the beginning of each fiscal year during the term of this Agreement; (iv) if applicable, copies of all statements, reports and notices sent or made available generally by Borrower to its security holders or to any holders of Subordinated Debt and all reports on Forms 10-K and 10-Q filed with the Securities and Exchange Commission; (v) promptly upon receipt of notice thereof, a report of any legal actions pending or threatened against Borrower or any Subsidiary that could reasonably be expected to result in damages or costs to Borrower or any Subsidiary of $250,000 or more; (vi) promptly upon receipt, each management letter prepared by Borrower's independent certified public accounting firm regarding Borrower's management control systems; (vii) periodic informal clinical updates on any material developments as Borrower may determine appropriate or upon the request of Bank; and (viii) such budgets, sales projections, operating plans, or other financial information related to Borrower's business as Bank may reasonably request from time to time.

(b) Within 30 days after the last day of each month, Borrower shall deliver to Bank with the monthly financial statements described in Section 6.2(a)(i) above a Compliance Certificate certified as of the last day of the applicable month and signed by a Responsible Officer in substantially the form of Exhibit D hereto.

(c) As soon as possible and in any event within 3 Business Days after becoming aware of the occurrence or existence of an Event of Default hereunder, Borrower shall deliver to Bank a written statement of a Responsible Officer setting forth details of the Event of Default, and the action which Borrower has taken or proposes to take with respect thereto.

(d) Bank (through any of its officers, employees, or agents) shall have the right, upon reasonable prior notice, from time to time during Borrower's usual business hours but no more than once a year (unless an Event of Default has occurred and is continuing), to inspect Borrower's Books and to make copies thereof and to check, test, inspect, audit and appraise the Collateral at Borrower's expense in order to verify Borrower's financial condition or the amount, condition of, or any other matter relating to, the Collateral.

Borrower may deliver to Bank on an electronic basis any certificates, reports or information required pursuant to this Section 6.2, and Bank shall be entitled to rely on the information contained in the electronic files, provided that Bank in good faith believes that the files were delivered by a Responsible Officer. Borrower shall include a submission date on any certificates and reports to be delivered electronically.

6.3 Inventory and Equipment; Returns. Borrower shall keep all Inventory and Equipment in good and merchantable condition, free from all material defects except for Inventory and Equipment (i) sold in the ordinary course of business, and (ii) for which adequate reserves have been made, in all cases in the United States. Returns and allowances, if any, as between Borrower and its account debtors shall be on the same basis and in accordance with the usual customary practices of Borrower, as they exist on the Closing Date, or as is standard in the industry. Borrower shall promptly notify Bank of all returns and recoveries and of all disputes and claims involving inventory having a book value of more than $100,000.

6.4 Taxes. Borrower shall make, and cause each Subsidiary to make, due and timely payment or deposit of all material federal, state, and local taxes, assessments, or contributions required of it by law, including, but not limited to, those laws concerning income taxes, F.I.C.A., F.U.T.A. and state disability, and will execute and deliver to Bank, on demand, proof reasonably satisfactory to Bank indicating that Borrower or a Subsidiary has made such payments or deposits and any appropriate certificates attesting to the payment or deposit thereof; provided that Borrower or a Subsidiary need not make any payment if the amount or validity of such payment is contested in good faith by appropriate proceedings and is reserved against (to the extent required by GAAP) by Borrower or such Subsidiary.

6.5 Insurance. Borrower, at its expense, shall (i) keep the Collateral insured against loss or damage, and (ii) maintain liability and other insurance, in each case as ordinarily insured against by other owners in businesses similar to Borrower's. All such policies of insurance shall be in such form, with such companies, and in such amounts as reasonably satisfactory to Bank. All policies of property insurance shall contain a lender's loss payable endorsement, in a form reasonably satisfactory to Bank, showing Bank as lender's loss payee. All liability insurance policies shall show, or have endorsements showing, Bank as an additional insured. Any such insurance policies shall specify that the insurer must give at least 20 days' notice to Bank before canceling its policy for any reason. Within 30 days of the Closing Date, Borrower shall cause to be furnished to Bank evidence that the insurance policies required by this section are in full force and effect, including a copy of its policies and appropriate evidence showing loss payable and additional insured clauses or endorsements in favor of Bank. Upon Bank's request, Borrower shall deliver to Bank certified copies of the policies of insurance and evidence of all premium payments. Proceeds payable under any casualty policy will, at Borrower's option, be payable to Borrower to replace the property subject to the claim, provided that any such replacement property shall be deemed Collateral in which Bank has been granted a first priority security interest, provided that if an Event of Default has occurred and is continuing, all proceeds payable under any such policy shall, at Bank's option, be payable to Bank to be applied on account of the Obligations.

6.6 Primary Depository. Within 45 days after the Closing Date, Borrower shall maintain, and shall cause each Subsidiary to maintain, substantially all of its cash in depository or operating accounts with Bank. Notwithstanding the foregoing, (a) Borrower may maintain (i) when Borrower's aggregate Cash at Bank equals or exceeds $1,000,000, up to $1,000,000, and (ii) at all other times, $250,000, in each case, in an account at Silicon Valley Bank to facilitate the payment of payroll and trade payables, provided that such account is subject to an account control agreement in favor of Bank, and (b) at any time when Borrower's and Parent Guarantor's aggregate Cash at Bank exceeds $50,000,000, Borrower may maintain amounts in excess of $50,000,000 in Cash or Investments with Pacific Western Asset Management. Prior to Borrower maintaining any investment accounts with Pacific Western Asset Management, Borrower, Bank, and Pacific Western Asset Management (or, if applicable, the relevant securities intermediary) shall have entered into a securities account control agreement with respect to any such investment accounts, in form and substance reasonably satisfactory to Bank.

6.7 Financial Covenants. Borrower shall achieve the following milestone covenant:

(a) Funding Milestone. On or before January 31, 2020, Borrower shall deliver to Bank (i) a fully executed equity purchase agreement providing for an aggregate equity investment in Borrower or Parent Guarantor of at least $60,000,000, on terms and from investors reasonably acceptable to Bank; and (ii) evidence reasonably satisfactory to Bank that Borrower or Parent Guarantor has received, after the Closing Date, Cash proceeds of at least $30,000,000, less reasonable transaction expenses, from the sale or issuance of Borrower's or Parent Guarantor's equity securities to investors reasonably acceptable to Bank.

6.8 Protection of Intellectual Property Rights. Borrower shall use commercially reasonable efforts to (i) protect, defend and maintain the validity and enforceability of its trade secrets, Trademarks, Patents, and Copyrights material to its business, (ii) detect infringements of its Trademarks, Patents, and Copyrights and promptly advise Bank in writing of material infringements detected, and (iii) not allow any of its material Trademarks, Patents, or Copyrights to be abandoned, forfeited or dedicated to the public without the written consent of Bank, which shall not be unreasonably withheld.

6.9 Consent of Inbound Licensors. After entering into or becoming bound by any material inbound license or agreement, Borrower shall (i) on the next Compliance Certificate delivered to Bank after entering into such material license or agreement, provide both a copy of such license or agreement and a summary of the material terms of such license or agreement with a description of its likely impact on Borrower's business or financial condition, and (ii) at Bank's request, in good faith use commercially reasonable efforts to obtain the consent of, or waiver by, any person whose consent or waiver is necessary for Borrower's interest in such licenses or contract rights to be deemed Collateral and for Bank to have a security interest in it that might otherwise be restricted by the terms of the applicable license or agreement, whether now existing or entered into in the future, provided, however, that the failure to obtain any such consent or waiver shall not constitute a default under this Agreement.

6.10 Creation/Acquisition of Subsidiaries. In the event Borrower or any Subsidiary of Borrower creates or acquires any Subsidiary, Borrower or such Subsidiary shall promptly notify Bank of such creation or acquisition, and Borrower or such Subsidiary shall take all actions reasonably requested by Bank to achieve any of the following with respect to such "***New Subsidiary***" (defined as a Subsidiary formed after the date hereof during the term of this Agreement): (i) to cause such New Subsidiary to become either (A) a co-borrower hereunder, if such New Subsidiary is organized under the laws of the United States, or (B) a secured guarantor with respect to the Obligations, if such New Subsidiary is not organized under the laws of the United States; and (ii) to grant and pledge to Bank a perfected security interest in 100% of the stock, units or other evidence of ownership held by Borrower or its Subsidiaries of any such New Subsidiary.

6.11 Further Assurances. At any time and from time to time Borrower shall execute and deliver such further instruments and take such further action as may reasonably be requested by Bank to effect the purposes of this Agreement.

7. NEGATIVE COVENANTS.

Borrower covenants and agrees that, so long as any credit hereunder shall be available and until the outstanding Obligations (other than inchoate indemnity obligations) are paid in full or for so long as Bank may have any commitment to make any Credit Extensions, Borrower will not do any of the following without Bank's prior written consent, which shall not be unreasonably withheld:

7.1 Dispositions. Convey, sell, lease, license, transfer, or otherwise dispose of (collectively, to "Transfer"), or permit any of its Subsidiaries to Transfer, all or any part of its business or property, or move cash balances on deposit with Bank to accounts opened at another financial institution not permitted by Section 6.6, in each case, other than Permitted Transfers.

7.2 Change in Name, Location, Executive Office, or Executive Management; Change in Business; Change in Fiscal Year; Change in Control. Change its name or the state of Borrower's formation or relocate its chief executive office without 30 days prior written notification to Bank; replace or suffer the departure of its chief executive officer or chief operating officer without delivering written notification to Bank within 10 days; fail to appoint an interim replacement or fill a vacancy in the position of chief executive officer or chief operating officer for more than 60 consecutive days; suffer a change on its board of directors which results in the failure of at least one partner of each of Atlas Venture or its Affiliate and F-Prime Capital or its Affiliate to serve as voting members without the prior written consent of Bank, which may be withheld in Bank's sole discretion; take action to liquidate, wind up, or otherwise cease to conduct business in the ordinary course; engage in any business, or permit any of its Subsidiaries to engage in any business, other than or reasonably related or incidental to the businesses currently engaged in by Borrower; change its fiscal year end; convert to another form of incorporated or unincorporated business or entity; have a Change in Control; Divide.

7.3 Mergers or Acquisitions. Merge or consolidate, or permit any of its Subsidiaries to merge or consolidate, with or into any other business organization (other than mergers or consolidations of a Subsidiary into another Subsidiary or into Borrower), or acquire, or permit any of its Subsidiaries to acquire, all or substantially all of the capital stock or property of another Person, or a division, line of business, or business unit of another Person, in each case except where (a) each of the following conditions is applicable: (i) the consideration paid in connection with such transactions (including assumption of liabilities) does not in the aggregate exceed $250,000 during any fiscal year, (ii) no Event of Default has occurred, is continuing or would exist after giving effect to such transactions, (iii) such transactions do not result in a Change in Control, and (iv) Borrower is the surviving entity; or (b) the Obligations (other than inchoate indemnity obligations) are repaid in full and this Agreement is terminated concurrently with the closing of any merger or consolidation of Borrower in which Borrower is not the surviving entity. Borrower shall not, without Bank's prior written consent, enter into any binding contractual arrangement with any investment banker, business broker, or similar Person to attempt to facilitate a merger or acquisition of Borrower or Borrower's assets (any such agreement, an "Investment Banker Agreement"); unless (i) no Event of Default exists when such Investment Banker Agreement is entered into by Borrower, (ii) such Investment Banker Agreement does not give the counterparty the right, in connection with a sale of Borrower's stock or assets pursuant to or resulting from an assignment for the benefit of creditors, an asset turnover to Borrower's creditors (including, without limitation, Bank), foreclosure, bankruptcy or similar liquidation, to claim any fee, payment or damages from any parties, other than from Borrower or Borrower's investors, and (iii) Borrower notifies Bank in advance of entering into such an Investment Banker Agreement (provided, the failure to give such notification shall not be deemed a material breach of this Agreement).

7.4 Indebtedness. Create, incur, assume, guarantee or be or remain liable with respect to any Indebtedness, or permit any Subsidiary so to do, other than Permitted Indebtedness, or prepay any Indebtedness or take any actions which impose on Borrower an obligation to prepay any Indebtedness prior to the scheduled maturity date, except Indebtedness to Bank.

7.5 Encumbrances. Create, incur, assume or allow any Lien with respect to its property, or assign or otherwise convey any right to receive income, including the sale of any Accounts, or permit any of its Subsidiaries so to do, except for Permitted Liens, or covenant to any other Person (other than (a) the licensors of in-licensed property with respect to such property or (b) the lessors of specific equipment or lenders financing specific equipment with respect to such leased or financed equipment) that Borrower in the future will refrain from creating, incurring, assuming or allowing any Lien with respect to any of Borrower's property.

7.6 Distributions. Pay any dividends or make any other distribution or payment on account of or in redemption, retirement or purchase of any capital stock, except that Borrower may (a) repurchase the stock of former employees, consultants or directors pursuant to stock repurchase agreements in an aggregate amount not to exceed $500,000 in any fiscal year, as long as an Event of Default does not exist prior to such repurchase or would not exist after giving effect to such repurchase, and (b) repurchase the stock of former employees, consultants or directors pursuant to stock repurchase agreements by the cancellation of indebtedness owed by such former employees or directors to Borrower regardless of whether an Event of Default exists.

7.7 Investments. Directly or indirectly acquire or own an Investment in, or make any Investment in or to, any Person, or permit any of its Subsidiaries so to do, other than Permitted Investments, or, except as permitted by Section 6.6, maintain or invest any of its investment property with a Person other than Bank or Bank's affiliates or permit any Subsidiary to do so unless such Person has entered into a control agreement with Bank, in form and substance reasonably satisfactory to Bank, or suffer or permit any Subsidiary to be a party to, or be bound by, an agreement that restricts such Subsidiary from paying dividends or otherwise distributing property to Borrower.

7.8 Reserved.

7.9 Transactions with Affiliates. Directly or indirectly enter into or permit to exist any material transaction with any Affiliate of Borrower except for (a) transactions that are in the ordinary course of Borrower's business, upon fair and reasonable terms that are no less favorable to Borrower than would be obtained in an arm's length transaction with a non-affiliated Person, and (b) bona fide sales or issuances of Borrower's equity securities to Borrower's investors that do not result in a Change in Control, and (c) customary compensation arrangements approved by Borrower's board of directors.

7.10 Subordinated Debt. Make any payment in respect of any Subordinated Debt, or permit any of its Subsidiaries to make any such payment, except in compliance with the terms of such Subordinated Debt, or amend any provision affecting Bank's rights contained in any documentation relating to the Subordinated Debt without Bank's prior written consent.

7.11 Inventory and Equipment. On and after the date that is 90 days after the Closing Date, (a) Store Inventory or Equipment of a book value in excess of $250,000 with a bailee, warehouseman, collocation facility or similar third party unless such third party has been notified of Bank's security interest and Bank has received a bailee waiver in favor of Bank, in form and substance satisfactory to Bank, duly executed by Borrower and such third party; or (b) with respect to any leased or licensed real property, store Collateral of a book value in excess of $250,000 unless the landlord has been notified of Bank's security interest and Bank has received a landlord waiver, in form and substance satisfactory to Bank, duly executed by Borrower and such landlord.

7.12 No Investment Company; Margin Regulation. Become or be controlled by an "investment company," within the meaning of the Investment Company Act of 1940, or become principally engaged in, or undertake as one of its important activities, the business of extending credit for the purpose of purchasing or carrying margin stock, or use the proceeds of any Credit Extension for such purpose.

8. EVENTS OF DEFAULT.

Any one or more of the following events shall constitute an Event of Default by Borrower under this Agreement:

8.1 Payment Default. If Borrower fails to pay any of the Obligations when due;

8.2 Covenant Default.

(a) If Borrower fails to perform any obligation under Sections 6.2 (financial reporting), 6.4 (taxes), 6.5 (insurance), 6.6 (primary accounts), or 6.7 (financial covenants), or violates any of the covenants contained in Article 7 of this Agreement; or

(b) If Borrower fails or neglects to perform or observe any other material term, provision, condition, or covenant contained in this Agreement, in any of the Loan Documents, or in any other present or future agreement between Borrower and Bank and as to any default under such other term, provision, condition or covenant that can be cured, has failed to cure such default within 15 days after Borrower receives notice thereof or any officer of Borrower becomes aware thereof; provided, however, that if the default cannot by its nature be cured within the 15 day period or cannot after diligent attempts by Borrower be cured within such 15 day period, and such default is likely to be cured within a reasonable time, then Borrower shall have an additional reasonable period (which shall not in any case exceed 30 days) to attempt to cure such default, and within such reasonable time period the failure to have cured such default shall not be deemed an Event of Default but no Credit Extensions will be made;

8.3 Material Adverse Change. If there occurs any circumstance or any circumstances which would reasonably be expected to have a Material Adverse Effect. In determining whether a "Material Adverse Effect" has occurred or would reasonably be expected to occur, Bank recognizes that, as a pre-profit company, Borrower's cash resources will decline over time, and Borrower will periodically require additional infusions of equity capital. The clear intention of Borrower's investors to continue to fund Borrower in the amounts and timeframe necessary, in Bank's good faith judgment, to enable Borrower to satisfy the Obligations as they become due and payable is the most significant criterion Bank shall consider in making any such determination;

8.4 Attachment. If any material portion of Borrower's assets is attached, seized, subjected to a writ or distress warrant, or is levied upon, or comes into the possession of any trustee, receiver or person acting in a similar capacity and such attachment, seizure, writ or distress warrant or levy has not been removed, discharged or rescinded within 10 days, or if Borrower is enjoined, restrained, or in any way prevented by court order from continuing to conduct all or any material part of its business affairs, or if a judgment or other claim becomes a lien or encumbrance upon any material portion of Borrower's assets, or if a notice of lien, levy, or assessment is filed of record with respect to any material portion of Borrower's assets by the United States Government, or any department, agency, or instrumentality thereof, or by any state, county, municipal, or governmental agency, and the same is not paid within 10 days after Borrower receives notice thereof, provided that none of the foregoing shall constitute an Event of Default where such action or event is stayed or an adequate bond has been posted pending a good faith contest by Borrower (provided that no Credit Extensions will be made during such cure period);

8.5 Insolvency. If Borrower becomes insolvent, or if an Insolvency Proceeding is commenced by Borrower, or if an Insolvency Proceeding is commenced against Borrower and is not dismissed or stayed within 45 days (provided that no Credit Extensions will be made prior to the dismissal of such Insolvency Proceeding);

8.6 Other Agreements. If (a) there is an uncured default or other uncured failure to perform in any agreement to which Borrower is a party with a third party or parties (i) resulting in a right by such third party or parties, whether or not exercised, to accelerate the maturity of any Indebtedness in an amount in excess of $500,000, (ii) in connection with any lease of real property material to the conduct of Borrower's business, if such default or failure to perform results in the right of another party to terminate such lease, or (iii) that would reasonably be expected to have a Material Adverse Effect, or (b) any default or event of default (however designated) shall occur with respect to any Subordinated Debt that is not cured within any applicable cure period;

8.7 Judgments. If a final, uninsured judgment or judgments for the payment of money in an amount, individually or in the aggregate, of at least $500,000 shall be rendered against Borrower and shall remain unsatisfied and unstayed for a period of 10 days (provided that no Credit Extensions will be made prior to the satisfaction or stay of the judgment); or

8.8 Misrepresentations. If any material misrepresentation or material misstatement exists now or hereafter in any warranty or representation set forth herein or in any certificate delivered to Bank by any Responsible Officer pursuant to this Agreement or to induce Bank to enter into this Agreement or any other Loan Document.

8.9 Guaranty. If any guaranty of all or a portion of the Obligations (including without limitation the Parent Guaranty) ceases for any reason to be in full force and effect, or any guarantor fails to perform any obligation under any such guaranty or a security agreement securing any such guaranty (collectively, the "Guaranty Documents"), or any event of default occurs and continues under any Guaranty Document or any guarantor revokes or purports to revoke such a guaranty, or any material misrepresentation or material misstatement exists now or hereafter in any warranty or representation set forth in any Guaranty Document or in any certificate delivered to Bank in connection with any Guaranty Document, or if any of the circumstances described in Sections 8.3 through 8.8 occur with respect to any guarantor.

9. BANK'S RIGHTS AND REMEDIES.

9.1 Rights and Remedies. Upon the occurrence and during the continuance of an Event of Default, Bank may, at its election, without notice of its election and without demand, do any one or more of the following to the extent not prohibited by applicable law, all of which are authorized by Borrower:

(a) Declare all Obligations, whether evidenced by this Agreement, by any of the other Loan Documents, or otherwise, immediately due and payable (provided that upon the occurrence of an Event of Default described in Section 8.5 (insolvency), all Obligations shall become immediately due and payable without any action by Bank);

(b) Demand that Borrower (i) deposit cash with Bank in an amount equal to the amount of any Letters of Credit remaining undrawn, as collateral security for the repayment of any future drawings under such Letters of Credit, and (ii) pay in advance all Letter of Credit fees scheduled to be paid or payable over the remaining term of the Letters of Credit, and Borrower shall promptly deposit and pay such amounts;

(c) Cease advancing money or extending credit to or for the benefit of Borrower under this Agreement or under any other agreement between Borrower and Bank;

(d) Settle or adjust disputes and claims directly with account debtors for amounts, upon terms and in whatever order that Bank reasonably considers advisable;

(e) Make such payments and do such acts as Bank considers necessary or reasonable to protect its security interest in the Collateral. Borrower agrees to assemble the Collateral if Bank so requires, and to make the Collateral available to Bank as Bank may designate at a location that is reasonably convenient to Bank and Borrower. Borrower authorizes Bank to peaceably enter the premises where the Collateral is located, to take and maintain possession of the Collateral, or any part of it, and to pay, purchase, contest, or compromise any encumbrance, charge, or lien which in Bank's determination appears to be prior or superior to its security interest and to pay all expenses incurred in connection therewith. With respect to any of Borrower's owned premises, Borrower hereby grants Bank a license to enter into possession of such premises and to occupy the same, without charge by Borrower, in order to exercise any of Bank's rights or remedies provided herein, at law, in equity, or otherwise;

(f) Place a "hold" on any account maintained with Bank, decline to honor presentments (including but not limited to checks, wires, and ACH drafts) against any account at Bank, and/or deliver a notice of exclusive control, any entitlement order, or other directions or instructions pursuant to any control agreement or similar agreements providing control of any Collateral;

(g) Set off and apply to the Obligations then due any and all (i) balances and deposits of Borrower held by Bank, and (ii) indebtedness at any time owing to or for the credit or the account of Borrower held by Bank;

(h) Ship, reclaim, recover, store, finish, maintain, repair, prepare for sale, advertise for sale, and sell (in the manner provided for herein) the Collateral. Bank is hereby granted a license or other right, solely pursuant to the provisions of this Section 9.1, to use, without charge, Borrower's labels, patents, copyrights, rights of use of any name, trade secrets, trade names, trademarks, service marks, and advertising matter, or any property of a similar nature, as it pertains to the Collateral, in completing production of, advertising for sale, and selling any Collateral and, in connection with Bank's exercise of its rights under this Section 9.1, Borrower's rights under all licenses and all franchise agreements shall inure to Bank's benefit;

(i) Sell the Collateral at either a public or private sale, or both, by way of one or more contracts or transactions, for cash or on terms, in such manner and at such places (including Borrower's premises) as Bank determines is commercially reasonable, and apply any proceeds to the Obligations in whatever manner or order Bank deems appropriate. Bank may sell the Collateral without giving any warranties as to the Collateral. Bank may specifically disclaim any warranties of title or the like. This procedure will not be considered adversely to affect the commercial reasonableness of any sale of the Collateral. If Bank sells any of the Collateral upon credit, Borrower will be credited only with payments actually made by the purchaser, received by Bank, and applied to the indebtedness of the purchaser. If the purchaser fails to pay for the Collateral, Bank may resell the Collateral and Borrower shall be credited with the proceeds of the sale;

(j) Bank may credit bid and purchase at any public sale;

(k) Apply for the appointment of a receiver, trustee, liquidator or conservator of the Collateral, without notice and without regard to the adequacy of the security for the Obligations and without regard to the solvency of Borrower, any guarantor or any other Person liable for any of the Obligations; and

(l) Any deficiency that exists after disposition of the Collateral as provided above will be paid immediately by Borrower.

Bank may comply with any applicable state or federal law requirements in connection with a disposition of the Collateral, and compliance will not be considered adversely to affect the commercial reasonableness of any sale of the Collateral.

9.2 Power of Attorney. Effective only upon the occurrence and during the continuance of an Event of Default, Borrower hereby irrevocably appoints Bank (and any of Bank's designated officers, or employees) as Borrower's true and lawful attorney to: (a) send requests for verification of Accounts or notify account debtors of Bank's security interest in the Accounts; (b) endorse Borrower's name on any checks or other forms of payment or security that may come into Bank's possession; (c) sign Borrower's name on any invoice or bill of lading relating to any Account, drafts against account debtors, schedules and assignments of Accounts, verifications of Accounts, and notices to account debtors; (d) dispose of any Collateral; (e) make, settle, and adjust all claims under and decisions with respect to Borrower's policies of insurance; (f) settle and adjust disputes and claims respecting the accounts directly with account debtors, for amounts and upon terms which Bank determines to be reasonable; and (g) file, in its sole discretion, one or more financing or continuation statements and amendments thereto, relative to any of the Collateral; provided Bank may exercise such power of attorney to sign the name of Borrower on any of the documents described in clause (g) above, regardless of whether an Event of Default has occurred. The appointment of Bank as Borrower's attorney in fact, and each and every one of Bank's rights and powers, being coupled with an interest, is irrevocable until all of the Obligations (other than inchoate indemnity obligations) have been fully repaid and performed and Bank's obligation to provide advances hereunder is terminated.

9.3 Accounts Collection. At any time after the occurrence and during the continuation of an Event of Default, Bank may notify any Person owing funds to Borrower of Bank's security interest in such funds and verify the amount of such Account. Borrower shall collect all amounts owing to Borrower for Bank, receive in trust all payments as Bank's trustee, and immediately deliver such payments to Bank in their original form as received from the account debtor, with proper endorsements for deposit.

9.4 Bank Expenses. If Borrower fails to pay any amounts or furnish any required proof of payment due to third persons or entities, as required under the terms of this Agreement, then Bank may do any or all of the following after reasonable notice to Borrower: (a) make payment of the same or any part thereof; and/or (b) obtain and maintain insurance policies of the type discussed in Section 6.5 of this Agreement, and take any action with respect to such policies as Bank deems prudent. Any amounts so paid or deposited by Bank shall constitute Bank Expenses, shall be immediately due and payable, and shall bear interest at the then applicable rate hereinabove provided, and shall be secured by the Collateral. Any payments made by Bank shall not constitute an agreement by Bank to make similar payments in the future or a waiver by Bank of any Event of Default under this Agreement.

9.5 Bank's Liability for Collateral. Bank has no obligation to clean up or otherwise prepare the Collateral for sale. All risk of loss, damage or destruction of the Collateral shall be borne by Borrower.

9.6 No Obligation to Pursue Others. Bank has no obligation to attempt to satisfy the Obligations by collecting them from any other person liable for them and Bank may release, modify or waive any collateral provided by any other Person to secure any of the Obligations, all without affecting Bank's rights against Borrower. Borrower waives any right it may have to require Bank to pursue any other Person for any of the Obligations.

9.7 Remedies Cumulative. Bank's rights and remedies under this Agreement, the Loan Documents, and all other agreements shall be cumulative. Bank shall have all other rights and remedies not inconsistent herewith as provided under the Code, by law, or in equity. No exercise by Bank of one right or remedy shall be deemed an election, and no waiver by Bank of any Event of Default on Borrower's part shall be deemed a continuing waiver. No delay by Bank shall constitute a waiver, election, or acquiescence by it. No waiver by Bank shall be effective unless made in a written document signed on behalf of Bank and then shall be effective only in the specific instance and for the specific purpose for which it was given. Borrower expressly agrees that this Section 9.7 may not be waived or modified by Bank by course of performance, conduct, estoppel or otherwise.

9.8 Demand; Protest. Except as otherwise provided in this Agreement, Borrower waives demand, protest, notice of protest, notice of default or dishonor, notice of payment and nonpayment and any other notices relating to the Obligations.

10. NOTICES.

Unless otherwise provided in this Agreement, all notices or demands by any party relating to this Agreement or any other agreement entered into in connection herewith shall be in writing and (except for financial statements and other reporting required pursuant to Section 6.2 of this Agreement, which shall be sent as directed in the monthly reporting forms provided by Bank) shall be personally delivered or sent by a recognized overnight delivery service, certified mail, postage prepaid, return receipt requested, or by electronic mail to Borrower or to Bank, as the case may be, at its addresses set forth below:

If to Borrower:	Akrevia Therapeutics Inc., on behalf of each Borrower LabCentral 610 610 Main Street Cambridge, MA 02139 Attn: Joseph Farmer [**]
with a copy to:	Goodwin Procter LLP 100 Northern Avenue Boston, MA 02210 Attn: Mark D. Smith [**]
If to Bank:	Pacific Western Bank 406 Blackwell Street, Suite 240 Durham, North Carolina 27701 Attn: Loan Operations Manager [**]
with a copy to:	Pacific Western Bank 131 Oliver Street, 2nd Floor Boston, MA 02110 Attn: Scott Hansen

The parties hereto may change the address at which they are to receive notices hereunder, by notice in writing in the foregoing manner given to the other.

11. CHOICE OF LAW AND VENUE; JURY TRIAL WAIVER.

This Agreement shall be governed by, and construed in accordance with, the internal laws of the State of North Carolina, without regard to principles of conflicts of law. Jurisdiction shall lie in the State of North Carolina. All disputes, controversies, claims, actions and similar proceedings arising with respect to Borrower's account or any related agreement or transaction shall be brought in the General Court of Justice of North Carolina sitting in Durham County, North Carolina or the United States District Court for the Middle District of North Carolina, except as provided below with respect to arbitration of such matters. BANK AND BORROWER EACH ACKNOWLEDGE THAT THE RIGHT TO TRIAL BY JURY IS A CONSTITUTIONAL ONE, BUT THAT IT MAY BE WAIVED. EACH OF THEM, AFTER CONSULTING OR HAVING HAD THE OPPORTUNITY TO CONSULT, WITH COUNSEL OF THEIR CHOICE, KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVES ANY RIGHT ANY OF THEM MAY HAVE TO A TRIAL BY JURY IN ANY LITIGATION BASED UPON OR ARISING OUT OF THIS AGREEMENT OR ANY RELATED INSTRUMENT OR LOAN DOCUMENT OR ANY OF THE TRANSACTIONS CONTEMPLATED BY THIS AGREEMENT OR ANY COURSE OF CONDUCT, DEALING, STATEMENTS (WHETHER ORAL OR WRITTEN), OR ACTION OF ANY OF THEM. THESE PROVISIONS SHALL NOT BE DEEMED TO HAVE BEEN MODIFIED IN ANY RESPECT OR RELINQUISHED BY BANK OR BORROWER, EXCEPT BY A WRITTEN INSTRUMENT EXECUTED BY EACH OF THEM. If the jury waiver set forth in this Section 11 is not enforceable, then any dispute, controversy, claim, action or similar proceeding arising out of or relating to this Agreement, the Loan Documents or any of the transactions contemplated therein shall be settled by final and binding arbitration held in Durham County, North Carolina in accordance with the then current Commercial Arbitration Rules of the American Arbitration Association by one arbitrator appointed in accordance with those rules. The arbitrator shall apply North Carolina law to the resolution of any dispute, without reference to rules of conflicts of law or rules of statutory arbitration. Judgment upon any award resulting from arbitration may be entered into and enforced by any state or federal court having jurisdiction thereof. Notwithstanding the foregoing, the parties may apply to any court of competent jurisdiction for preliminary or interim equitable relief, or to compel arbitration in accordance with this Section. The costs and expenses of the arbitration, including without limitation, the arbitrator's fees and expert witness fees, and reasonable attorneys' fees, incurred by the parties to the arbitration may be awarded to the prevailing party, in the discretion of the arbitrator, or may be apportioned between the parties in any manner deemed appropriate by the arbitrator. Unless and until the arbitrator decides that one party is to pay for all (or a share) of such costs and expenses, both parties shall share equally in the payment of the arbitrator's fees as and when billed by the arbitrator.

12. GENERAL PROVISIONS.

12.1 Successors and Assigns. This Agreement shall bind and inure to the benefit of the respective successors and permitted assigns of each of the parties and shall bind all persons who become bound as a debtor to this Agreement; provided, however, that neither this Agreement nor any rights hereunder may be assigned by Borrower without Bank's prior written consent, which consent may be granted or withheld in Bank's sole discretion. Bank shall have the right without the consent of or notice to Borrower to sell, assign, transfer, negotiate, or grant participation in all or any part of, or any interest in, Bank's obligations, rights and benefits hereunder. Notwithstanding the foregoing, provided that no Event of Default has occurred and is continuing hereunder, Bank shall not assign its interest in the Term Loans or the Loan Documents to any Person who in Bank's reasonable discretion is (i) a direct competitor of Borrower, or (ii) a vulture or distressed debt fund.

12.2 Indemnification. Borrower shall defend, indemnify and hold harmless Bank and its officers, directors, employees, affiliates, advisors and agents (an "Indemnified Person") against: (a) all obligations, demands, claims, and liabilities claimed or asserted by any other party in connection with the transactions contemplated by this Agreement; and (b) all losses or Bank Expenses in any way suffered, incurred, or paid by Bank, its officers, employees and agents as a result of or in any way arising out of, following, or consequential to transactions between Bank and Borrower whether under this Agreement, or otherwise (including without limitation reasonable attorneys' fees and expenses), except for losses caused by an Indemnified Person's gross negligence or willful misconduct as determined by a court of competent jurisdiction by final and non-appealable order.

12.3 Time of Essence. Time is of the essence for the performance of all obligations set forth in this Agreement.

12.4 Severability of Provisions. Each provision of this Agreement shall be severable from every other provision of this Agreement for the purpose of determining the legal enforceability of any specific provision.

12.5 Amendments in Writing, Integration. All amendments to or terminations of this Agreement or the other Loan Documents must be in writing. All prior agreements, understandings, representations, warranties, and negotiations between the parties hereto with respect to the subject matter of this Agreement and the other Loan Documents, if any, are merged into this Agreement and the Loan Documents.

12.6 Counterparts. This Agreement may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, shall be deemed to be an original, and all of which, when taken together, shall constitute but one and the same Agreement. Executed copies of the signature pages of this Agreement sent by facsimile or transmitted electronically in Portable Document Format ("PDF"), or any similar format, shall be treated as originals, fully binding and with full legal force and effect, and the parties waive any rights they may have to object to such treatment.

12.7 Survival. All covenants, representations and warranties made in this Agreement shall continue in full force and effect so long as any Obligations remain outstanding or Bank has any obligation to make any Credit Extension to Borrower. The obligations of Borrower to indemnify Bank with respect to the expenses, damages, losses, costs and liabilities described in Section 12.2 shall survive until all applicable statute of limitations periods with respect to actions that may be brought against Bank have run.

12.8 Confidentiality and Publicity.

(a) Borrower shall not, and shall not permit any of its Affiliates to: (i) publish or disclose any materials containing Bank's name, including in any press release or otherwise in connection with any advertising or marketing, without first obtaining Bank's prior written consent, or (ii) use Bank's name (or the name of any of its Affiliates) in connection with its operations or business.

(b) In handling any confidential information, Bank shall exercise the same degree of care that Bank exercises with respect to its own proprietary information to maintain in confidence, in accordance with its customary procedures for handling confidential information, all non-public information furnished to Bank ("Confidential Information") other than any such Confidential Information that becomes generally available to the public or becomes available to Bank from a source other than Borrower and that is not known to Bank to be subject to confidentiality obligations; provided, that Bank shall have the right to disclose Confidential Information to: (i) Bank's Affiliates in connection with their present or prospective business relations with Borrower as long as such entities are subject to similar confidentiality provisions; (ii) such Person or such Person's Affiliates' lenders, funding sources, or financing sources; (iii) such Person's or such Person's Affiliates' directors, officers, trustees, partners, members, managers, employees, agents, advisors, representatives, attorneys, equity owners, professional consultants, portfolio management services and rating agencies; (iv) any successor or assign of Bank; (v) any Person to whom Bank offers to sell, assign or transfer any Credit Extension or any part thereof or any interest or participation therein, provided that such Person subject to similar confidentiality provisions; (vi) any Person that provides statistical analysis and/or information services to Bank or its Affiliates; and (vii) any Person (A) to the extent required by it by law, (B) as required in connection with the examination, audit, or similar investigation of Bank by appropriate authorities, (C) in response to any subpoena or other legal process or governmental investigative demand, (D) in connection with any litigation, or € in connection with the actual or potential exercise or enforcement of any right or remedy under any Loan Document. The obligations of Bank and its Affiliates under this Section 12.8 shall supersede and replace any other confidentiality obligations agreed to by Bank or its Affiliates.

13. CO-BORROWER PROVISIONS.

13.1 Primary Obligation. This Agreement is a primary and original obligation of each Borrower and shall remain in effect notwithstanding future changes in conditions, including any change of law or any invalidity or irregularity in the creation or acquisition of any Obligations or in the execution or delivery of any agreement between Bank and any Borrower. Each Borrower shall be liable for existing and future Obligations as fully as if all Credit Extensions were advanced to such Borrower. Bank may rely on any certificate or representation made by any Borrower as made on behalf of, and binding on, such Borrower and each other Borrower, including without limitation Loan Advance / Paydown Request Forms and Compliance Certificates.

13.2 Enforcement of Rights. Each Borrower is jointly and severally liable for the Obligations, and Bank may proceed against any Borrower to enforce the Obligations without waiving its right to proceed against any other Borrower.

13.3 Borrowers as Agents. Each Borrower appoints each other Borrower as its agent with all necessary power and authority to give and receive notices, certificates or demands for and on behalf of each Borrower, to act as disbursing agent for receipt of any Credit Extensions on behalf of each Borrower and to apply to Bank on behalf of each Borrower for Credit Extensions, any waivers and any consents. This authorization cannot be revoked, and Bank need not inquire as to each Borrower's authority to act for or on behalf of a Borrower.

13.4 Subrogation and Similar Rights. Notwithstanding any other provision of this Agreement or any other Loan Document, each Borrower irrevocably waives all rights that it may have at law or in equity (including, without limitation, any law subrogating such Borrower to the rights of Bank under the Loan Documents) to seek contribution, indemnification, or any other form of reimbursement from any other Borrower, or any other Person now or hereafter primarily or secondarily liable for any of the Obligations, for any payment made by such Borrower with respect to the Obligations in connection with the Loan Documents or otherwise and all rights that it might have to benefit from, or to participate in, any security for the Obligations as a result of any payment made by the Borrower with respect to the Obligations in connection with the Loan Documents or otherwise. Any agreement providing for indemnification, reimbursement or any other arrangement prohibited under this Section 13.4 shall be null and void. If any payment is made to a Borrower in contravention of this Section 13.4, such Borrower shall hold such payment in trust for Bank and such payment shall be promptly delivered to Bank for application to the Obligations, whether matured or unmatured.

13.5 Waivers of Notice. Except as otherwise provided in this Agreement, each Borrower waives notice of acceptance hereof; notice of the existence, creation or acquisition of any of the Obligations; notice of an Event of Default; notice of the amount of the Obligations outstanding at any time; notice of intent to accelerate; notice of acceleration; notice of any adverse change in the financial condition of any other Borrower or of any other fact that might increase the Borrower's risk; presentment for payment; demand; protest and notice thereof as to any instrument; default; and all other notices and demands to which the Borrower would otherwise be entitled. Each Borrower waives any defense arising from any defense of any other Borrower, or by reason of the cessation from any cause whatsoever of the liability of any other Borrower. Bank's failure at any time to require strict performance by any Borrower of any provision of the Loan Documents shall not waive, alter or diminish any right of Bank thereafter to demand strict compliance and performance therewith. Nothing contained herein shall prevent Bank from foreclosing on the Lien of any deed of trust, mortgage or other security instrument, or exercising any rights available thereunder, and the exercise of any such rights shall not constitute a legal or equitable discharge of any Borrower. Each Borrower also waives any defense arising from any act or omission of Bank that changes the scope of such Borrower's risks hereunder.

13.6 Subrogation Defenses. Each Borrower hereby waives any defense based on impairment or destruction of its subrogation or other rights against any other Borrower and waives all benefits which might otherwise be available to it under any statutory or common law suretyship defenses or marshalling rights, now or hereafter in effect.

13.7 Right to Settle, Release.

(a) The liability of each Borrower hereunder shall not be diminished by (i) any agreement, understanding or representation that any of the Obligations is or was to be guaranteed by another Person or secured by other property, or (ii) any release or unenforceability, whether partial or total, of rights, if any, which Bank may now or hereafter have against any other Person, including another Borrower, or property with respect to any of the Obligations.

(b) Without affecting the liability of any Borrower hereunder, Bank may (i) compromise, settle, renew, extend the time for payment, change the manner or terms of payment, discharge the performance of, decline to enforce, or release all or any of the Obligations with respect to a Borrower, (ii) grant other indulgences to a Borrower in respect of the Obligations, (iii) modify in any manner any documents relating to the Obligations with respect to a Borrower, (iv) release, surrender or exchange any deposits or other property securing the Obligations, whether pledged by a Borrower or any other Person, or (v) compromise, settle, renew, or extend the time for payment, discharge the performance of, decline to enforce, or release all or any obligations of any guarantor, endorser or other Person who is now or may hereafter be liable with respect to any of the Obligations.

13.8 Subordination. All indebtedness of a Borrower now or hereafter arising held by another Borrower is subordinated to the Obligations and the Borrower holding the indebtedness shall take all actions reasonably requested by Bank to effect, to enforce and to give notice of such subordination.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the date first above written.

AKREVIA THERAPEUTICS INC.

By: /s/ Joseph Farmer

Name: Joseph Farmer

Title: Chief Operating Officer

AKREVIA CONCERTO LLC

By: /s/ Joseph Farmer

Name: Joseph Farmer

Title: Chief Operating Officer

PACIFIC WESTERN BANK

By: /s/ Scott Hansen

Name: Scott Hansen

Title: Managing Director

EXHIBIT A

DEFINITIONS

"Accounts" means all presently existing and hereafter arising accounts, contract rights, payment intangibles and all other forms of obligations owing to Borrower arising out of the sale or lease of goods (including, without limitation, the licensing of software and other technology) or the rendering of services by Borrower and any and all credit insurance, guaranties, and other security therefor, as well as all merchandise returned to or reclaimed by Borrower and Borrower's Books relating to any of the foregoing.

"Affiliate" means, with respect to any Person, any Person that owns or controls directly or indirectly such Person, any Person that controls or is controlled by or is under common control with such Person, and each of such Person's senior executive officers, directors, and general partners.

"Authorized Officer" means someone designated as such in the corporate resolution provided by Borrower to Bank in which this Agreement and the transactions contemplated hereunder are authorized by Borrower's board of directors. If Borrower provides subsequent corporate resolutions to Bank after the Closing Date, the individual(s) designated as "Authorized Officer(s)" in the most recently provided resolution shall be the only "Authorized Officers" for purposes of this Agreement.

"Bank Expenses" means all reasonable costs or expenses (including reasonable attorneys' fees and expenses, whether generated by in-house or by outside counsel) incurred in connection with the preparation, negotiation, administration, and enforcement of the Loan Documents; reasonable Collateral audit fees; and Bank's reasonable attorneys' fees and expenses (whether generated in-house or by outside counsel) incurred in amending, enforcing or defending the Loan Documents (including fees and expenses of appeal), incurred before, during and after an Insolvency Proceeding, whether or not suit is brought.

"Borrower's Books" means all of Borrower's books and records including: ledgers; records concerning Borrower's assets or liabilities, the Collateral, business operations or financial condition; and all computer programs, or tape files, and the equipment, containing such information.

"Business Day" means any day that is not a Saturday, Sunday, or other day on which banks in the State of North Carolina are authorized or required to close.

"Cash" means unrestricted cash and cash equivalents.

"Change in Control" means a transaction (other than (i) an IPO or (ii) a bona fide equity financing or series of financings on terms and from investors reasonably acceptable to Bank) in which any "person" or "group" (within the meaning of Section 13(d) and 14(d)(2) of the Securities Exchange Act of 1934) becomes the "beneficial owner" (as defined in Rule 13d-3 under the Securities Exchange Act of 1934), directly or indirectly, of a sufficient number of shares of all classes of stock then outstanding of Borrower ordinarily entitled to vote in the election of directors, empowering such "person" or "group" to elect a majority of the board of directors of Borrower, who did not have such power before such transaction.

"Closing Date" means the date of this Agreement.

"Code" means the North Carolina Uniform Commercial Code as amended or supplemented from time to time.

"Collateral" means the property described on Exhibit B attached hereto and all Negotiable Collateral to the extent not described on Exhibit B, except to the extent any such property (i) is non-assignable by its terms without the consent of the licensor thereof or another party (but only to the extent such prohibition on transfer is enforceable under applicable law, including, without limitation, §25-9-406 and §25-9-408 of the Code), (ii) is property for which the granting of a security interest therein is contrary to applicable law, provided that upon the cessation of any such restriction or prohibition, such property shall automatically become part of the Collateral, (iii) constitutes the capital stock of a controlled foreign corporation (as defined in the IRC), in excess of 65% of the voting power of all classes of capital stock of such controlled foreign corporations entitled to vote, or any Subsidiary which sole purpose is to hold the stock of such controlled foreign corporation, if the grant of a security interest in such capital stock pursuant to this Agreement would result in material adverse "deemed dividend" tax consequences to Borrower due to the application of IRC §956, or (iv) is property (including any attachments, accessions or replacements) that is subject to a Lien that is permitted pursuant to clause (c) of the definition of Permitted Liens, if the grant of a security interest with respect to such property pursuant to this Agreement would be prohibited by the agreement creating such Permitted Lien or would otherwise constitute a default thereunder, provided, that such property will be deemed "Collateral" hereunder upon the termination and release of such Permitted Lien.

"Compliance Certificate" means a compliance certificate, in substantially the form of Exhibit D attached hereto, executed by a Responsible Officer of Borrower.

"Contingent Obligation" means, as applied to any Person, any direct or indirect liability, contingent or otherwise, of that Person with respect to (i) any indebtedness, lease, dividend, letter of credit or other obligation of another, including, without limitation, any such obligation directly or indirectly guaranteed, endorsed, co-made or discounted or sold with recourse by that Person, or in respect of which that Person is otherwise directly or indirectly liable; (ii) any obligations with respect to undrawn letters of credit, corporate credit cards or merchant services issued for the account of that Person; and (iii) all obligations arising under any interest rate, currency or commodity swap agreement, interest rate cap agreement, interest rate collar agreement, or other agreement or arrangement designated to protect a Person against fluctuation in interest rates, currency exchange rates or commodity prices; provided, however, that the term "Contingent Obligation" shall not include endorsements for collection or deposit in the ordinary course of business. The amount of any Contingent Obligation shall be deemed to be an amount equal to the stated or determined amount of the primary obligation in respect of which such Contingent Obligation is made or, if not stated or determinable, the maximum reasonably anticipated liability in respect thereof as determined by such Person in good faith; provided, however, that such amount shall not in any event exceed the maximum amount of the obligations under the guarantee or other support arrangement.

“Copyrights” means any and all copyright rights, copyright applications, copyright registrations and like protections in each work or authorship and derivative work thereof, whether published or unpublished and whether or not the same also constitutes a trade secret, now or hereafter existing, created, acquired or held.

“Credit Card Line” means a Credit Extension of up to $250,000, to be used exclusively for the provision of Credit Card Services.

“Credit Card Maturity Date” means November 21, 2023.

“Credit Extension” means the Term Loan, the Credit Card Services provided under the Credit Card Line, or any other extension of credit, by Bank to or for the benefit of Borrower hereunder.

“Divide” means, with respect to any Person that is an entity, the dividing of such Person into two or more separate Persons, with the dividing Person either continuing or terminating its existence as part of such division, including as contemplated under Section 18-217 of the Delaware Limited Liability Company Act for limited liability companies formed under Delaware law, or any analogous action taken pursuant to any other statute with respect to any corporation, limited liability company, partnership, or other entity.

“Equipment” means all present and future machinery, equipment, tenant improvements, furniture, fixtures, vehicles, tools, parts and attachments in which Borrower has any interest.

“ERISA” means the Employee Retirement Income Security Act of 1974, as amended, and the regulations thereunder.

“Event of Default” has the meaning assigned in Article 8.

“GAAP” means generally accepted accounting principles, consistently applied, as in effect from time to time in the United States.

“Indebtedness” means (a) all indebtedness for borrowed money or the deferred purchase price of property or services, including without limitation reimbursement and other obligations with respect to surety bonds and letters of credit, (b) all obligations evidenced by notes, bonds, debentures or similar instruments, (c) all capital lease obligations, and (d) all Contingent Obligations, including but not limited to any sublimit contained herein.

“Insolvency Proceeding” means any proceeding commenced by or against any Person or entity under any provision of the United States Bankruptcy Code, as amended, or under any other bankruptcy or insolvency law, including assignments for the benefit of creditors, formal or informal moratoria, compositions, extension generally with its creditors, or proceedings seeking reorganization, arrangement, or other relief.

“Intellectual Property” means all of Borrower’s right, title, and interest in and to the following, whether now existing, or hereafter acquired or created, in any medium, of any kind or nature whatsoever:

(a) Copyrights, Trademarks, and Patents;

(b) Any and all trade secrets, and any and all intellectual property rights in computer software and computer software products now or hereafter existing, created, acquired or held;

(c) Any and all design rights which may be available to Borrower now or hereafter existing, created, acquired or held;

(d) Any and all claims for damages by way of past, present and future infringement of any of the rights included above, with the right, but not the obligation, to sue for and collect such damages for said use or infringement of the intellectual property rights identified above;

(e) All licenses or other rights to use any of the Copyrights, Patents or Trademarks, and all license fees and royalties arising from such use to the extent permitted by such license or rights;

(f) All amendments, renewals, and extensions of any Copyrights, Trademarks, and Patents; and

(g) All proceeds and products of the foregoing, including without limitation all payments under insurance or any indemnity or warranty payable in respect of any of the foregoing.

"Interest-Only End Date" means May 21, 2021.

"Inventory" means all present and future inventory in which Borrower has any interest.

"Investment" means any beneficial ownership of (including stock, partnership or limited liability company interest or other securities) any Person, or any loan, advance or capital contribution to any Person.

"IRC" means the Internal Revenue Code of 1986, as amended, and the regulations thereunder.

"Letter of Credit" means a commercial or standby letter of credit or similar undertaking issued by Bank (or any of its correspondent banks) at Borrower's request.

"Lien" means any mortgage, lien, deed of trust, charge, pledge, security interest or other encumbrance.

"Loan Documents" means, collectively, this Agreement, any note or notes executed by Borrower, and any other document, instrument or agreement entered into in connection with this Agreement, all as amended or extended from time to time.

"Material Adverse Effect" means a material adverse effect on (i) the operations, business or financial condition of Borrower and its Subsidiaries taken as a whole, (ii) the ability of Borrower to repay the Obligations or otherwise perform its obligations under the Loan Documents, or (iii) Borrower's interest in, or the value, perfection or priority of Bank's security interest in the Collateral.

"Negotiable Collateral" means all of Borrower's present and future letters of credit of which it is a beneficiary, drafts, instruments (including promissory notes), securities, documents of title, and chattel paper, and Borrower's Books relating to any of the foregoing.

"Obligations" means all debt, principal, interest, Bank Expenses and other amounts owed to Bank by Borrower pursuant to this Agreement or any other agreement, whether absolute or contingent, due or to become due, now existing or hereafter arising, including any interest that accrues after the commencement of an Insolvency Proceeding and including any debt, liability, or obligation owing from Borrower to others that Bank may have obtained by assignment or otherwise. Notwithstanding the foregoing, "Obligations" shall not include any warrant or equity related investments.

"Parent Guarantor" means Akrevia Therapeutics LLC, a Delaware limited liability company.

"Parent Guaranty" means that certain Unconditional Guaranty, dated on or about the Closing Date, by Parent Guarantor in favor of Bank, as amended, restated, supplemented, or otherwise modified from time to time.

"Patents" means all patents, patent applications and like protections including without limitation improvements, divisions, continuations, renewals, reissues, extensions and continuations-in-part of the same.

"Periodic Payments" means all installments or similar recurring payments that Borrower may now or hereafter become obligated to pay to Bank pursuant to the terms and provisions of any instrument, or agreement now or hereafter in existence between Borrower and Bank.

"Permitted Indebtedness" means:

(a) Indebtedness of Borrower in favor of Bank arising under this Agreement or any other Loan Document;

(b) Indebtedness existing on the Closing Date and disclosed in the Schedule;

(c) Indebtedness not to exceed $800,000 in the aggregate at any time secured by a lien described in clause (c) of the defined term "Permitted Liens," provided such Indebtedness does not exceed at the time it is incurred the lesser of the cost or fair market value of the property financed with such Indebtedness;

(d) Subordinated Debt;

(e) Indebtedness to trade creditors incurred in the ordinary course of business;

(f) Indebtedness incurred as a result of endorsing negotiable instruments received in the ordinary course of business;

(g) Interest rate hedging arrangements with financial institutions other than Bank in an aggregate amount not to exceed $250,000 at any time;

(h) Additional unsecured Indebtedness not to exceed $250,000 in the aggregate at any time; and

(i) Extensions, refinancings and renewals of any items of Permitted Indebtedness, provided that the principal amount is not increased or the terms modified to impose more burdensome terms upon Borrower or its Subsidiary, as the case may be.

"Permitted Investment" means:

(a) Investments existing on the Closing Date disclosed in the Schedule;

(b) (i) Marketable direct obligations issued or unconditionally guaranteed by the United States of America or any agency or any State thereof maturing within one year from the date of acquisition thereof, (ii) commercial paper maturing no more than one year from the date of creation thereof and currently having rating of at least A-2 or P-2 from either Standard & Poor's Corporation or Moody's Investors Service, (iii) Bank's certificates of deposit maturing no more than one year from the date of investment therein, (iv) money market accounts, (v) Investments in regular deposit or checking accounts held with Bank or as otherwise permitted by, and subject to the terms and conditions of, Section 6.6 of this Agreement, and (vi) Investments consistent with any investment policy adopted by Borrower's board of directors;

(c) Investments accepted in connection with Permitted Transfers;

(d) Investments of Subsidiaries in or to other Subsidiaries or Borrower and Investments by Borrower in Subsidiaries not to exceed $500,000 in the aggregate in any fiscal year;

(e) Investments not to exceed $500,000 outstanding in the aggregate at any time consisting of (i) travel advances and employee relocation loans and other employee loans and advances in the ordinary course of business, and (ii) loans to employees, officers or directors relating to the purchase of equity securities of Borrower or its Subsidiaries pursuant to employee stock purchase plan agreements approved by Borrower's board of directors;

(f) Investments (including debt obligations) received in connection with the bankruptcy or reorganization of customers or suppliers and in settlement of delinquent obligations of, and other disputes with, customers or suppliers arising in the ordinary course of Borrower's business;

(g) Investments consisting of notes receivable of, or prepaid royalties and other credit extensions, to customers and suppliers who are not Affiliates, in the ordinary course of business, provided that this subparagraph (g) shall not apply to Investments of Borrower in any Subsidiary;

(h) Joint ventures or strategic alliances in the ordinary course of Borrower's business consisting of the non-exclusive licensing of technology, the development of technology or the providing of technical support, provided that any cash Investments by Borrower do not exceed $500,000 in the aggregate in any fiscal year;

(i) Investments permitted under Sections 7.3, 7.6, and 7.7; and

(j) Additional Investments, other than Investments in Subsidiaries, by Borrower that do not exceed $300,000 in the aggregate during the term of this Agreement.

“Permitted Liens” means the following:

(a) Any Liens existing on the Closing Date and disclosed in the Schedule (excluding Liens to be satisfied with the proceeds of the Credit Extensions) or arising under this Agreement, the other Loan Documents, or any other agreement in favor of Bank;

(b) Liens for taxes, fees, assessments or other governmental charges or levies, either not delinquent or being contested in good faith by appropriate proceedings and for which Borrower maintains adequate reserves;

(c) Liens not to exceed $800,000 in the aggregate at any time (i) upon or in any Equipment (other than Equipment financed by a Credit Extension) acquired or held by Borrower or any of its Subsidiaries to secure the purchase price of such Equipment or indebtedness incurred solely for the purpose of financing the acquisition or lease of such Equipment, or (ii) existing on such Equipment at the time of its acquisition, in each case provided that the Lien is confined solely to the property so acquired and improvements thereon, and the proceeds of such Equipment;

(d) Liens incurred in connection with licenses or sublicenses permitted hereunder;

(e) Statutory Liens securing claims or demands of materialmen, mechanics, carriers, repairmen, or other like Liens imposed without the action of such parties arising in the ordinary course of business;

(f) Liens to secure payment for workers’ compensation, employment insurance, old age pensions, social security or other like obligations incurred in the ordinary course of business;

(g) Non-exclusive licenses of Intellectual Property granted to third parties in the ordinary course of business, and licenses of Intellectual Property that could not result in a legal transfer of title of the licensed property that may be exclusive in respects other than territory and that may be exclusive as to territory only as to discrete geographical areas outside of the United States;

(h) Liens incurred in connection with the extension, renewal or refinancing of the indebtedness secured by Liens of the type described in clauses (a) through (c) above, provided that any extension, renewal or replacement Lien shall be limited to the property encumbered by the existing Lien and the principal amount of the indebtedness being extended, renewed or refinanced does not increase;

(i) Liens arising from judgments, decrees or attachments in circumstances not constituting an Event of Default under Sections 8.4 (attachment) or 8.7 (judgments);

(j) Leases or subleases of real property granted in the ordinary course of Borrower’s business (or, if referring to another Person, in the ordinary course of such Person’s business);

(k) Liens in favor of other financial institutions arising in connection with Borrower’s deposit accounts held at such institutions to secure standard fees for deposit services charged by, but not financing made available by, such institutions, provided that Bank has a perfected security interest in the amounts held in such deposit accounts to the extent required by Section 6.6; and

(l) Liens securing Subordinated Debt, provided that such Liens do not encumber assets beyond those assets comprising the Collateral.

"Permitted Transfer" means the conveyance, sale, lease, transfer or disposition by Borrower or any Subsidiary of:

(a) Inventory in the ordinary course of business;

(b) licenses and similar arrangements for the use of the property of Borrower or its Subsidiaries in the ordinary course of business;

(c) worn-out, surplus or obsolete Equipment;

(d) grants of security interests and other Liens that constitute Permitted Liens;

(e) Transfers that constitute Permitted Investments;

(f) Cash in the ordinary course of business, unless otherwise prohibited by the terms of this Agreement; and

(g) other assets of Borrower or its Subsidiaries that do not in the aggregate exceed $500,000 during any fiscal year.

"Person" means any individual, sole proprietorship, partnership, limited liability company, joint venture, trust, unincorporated organization, association, corporation, institution, public benefit corporation, firm, joint stock company, estate, entity or governmental agency.

"Prime Rate" means the variable rate of interest, per annum, most recently announced by Bank, as its "prime rate," whether or not such announced rate is the lowest rate available from Bank.

"Responsible Officer" means each of the President, Chief Executive Officer, the Chief Operating Officer, the Chief Financial Officer, Vice President of Finance and the Controller of Borrower, as well as any other officer or employee identified as an Authorized Officer in the corporate resolution delivered by Borrower to Bank in connection with this Agreement.

"Schedule" means the schedule of exceptions attached hereto and approved by Bank, if any.

"SOS Reports" means the official reports from the Secretaries of State of the state where Borrower's chief executive office is located, the state of Borrower's formation and other applicable federal, state or local government offices identifying all current security interests filed in the Collateral and Liens of record as of the date of such report.

"Subordinated Debt" means any debt incurred by Borrower that is subordinated in writing to the debt owing by Borrower to Bank on terms reasonably acceptable to Bank (and identified as being such by Borrower and Bank).

"Subsidiary" means any corporation, partnership or limited liability company or joint venture in which (i) any general partnership interest or (ii) more than 50% of the stock, limited liability company interest or joint venture of which by the terms thereof ordinary voting power to elect the board of directors, managers or trustees of the entity, at the time as of which any determination is being made, is owned by Borrower, either directly or through an Affiliate.

“Success Fee Event” means (a) any sale, license, or other disposition of all or substantially all of the assets (including intellectual property) of a Borrower or Parent Guarantor and its subsidiaries taken as a whole, (b) any reorganization, consolidation, merger or sale of the voting securities of a Borrower or Parent Guarantor or any other transaction where the holders of a Borrower’s or Parent Guarantor’s securities before the transaction beneficially own (directly or indirectly) less than 50% of the outstanding voting securities of the surviving entity after the transaction, or (c) the sale or issuance of a Borrower’s, Parent Guarantor’s, or its affiliate’s equity securities in connection with an initial public offering, an alternative public offering, a reverse merger, or any similar transaction in which Borrower, Parent Guarantor, or such affiliate receives cash proceeds from such sale or issuance and Borrower’s, Parent Guarantor’s, or such affiliate’s equity securities may thereafter be traded in a public market.

“Term Loan Maturity Date” means November 21, 2023.

“Trademarks” means any trademark and servicemark rights, whether registered or not, applications to register and registrations of the same and like protections, and the entire goodwill of the business of Borrower connected with and symbolized by such trademarks.

EXHIBIT B

DEBTOR: **AKREVIA THERAPEUTICS INC.**

SECURED PARTY: **PACIFIC WESTERN BANK**

COLLATERAL DESCRIPTION ATTACHMENT TO LOAN AND SECURITY AGREEMENT

All personal property of Borrower (herein referred to as "Borrower" or "Debtor") whether presently existing or hereafter created or acquired, and wherever located, including, but not limited to:

(a) all accounts (including health-care-insurance receivables), chattel paper (including tangible and electronic chattel paper), deposit accounts, documents (including negotiable documents), equipment (including all accessions and additions thereto), financial assets, general intangibles (including patents, trademarks, copyrights, goodwill, payment intangibles, domain names and software), goods (including fixtures), instruments (including promissory notes), inventory (including all goods held for sale or lease or to be furnished under a contract of service, and including returns and repossessions), investment property (including securities and securities entitlements), letter of credit rights, money, and all of Debtor's books and records with respect to any of the foregoing, and the computers and equipment containing said books and records;

(b) any and all cash proceeds and/or noncash proceeds of any of the foregoing, including, without limitation, insurance proceeds, and all supporting obligations and the security therefor or for any right to payment.

All terms above have the meanings given to them in the North Carolina Uniform Commercial Code, as amended or supplemented from time to time, including revised Article 9 of the Uniform Commercial Code-Secured Transactions.

Notwithstanding the foregoing, the Collateral shall not include any of the intellectual property, in any medium, of any kind or nature whatsoever, now or hereafter owned or acquired or received by Borrower, or in which Borrower now holds or hereafter acquires or receives any right or interest (collectively, the "Intellectual Property"); provided, however, that the Collateral shall include all accounts and general intangibles that consist of rights to payment and proceeds from the sale, licensing or disposition of all or any part, or rights in, the foregoing (the "Rights to Payment").

Notwithstanding the foregoing, if a judicial authority (including a U.S. Bankruptcy Court) holds that a security interest in the underlying Intellectual Property is necessary to have a security interest in the Rights to Payment, then the Collateral shall automatically, and effective as of November 21, 2019, include the Intellectual Property to the extent and only to the extent necessary to permit perfection of Bank's security interest in the Rights to Payment, and further provided, however, that Bank's enforcement rights with respect to any security interest in the Intellectual Property shall be absolutely limited to the Rights to Payment only, and Bank shall have no recourse whatsoever with respect to the underlying Intellectual Property.

EXHIBIT B

DEBTOR: **AKREVIA CONCERTO LLC**

SECURED PARTY: **PACIFIC WESTERN BANK**

COLLATERAL DESCRIPTION ATTACHMENT TO LOAN AND SECURITY AGREEMENT

All personal property of Borrower (herein referred to as "Borrower" or "Debtor") whether presently existing or hereafter created or acquired, and wherever located, including, but not limited to:

(a) all accounts (including health-care-insurance receivables), chattel paper (including tangible and electronic chattel paper), deposit accounts, documents (including negotiable documents), equipment (including all accessions and additions thereto), financial assets, general intangibles (including patents, trademarks, copyrights, goodwill, payment intangibles, domain names and software), goods (including fixtures), instruments (including promissory notes), inventory (including all goods held for sale or lease or to be furnished under a contract of service, and including returns and repossessions), investment property (including securities and securities entitlements), letter of credit rights, money, and all of Debtor's books and records with respect to any of the foregoing, and the computers and equipment containing said books and records;

(b) any and all cash proceeds and/or noncash proceeds of any of the foregoing, including, without limitation, insurance proceeds, and all supporting obligations and the security therefor or for any right to payment.

All terms above have the meanings given to them in the North Carolina Uniform Commercial Code, as amended or supplemented from time to time, including revised Article 9 of the Uniform Commercial Code-Secured Transactions.

Notwithstanding the foregoing, the Collateral shall not include any of the intellectual property, in any medium, of any kind or nature whatsoever, now or hereafter owned or acquired or received by Borrower, or in which Borrower now holds or hereafter acquires or receives any right or interest (collectively, the "Intellectual Property"); provided, however, that the Collateral shall include all accounts and general intangibles that consist of rights to payment and proceeds from the sale, licensing or disposition of all or any part, or rights in, the foregoing (the "Rights to Payment").

Notwithstanding the foregoing, if a judicial authority (including a U.S. Bankruptcy Court) holds that a security interest in the underlying Intellectual Property is necessary to have a security interest in the Rights to Payment, then the Collateral shall automatically, and effective as of November 21, 2019, include the Intellectual Property to the extent and only to the extent necessary to permit perfection of Bank's security interest in the Rights to Payment, and further provided, however, that Bank's enforcement rights with respect to any security interest in the Intellectual Property shall be absolutely limited to the Rights to Payment only, and Bank shall have no recourse whatsoever with respect to the underlying Intellectual Property.

EXHIBIT C

LOAN ADVANCE/PAYDOWN REQUEST FORM

[Please refer to New Borrower Kit]

EXHIBIT D

COMPLIANCE CERTIFICATE

[Please refer to New Borrower Kit]

FIRST AMENDMENT
TO
LOAN AND SECURITY AGREEMENT

This First Amendment to Loan and Security Agreement (this "***Amendment***") is made and entered into as of March 12, 2021, by and between PACIFIC WESTERN BANK, a California state chartered bank ("***Bank***"), and XILIO DEVELOPMENT, INC. and XILIO CONCERTO LLC (individually and collectively referred to as "***Borrower***").

RECITALS

Borrower and Bank are parties to that certain Loan and Security Agreement dated as of November 21, 2019 (as amended from time to time, the "***Agreement***"). The parties desire to amend the Agreement in accordance with the terms of this Amendment.

NOW, THEREFORE, the parties agree as follows:

1) Borrower Akrevia Therapeutics Inc. has changed its name to Xilio Development, Inc. Bank and Borrower hereby agree that the Agreement and each other Loan Document are hereby amended wherever necessary to reflect this change.

2) Borrower Akrevia Concerto LLC has changed its name to Xilio Concerto LLC. Bank and Borrower hereby agree that the Agreement and each other Loan Document are hereby amended wherever necessary to reflect this change.

3) Borrower has informed Bank that Borrower may in the future create an MSC Subsidiary. Bank and Borrower hereby agree that, so long as the MSC Investment Conditions continue to be met, (a) any MSC Subsidiary will not be required to become a co-borrower or secured guarantor with respect to the Obligations, notwithstanding Section 6.10 of the Agreement, and (b) Investments by Borrower in the MSC Subsidiary will constitute Permitted Investments. If, at any time after the formation of an MSC Subsidiary, the MSC Investment Conditions are not met, then (x) Borrower may not make Investments in any MSC Subsidiary, and (y) within two (2) Business Days after the first date on which the MSC Investment Conditions are not met, Borrower shall cause each MSC Subsidiary to (i) order the liquidation of any of its Investments into cash, (ii) transfer cash to Borrower's accounts with Bank, and (iii) thereafter transfer any cash that it possesses to Borrower's accounts with Bank, in each case until the MSC Investment Conditions are again being met. Borrower shall not permit any MSC Subsidiary to make any Investments or hold any assets that would cause that MSC Subsidiary to fail to qualify as a "security corporation" under 830 CMR 63.38B.1 of the Massachusetts tax code and applicable regulations (as the same may be amended, modified, or replaced from time to time).

4) Section 6.6 of the Agreement is hereby amended and restated, as follows:

6.6 Primary Depository. Borrower shall maintain, and shall cause each Subsidiary to maintain, substantially all of its cash in depository or operating accounts with Bank. Notwithstanding the foregoing, (a) Borrower may maintain (i) when Borrower's aggregate Cash at Bank equals or exceeds $1,000,000, up to $1,000,000, and (ii) at all other times, $250,000, in each case, in an account at Silicon Valley Bank to facilitate the payment of payroll and trade payables, provided that such account is subject to an account control agreement in favor of Bank, and (b) at any time when Borrower's, Parent Guarantor's, and Ultimate Parent Guarantor's aggregate Cash at Bank exceeds $50,000,000, Borrower may maintain amounts in excess of $50,000,000 in Cash or Investments with Pacific Western Asset Management. Prior to Borrower maintaining any investment accounts with Pacific Western Asset Management, Borrower, Bank, and Pacific Western Asset Management (or, if applicable, the relevant securities intermediary) shall have entered into a securities account control agreement with respect to any such investment accounts, in form and substance reasonably satisfactory to Bank.

5) Section 7.2 of the Agreement is hereby amended and restated, as follows:

7.2 Change in Name, Location, Executive Office, or Executive Management; Change in Business; Change in Fiscal Year; Change in Control. Change its name or the state of Borrower's formation or relocate its chief executive office without 30 days' prior written notification to Bank; replace or suffer the departure of its chief executive officer or chief operating officer without delivering written notification to Bank within 10 days; fail to appoint an interim replacement or fill a vacancy in the position of chief executive officer or chief operating officer for more than 60 consecutive days; suffer a change on its board of directors which results in the failure of at least one partner of Atlas Venture or its Affiliate to serve as a voting member without the prior written consent of Bank, which may be withheld in Bank's sole discretion; take action to liquidate, wind up, or otherwise cease to conduct business in the ordinary course; engage in any business, or permit any of its Subsidiaries to engage in any business, other than or reasonably related or incidental to the businesses currently engaged in by Borrower; change its fiscal year end; convert to another form of incorporated or unincorporated business or entity; have a Change in Control; Divide.

6) The following defined terms are hereby added in Exhibit A to the Agreement, as follows:

"MSC Investment Conditions" means that

(a) Borrower, Parent Guarantor, and Ultimate Parent Guarantor collectively maintain on deposit with Bank unrestricted cash or cash equivalents in an aggregate amount greater than or equal to 105% of the then outstanding principal and accrued interest on all Credit Extensions; and

(b) each MSC Subsidiary qualifies as a "security corporation" under 830 CMR 63.38B.1 of the Massachusetts tax code and applicable regulations (as the same may be amended, modified, or replaced from time to time).

"MSC Subsidiary" means any Subsidiary that is intended to qualify as a "security corporation" under 830 CMR 63.38B.1 of the Massachusetts tax code and applicable regulations (as the same may be amended, modified, or replaced from time to time).

"Ultimate Parent Guarantor" means Xilio Therapeutics, Inc., a Delaware corporation.

7) The following defined term in Exhibit A to the Agreement is hereby amended and restated, as follows:

"Parent Guaranty" means that certain Amended and Restated Unconditional Guaranty, dated on or about March 12, 2021, by Parent Guarantor and Ultimate Parent Guarantor in favor of Bank, as amended, restated, supplemented, or otherwise modified from time to time.

8) Unless otherwise defined, all initially capitalized terms in this Amendment shall be as defined in the Agreement. The Agreement, as amended hereby, shall be and remain in full force and effect in accordance with its respective terms and hereby is ratified and confirmed in all respects. Except as expressly set forth herein, the execution, delivery, and performance of this Amendment shall not operate as a waiver of, or as an amendment of, any right, power, or remedy of Bank under the Agreement, as in effect prior to the date hereof. Each Borrower ratifies and reaffirms the continuing effectiveness of all agreements entered into in connection with the Agreement.

9) Each Borrower represents and warrants that the representations and warranties contained in the Agreement are true and correct as of the date of this Amendment.

10) This Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one instrument.

11) As a condition to the effectiveness of this Amendment, Bank shall have received, in form and substance satisfactory to Bank, the following:

a) this Amendment, duly executed by each Borrower;

b) the Parent Guaranty, duly executed by each of Parent Guarantor and Ultimate Parent Guarantor, together with an officer's certificate of each of Parent Guarantor and Ultimate Parent Guarantor with respect to incumbency and resolutions authorizing the execution and delivery of the Parent Guaranty;

c) payment of a $1,000 facility fee, which may be debited from any Borrower's accounts;

d) payment for all Bank Expenses incurred through the date of this Amendment, including Bank's expenses for the documentation of this Amendment and any UCC, good standing or intellectual property search or filing fees, which may be debited from any Borrower's accounts; and

e) such other documents and completion of such other matters, as Bank may reasonably request.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned have executed this Amendment as of the first date above written.

XILIO DEVELOPMENT, INC.

By: /s/ Edward English
Name: Edward English
Title: Vice President Of Finance

XILIO CONCERTO LLC

By: /s/ Edward English
Name: Edward English
Title: Vice President Of Finance

PACIFIC WESTERN BANK

By: /s/ Katherine Meeks
Name: Katherine Meeks
Title: Vice President

SECOND AMENDMENT
TO
LOAN AND SECURITY AGREEMENT

This Second Amendment to Loan and Security Agreement (this "***Amendment***") is made and entered into as of May 10, 2021, by and between PACIFIC WESTERN BANK, a California state chartered bank ("***Bank***"), and XILIO DEVELOPMENT, INC. and XILIO CONCERTO LLC (individually and collectively referred to as "***Borrower***").

RECITALS

Borrower and Bank are parties to that certain Loan and Security Agreement dated as of November 21, 2019 (as amended from time to time, the "***Agreement***"). The parties desire to amend the Agreement in accordance with the terms of this Amendment.

NOW, THEREFORE, the parties agree as follows:

12) Section 7.2 of the Agreement is hereby amended and restated, as follows:

7.2 Change in Name, Location, Executive Office, or Executive Management; Change in Business; Change in Fiscal Year; Change in Control. Change its name or the state of Borrower's formation or relocate its chief executive office without 30 days' prior written notification to Bank; replace or suffer the departure of its chief executive officer without delivering written notification to Bank within 10 days; fail to appoint an interim replacement or fill a vacancy in the position of chief executive officer for more than 60 consecutive days; suffer a change on its board of directors which results in the failure of at least one partner of Atlas Venture or its Affiliate to serve as a voting member without the prior written consent of Bank, which may be withheld in Bank's sole discretion; take action to liquidate, wind up, or otherwise cease to conduct business in the ordinary course; engage in any business, or permit any of its Subsidiaries to engage in any business, other than or reasonably related or incidental to the businesses currently engaged in by Borrower; change its fiscal year end; convert to another form of incorporated or unincorporated business or entity; have a Change in Control; Divide.

13) Unless otherwise defined, all initially capitalized terms in this Amendment shall be as defined in the Agreement. The Agreement, as amended hereby, shall be and remain in full force and effect in accordance with its respective terms and hereby is ratified and confirmed in all respects. Except as expressly set forth herein, the execution, delivery, and performance of this Amendment shall not operate as a waiver of, or as an amendment of, any right, power, or remedy of Bank under the Agreement, as in effect prior to the date hereof. Each Borrower ratifies and reaffirms the continuing effectiveness of all agreements entered into in connection with the Agreement.

14) Each Borrower represents and warrants that the representations and warranties contained in the Agreement are true and correct as of the date of this Amendment.

15) This Amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one instrument.

16) As a condition to the effectiveness of this Amendment, Bank shall have received, in form and substance satisfactory to Bank, the following:

a) this Amendment, duly executed by each Borrower;

b) payment for all Bank Expenses incurred through the date of this Amendment, including Bank's expenses for the documentation of this Amendment and any UCC, good standing or intellectual property search or filing fees, which may be debited from any Borrower's accounts; and

c) such other documents and completion of such other matters, as Bank may reasonably request.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned have executed this Amendment as of the first date above written.

XILIO DEVELOPMENT, INC.

By: /s/Edward C. English
Name: Edward C. English
Title: VP Finance

XILIO CONCERTO LLC

By: /s/Edward C. English
Name: Edward C. English
Title: VP Finance

PACIFIC WESTERN BANK

By: /s/ Katherine Meeks
Name: Katherine Meeks
Title: Vice President

[Signature Page to Second Amendment to Loan and Security Agreement]

Exhibit 10.10

Certain identified information has been excluded from the exhibit because it is both (i) not material and (ii) is the type of information that the registrant treats as private or confidential. Double asterisks denote omissions.

CROSS-LICENSE AGREEMENT

This Cross-License Agreement ("**Agreement**"), effective as of December 16, 2020 (the "**Effective Date**") and executed on February 11, 2021 (the "**Execution Date**"), is by and among Xilio Development, Inc., a Delaware corporation with an address at 828 Winter Street, Waltham, MA 02451 ("**Xilio**"), AskGene Pharma, Inc., a Delaware corporation with an address at 5217 Verdugo Way, Suite A, Camarillo, CA 93012 ("**AskGene**") and, solely for purposes of Section 12.8, Xilio Therapeutics, Inc., a Delaware corporation with an address at 828 Winter Street, Waltham, MA 02451 ("**Parent**"). Xilio and AskGene are referred to herein collectively as the "**Parties**" and each individually as a "**Party**."

RECITALS

WHEREAS, each Party owns or controls certain patent rights to which the other Party wishes to obtain certain licenses or options with respect to Non-Antigen Binding Products and Antigen-Binding **Products** (each as defined below);

WHEREAS, Parent and AskGene have entered into a Binding Term Sheet, dated December 16, 2020 (the "**Binding Term Sheet**"), pursuant to which: (a) each party granted to the other party certain licenses and options to obtain licenses to certain patent rights in relation to Non-Antigen Binding Products and Antigen-Binding Products, and (b) the parties agreed to negotiate a definitive agreement based on the Binding Term Sheet to more fully embody the terms and conditions of the arrangement;

WHEREAS, Parent has instructed and authorized its subsidiary Xilio to enter into this Agreement; and

WHEREAS, the Parties wish to enter into this Agreement as the definitive agreement contemplated by the Binding Term Sheet to provide further clarity to the arrangement of the Parties as set forth herein.

NOW, THEREFORE, in consideration of the mutual covenants, terms, and conditions set forth herein, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties agree as follows:

AGREEMENT

1. **DEFINITIONS**. For purposes of this Agreement, the following terms have the following meanings:

1.1 "**Action**" has the meaning set forth in Section 10.1.

1.2 "**Affiliate**" means, with respect to any Person, any entity that, directly or indirectly through one or more intermediaries, controls, is controlled by, or is under common control with such Party, but for only so long as such control exists. As used in this definition, "control" means (a) to possess, directly or indirectly, the power to direct the management or policies of a Person, whether through ownership of voting securities, by contract, or otherwise; or (b) direct or indirect beneficial ownership of more than fifty percent (50%) (or such lesser percentage which is the maximum allowed to be owned by a foreign corporation in a particular jurisdiction) of the voting securities or other equity interest in such Person.

For the avoidance of doubt, any Person that is not an Affiliate of a Party as of the Effective Date, but later becomes an Affiliate of such Party through any transaction or series of related transactions will be deemed to be an Affiliate of such Party for purposes of this Agreement. Furthermore, if an Affiliate of a Party ceases to be an Affiliate of such Party after the Effective Date, any rights granted to such Affiliate under this Agreement shall continue to apply to such Affiliate with respect to any activity conducted by such Affiliate during the period it was an Affiliate.

1.3 "**All Fields**" means all uses and indications.

1.4 "**Antigen-Binding Products**" means Licensed Antigen-Binding Products and, as to Xilio only in the event that Xilio has exercised the Xilio Option, Option Antigen-Binding Products.

1.5 "**AskGene Indemnitee**" has the meaning set forth in Section 10.1.

1.6 "**AskGene Opt-In Right Period**" means, with respect to each Xilio Licensed Product, the period beginning on [**] and ending [**] with respect to such Xilio Licensed Product.

1.7 "**AskGene Option**" has the meaning set forth in Section 2.4(a).

1.8 "**AskGene Patent Rights**" means (a) the Patent Rights set forth in Part I of Exhibit A, attached hereto, as amended from time to time, and (b) all Patent Rights that claim priority to, share common priority with or issue from such Patent Rights. The Parties shall update Exhibit A from time to time to reflect additional AskGene Patent Rights. Notwithstanding anything to the contrary, the failure of the Parties to include in Exhibit A, whether at the Effective Date or at any other time during the Term, any particular item described in clause (a) or (b) shall not, in itself, be determinative of whether such item constitutes an AskGene Patent Right.

1.9 "**AskGene Territory**" means Singapore, Thailand, Malaysia, Vietnam, Greater China (the People's Republic of China, Taiwan, Macau, and Hong Kong), Korea, and India.

1.10 "**Auditor**" has the meaning set forth in Section 5.3(a).

1.11 "**Bankruptcy Code**" has the meaning set forth in Section 12.1.

1.12 "**Biosimilar Product**" means, with respect to a Licensed Product that is being sold in a country, a product (including a "biogeneric," or "biosimilar product") sold by a third party in such country that (a) within the United States, is "biosimilar" or "interchangeable," with respect to such Licensed Product as evaluated by the FDA or otherwise determined by Law; (b) in any territory outside of the United States, has been given an equivalent designation by the applicable Regulatory Authority pursuant to Law; or (c) through reference to the Regulatory Approval of the Licensed Product, is eligible for and has achieved Regulatory Approval in such country pursuant to an abbreviated follow-on biological approval pathway established by the Regulatory Authority in such country pursuant to applicable Law, or otherwise is approved for marketing and sale in such country by an abridged procedure in reliance, in whole or in part, on the prior Regulatory Approval of the Licensed Product or on the safety and efficacy data generated for the prior Regulatory Approval (in such country) of the Licensed Product. For clarity, with respect to a Licensed Product that is being sold in a country, a biological medicine or biological product for human use which: (i) is highly similar to such Licensed Product that has marketing approval in such country; (ii) has no clinically meaningful differences from such Licensed Product as determined by Laws or any applicable Regulatory Authority; and (iii) is approved for use (A) in the United States, as a biosimilar biologic product (as defined in the Patient Protection and Affordable Care Act) pursuant to an abbreviated regulatory approval process established under the Patient Protection and Affordable Care Act, (B) in the European Union, as a similar biological medicine pursuant to Directive 2001/83/EC or Regulation (EC) No. 726/2004 (as applicable), or (C) in any other country, pursuant to an equivalent regime in such country, shall constitute a Biosimilar Product.

1.13 "**Calendar Quarter**" means each respective period of three (3) consecutive months ending on March 31, June 30, September 30 and December 31.

1.14 "**Co-Exclusive IL-2 Rights**" has the meaning set forth in Section 2.1(b)(i).

1.15 "**Co-Exclusive IL-15 Rights**" has the meaning set forth in Section 2.2(b)(ii).

1.16 "**Combination Product**" means any product containing a Licensed Product [**] in combination with one or more other [**].

1.17 "**Commercially Reasonable Efforts**" means, with respect to a Party and its objectives or obligations concerning a Licensed Product under this Agreement, such efforts and resources consistent with those commonly used by a biopharmaceutical or biotechnology company of similar size and profile and with similar resources as such Party to achieve a similar objective or fulfill a similar obligation concerning a product of similar market potential at a similar stage in product life as such Licensed Product, taking into account [**], in each case as prevailing at the time the objectives must be met or obligations must be carried out.

1.18 "**Confidential Information**" means all non-public, confidential, or proprietary information of the Disclosing Party, whether received by Receiving Party prior to, on or after the Effective Date, whether in oral, written, electronic, or other form or media, whether or not such information is marked, designated, or otherwise identified as "confidential", including any information that, due to the nature of its subject matter or circumstances surrounding its disclosure, would reasonably be understood to be confidential or proprietary. The existence and terms of this Agreement, and the Binding Term Sheet, shall be deemed Confidential Information of each Party.

Confidential Information does not include information that the Receiving Party can demonstrate by documentation: (a) was already known to the Receiving Party without restriction on use or disclosure prior to receipt of such information directly or indirectly from or on behalf of the Disclosing Party; (b) was or is independently developed by the Receiving Party without reference to or use of any Confidential Information; (c) was or becomes generally known by the public other than by breach of this Agreement by, or other wrongful act of, the Receiving Party; or (d) was received by the Receiving Party from a third party who was not, at the time of receipt, under any obligation to the Disclosing Party or any other Person to maintain the confidentiality of such information.

1.19 "**Controlled**" or "**Controls**" means, when used in reference to any Patent Rights or other intellectual property, ownership or other legal authority or right of a Person (whether by license, other than pursuant to this Agreement, or otherwise) to grant the right to use such item, to grant a license or sublicense to such compound or to grant rights under such Patent Rights or intellectual property to any other Person, without breaching the terms of any agreement with a third party that is separate and distinct from the other Person under which rights were granted to either party of such agreement to such Patent Rights or other intellectual property.

1.20 "**Cover**", "**Covering**" or "**Covered**" means, with reference to a Patent Right, that the manufacture, use, offer for sale, sale, importation or exportation of a product or practice of a method would infringe such Patent Right in the country in which such activity occurs absent a license thereto (or ownership thereof).

1.21 "**Disclosing Party**" has the meaning set forth in Section 8.1.

1.22 "**EMA**" means the European Medicines Agency, and any successor agency or authority thereto having substantially the same function.

1.23 "**Exchange Act**" means the Securities Exchange Act of 1934, as amended.

1.24 "**Excluded AskGene ECD**" means any extracellular domain of a IL-2 or IL-15 cytokine receptor that: (a) contains one or more mutations other than (i) those mutations specifically described in [**], and (ii) mutations at the same amino acid position(s) as those described in clause (i); and (b) is specifically described and claimed in any issued or pending claim of any New AskGene Patent Rights.

1.25 "**Excluded Xilio ECD**" means any extracellular domain of an IL-2 or IL-15 cytokine receptor that: (a) contains one or more mutations other than (i) those mutations specifically described in [**], and (ii) mutations at the same amino acid position(s) as those in clause (i); and (b) is specifically described and claimed in any issued or pending claim of any New Xilio Patent Rights.

1.26 "**Exclusive Immunology License**" has the meaning set forth in Section 2.4(a).

1.27 "**FDA**" means the U.S. Food and Drug Administration, or any successor agency or authority thereto having substantially the same function.

1.28 "**First Commercial Sale**" means (a) with respect to any Licensed Product in a given country, the first sale to a third party of such Licensed Product in such country following Regulatory Approval of such Licensed Product in such country, which results in Net Sales from the sale of such Licensed Product, and (b) with respect to any Biosimilar Product in a given country, the first sale to a third party of such Biosimilar Product in such country following Regulatory Approval of such Biosimilar Product in such country.

1.29 "**Governmental Authority**" means any federal, state, national, supranational, local, or other government, whether domestic or foreign, including any subdivision, department, agency, instrumentality, authority (including any regulatory authority), commission, board, or bureau thereof, or any court, tribunal, arbitrator or arbitral body.

1.30 "**Immunology Field**" means all uses and indications associated with the treatment of inflammation and autoimmune disease.

1.31 "**IND**" means an Investigational New Drug Application to the FDA as described within 21 C.F.R. § 312.20 or a similar filing for the approval of a Regulatory Authority outside of the United States to initiate clinical trials in humans.

1.32 "**Law**" means any applicable statute, law, ordinance, regulation, rule, code, order, constitution, treaty, common law, judgment, decree, other requirement or rule of law of any federal, state, local, or foreign government or political subdivision thereof, or any arbitrator, court, or tribunal of competent jurisdiction.

1.33 "**Licensed Antigen-Binding Products**" means a cytokine [**], comprising (a) an IL-2 cytokine, including mutein forms of said cytokine, (b) an antigen-binding carrier moiety, such as [**], and (c) a masking domain [**], excluding (i) as to Xilio and its rights hereunder, [**] and (ii) as to AskGene and its rights hereunder[**].

1.34 "**Licensed IL-2 Products**" means a Licensed Non-Antigen Binding Product or a Licensed Antigen-Binding Product.

1.35 "**Licensed Non-Antigen Binding Products**" means a cytokine [**], comprising (a) an IL-2 cytokine, including mutein forms of said cytokine, (b) a non-antigen-binding carrier moiety selected from an [**], and (c) a masking domain [**], excluding (i) as to Xilio and its rights hereunder, [**], and (ii) as to AskGene and its rights hereunder, [**].

1.36 "**Licensed Patent Rights**" means the Xilio Patent Rights, New Xilio Patent Rights, AskGene Patent Rights and New AskGene Patent Rights. Where a provision hereof specifies a right or obligation of Licensee hereunder with respect to Licensed Patent Rights, such Licensed Patent Rights shall be deemed to refer to those Licensed Patent Rights to which such Party is granted rights under this Agreement. Where a provision hereof specifies a right or obligation of Licensor under this Agreement with respect to Licensed Patent Rights, such Licensed Patent Rights shall be deemed to refer to those Licensed Patent Rights to which such Party grants rights to the other Party under this Agreement.

1.37 "**Licensed Products**" means Licensed IL-2 Products and, as to Xilio only in the event that Xilio has exercised the Xilio Option, Option IL-15 Products.

1.38 "**Licensee**" means, in relation to any Licensed Patent Rights, the Party to which a license under such Licensed Patent Rights is granted by the other Party hereunder.

1.39 "**Licensor**" means, in relation to any Licensed Patent Rights, the Party granting a license under such Licensed Patent Rights to the other Party hereunder.

1.40 "**Losses**" means all losses, damages, liabilities, costs, and expenses, including any product liability, personal injury, or property damage, including reasonable attorneys' fees and other litigation costs.

1.41 "**MAA**" means the marketing authorization application required in the European Union or Japan, as applicable, for the marketing and commercialization of a Licensed Product in such jurisdiction.

1.42 "**MAA Approval**" means, with respect to the European Union, approval by the EMA of a MAA filed with the EMA for the applicable Licensed Product under the centralized European procedure or, with respect to Japan, approval by the PMDA of a MAA filed with the PMDA for the applicable Licensed Product in Japan.

1.43 "**Major Market**" means [**].

1.44 "**Milestone Event**" has the meaning set forth in Section 4.3.

1.45 "**Milestone Payment**" has the meaning set forth in Section 4.3.

1.46 "**NDA/BLA Approval**" means the approval by the FDA of a Biological License Application or New Drug Application (each as defined by the FDA) for the commercialization of the applicable Licensed Product in the United States.

1.47 "**Net Sales**" means the gross revenues invoiced by Xilio, its Affiliates, or its Sublicensees (each, a "**Selling Party**") for the commercial sale or other commercial transfer for value of Licensed Products to a third party after (but including) the First Commercial Sale of any Licensed Product, less the following deductions for:

[**].

In the event a Licensed Product is sold in the form of a combination product containing one or more active ingredients in addition to a Licensed Product (a "**Combination Product**"), Net Sales for such Licensed Product sold as part of such Combination Product in a country will be adjusted by multiplying the actual Net Sales of such Combination Product in such country by the fraction A/(A+B) where A is the average invoice price of the Licensed Product if sold separately in such country in the same formulation and dosage for a comparable indication, and B is the average invoice price of any other products in the Combination Product if sold separately in such country in the same formulation and dosage for a comparable indication. If the other products in the Combination Product are not sold separately in such country, Net Sales shall be calculated by multiplying actual Net Sales of such Combination Product by the fraction A/C where A is the average invoice price of the Licensed Product if sold separately in such country, and C is the invoice price of the Combination Product. If neither the Licensed Product nor the other products contained in the Combination Product is sold separately in such country, Net Sales shall be determined according to a reasonable method or proxy selected in good faith by Xilio to apportion the relative value of the Licensed Product portion of the Combination Product and the other active components in accordance with GAAP, provided that, if AskGene disagrees in good faith with such determination, the Parties shall confer to resolve such disagreement within [**] and, if it remains unresolved after such period, may refer the matter for further dispute resolution between the Parties.

Upon the sale or other transfer of a Licensed Product in a country in a manner such that the pricing for such sale or transfer of the Licensed Product is dependent upon the sale or transfer of another product or service, such as a multi-product discount transaction, then for purposes of determining the gross selling price for the Licensed Product by the Selling Party, for purposes of determining Net Sales for royalty calculation purposes under this Agreement, the gross selling price shall be the greater of (i) the gross selling price actually invoiced in the transaction for the Licensed Product; or (ii) the average invoice price for the Licensed Product in such country if the sale is at a discount.

The transfer of Licensed Product by a Selling Party to another Selling Party shall not be considered (or give rise to) Net Sales. Disposition or use of a Licensed Product in the following cases shall not be considered (or give rise to) Net Sales: (a) in clinical trials or other scientific testing, (b) as free samples in an amount that would be considered customary in a similar situation, (c) under an expanded access program for individual named patients recognized by the FDA under 21 C.F.R. § 312.310, or substantially similar program recognized by a Regulatory Authority, or otherwise at or below cost or with a *de minimis* mark-up on the fully burdened manufacturing cost of the Licensed Product, (d) pursuant to a compulsory license by a Governmental Authority in a country that does not result in the payment of any compensation of any form to the licensor, or (e) in test marketing programs or other similar programs or studies to the extent no compensation is received and the amounts of Licensed Product provided are reasonable considering the situation.

1.48 "**New AskGene Patent Rights**" means, other than the AskGene Patent Rights (as set forth in Part I of Exhibit A), the Patent Rights Controlled by AskGene at any time during the Term which claim or Cover any IL-2 or IL-15 [**], or the making or using thereof, wherein said [**] comprises an IL-2 or IL-15 [**] thereof, [**]. The New AskGene Patent Rights as of the Effective Date are set forth in Part II of Exhibit A, attached to this Agreement. Notwithstanding anything to the contrary, the failure of the Parties to include in Exhibit A, whether at the Effective Date or at any other time during the Term, any particular item described in the foregoing sentence shall not, in itself, be determinative of whether such item constitutes a New AskGene Patent Right.

1.49 "**New Xilio Patent Rights**" means, other than the Xilio Patent Rights (as set forth in Part I of Exhibit B), the Patent Rights Controlled by Xilio at any time during the Term which claim or Cover any IL-2 or IL15 [**], or the making or using thereof, wherein said [**] comprises an IL-2 or IL-15 [**] thereof, [**]. As of the Effective Date, the New Xilio Patent Rights are set forth in Part II of Exhibit B, attached to this Agreement. Notwithstanding anything to the contrary, the failure of the Parties to include in Exhibit B, whether at the Effective Date or at any other time during the Term, any particular item described in the foregoing sentence shall not, in itself, be determinative of whether such item constitutes a New Xilio Patent Right.

1.50 "**Non-Antigen Binding Products**" means Licensed Non-Antigen Binding Products and, as to Xilio only in the event that Xilio has exercised the Xilio Option, Option Non-Antigen Binding Products.

1.51 "**Oncology Field**" means all uses and indications associated with the treatment of cancer.

1.52 "**Option Antigen-Binding Product**" means a cytokine prodrug, a fusion molecule, or a chimeric molecule, comprising (a) an IL-15 cytokine, including mutein forms of said cytokine, (b) an antigen-binding carrier moiety, [**], and (c) a masking domain consisting of [**], excluding (i) as to Xilio and its rights hereunder, [**] and (ii) as to AskGene and its rights hereunder, [**].

1.53 "**Option IL-15 Product**" means an Option Non-Antigen Binding Product or an Option Antigen-Binding Product.

1.54 "**Option Non-Antigen Binding Product**" means a cytokine prodrug, a fusion molecule, or a chimeric molecule, comprising (a) an IL-15 cytokine, including mutein forms of said cytokine, (b) a non-antigen binding carrier moiety selected from an [**], and (c) a masking domain consisting of [**], excluding (i) as to Xilio and its rights hereunder, [**] and (ii) as to AskGene and its rights hereunder, [**].

1.55 "**Option Period**" means the period commencing upon the Effective Date and continuing until the earlier of (a) [**] and (b) [**].

1.56 "**Patent Rights**" means any of the following, whether existing now or in the future anywhere in the world: (a) any national, regional and international patents and patent applications, including provisional patent applications and PCT applications; (b) any patent applications filed from such patents, patent applications or provisional applications or from an application claiming priority from either of these, including divisionals, continuations, continuations-in-part (with respect to claims of such continuations-in-part that claim priority to, and are directed to subject matter specifically disclosed in the foregoing parent patents or patent applications described in clause (a)), substitutions, provisionals, converted provisionals, and continued prosecution applications; (c) any patents that have issued or in the future issue from the foregoing patent applications described in clauses (a) and (b), including utility models, petty patents and design patents and certificates of invention; and (d) any extensions or restorations by existing or future patent term extension or restoration mechanisms, including revalidations, reissues, reexaminations and extensions (including any supplementary protection certificates and the like) of the foregoing patents or patent applications described in clauses (a), (b), and (c)).

1.57 "**Person(s)**" means an individual, corporation, partnership, joint venture, limited liability company, governmental authority, unincorporated organization, trust, association, or other entity.

1.58 "**Phase II Clinical Trial**" means a human clinical trial of a product designed to satisfy the requirements of 21 C.F.R. § 312.21(b) and intended to explore a variety of doses, dose response, and duration of effect, and to generate data on side effects and clinical efficacy for a particular indication or indications in a target patient population, or any comparable trial in any other jurisdiction.

1.59 "**PMDA**" means the Japanese Pharmaceutical and Medical Device Agency or its successor, or the Ministry of Health, Labour and Welfare of Japan.

1.60 "**Quarterly Report**" has the meaning set forth in Section 5.2.

1.61 "**Receiving Party**" has the meaning set forth in Section 8.1.

1.62 "**Regulatory Approval**" means, with respect to a country or jurisdiction, any and all approvals, licenses, registrations, permits, notifications and authorizations (or waivers) of any Regulatory Authority that are necessary for the manufacture, use, storage, import, transport, promotion, marketing, distribution, offer for sale, sale, or other commercialization of a pharmaceutical product in such country or jurisdiction.

1.63 "**Regulatory Authority**" means the FDA, EMA, and any other Governmental Authority that has responsibility in its applicable jurisdiction over the testing, development, manufacture, use, storage, import, transport, promotion, marketing, distribution, offer for sale, sale, or other commercialization of pharmaceutical products in a given jurisdiction.

1.64 "**Regulatory Exclusivity**" means any marketing exclusivity or data exclusivity conferred by the applicable Regulatory Authority in a country or jurisdiction that confers exclusive rights to Xilio, its Affiliates or its Sublicensees to market such Licensed Product in such country or jurisdiction.

1.65 "**Representatives**" means, with respect to a Party, its Affiliates and its and their officers, directors, employees, consultants, agents, and legal advisors.

1.66 "**Royalty**" has the meaning set forth in Section 4.4(a).

1.67 "**Royalty Term**" means, with respect to a given Licensed Product in a given country, the period commencing upon the First Commercial Sale of such Licensed Product in such country and ending upon the latest of (a) the expiration of the last Valid Claim of any AskGene Patent Right in such country that covers such Licensed Product, including, but not limited to, its composition of matter or method of making or using such Licensed Product; (b) the expiration of Regulatory Exclusivity (if any) for such Licensed Product in such country; and (c) [**] after the First Commercial Sale of such Licensed Product in such country.

1.68 "**Securities Act**" means the Securities Act of 1933, as amended.

1.69 "**Selling Party**" has the meaning set forth in Section 1.47.

1.70 "**Sublicensee**" means any Person (other than a Party) that is granted (a) a sublicense by Licensee under any Licensed Patent Rights that includes any right to commercialize any Licensed Products or (b) in the case of the Co-Exclusive IL-2 Rights or Co-Exclusive IL-15 Rights, a license by Licensor under the applicable Licensed Patent Rights that includes any right to commercialize any Licensed Products.

1.71 "**Tax**" (including with correlative meaning, the term "**Taxes**") means all taxes and duties and similar governmental charges, levies, imposts or withholdings (including net income, gross income, gross receipts, sales, use, consumption, value-added, ad valorem, transfer, franchise, profits, license, lease, service, service use, withholding, payroll, employment, excise, import, export, severance, stamp, occupation, premium, property, windfall profits, customs, duties or other taxes) in the nature of a tax whenever and by whatever Governmental Authority levied or imposed, and whether of the United States or a foreign, state or local jurisdiction, together with, in any such case, any interest, fines, penalties, surcharges and any additions to tax or additional amounts with respect thereto.

1.72 "**Term**" has the meaning set forth in Section 11.1.

1.73 "**Valid Claim**" means, on a country-by-country basis, a claim of an unexpired issued or granted Licensed Patent Right, as long as such claim has not been revoked or held unenforceable, unpatentable, or invalid by a decision of a court or other Governmental Authority of competent jurisdiction that is not appealable or has not been appealed within the time allowed for appeal, and that has not been abandoned, disclaimed, denied or admitted by Licensor or otherwise caused to be invalid or unenforceable through reissue, re-examination, or disclaimer or otherwise.

1.74 "**Xilio Indemnitees**" has the meaning set forth in Section 10.2.

1.75 "**Xilio Licensed Product**" means any Licensed Product developed by or on behalf of Xilio.

1.76 "**Xilio Option**" has the meaning set forth in Section 2.2(a).

1.77 "**Xilio Option Exercise Date**" has the meaning set forth in Section 2.2(a).

1.78 "**Xilio Patent Rights**" means (a) the Patent Rights set forth in Part I of Exhibit B, attached hereto, as amended from time to time, and (b) all Patent Rights that claim priority to, share common priority with or issue from such Patent Rights. The Parties shall update Exhibit B from time to time to reflect additional Xilio Patent Rights. Notwithstanding anything to the contrary, the failure of the Parties to include in Exhibit B, whether at the Effective Date or at any other time during the Term, any particular item described in clause (a) or (b) shall not, in itself, be determinative of whether such item constitutes a Xilio Patent Right.

1.79 "**Xilio Territory**" means worldwide, excluding the AskGene Territory.

2. **GRANT OF RIGHTS**.

2.1 **AskGene License Grants to Xilio for Licensed IL-2 Products**.

(a) **Exclusive License for Licensed Non-Antigen Binding Products**. Subject to the terms and conditions of this Agreement, AskGene hereby grants to Xilio an exclusive (even as to AskGene), nontransferable (except as permitted under Section 12.9 (Assignment)), royalty-bearing license, with the right to grant sublicenses through multiple tiers, under the AskGene Patent Rights to research, develop, manufacture, commercialize, and otherwise exploit Licensed Non-Antigen Binding Products in the Oncology Field in the Xilio Territory during the Term.

(b) **Co-Exclusive License for Licensed Antigen-Binding Products**.

(i) Subject to the terms and conditions of this Agreement, AskGene hereby grants to Xilio a co-exclusive (with AskGene), nontransferable (except as permitted under Section 12.9 (Assignment)), royalty-bearing license, with the limited right to sublicense in accordance with Section 2.1(b)(iii), under the AskGene Patent Rights to research, develop, manufacture, commercialize, and otherwise exploit Licensed Antigen-Binding Products in All Fields in the Xilio Territory during the Term (the foregoing license grant in this Section 2.1(b)(i) and the retained rights of AskGene in Section 2.1(b)(ii), collectively, the "**Co-Exclusive IL-2 Rights**").

(ii) Subject to the terms and conditions of this Agreement, AskGene hereby retains for itself a co-exclusive (with Xilio), nontransferable (except as permitted under Section 12.9 (Assignment)) right and license, with the limited right to license or sublicense in accordance with Section 2.1(b)(iii), under the AskGene Patent Rights to research, develop, manufacture, commercialize, and otherwise exploit Licensed Antigen-Binding Products in All Fields worldwide during the Term.

(iii) Each Party hereby acknowledges and agrees that the term "coexclusive" as used in this Section 2.1(b) shall operate to exclude all other Persons, except for Xilio and AskGene. Except as expressly permitted in this Agreement, no rights under the Co-Exclusive IL-2 Rights shall be licensed or sublicensed by Xilio or AskGene to any Person. Notwithstanding the foregoing in this Section 2.1(b)(iii), Xilio may sublicense its rights under the Co-Exclusive IL-2 Rights, and AskGene may license or sublicense its rights under the Co-Exclusive IL-2 Rights, as follows:

(A) only for a specific Licensed Antigen-Binding Product developed by such Party (and not, for clarity, for any Person to develop new Licensed Antigen-Binding Products), provided that the rights granted to the applicable Sublicensee must (1) only include rights under the AskGene Patent Rights as necessary to research, develop, manufacture, commercialize, and otherwise exploit such specific Licensed Antigen-Binding Product, and (2) include rights under other intellectual property Controlled by such Party with respect to such specific Licensed Antigen-Binding Product; or

(B) to service providers and agents of such Party to perform activities on behalf of such Party.

(c) **Non-Exclusive License to New AskGene Patent Rights**. Subject to the terms and conditions of this Agreement, to the extent a Licensed Product developed by or on behalf of Xilio [**], AskGene hereby grants to Xilio during the Term a non-exclusive, nontransferable (except as permitted under Section 12.9 (Assignment), royalty-free, fully paid up right and license, with the right to grant sublicenses through multiple tiers, for Licensed Non-Antigen Binding Products and, if Xilio exercises the Xilio Option within the Option Period, Option Antigen-Binding Products, under the New AskGene Patent Rights to research, develop, manufacture, commercialize, and otherwise exploit Licensed Products as follows:

(i) Licensed Non-Antigen Binding Products in the Oncology Field in the Xilio Territory;

(ii) Licensed Antigen-Binding Products in All Fields in the Xilio Territory;

(iii) To the extent Xilio exercises the Xilio Option, Option Non-Antigen Binding Products in the Oncology Field in the Xilio Territory; and

(iv) To the extent Xilio exercises the Xilio Option, Option Antigen-Binding Products in All Fields in the Xilio Territory.

(d) **Non-Exclusive License for Option IL-15 Products**. Subject to the terms and conditions of this Agreement, AskGene hereby grants to Xilio a non-exclusive, nontransferable (except as permitted under Section 12.9 (Assignment)), royalty-free, fully paid up license under the AskGene Patent Rights to research (but not to engage in clinical development or to commercialize) Option IL-15 Products, including the right to manufacture Option IL-15 Products for research purposes, in the Xilio Territory during the period commencing upon the Effective Date and continuing until the second anniversary of the Effective Date. Xilio may sublicense its rights under the foregoing sentence to service providers and agents of Xilio to perform activities on its behalf.

2.2 **Option Grant and Conditional License Grant to Xilio for Option IL-15 Products**.

(a) **Exclusive Option for Option IL-15 Products**. AskGene hereby grants to Xilio an exclusive option, exercisable during the Option Period, to obtain the license set forth in Section 2.2(b) under the AskGene Patent Rights to research, develop, manufacture, commercialize, and otherwise exploit Option IL-15 Products in the Xilio Territory (the "**Xilio Option**"). Xilio may exercise the Xilio Option by delivering written notice to AskGene thereof at any time during the Option Period. The date of delivery of such written notice (if any) shall be referred to herein as the "**Xilio Option Exercise Date**." During the Option Period, AskGene will not, directly or indirectly, grant, purport to grant or agree to grant any license, option or other right to any Person under the AskGene Patent Rights to research, develop, manufacture, commercialize, or otherwise exploit any Option IL-15 Products anywhere in the Xilio Territory in a manner that would overlap or otherwise conflict with the Xilio Option or the license granted to Xilio upon its exercise of the Xilio Option.

(b) **Conditional License Grant to Xilio for Option IL-15 Products**. Subject to the terms and conditions of this Agreement, effective only as of and after the Xilio Option Exercise Date:

(i) AskGene hereby grants to Xilio an exclusive (even as to AskGene), non-transferable (except as permitted under Section 12.9 (Assignment)), royalty-bearing license, with the right to grant sublicenses through multiple tiers, under the AskGene Patent Rights to research, develop, manufacture, commercialize, and otherwise exploit Option Non-Antigen Binding Products in the Oncology Field in the Xilio Territory during the Term.

(ii) AskGene hereby grants to Xilio a co-exclusive (with AskGene), non-transferable (except as permitted under Section 12.9 (Assignment)), royalty-bearing right and license, with the limited right to grant sublicenses in accordance with Section 2.2(b)(iv), under the AskGene Patent Rights to research, develop, manufacture, commercialize, and otherwise exploit Option Antigen-Binding Products in All Fields in the Xilio Territory during the Term (the foregoing license grant in this Section 2.2(b)(ii) and the retained rights of AskGene in Section 2.2(b)(iii), collectively, the "**Co-Exclusive IL-15 Rights**").

(iii) AskGene hereby retains for itself a co-exclusive (with Xilio), nontransferable (except as permitted under Section 12.9 (Assignment)) right and license, with the limited right to license or sublicense in accordance with Section 2.2(b)(iv), under the AskGene Patent Rights to research, develop, manufacture, commercialize, and otherwise exploit Option Antigen-Binding Products in All Fields worldwide during the Term.

(iv) Each Party hereby acknowledges and agrees that the term "coexclusive" as used in this Section 2.2(b) shall operate to exclude all other Persons, except for Xilio and AskGene. Except as expressly permitted in this Agreement, no rights under the Co-Exclusive IL-15 Rights shall be licensed or sublicensed by Xilio or AskGene to any Person. Notwithstanding the foregoing in this Section 2.2(b)(iv), Xilio may sublicense its rights under the Co-Exclusive IL-15 Rights, and AskGene may license or sublicense its rights under the Co-Exclusive IL-15 Rights, as follows:

(A) only for a specific Option Antigen-Binding Product developed by such Party (and not, for clarity, for any Person to develop new Option Antigen-Binding Products), provided that the rights granted to the applicable Sublicensee must (1) only include rights under the AskGene Patent Rights as necessary to research, develop, manufacture, commercialize, and otherwise exploit such specific Option Antigen-Binding Product, and (2) include rights under other intellectual property Controlled by such Party with respect to such specific Option Antigen-Binding Product; or

(B) to service providers and agents of such Party to perform activities on behalf of such Party.

2.3 **Xilio License Grants to AskGene**.

(a) **Non-Exclusive License to Xilio Patent Rights**. Subject to the terms and conditions of this Agreement, Xilio hereby grants to AskGene during the Term a non-exclusive, worldwide, non-transferable (except as permitted under Section 12.9 (Assignment)), royalty-free, fully paid up license, with a limited right to grant sublicenses in accordance with Section 2.3(c), under the Xilio Patent Rights to research, develop, manufacture, commercialize, and otherwise exploit (i) Non-Antigen Binding Products developed by AskGene in the Immunology Field and (ii) Antigen-Binding Products developed by AskGene in All Fields.

(b) **Non-Exclusive License to New Xilio Patent Rights**. Subject to the terms and conditions of this Agreement, to the extent a Licensed Product developed by AskGene [**], Xilio hereby grants to AskGene a non-exclusive, worldwide, nontransferable (except as permitted under Section 12.9 (Assignment)), royalty-free, fully paid up license, with the limited right to sublicense in accordance with Section 2.3(c), under the New Xilio Patent Rights to research, develop, manufacture, commercialize, and otherwise exploit Licensed Products as follows:

(i) Licensed Non-Antigen Binding Products in the Immunology Field;

(ii) Licensed Antigen-Binding Products in All Fields;

(iii) Option Non-Antigen Binding Products in the Immunology Field; and

(iv) Option Antigen-Binding Products in All Fields.

(c) **Sublicensing**. Except as expressly permitted in this Agreement, no rights under Section 2.3(a) or 2.3(b) shall be sublicensed by AskGene to any Person. AskGene may sublicense its rights under Section 2.3(a) or 2.3(b) as follows:

(i) unless AskGene has exercised the AskGene Option and the Parties have entered into an agreement embodying the Exclusive Immunology License, only for specific Licensed Products developed by AskGene (and not, for clarity, for any Person to develop new Licensed Products), provided that the rights granted to the applicable Sublicensee must (A) only include rights under the Xilio Patent Rights or New Xilio Patent Rights, as applicable, as necessary to research, develop, manufacture, commercialize, and otherwise exploit such specific Licensed Product, and (B) include rights under other intellectual property Controlled by Xilio respect to such specific Licensed Product;

(ii) if AskGene has exercised the AskGene Option and the Parties have entered into an agreement embodying the Exclusive Immunology License, AskGene may sublicense its rights under Section 2.3(b) through multiple tiers for Licensed Products in the Immunology Field; or

(iii) to service providers and agents of AskGene to perform activities on its behalf.

2.4 **Option Grant to AskGene for Exclusive Immunology License**.

(a) Subject to the terms and conditions of this Agreement, Xilio hereby grants to AskGene an option, exercisable during the Option Period, to obtain the Exclusive Immunology License (the "**AskGene Option**") in accordance with this Section 2.4. The "**Exclusive Immunology License**" means, collectively, the following rights:

(i) an exclusive (even as to Xilio), worldwide, non-transferable, royalty-bearing license, with the right to grant sublicenses through multiple tiers, under the Xilio Patent Rights to research, develop, manufacture, commercialize, and otherwise exploit Non-Antigen Binding Products developed by AskGene in the Immunology Field during the Term; and

(ii) a co-exclusive (with Xilio), worldwide, non-transferable, royalty-bearing license, with a limited right to grant sublicenses as necessary to research, develop, manufacture, commercialize, and otherwise exploit such Antigen-Binding Products, under the Xilio Patent Rights to research, develop, manufacture, commercialize, and otherwise exploit Antigen-Binding Products developed by AskGene in All Fields during the Term.

(b) AskGene may exercise the AskGene Option by delivering written notice to Xilio thereof at any time during the Option Period. If AskGene exercises the AskGene Option as set forth herein, the Parties shall negotiate in good faith the terms of a license agreement providing for the Exclusive Immunology License, which shall include those set forth on Exhibit C and other commercially reasonable terms.

(c) During the Option Period, Xilio will not, directly or indirectly, grant, purport to grant or agree to grant any license, option or other right to any Person under the Xilio Patent Rights to research, develop, manufacture, commercialize, or otherwise exploit applicable Licensed Products in a manner that would overlap or otherwise conflict with the AskGene Option or the Exclusive Immunology License.

2.5 **Sublicenses**. To the extent Licensee sublicenses (or, in the case of the Co-Exclusive IL-2 Rights or Co-Exclusive IL-15 Rights, Licensor licenses) any of its rights under Sections 2.1–2.4, (a) the applicable sublicense (or license) agreements shall be in writing, (b) such Party shall incorporate into the applicable sublicense agreements (i) terms and conditions sufficient to enable such Party to comply with this Agreement, (ii) the requirements under Section 5.1 as if the applicable sublicensee were a Party hereunder, and (iii) a restriction on the sublicensee (or licensee) from granting a further sublicense, unless sublicensing the applicable rights through multiple tiers is expressly permitted under this Agreement, and (c) to the extent such rights include any rights to commercialize any Licensed Product covered by such rights, such Party shall provide written notice and a copy of such sublicense (or license) agreement to the other Party.

2.6 **No Implied Licenses**. Except as expressly set forth in this Article 2, nothing in this Agreement shall be construed to confer any right or license upon either Party by implication, estoppel, or otherwise as to any Patent Rights, technology or other intellectual property of the other Party.

3. **COMMERCIAL TERMS**.

3.1 **Rights and Responsibility for Development and Commercialization**. Except to the extent otherwise agreed by the Parties with respect to manufacturing pursuant to Section 3.3(c), each Party shall have sole control of and decision-making authority for the research, development, manufacture, and commercialization of its own Licensed Products in its applicable territory at its sole cost and expense.

3.2 **Diligence**.

(a) During the Term, Xilio shall use Commercially Reasonable Efforts to [**].

(b) In the event Xilio exercises the Xilio Option, from and after the Xilio Option Exercise Date and continuing during the Term, Xilio shall use Commercially Reasonable Efforts to [**].

3.3 **AskGene Opt-In Right in AskGene Territory**.

(a) Subject to the terms and conditions of this Agreement, Xilio hereby grants to AskGene an option, exercisable during the AskGene Opt-In Right Period (defined below), to obtain a license for the development and commercialization of each Xilio Licensed Product in the AskGene Territory as set forth in this Section 3.3 (such option, the "**AskGene Opt-In Right**"). AskGene may exercise the AskGene Opt-In Right with respect to a given Xilio Licensed Product by delivering written notice to Xilio thereof at any time during the AskGene Opt-In Right Period for such Xilio Licensed Product. The date of delivery of such written notice (if any) shall be referred to herein as the "**AskGene Opt-In Right Exercise Date.**"

(b) If AskGene exercises the AskGene Opt-In Right with respect to a given Xilio Licensed Product, the Parties shall [**] following the AskGene Opt-In Right Exercise Date [**] to agree upon the terms of a regional license and collaboration agreement (each, a "**Regional License Agreement**"), which would include the key terms set forth on Exhibit D and other mutually agreeable legal and economic terms.

(c) If AskGene exercises the AskGene Opt-In Right for a Licensed Product in the AskGene Territory, within [**] of the AskGene Opt-In Right Exercise Date, the Parties shall form a committee to be known as the Development and Production Committee to serve as the Parties' forum to discuss and determine in good faith the applicable manufacturing and supply terms of the Regional License Agreement or a related Manufacturing and Supply Agreement between the Parties, as applicable, under which AskGene shall receive the supply of the applicable Xilio Licensed Product within the AskGene Territory. Such terms shall include, at a minimum (but subject to negotiation and refinement in such Regional License Agreement or related Manufacturing and Supply Agreement, as applicable) the terms set forth on Exhibit E. The Parties acknowledge and agree that they reserve further discussions of a detailed arrangement on manufacturing of any Xilio Licensed Product for the AskGene Territory for such negotiations in connection with the Regional License Agreement [**].

(d) If AskGene does not exercise the AskGene Opt-In Right with respect to a given Xilio Licensed Product, effective from and after the expiration of the AskGene Opt-In Right Period for such Xilio Licensed Product, (i) AskGene hereby grants to Xilio an exclusive, nontransferable (except as permitted under Section 12.9 (Assignment)), royalty-free, fully paid up license, with the right to sublicense through multiple tiers, under the AskGene Patent Rights, itself or through Affiliates, licensees or Sublicensees, to research, develop, manufacture, commercialize, and otherwise exploit such Xilio Licensed Product in the AskGene Territory during the Term with no financial obligations to AskGene and (ii) the license granted under Section 2.1(c) with respect to such Xilio Licensed Product shall be deemed to include the AskGene Territory.

3.4 **AskGene Non-Compete**. During the Term, AskGene agrees that it will not, and it will ensure that its Affiliates do not, directly or indirectly, conduct, participate in or fund any development, manufacturing, commercialization or other exploitation of any Licensed Non-Antigen Binding Product or, during the Option Period and, if Xilio exercises the Xilio Option within the Option Period, thereafter, any Option Non-Antigen Binding Product in the Oncology Field in the Xilio Territory, or facilitate any of the foregoing (including, without limitation, through the grant of any right or license to any Person). If AskGene wishes to research, develop or manufacture for research and development purposes only any Non-Antigen Binding Product in the Oncology Field in the Xilio Territory, AskGene shall notify Xilio in writing, discuss with Xilio in advance and obtain Xilio's prior written consent to such activities. For the avoidance of doubt, this Section 3.4 does not restrict AskGene's express rights under this Agreement to commercialize and otherwise exploit Non-Antigen Binding Products developed by AskGene in All Fields in the AskGene Territory.

3.5 **Right of First Negotiation for Excluded AskGene ECDs**.

(a) AskGene will notify Xilio in writing if, at any time during the Term, AskGene decides it wishes to grant a license to any Person under any New AskGene Patent Right that claims or Covers any Excluded AskGene ECD for the exploitation of:

(i) any Licensed Non-Antigen Binding Products in any portion of the Oncology Field in any portion of the Xilio Territory;

(ii) any Licensed Antigen-Binding Products in any portion of All Fields in any portion of the Xilio Territory;

(iii) during the Option Period or, if Xilio exercises the Xilio Option, thereafter, any Option Non-Antigen Binding Products in the Oncology Field in any portion of the Xilio Territory; or

(iv) during the Option Period or, if Xilio exercises the Xilio Option, thereafter, any Option Antigen-Binding Products in any portion of All Fields in any portion of the Xilio Territory.

(b) If, within [**] of Xilio's receipt of notice under Section 3.5(a), Xilio notifies AskGene in writing of its interest in obtaining such a license from AskGene. AskGene shall [**] with respect to the grant by AskGene to Xilio of a royalty-bearing license to such New AskGene Patent Rights to research, develop, manufacture, commercialize, and otherwise exploit Licensed Products, expressly including Excluded AskGene ECDs. In the event the Parties have not reached an agreement with respect thereto during the exclusive negotiation period set forth in the foregoing sentence, AskGene may negotiate with third parties regarding the grant of such a license and grant such a license to a third party; provided, however, that, for the avoidance of doubt, the process set forth in this Section 3.5 shall apply each time that AskGene decides it wishes to grant such a license.

(c) AskGene will not, directly or indirectly, grant a license, option to license or other rights under any New AskGene Patent Right (other than to service providers and agents of AskGene to perform activities on its behalf), or negotiate with any Person with respect to the foregoing, without first complying with this Section 3.5.

3.6 **Right of First Negotiation for Excluded Xilio ECDs**.

(a) Xilio will notify AskGene in writing if, at any time during the Term, Xilio decides it wishes to grant a license to any Person under any New Xilio Patent Right that claims or Covers any Excluded Xilio ECD for the exploitation of:

(i) any Non-Antigen Binding Products in any portion of the Immunology Field; or

(ii) any Antigen-Binding Products in any portion of All Fields.

(b) If, within [**] of AskGene's receipt of notice under Section 3.6(a), AskGene notifies Xilio in writing of its interest in obtaining such a license from Xilio, Xilio shall [**] with respect to the grant by Xilio to AskGene of a royalty-bearing license to such New Xilio Patent Rights to research, develop, manufacture, commercialize, and otherwise exploit Licensed Products, expressly including Excluded Xilio ECDs. In the event the Parties have not reached an agreement with respect thereto during the exclusive negotiation period set forth in the foregoing sentence, Xilio may negotiate with third parties regarding the grant of such a license and grant such a license to a third party; provided, however, that, for the avoidance of doubt, the process set forth in this Section 3.6 shall apply each time that Xilio decides it wishes to grant such a license.

(c) [**].

3.7 **Limited Purpose Expansion of Licensed Product Definitions**. The Parties acknowledge and agree that (a) the meanings of Licensed Product, Licensed Non-Antigen Binding Product, Option Non-Antigen Binding Product, Licensed Antigen-Binding Product and Option Antigen-Binding Products are expressly defined in Article 1, and (b) notwithstanding the definitions therein, solely for purposes of Section 3.4 (AskGene Non-Compete), Section 3.5 (Right of First Negotiation for Excluded AskGene ECDs) and Section 3.6 (Right of First Negotiation for Excluded Xilio ECDs), the meanings of Licensed Product, Licensed Non-Antigen Binding Product, Option Non-Antigen Binding Product, Licensed Antigen-Binding Product and Option Antigen-Binding Product shall expressly include Excluded AskGene ECDs and Excluded Xilio ECDs that are otherwise excluded from such definitions.

4. **PAYMENTS**.

4.1 **Upfront Payment**. Within [**] after the Execution Date, Xilio shall pay to AskGene six million U.S. dollars ($6,000,000) as a non-refundable up-front license fee, less any amounts paid by Xilio to AskGene under paragraph 10 of the Binding Term Sheet which are creditable against such up-front license fee. The Parties acknowledge and agree that, as of the Execution Date, Xilio has paid $[**] in creditable amounts under paragraph 10 of the Binding Term Sheet and, therefore, Xilio is obligated to pay $[**] under the foregoing sentence.

4.2 **Xilio Option Exercise Payment**. In the event Xilio exercises the Xilio Option, within [**] after the Xilio Option Exercise Date, Xilio shall pay to AskGene an option exercise license fee of four million U.S. dollars ($4,000,000).

4.3 **Regulatory Milestone Payments**. Following achievement of a milestone event set forth in this Section 4.3 by each distinct Xilio Licensed Product that would [**] (each, a "**Milestone Event**"), Xilio shall pay to AskGene the corresponding milestone payment set forth in the table below in this Section 4.3 (each, a "**Milestone Payment**") in accordance with Section 4.6. Notwithstanding anything to the contrary, each Milestone Payment shall be payable only once for the achievement of the applicable Milestone Event for each distinct Xilio Licensed Product. For the avoidance of doubt, two Xilio Licensed Products shall only be distinct Xilio Licensed Products eligible for a subsequent Milestone Payment under this Section 4.3 if the Xilio Licensed Products each require a separate NDA/BLA Approval or MAA Approval, unless such separate NDA/BLA Approval or MAA Approval is (a) [**], or (b) [**].

Milestone Event Milestone	Payment
[**]	$ [**]
[**]	$ [**]
[**]	$ [**]

4.4 **Royalty Payments**.

(a) **Royalties**. Subject to the terms and conditions of this Agreement (including applicable reductions under this Section 4.4), during the Royalty Term, on a Licensed Product-by-Licensed Product and country-by-country basis, Xilio shall pay to AskGene a royalty based on Net Sales by Xilio, its Affiliates, or its Sublicensees of Licensed IL-2 Products or, if Xilio exercises the Xilio Option, Option IL-15 Products, as applicable, that would[**] in the applicable country of sale in the Xilio Territory at the royalty rate set forth in the table below in this Section 4.4(a) (as adjusted by the other terms of this Section 4.4, each, a "**Royalty**"), in accordance with Section 4.6.

Licensed Product	Royalty Rate
(i) Licensed IL-2 Products	[**]%
(ii) Option IL-15 Products	[**]%

(b) **Royalty Reductions**.

(i) **Reduction for Biosimilar Competition**. On a Licensed Product-by-Licensed Product and country-by-country basis, any royalty due pursuant to Section 4.4(a) (Royalties) will be automatically reduced by [**] percent ([**]%) upon the First Commercial Sale of a Biosimilar Product with respect to such Licensed Product in such country and thereafter.

(ii) **Reduction for Third Party Patent Rights**. If, during the Term, Xilio receives a license under Patent Rights Controlled by a third party that would, but for such license, be infringed by the making, using, or selling of a Licensed Product, then Xilio will be entitled to offset [**] percent ([**]%) of the amounts paid to such third party in consideration of such license under such third party Patent Rights (and related know-how, if applicable) against any royalty due pursuant to Section 4.4(a) (Royalties) with respect to such Licensed Product.

(iii) **Aggregate Royalty Floor**. Notwithstanding the royalty reductions set forth above in this Section 4.4(b) (Royalty Reductions), in no event shall any (or all) of the permitted reductions to royalties provided in this Section 4.4(b) (Royalty Reductions) in the aggregate reduce the royalties owed by Xilio under this Section 4.4 by more than [**] percent ([**]%) of the royalty otherwise payable to AskGene for a given Licensed Product in a given country.

(c) [**] will be due because any Licensed Product is covered by more than one Valid Claim of the AskGene Patent Rights. In such case, Licensee shall pay [**] at the applicable rate pursuant to Section 4.4(a), as adjusted pursuant to Section 4.4(b), as applicable.

(d) **No Valid Claim**. For any period of time during the Term in which there is no Valid Claim covering a given Licensed Product in a given country, no Royalty shall be payable under Section 4.4(a) (Royalties) with respect to Net Sales of such Licensed Product in such country.

4.5 **Taxes**. If Xilio is required by Law to withhold Taxes in connection with any sums payable to AskGene under this Agreement, Xilio shall be entitled to deduct and withhold that amount from the payment it otherwise would have made to AskGene under this Agreement. Any such amounts that are properly withheld and paid over to the applicable taxing authority will be treated for all purposes of this Agreement as having been paid to AskGene.

4.6 **Payment Terms**.

(a) Quarterly Payments. Unless otherwise specified in this Article 4, all amounts which become payable by Xilio to AskGene hereunder in a given Calendar Quarter shall be paid within [**] following each Calendar Quarter.

(b) **Method of Payment**. All payments under this Agreement by Xilio to AskGene shall be made by wire transfer or as the Parties otherwise agree in writing.

(c) **Payment in U.S. Dollars; Currency Exchange**. Xilio shall make all payments hereunder in U.S. dollars. For the purpose of converting the local currency in which any Net Sales arise in a given month into U.S. dollars, the rate of exchange shall be the exchange rate between each currency of origin and U.S. dollars as reported by The Wall Street Journal, Western Edition, under the heading “Currency Trading,” on the last business day of such month.

(d) **Setoff**. Notwithstanding anything to the contrary in this Agreement, and without prejudice to any other right or remedy it has or may have, Xilio is hereby authorized at any time and from time to time, to the fullest extent permitted by Law, to set off, apply or recoup any liability it owes to AskGene (including, without limitation, any payment obligation under this Article 4) against any liability for which Xilio determines in good faith AskGene is liable to Xilio (including, without limitation, any payment obligation under the agreement embodying the Exclusive Immunology License, any Regional License Agreement or related Manufacturing and Supply Agreement), whether such liability is liquidated or unliquidated. Xilio agrees to promptly notify AskGene after any such setoff, application or recoupment, provided, however, that the failure to give such notice shall not affect the validity of such setoff, application or recoupment.

5. **RECORDS AND AUDIT**.

5.1 **Records**. Each Party shall maintain complete and accurate records as reasonably necessary to make any reports required hereunder, to confirm such Party’s compliance with the terms hereof and, in the case of Xilio, for the calculation of payments based on Net Sales to be made to AskGene hereunder, to prepare the Quarterly Reports to be provided to AskGene hereunder, and to verify the determination of all amounts payable hereunder, and such Party shall retain such records for at least [**] following the creation thereof or such minimum time as required by Law or a taxing or regulatory Governmental Authority.

5.2 **Contents of Quarterly Reports**. Xilio shall notify AskGene in writing promptly upon the First Commercial Sale of each Xilio Licensed Product in each country in which Xilio elects to pursue commercialization. Commencing upon the First Commercial Sale of any Xilio Licensed Product, within [**] after each subsequent Calendar Quarter during the Term, Xilio shall provide AskGene with a written report for such Calendar Quarter (each such report, a "**Quarterly Report**") showing, on a country-by-country and Licensed Product-by-Licensed Product basis, according to the volume of units of such Licensed Product sold in each such country (by SKU) during the relevant reporting period:

[**].

5.3 **Audit**.

(a) At the reasonable request, and sole expense, of AskGene within [**] after the applicable Calendar Quarter with respect to which a Quarterly Report is delivered hereunder, Xilio shall permit a qualified independent certified public accountant designated by AskGene and reasonably acceptable to Licensee (the "**Auditor**") to access Xilio's applicable records maintained pursuant to Section 5.1 upon reasonable (but not less than [**]) prior written notice to Xilio, solely for the purpose of verifying the information in such Quarterly Report in relation to Royalty payments. The Auditor must conduct such audit during Xilio's normal business hours in a manner designed to minimize disruption of Xilio's normal business operations and complete such audit within a reasonable period of time after commencing such audit. All information and materials made available to or otherwise obtained or prepared by or for the Auditor in connection with such audit will be deemed Xilio's Confidential Information and will be subject to the Auditor's entry, prior to conducting the audit, into a written agreement with Xilio containing confidentiality and restricted use obligations at least as restrictive as those set out in Article 8. AskGene may not exercise this right more than [**] period (except that AskGene may conduct a [**] audit in such [**] period if AskGene has reasonable grounds to suspect a material breach of this Agreement by Xilio of its reporting and payment obligations), and the Auditor may only disclose to AskGene information limited to the accuracy of the audited Quarterly Report and any deficiency in the Royalty payment made, or any overpayment, and no other information or materials made available to or otherwise obtained or prepared by or for the Auditor in connection with such audit. AskGene shall not compensate the Auditor (in whole or in part) contingent on the outcome of the audit.

(b) AskGene shall provide to Xilio a copy of the Auditor's audit report within [**] of AskGene's receipt of the final report. If such report shows that payments made by Xilio are deficient, subject to Section 4.5 and Section 4.6, Xilio shall pay AskGene the deficient amount within [**] after Xilio's receipt of the audit report, except to the extent that Xilio disputes such deficiency in good faith (in which event Xilio may withhold payment of such disputed amount subject to resolution of such dispute). If the report shows that payments made by Xilio were in excess of the required payment, AskGene shall promptly pay to Xilio the excess amount at the time it provides the copy of the Auditor's audit report to Xilio. If the Auditor's audit report shows that payments made by Xilio are deficient by more than [**] percent ([**]%) of the amount due for the audited period, Xilio shall promptly reimburse AskGene for its reasonable, documented out-of-pocket costs of such audit.

(c) The failure of AskGene to request an audit or verification of any Quarterly Report during the [**] period after its receipt of such Quarterly Report is deemed acceptance by AskGene of the accuracy of such Quarterly Report and the payments made by Xilio in accordance with such Quarterly Report and, thereafter, AskGene's audit rights under this Section 5.3 shall no longer apply with respect to such Quarterly Report, the payments made by Xilio in accordance with such Quarterly Report and any facts or circumstances to which such Quarterly Report and payments relate.

6. **PATENT PROSECUTION AND MAINTENANCE**.

6.1 **AskGene Patent Rights**.

(a) **IP Committee**. The Parties will form a committee comprised of representatives of each Party with the requisite expertise in matters involving Patent Rights (the "**IP Committee**"), which will meet at least [**] (or such other frequency as the Parties mutually agree in writing) to discuss the strategy for, review, and oversee the prosecution, maintenance and enforcement of the AskGene Patent Rights.

(b) **Responsibility**. AskGene shall (i) be solely responsible for the preparation, filing, prosecution, and maintenance of the AskGene Patent Rights at its sole cost and expense; (ii) keep Xilio reasonably informed of the preparation, filing, prosecution, maintenance, and defense of the AskGene Patent Rights and provide Xilio with a meaningful opportunity to review and comment thereon; (iii) furnish Xilio with copies of draft documents relating to prosecution and maintenance of any AskGene Patent Rights at least [**] prior to filing with any patent office or such lesser time as may be required and as agreed upon by the Parties, and to the extent reasonably practicable without missing a deadline for filing with such patent office; and (iv) consider in good faith any comments from Xilio regarding such proposed filings.

(c) **Abandonment**. In the event AskGene desires to abandon any of the AskGene Patent Rights, AskGene shall provide Xilio with prior written notice at least [**] in advance of the due date of any payment or other action that is required to prosecute and maintain such AskGene Patent Right. Following delivery of such notice, Xilio shall have the right, but not the obligation, to assume prosecution or maintenance of such AskGene Patent Right at its own expense by delivering written notice to AskGene within [**] of Xilio's receipt of notice pursuant to the foregoing sentence or such lesser time based on the date an AskGene Patent Right would become abandoned. In the event Xilio so elects to assume such patent prosecution or maintenance, (i) AskGene shall promptly and reasonably cooperate to enable Xilio to assume (in advance of the due date of any payment or other action that is required to prosecute and maintain such AskGene Patent Right) and maintain control of such patent prosecution or maintenance and to prepare, file, prosecute, and maintain the relevant AskGene Patent Rights in AskGene's name and (ii) [**] shall be due and owing by Xilio to AskGene under Article 4 with respect to any Licensed Product in any country that is solely covered by such AskGene Patent Right.

6.2 **New AskGene Patent Rights**. AskGene shall be solely responsible for, and make all decisions concerning, the preparation, filing, prosecution, and maintenance of New AskGene Patent Rights.

6.3 **Xilio Patent Rights and New Xilio Patent Rights**. Xilio shall be solely responsible for, and make all decisions concerning, the preparation, filing, prosecution, and maintenance of Xilio Patent Rights and New Xilio Patent Rights, except to the extent otherwise set forth in an agreement embodying the Exclusive Immunology License as set forth in this Section 6.3, if and when AskGene exercises the AskGene Option. In the event that AskGene exercises the AskGene Option, the terms negotiated by the Parties with respect to the Exclusive Immunology License shall include the following terms: Xilio would: (i) [**] for the preparation, filing, prosecution, and maintenance of the Xilio Patent Rights at its sole cost and expense; (ii) keep AskGene reasonably informed of the preparation, filing, prosecution, maintenance, and defense of the Xilio Patent Rights and provide AskGene with a meaningful opportunity to review and comment thereon; (iii) furnish AskGene with copies of draft documents relating to prosecution and maintenance of any Xilio Patent Rights at least [**] prior to filing with any patent office or such lesser time as may be required and as agreed upon by the Parties, and to the extent reasonably practicable without missing a deadline for filing with such patent office; and (iv) consider in good faith any comments from AskGene regarding such proposed filings.

7. **ENFORCEMENT OF LICENSED PATENT RIGHTS**.

7.1 **Notice of Infringement or Third Party Claims**. If either Party becomes aware of (a) any suspected infringement by any third party of any AskGene Patent Right as a result of the research, development, manufacture, commercialization, or other exploitation of any product ("**Competitive Infringement**"); or (b) any claim by any third party that any AskGene Patent Right is invalid or unenforceable, such Party shall promptly notify the other Party in writing and provide it with all details of such infringement or claim, as applicable, that are known by such Party.

7.2 **Xilio's First Right to Bring Competitive Infringement Action**. Xilio shall have the first right, but not the obligation, to initiate an infringement, misappropriation or other appropriate lawful action against any third party (a "**Competitive Infringement Action**") as to any Competitive Infringement in the Oncology Field in the Xilio Territory related to Licensed Non-Antigen Binding Products or, if Xilio has exercised the Xilio Option, Option Non-Antigen Binding Products. AskGene will have the right, but not the obligation, to initiate a Competitive Infringement Action against such Competitive Infringement, if Xilio does not initiate a Competitive Infringement Action within [**] of becoming aware of such Competitive Infringement or such shorter period as may be necessary to bring and maintain such action without loss of rights.

7.3 **Right to Bring Action or Defend**. Except as set forth in Section 7.2, AskGene shall have the exclusive right to bring an infringement action to enforce any AskGene Patent Rights, defend any declaratory judgment action concerning any AskGene Patent Rights, and take any other lawful action reasonably necessary to protect, enforce, or defend any AskGene Patent Rights, and control the conduct thereof. Without limiting the foregoing, AskGene shall initiate a Competitive Infringement Action as to any suspected infringement by any third party of any AskGene Patent Right as a result of the research, development, manufacture, commercialization, or other exploitation of any product, unless Xilio has the first right to initiate such a Competitive Infringement Action under Section 7.2. In the event that (a) AskGene does not initiate such a Competitive Infringement Action within [**] of becoming aware of such suspected infringement or such shorter period as may be necessary to bring and maintain such action without loss of rights, and (b) such suspected infringement relates to a product in the Oncology Field that, but for the exclusion of Excluded Xilio ECDs from the definition thereof, would otherwise constitute a Licensed Non-Antigen Binding Product or, if Xilio has exercised the Xilio Option, a Option Non-Antigen Binding Product, then Xilio shall have the right, but not the obligation, to initiate a Competitive Infringement Action as to such infringement.

7.4 **Cooperation, Recovery, and Settlement**. In the event a Party brings and controls the enforcement or defense of any AskGene Patent Rights in accordance with Section 7.2 or Section 7.3:

(a) such Party shall keep the other Party reasonably informed of the status of such enforcement or defense and such other Party shall be entitled to be represented by counsel in connection with such action at its own expense;

(b) the other Party shall provide all reasonable cooperation and assistance, at the enforcing Party's expense, including providing access to relevant documents and other evidence, making its employees available at reasonable business hours, and being joined as a party to such action as necessary to establish standing, if a court of competent jurisdiction determines such Party is an indispensable party or as otherwise reasonably requested by the initiating Party;

(c) Xilio shall have the [**] to grant a license or sublicense under the Licensed Patent Rights to any alleged infringer in the Oncology Field in the Xilio Territory, with the understanding that such license shall comply with and incorporate the material terms of this Agreement to the extent set forth in Section 2.5;

(d) any recovery, damages, or settlement derived from such suit, action, or other proceeding will be applied first in satisfaction of any costs and expenses, including attorneys' fees, of the Parties incurred in connection with such suit, action or other proceeding, [**] and, if applicable, the Party receiving such proceeds shall pay the other Party such royalties that would be owed if such remaining amounts of such proceeds were obtained from the sale of a Licensed Product; and

(e) such Party may settle any such suit, action, or other proceeding, whether by consent order, settlement, or other voluntary final disposition, following receipt of the prior written approval of the other Party, which shall not be unreasonably withheld or delayed, and no settlement shall be entered into that adversely affects the rights of the other Party without the other Party's prior written consent.

7.5 **AskGene Option**. In the event that AskGene exercises the AskGene Option, the terms related to the enforcement and defense of Xilio Patent Rights with respect to the Exclusive Immunology License shall include those set forth on Exhibit C.

8. **CONFIDENTIALITY**.

8.1 **Confidentiality Obligations**. Each Party (the "**Receiving Party**") acknowledges that in connection with this Agreement and the activities contemplated hereby (including activities in connection with the Binding Term Sheet and negotiation thereof), it may gain or may have gained access to Confidential Information of the other Party (the "**Disclosing Party**"). The Receiving Party shall:

(a) use reasonable efforts, at least as protective as the efforts it uses with respect to its own confidential information of similar nature and sensitivity, to safeguard the Disclosing Party's Confidential Information from use or disclosure other than as permitted hereby;

(b) not use the Disclosing Party's Confidential Information other than as strictly necessary to exercise its rights and perform its obligations under this Agreement;

(c) not reverse engineer any Confidential Information disclosed to the Receiving Party, nor may the Receiving Party remove any labels related to confidentiality, patents, trademarks or copyrights from any Confidential Information that is received from Disclosing Party; and

(d) maintain the Disclosing Party's Confidential Information in strict confidence and, subject to Section 8.2, not disclose the Disclosing Party's Confidential Information without the Disclosing Party's prior written consent, provided, however, the Receiving Party may disclose the Confidential Information to its Representatives who:

(i) have a need to know the Confidential Information for purposes of the Receiving Party's performance, or exercise of its rights with respect to such Confidential Information, under this Agreement;

(ii) have been apprised of this restriction; and

(iii) are themselves bound by written nondisclosure agreements at least as restrictive as those set out in this Article 8, provided further that the Receiving Party will be responsible for ensuring its Representatives' compliance with, and will be liable for any breach by its Representatives of, this Article 8.

8.2 **Exceptions**.

(a) If the Receiving Party is required by Law, legal process, any Governmental Authority or the rules of a securities exchange to disclose any Confidential Information, the Receiving Party shall:

(i) provide prompt written notice to the Disclosing Party so the Disclosing Party may seek a protective order, narrow the scope of disclosure or pursue another appropriate remedy or waive its rights under this Article 8;

(ii) reasonably cooperate as reasonably requested by the Disclosing Party to seek a protective order, narrow the scope of disclosure or pursue another appropriate remedy; and

(iii) disclose only the portion of Confidential Information it is legally required to furnish.

If a protective order or other remedy is not obtained, or the Disclosing Party waives compliance under this Article 8, the Receiving Party shall, at the Disclosing Party's expense, use reasonable efforts to obtain assurance that the Confidential Information will be afforded confidential treatment.

(b) Nothing contained in this Agreement shall restrict either Party or any of its Affiliates with respect to any disclosure of, or with respect to, this Agreement (i) in compliance with any securities laws (including the Securities Act and the Exchange Act), the rules and regulations of the Securities and Exchange Commission, the rules of any securities exchange on which any securities of such Party or any of its Affiliates are listed, or the Law of any state or other jurisdiction applicable to such Party or any of its Affiliates, provided that Receiving Party has complied with the terms of Section 8.2(a) to the extent permitted by Law or (ii) pursuant to the terms of a commercially reasonable, written non-disclosure agreement, to any Sublicensee, source of debt or equity financing, acquiror, or joint venturer of such Party, in each case, whether actual or prospective.

8.3 **No Public Statements**. Neither Party may issue or release any announcement, statement, press release, or other publicity or marketing materials relating to this Agreement or, unless expressly permitted under this Agreement, otherwise use the other Party's trademarks, service marks, trade names, logos, domain names, or other indicia of source, association, or sponsorship, in each case, without the prior written approval of the other Party, which shall not be unreasonably withheld or delayed. The foregoing in this Section 8.3 shall not restrict either Party or any of its Affiliates from (a) complying with any securities laws (including the Securities Act and the Exchange Act), the rules and regulations of the Securities and Exchange Commission, the rules of any securities exchange on which any securities of any Party or any of its Affiliates are listed, or the Law of any state or other jurisdiction applicable to any Party or any of its Affiliates, or (b) making any factual disclosure of or with respect to this Agreement, pursuant to the terms of a commercially reasonable, written non-disclosure agreement, to any Sublicensee, source of debt or equity financing, acquiror, or joint venturer of such Party, in each case, whether actual or potential or prospective.

8.4 **Publications**. During the Term, Licensee shall provide Licensor with a copy of any article, abstract or presentation that Licensee wishes to publish or present publicly relating to Licensed Products Covered by Patent Rights of Licensor no less than [**] before the intended submission for publication of an article and no less than [**] before the intended submission for publication of an abstract or presentation. Licensor shall have [**] from receipt of any publication or [**] from receipt of any abstract or presentation in which to notify Licensee in writing of any objections to the publication or presentation thereof, including any request to remove Confidential Information of Licensor, block publication or public disclosure of trade secrets, or delay publication based upon the need to seek patent protection. If Licensor makes any such request or objection in writing within the period set forth in the foregoing sentence, Licensee shall reasonably and in good faith consider such requests or objections, and, in any case, shall (a) delete from the proposed publication or presentation any Confidential Information of Licensor, and (b) if requested by Licensor based on its reasonable determination that such disclosure will result in a loss or reduction of patent protection, delay the date of submission for such publication or the date of such presentation for a reasonable period of time as agreed by the Parties, and in no event for less than [**], to permit the applicable Party to seek appropriate patent protection for the material disclosed in such publication or presentation.

9. **REPRESENTATIONS AND WARRANTIES**.

9.1 **Mutual Representations and Warranties**. Each Party represents and warrants to the other Party that, as of the Effective Date:

(a) it is duly organized, validly existing, and in good standing as a corporation or other entity as represented herein under the laws and regulations of its jurisdiction of incorporation, organization, or chartering;

(b) it has, and throughout the Term will retain, the full right, power, and authority to enter into this Agreement, to grant the rights it grants or purports to grant hereunder and to perform its obligations hereunder;

(c) the execution, delivery and performance of this Agreement by such Party does not conflict with, or create a breach or default under, any agreement, instrument, understanding, or internal governance document, oral or written, to which it is a party or by which it is bound, nor violate any applicable Laws;

(d) the execution of this Agreement by its representative whose signature is set forth on the signature pages hereof has been duly authorized by all necessary corporate or organizational action of the Party and no authorization, consent, approval, license, exemption of or filing or registration with any Governmental Authority, under any applicable Laws in effect as of the Effective Date, is necessary in connection with the execution and delivery of this Agreement, or for the performance by such Party of its obligations under this Agreement, except for any such consent or approval obtained prior to the Effective Date; and

(e) when executed and delivered by such Party, this Agreement will constitute the legal, valid, and binding obligation of that Party, enforceable against that Party in accordance with its terms, except as such enforceability may be limited by (i) applicable bankruptcy, insolvency, reorganization, moratorium and other similar Law, now or hereafter in effect, affecting or relating to creditors' rights and remedies generally and (ii) the remedies of specific performance and injunctive and other forms of equitable relief (regardless of whether enforceability is considered in a proceeding in equity or at Law).

9.2 **AskGene's Representations and Warranties**. AskGene represents and warrants to Xilio that, as of the Effective Date:

(a) it is the sole and exclusive owner of the entire right, title, and interest in and to the AskGene Patent Rights and such sole and exclusive ownership is supported by all applicable inventor assignments duly executed and recorded with the United States Patent and Trademark Office or applicable foreign patent office;

(b) it has the lawful right to grant the license under the AskGene Patent Rights granted to Xilio hereunder, and it has not granted, and is not under any obligation to grant, to any third party any license, lien, option, encumbrance, or other contingent or non-contingent right, title, or interest in or to the AskGene Patent Rights that conflicts with the rights and licenses granted to Xilio hereunder; and

(c) there is no settled, pending, or to its knowledge threatened litigation, claim, or proceeding alleging that any AskGene Patent Right is invalid or unenforceable (including any interference, nullity, opposition, inter partes, or post-grant review or similar invalidity or patentability proceedings before the United States Patent and Trademark Office or any foreign patent office) and it has no knowledge of any factual, legal, or other reasonable basis for any such litigation, claim, or proceeding.

9.3 **Xilio's Representations and Warranties**. Xilio represents and warrants to AskGene that, as of the Effective Date:

(a) it is the sole and exclusive owner of the entire right, title, and interest in and to the Xilio Patent Rights and such sole and exclusive ownership is supported by all applicable inventor assignments duly executed and recorded with the United States Patent and Trademark Office or applicable foreign patent office;

(b) it has the lawful right to grant the license under the Xilio Patent Rights granted to AskGene hereunder, and it has not granted, and is not under any obligation to grant, to any third party any license, lien, option, encumbrance, or other contingent or non-contingent right, title, or interest in or to the Xilio Patent Rights that conflicts with the rights and licenses granted to AskGene hereunder; and

(c) there is no settled, pending, or to its knowledge threatened litigation, claim, or proceeding alleging that any Xilio Patent Right is invalid or unenforceable (including any interference, nullity, opposition, inter partes, or post-grant review or similar invalidity or patentability proceedings before the United States Patent and Trademark Office or any foreign patent office) and it has no knowledge of any factual, legal, or other reasonable basis for any such litigation, claim, or proceeding.

9.4 **Disclaimer**. EXCEPT AS EXPRESSLY SET FORTH IN SECTIONS 9.1, 9.2 AND 9.3, NEITHER PARTY MAKES ANY REPRESENTATIONS OR WARRANTIES OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING ANY EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR NON-INFRINGEMENT OR VALIDITY OR ENFORCEABILITY OF ANY PATENT RIGHTS ISSUED OR PENDING, OR WITH RESPECT TO THE OUTCOME OR RESULTS OF ANY ACTIVITIES TO BE PERFORMED UNDER THIS AGREEMENT, AND ALL SUCH REPRESENTATIONS AND WARRANTIES ARE EXPRESSLY DISCLAIMED.

9.5 **Exclusion of Consequential Damages**. TO THE FULLEST EXTENT PERMITTED BY LAW, EXCEPT TO THE EXTENT ARISING OUT OF SUCH PARTY'S OBLIGATIONS UNDER ARTICLE 10, WILLFUL MISCONDUCT OR BREACH OF ARTICLE 8, IN NO EVENT SHALL EITHER PARTY OR ITS DIRECTORS, OFFICERS, EMPLOYEES, REPRESENTATIVES OR AFFILIATES BE LIABLE TO THE OTHER PARTY FOR ANY INCIDENTAL, INDIRECT, EXEMPLARY, SPECIAL, PUNITIVE, ENHANCED OR CONSEQUENTIAL DAMAGES OF ANY KIND, WHETHER ARISING OUT OF BREACH OF CONTRACT, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY, PRODUCT LIABILITY, OR OTHERWISE (INCLUDING THE ENTRY INTO, PERFORMANCE, OR BREACH OF THIS AGREEMENT), INCLUDING BASED ON ECONOMIC DAMAGES OR LOST PROFITS, REGARDLESS OF WHETHER SUCH LOSS OR DAMAGE WAS FORESEEABLE OR SUCH PARTY SHALL BE ADVISED, SHALL HAVE OTHER REASON TO KNOW, OR IN FACT SHALL KNOW OF THE POSSIBILITY OF THE FOREGOING.

10. **INDEMNIFICATION; LIABILITIES**.

10.1 **Indemnification by Xilio**. Xilio shall indemnify, defend, and hold harmless AskGene and its Representatives and subcontractors (each, an "**AskGene Indemnitee**") against all Losses arising out of or resulting from any third party claim, suit, action, or proceeding (each an "**Action**") arising out of or resulting from (a) any breach by Xilio of any representation, warranty, covenant, or obligation under this Agreement or, prior to the Execution Date, the Binding Term Sheet, (b) gross negligence, willful omission, or willful misconduct of any Xilio Indemnitee, (c) any violation of Law by Xilio in performing its obligations under this Agreement or, prior to the Execution Date, the Binding Term Sheet, or (d) any development, manufacture, or commercialization of any Licensed Product by or on behalf of Xilio or its Affiliates, licensees, and Sublicensees (excluding AskGene), including product liability claims, except, in each case, to the extent such Action arises out of or results from a circumstance or event described in Section 10.2(a)-(d).

10.2 **Indemnification by AskGene**. AskGene shall indemnify, defend, and hold harmless Xilio and its Representatives and subcontractors (each, an "**Xilio Indemnitee**") against all Losses arising out of or resulting from any Action arising out of or resulting from (a) any breach by AskGene of any representation, warranty, covenant, or obligation under this Agreement or, prior to the Execution Date, the Binding Term Sheet, (b) gross negligence, willful omission, or willful misconduct of any AskGene Indemnitee, (c) any violation of Law by AskGene in performing its obligations under this Agreement or, prior to the Execution Date, the Binding Term Sheet, or (d) any development, manufacture, or commercialization of any Licensed Product by or on behalf of AskGene or its Affiliates, licensees, and Sublicensees (excluding Xilio), including product liability claims, except, in each case, to the extent such Action arises out of or results from a circumstance or event described in Section 10.1(a)-(d).

10.3 **Indemnification Procedure**. A Person seeking indemnification under this Article 10 shall promptly notify the indemnifying Party in writing of the applicable Action and cooperate, at indemnifying Party's sole cost and expense, as reasonably requested by the indemnifying Party in relation thereto. The indemnifying Party shall immediately take control of the defense and investigation of such Action and shall employ counsel reasonably acceptable to the indemnified Person to handle and defend the same, at the indemnifying Party's sole cost and expense. The indemnifying Party shall not settle any such Action without the indemnified Person's prior written consent, which consent may not be unreasonably withheld, conditioned or delayed. The indemnified Person's failure to perform any obligations under this Section 10.3 shall not relieve the indemnifying Party of its obligations under this Article 10, except to the extent the indemnifying Party can demonstrate that it has been materially prejudiced as a result of the failure. The indemnified Person may participate in and observe the proceedings at its own cost and expense with counsel of its own choosing.

10.4 **Insurance**. Licensee shall, beginning with the initiation of any clinical development by or on behalf of Licensee or its Affiliates of a Licensed Product Covered by a Licensed Patent Right and continuing thereafter during the Term, maintain a products liability insurance policy, with a per occurrence limit of at least [**] dollars ($[**]) and an aggregate limit of at least [**] dollars ($[**]). Upon either Party's request, the other Party shall furnish to the requesting Party certificates for all insurance obtained as required under this Section 10.4. Licensee shall provide the other Party with [**] prior written notice of all cancellation, non-renewal or material changes to the insurance policy required under this Section 10.4; provided, that, for clarity, at all times each Party must comply with the foregoing insurance minimums. The minimum level of insurance set forth herein shall not be construed to create a limit on a Party's liability hereunder.

11. TERM AND TERMINATION.

11.1 **Term**. This Agreement is effective as of the Effective Date and, unless terminated earlier in accordance with Section 11.2, will continue in full force and effect on a Licensed Product-by-Licensed Product and country-by-country basis until the expiration of the Royalty Term for such Licensed Product in such country (the "**Term**").

11.2 **Termination**.

(a) **Termination for Material Breach**. Either Party may terminate this Agreement upon written notice to the other Party if the other Party materially breaches this Agreement and fails to cure such material breach within [**] after receiving written notice thereof. If, during such cure period, either Party initiates a dispute resolution procedure in accordance with Section 12.14 regarding the material breach for which termination is being sought, then such cure period will be tolled during the pendency of such dispute resolution procedure.

(b) **Termination for Bankruptcy**. Either Party may terminate this Agreement, effective immediately upon written notice to the other Party, if the other Party: (i) is dissolved or liquidated or takes any corporate action for such purpose; (ii) becomes insolvent or is generally unable to pay, or fails to pay, its debts as they become due; (iii) files or has filed against it a petition for voluntary or involuntary bankruptcy or otherwise becomes subject, voluntarily or involuntarily, to any proceeding under any domestic or foreign bankruptcy or insolvency Law; (iv) makes or seeks to make a general assignment for the benefit of its creditors; or (v) applies for or has a receiver, trustee, custodian, or similar agent appointed by order of any court of competent jurisdiction to take charge of or sell any material portion of its property or business.

11.3 **Effects of Expiration or Termination**.

(a) In the event of termination or expiration in its entirety of this Agreement, all rights and obligations of the Parties shall terminate, except as expressly provided in Section 11.4. Without limiting the generality of the foregoing, upon termination of this Agreement by either Party, all rights and licenses granted to Licensee under this Agreement (including Article 2 (Grant of Rights)) shall terminate, all rights in, to and under the applicable Licensed Patent Rights will revert to Licensor, and Licensee shall not have any right under this Agreement (including Article 2 (Grant of Rights)) to practice the applicable Licensed Patent Rights.

(b) Upon expiration of the Term with respect to a Licensed Product in a given country, all licenses granted to Licensee under Article 2 (Grant of Rights) with respect to such Licensed Product in such country shall become perpetual, irrevocable, fully paid up and royalty-free.

(c) On any termination or expiration in its entirety of this Agreement, the Receiving Party shall (i) return to the Disclosing Party all documents and tangible materials (and any copies) containing the Disclosing Party's Confidential Information; (ii) permanently erase the Disclosing Party's Confidential Information from its computer systems; and (iii) certify in writing to the Disclosing Party that it has complied with the requirements of this Section 11.3(c). Notwithstanding the foregoing, the Receiving Party may retain (x) one copy of the Disclosing Party's Confidential Information to the extent reasonably necessary for compliance with the terms of this Agreement or applicable Laws, provided such copy is maintained in a secure location and remains subject to the terms of Article 8, and (y) data or records in electronic form containing Confidential Information for the purposes of backup, recovery, contingency planning, or business continuity planning, so long as such data or records, to the extent not permanently deleted or overwritten in the ordinary course of business, are not accessible in the ordinary course of business and are not accessed except as required for backup, recovery, contingency planning, or business continuity purposes.

11.4 **Survival**. The rights and obligations of the Parties set forth in this Section 11.4 and Article 1 (Definitions); Article 8 (Confidentiality); Article 9 (Representations And Warranties); Article 10 (Indemnification; Liabilities), other than Section 10.4 (Insurance); with respect to any payment obligation accruing prior to expiration or termination of this Agreement, Section 4.5 (Taxes) and Section 4.6 (Payment Terms); Section 11.3 (Effects of Expiration or Termination); and Article 12 (Miscellaneous), other than Section 12.10 (Marking of Licensed Products); and any right, obligation, or required performance of the Parties in this Agreement which, by its express terms or nature and context, is intended to survive termination or expiration of this Agreement, will survive any such termination or expiration. Termination or expiration of this Agreement shall not relieve the Parties of any liability or obligation that accrued hereunder prior to the effective date of termination or expiration of this Agreement, nor preclude either Party from pursuing all rights and remedies it may have hereunder or at Law or in equity with respect to any breach of this Agreement.

12. **MISCELLANEOUS**.

12.1 **Bankruptcy**. All rights and licenses granted by Licensor under this Agreement are and will be deemed to be rights and licenses to "intellectual property" as such term is used in, and interpreted under, Section 365(n) of the United States Bankruptcy Code (11 U.S.C. § 365(n)) (the "**Bankruptcy Code**"). Licensee has all rights, elections, and protections under the Bankruptcy Code and all other bankruptcy, insolvency, and similar laws with respect to this Agreement, and the subject matter hereof. Without limiting the generality of the foregoing, Licensor acknowledges and agrees that, if Licensor or its estate shall become subject to any bankruptcy or similar proceeding:

(a) subject to Licensee's rights of election under Section 365(n), all rights, licenses, and privileges granted to Licensee under this Agreement will continue subject to the respective terms and conditions hereof, and will not be affected, even by Licensor's rejection of this Agreement; and

(b) Licensee shall be entitled to a complete duplicate of, or complete access to, as appropriate, all such intellectual property and embodiments of intellectual property, which, if not already in Licensee's possession, shall be promptly delivered to Licensee or its designee, unless Licensor elects to and does in fact continue to perform all of its obligations under this Agreement.

12.2 **Further Assurances**. Each Party shall, and shall cause their respective Representatives to, upon the reasonable request of the other Party, promptly execute such documents and take such further actions as may be necessary to give full effect to the terms of this Agreement.

12.3 **Recordation of License**. If recordation of this Agreement or any part of it with a Governmental Authority is necessary for Licensee to fully enjoy the rights, privileges, and benefits of this Agreement, Licensor shall, promptly upon becoming aware of such requirement and at its own expense, record this Agreement or all such parts of this Agreement and information concerning the license granted hereunder with each such Governmental Authority.

12.4 **Parties' Relationship**. Nothing contained in this Agreement is to be construed to constitute the Parties as partners or joint venturers of each other, or to constitute the employees, agents or representatives of either Party as the employees, agents or representatives of the other Party, it being intended that the relationship between the Parties shall at all times be that of independent contractors. Neither Party shall have any express or implied right or authority to assume or create any obligations on behalf of, or in the name of, the other Party; or to bind the other Party to any contract, agreement or undertaking with any third party.

12.5 **Notices**. All notices, requests, consents, claims, demands, waivers, and other communications (other than routine communications having no legal effect) must be in writing and sent to the respective Party at the addresses indicated below (or such other address for a Party as may be specified in a notice given in accordance with this Section 12.5):

If to AskGene: AskGene Pharma, Inc.
5217 Verdugo Way, Suite A
Camarillo, CA 93012
Attention: Jian-Feng (Jeff) Lu

If to Xilio: Xilio Development, Inc.
828 Winter Street
Waltham, MA 02451
Attention: Legal Department

with copies (which shall not constitute notice) to:

Proskauer Rose LLP
One International Place
Boston, MA 02110-2600
Attention: Fangli Chen Ph.D.

Notices sent in accordance with this Section 12.5 will be deemed effective: (a) when received or delivered by hand (with written confirmation of receipt); (b) when received according to such courier's tracking systems, if sent by a nationally recognized overnight courier (receipt requested); or (c) on the fourth (4th) business day after the date mailed, by certified or registered mail, return receipt requested, postage prepaid.

12.6 **Interpretation**. For purposes of this Agreement, (a) the words "include," "includes," and "including" will be deemed to be followed by the words "without limitation"; (b) the word "or" has the inclusive meaning represented by the phrase "and/or"; (c) the words "herein," "hereof," "hereby," "hereto," and "hereunder" refer to this Agreement as a whole; and (a) "U.S. dollars," "dollars" or "$" shall each mean the lawful currency of the United States. Unless the context otherwise requires, references herein to: (x) Sections and Exhibits refer to the Sections of and Exhibits attached to this Agreement; (y) an agreement, instrument, or other document means such agreement, instrument, or other document as amended, supplemented, and modified from time to time to the extent permitted by the provisions thereof; and (z) a Law means such Law as amended from time to time and includes any successor legislation thereto and any regulations promulgated thereunder. This Agreement will be construed without regard to any presumption or rule requiring construction or interpretation against the Party drafting an instrument or causing any instrument to be drafted.

12.7 Headings. The headings in this Agreement are for reference only and shall not affect the interpretation of this Agreement.

12.8 **Entire Agreement**. This Agreement, together with all Exhibits and any other documents incorporated herein by reference, constitutes the sole and entire agreement of Xilio, Parent and AskGene with respect to the subject matter contained herein, and supersedes all prior and contemporaneous understandings and agreements between or among Xilio, Parent and AskGene, both written and oral, with respect to such subject matter, including the Binding Term Sheet and the Confidential Disclosure Agreement, dated as of [**], by and between the Parties. In the event of any conflict between the terms and provisions of this Agreement and those of any Exhibit or other document, the following order of precedence will govern: (a) first, this Agreement, excluding its Exhibits; (b) second, the Exhibits to this Agreement as of the Effective Date; and (c) third, any other documents incorporated herein by reference.

12.9 **Assignment**. Except as otherwise expressly provided in this Agreement, neither Party may assign or otherwise transfer all or any of its rights, or delegate or otherwise transfer all or any of its obligations, hereunder without the prior written consent of the other Party (which consent may not be unreasonably withheld, conditioned, or delayed); provided, however, that a Party may assign this Agreement in its entirety, without the other Party's consent but with written notice to the other Party, within [**] thereafter to its Affiliate or a third party that, in either case, acquires all of the Patent Rights of such Party to which this Agreement relates, whether by assignment, merger, change of control, sale of assets or otherwise. Subject to the foregoing, this Agreement shall inure to the benefit of and be binding on the Parties' successors and permitted assigns.

12.10 **Marking of Licensed Products**. Licensee shall comply with the patent marking provisions of 35 U.S.C. § 287(a) to the extent applicable to its exercise of rights hereunder, which may include marking all Licensed Products that are manufactured or sold under this Agreement with the word "patent" or the abbreviation "pat." and either the relevant Licensed Patent Rights or a web address that is freely accessible to the public and that lists the relevant Licensed Patent Rights.

12.11 **No Third Party Beneficiaries**. This Agreement is for the sole benefit of the Parties and their respective successors and permitted assigns and nothing herein, express or implied, is intended to or will confer upon any other Person any legal or equitable right, benefit, or remedy of any nature whatsoever, under, or by reason of this Agreement, except for applicable rights to indemnification of the Xilio Indemnitees and AskGene Indemnitees under Article 10.

12.12 **Amendment; Modification; Waiver**. This Agreement may only be amended, modified, or supplemented by an agreement in writing signed by each Party. No waiver by any Party of any of the provisions hereof will be effective unless explicitly set forth in writing and signed by the waiving Party. Except as otherwise set forth in this Agreement, no failure to exercise, or delay in exercising, any rights, remedy, power, or privilege arising from this Agreement will operate or be construed as a waiver thereof; nor will any single or partial exercise of any right, remedy, power, or privilege hereunder preclude any other or further exercise thereof or the exercise of any other right, remedy, power, or privilege.

12.13 **Severability**. If any term or provision of this Agreement is invalid, illegal, or unenforceable in any jurisdiction, such invalidity, illegality, or unenforceability will not affect any other term or provision of this Agreement or invalidate or render unenforceable such term or provision in any other jurisdiction. Upon a determination that any term or other provision is invalid, illegal, or unenforceable, the Parties shall negotiate in good faith to modify this Agreement so as to effect the original intent of the Parties as closely as possible in a mutually acceptable manner in order that the transactions contemplated hereby be consummated as originally contemplated to the greatest extent possible.

12.14 **Dispute Resolution**.

(a) **Dispute Resolution Procedures**. In the event of any dispute, controversy or claim arising out of or relating to this Agreement, including, without limitation, the breach, termination, or enforceability thereof, or any non-contractual issues relating to this Agreement or any rights or obligations hereunder (each, a "**Dispute**"), the Dispute shall be resolved in accordance with this Section 12.14. Any Dispute shall first be referred to the Chief Executive Officer (or their designee), in the case of Xilio, and the Chief Executive Officer (or their designee), in the case of AskGene (collectively, the "**Executive Officers**"), who shall confer in good faith on the resolution of the Dispute. If the Executive Officers are not able to agree on the resolution of a Dispute in writing within [**] (or such other period of time as mutually agreed by the Executive Officers) after such Dispute was first referred to them, the following shall apply:

(i) If such Dispute is with respect to the validity, scope, enforceability, inventorship or ownership of any Patent Right or other intellectual property right ("**IP Dispute**"), then, if a Party wishes to pursue further resolution of such IP Dispute, an action, claim, or proceeding to resolve such IP Dispute may be brought by either Party in any court of competent jurisdiction or before any appropriate Governmental Authority (including any applicable patent office) in any country or jurisdiction in which such intellectual property rights apply.

(ii) If such Dispute is not an IP Dispute, then, a suit, action, claim, or proceeding to resolve such Dispute may be brought by either Party in accordance with Section 12.15(b).

(b) **Equitable Relief**. Notwithstanding anything herein to the contrary, each Party acknowledges that a breach by the other Party of this Agreement may cause the non-breaching Party irreparable harm, for which an award of damages may not be adequate compensation, and agrees that, in the event of such a breach or threatened breach, the non-breaching Party may seek equitable relief, including in the form of a temporary restraining order, orders for preliminary or permanent injunction, specific performance, and any other relief that may be available from any court of competent jurisdiction before or after the initiation of dispute resolution as otherwise set forth in Section 12.14(a), and the Parties hereby waive any requirement for the securing or posting of any bond or the showing of actual monetary damages in connection with such relief. These remedies are not exclusive but are in addition to all other remedies available under this Agreement at law or in equity, subject to any express exclusions or limitations in this Agreement to the contrary. This Section 12.14(b) shall be specifically enforceable.

(c) **Statute of Limitations**. Except as otherwise determined by a court or other Governmental Authority of competent jurisdiction, any statute of limitations applicable to a claim comprising part of a Dispute will be tolled upon initiation of the dispute resolution procedures under this Section 12.14 and will remain tolled until the Dispute is resolved in accordance herewith; provided, however, that tolling will cease if the Party against which the statute of limitations would be applied fails to observe the procedures set forth in this Section 12.14, except for the seeking of temporary restraining orders or injunctions.

12.15 **Governing Law; Submission to Jurisdiction**.

(a) **Governing Law**. This Agreement and all related documents, and all matters arising out of or relating to this Agreement, are governed by, and construed in accordance with, the laws of the State of Delaware, United States of America, without regard to the conflict of laws provisions thereof to the extent such principles or rules would require or permit the application of the laws of any jurisdiction other than those of the State of Delaware.

(b) **Submission to Jurisdiction**. Subject to Section 12.14 (including with respect to IP Disputes), any legal suit, action, claim or proceeding with respect to any Dispute must be instituted exclusively in the federal courts of the United States with jurisdiction over the State of Delaware or the courts of the State of Delaware, and each Party irrevocably submits to the exclusive jurisdiction of such courts in any such suit, action, or proceeding. Service of process, summons, notice, or other document by mail to such Party's notice address in accordance with Section 12.5 will be effective service of process for any suit, action, or other proceeding brought in any such court.

(c) **Waiver of Jury Trial**. Each Party irrevocably and unconditionally waives any right it may have to a trial by jury in respect of any legal action arising out of or relating to a Dispute.

12.16 **Affiliates**. Each Party may exercise its rights (including its rights and licenses under Article 2 (Grant of Rights)) or perform its obligations under this Agreement itself or through one or more Affiliates of such Party.

12.17 **Force Majeure**. No Party shall be held liable or responsible to the other Party or be deemed to have defaulted under or breached this Agreement for failure or delay in fulfilling or performing any obligation under this Agreement to the extent, and for so long as, such failure or delay is caused by or results from causes beyond the reasonable control of the affected Party, including but not limited to fires, earthquakes, floods, embargoes, wars, acts of war (whether war is declared or not), acts of terrorism, insurrections, riots, civil disturbances, strikes, lockouts or other labor disturbances, acts of God, epidemics, pandemics or any acts, omissions, or delays in acting by any Governmental Authority or the other Party.

12.18 **Counterparts**. This Agreement may be executed in counterparts, and by either Party on separate counterpart, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Signatures, electronic or handwritten, to this Agreement may be transmitted via electronic mail, including Adobe Portable Document Format (PDF) or any electronic signature complying with the U.S. Federal ESIGN Act of 2000, and any counterpart so delivered will be deemed to be original signatures, will be valid and binding upon the Parties, and, upon delivery will constitute due execution of this Agreement.

[SIGNATURE PAGE FOLLOWS]

IN WITNESS WHEREOF, the Parties have caused this Cross-License Agreement to be executed as of the Effective Date by their respective officers thereunto duly authorized.

AskGene Pharma, Inc.

By: /s/ Jian-Feng (Jeff) Lu
Name: Jian-Feng (Jeff) Lu
Title: Chief Executive Officer

Xilio Development, Inc.

By: /s/ Rene Russo
Name: Rene Russo
Title: Chief Executive Officer

Solely for purposes of Section 12.8:

Xilio Development, Inc.

By: /s/ Rene Russo
Name: Rene Russo
Title: Chief Executive Officer

Exhibit 10.11

EXECUTION COPY

Certain identified information has been excluded from the exhibit because it is both (i) not material and (ii) is the type of information that the registrant treats as private or confidential. Double asterisks denote omissions.

AMENDED AND RESTATED EXCLUSIVE LICENSE AGREEMENT

THIS AMENDED AND RESTATED EXCLUSIVE LICENSE AGREEMENT (this "**Agreement**") is made and entered into as of the 16th day of August, 2016 (the "**Effective Date**") by and between Akriveia Therapeutics Inc., a for-profit company with a registered address at 615 South DuPont Highway, Dover, DE 19901 ("**Licensee**") and City of Hope, a California nonprofit public benefit corporation located at 1500 East Duarte Road, Duarte, California 91010 ("**City of Hope**" or "**COH**"). Licensee and COH are each sometimes referred to herein individually as a "**Party**" and collectively as the "**Parties.**"

WHEREAS:

A. COH operates an academic research and medical center that encourages the use of its inventions, discoveries and intellectual property for the benefit of the public and COH owns or Controls (as defined below) certain Patent Rights (as defined below) useful in the Field (as defined below);

B. Licensee is a company to be dedicated to the commercial development and exploitation in the Field of products and services that incorporate one or more of the technologies described in the Patent Rights;

C. On May 24, 2016 (the "**Original Effective Date**"), the Parties entered into (i) an Exclusive License Agreement (the "**Original Agreement**"), pursuant to which COH granted Licensee an exclusive license under the Patent Rights to make, have made, use, offer for sale, sell and import Licensed Products (as defined below) and to perform Licensed Services (as defined below), in the Field, in the Territory (as defined below) and (ii) a side letter agreement, pursuant to which the Parties agreed to amend and restate the Original Agreement following Licensee's restructuring transaction; and

D. On May 25, 2016, Licensee entered into a restructuring transaction pursuant to which it became a wholly-owned subsidiary of Akriveia Therapeutics, LLC (the "**Parent**").

NOW, THEREFORE, in consideration of the mutual covenants contained herein, and for other good and valuable consideration, the amount and sufficiency of which are hereby acknowledged, the Parties hereby agree as follows:

ARTICLE 1: DEFINITIONS

1.1 "**Act**" means the Securities Act of 1933, as amended.

1.2 "**Affiliate**" of a Party means a Person that, directly or indirectly (through one or more intermediaries) controls, is controlled by, or is under common control with such Party. For purposes of this Section 1.2, "control" means (i) the direct or indirect ownership of 50 percent or more of the voting stock or other voting interests or interests in profits, or (ii) the ability to otherwise control or direct the decisions of board of directors or equivalent governing body thereof.

1.3 "**Business Day**" means any day, other than a Saturday, Sunday or day on which commercial banks located in Los Angeles, California, are authorized or required by law or regulation to close.

1.4 "**Change of Control**" means (i) any transaction or series of related transactions following which the holders of Parent's or Licensee's capital stock or membership or equity interests immediately prior to such transaction or series of related transactions collectively hold less than 50% of such outstanding equity interests of Parent or Licensee, as applicable, entitled to (a) vote with respect to the election of directors (or positions having a similar function) or (b) receive the proceeds upon any sale, liquidation or dissolution of Licensee or Parent, as applicable (but in each case other than in connection with a bona fide Equity Financing of Licensee or Parent, as applicable); (ii) a sale, transfer or other disposition to a Third Party, in a single transaction or series of related transactions, of all or a material portion of Licensee's or Parent's interest in the Licensed Product; (iii) a sale, transfer or other disposition to a Third Party, in a single transaction or series of related transactions, of all or a material portion of Licensee's or Parent's, as applicable, right, title, or interest in its assets taken as a whole (but in each case of the foregoing (ii) and (iii) other than by grant of sublicense(s) or in connection with reorganization of Licensee); (iv) an initial public offering of the stock of Licensee or Parent; (v) the merger of Licensee or Parent, as applicable with a Third Party by operation of law or otherwise; or (vi) any assignment of this Agreement by Licensee to a Third Party.

1.5 "**Commercially Reasonable Efforts**" means the exercise of such efforts and commitment of such resources by Licensee, directly or through one or more Sublicensees, in a diligent manner consistent with organizations of comparable size and resources in the pharmaceutical industry for a comparable development or commercialization program at a similar stage of development or commercialization. [**].

1.6 "**COH Confidential Information**" means Confidential Information disclosed or provided by, or on behalf of, COH to Licensee or its designees.

1.7 "**COH Shares**" means the shares of Common Stock of Licensee issued to COH in accordance with Section 4.4.

1.8 "**Common Stock**" means Common Stock, par value $0.00001 per share, of Licensee.

1.9 "**Confidential Information**" means: (i) all information and materials (of whatever kind and in whatever form or medium) disclosed by or on behalf of a Party to the other Party (or its designee) in connection with this Agreement, whether prior to or during the term of this Agreement and whether provided orally, electronically, visually, or in writing; provided that all such information and materials initially disclosed in writing or electronically shall be clearly marked as "CONFIDENTIAL" and all such materials and information initially disclosed orally shall be reduced to writing and marked as "CONFIDENTIAL" within [**] following the date of initial oral disclosure; (ii) all copies of the information and materials described in (i) above; and (iii) the existence and each of the terms and conditions of this Agreement; provided further that Confidential Information shall not include information and materials to the extent a Party can demonstrate through its contemporaneous written records that such information and materials are or have been:

(a) known to the receiving Party, or in the public domain, at the time of its receipt by a Party, or which thereafter becomes part of the public domain other than by virtue of a breach of this Agreement or the obligations of confidentiality under this Agreement;

(b) received without an obligation of confidentiality from a Third Party having the right to disclose without restrictions such information;

(c) independently developed by the receiving Party without use of or reference to Confidential Information disclosed by the other Party; or

(d) released from the restrictions set forth in this Agreement by the express prior written consent of the disclosing Party.

1.10 "**Control(s)**" or "**Controlled**" means the possession by a Party, as of the Effective Date, of rights sufficient to effect the grant of rights set forth in this Agreement without violating the terms of any agreement with any Third Party.

1.11 "**Covers**" or "**Covered by.**" with reference to a particular Licensed Product or Licensed Service that the manufacture, use, sale, offering for sale, or importation of such Licensed Product or performance of such Licensed Service would, but for ownership of, or a license granted under this Agreement to, the relevant Patent Right, infringe a Valid Claim in the country in which the activity occurs.

1.12 "**Designated Affiliate**" shall mean any wholly-owned subsidiary of Parent or any Affiliate of Licensee that is designated as a "Designated Affiliate" by Licensee in a notice to COH and which, in connection with such designation, enters into a Designated Affiliate Agreement with COH.

1.13 "**Designated Affiliate Agreement**" shall mean an exclusive license agreement granting a Designated Affiliate a license within a part of the Field, in the form attached hereto as Exhibit C, to be entered into by COH and each Designated Affiliate in accordance with Section 3.5 hereof.

1.14 "**Dispute**" means any controversy, claim or legal proceeding arising out of or relating to this Agreement, or the interpretation, breach, termination, or invalidity thereof.

1.15 "**Equity Financing**" means the issuance of capital stock of Licensee or Parent, as applicable, in one or more transactions, including any such capital stock issuable (assuming the satisfaction of any conditions to exercisability, convertibility or exchangeability) upon the exercise, conversion or exchange of all evidences of indebtedness, shares or other securities directly or indirectly convertible into or exchangeable for capital stock of Licensee or Parent, as applicable, including all rights, options or warrants to subscribe for, purchase or otherwise acquire capital stock of Licensee or Parent, as applicable.

1.16 "**Field**" subject to Section 3.5.2, means the prevention, treatment and diagnosis of all human diseases and disorders.

1.17 "**First Commercial Sale**" means, with respect to a particular Licensed Product or Licensed Service in a given country, the first arm's-length commercial sale of such Licensed Product or the first performance of such Licensed Service following Marketing Approval in such country by or under authority of Licensee or any Sublicensee to a Third Party who is not a Sublicensee.

1.18 "**GAAP**" means generally accepted accounting principles, consistently applied, as promulgated from time to time by the Financial Accounting Standards Board.

1.19 "**IND**" means an Investigational New Drug application accepted by the FDA.

1.20 "**Lead Candidate**" means a molecule that has been identified by Licensee in its reasonable business and scientific judgment, as a potential clinical development candidate and has been selected by Licensee for evaluation as a clinical development candidate.

1.21 "**License Year**" means each calendar year during the term of this Agreement; except that the first License Year shall commence on the Effective Date and end on December 31 of the calendar year in which the Effective Date occurs.

1.22 "**Licensed Product**" means a product [**] that: (i) is Covered by a Valid Claim of the Patent Rights, (ii) is manufactured by a process or used in a method Covered by a Valid Claim of the Patent Rights, or (iii) contains, as an active ingredient, any substance the manufacture, use, offer for sale or sale of which is Covered by a Valid Claim of the Patent Rights. By way of clarification, "Licensed Product" shall include a product manufactured in a country in which such manufacture is Covered by a Valid Claim and thereafter exported to and sold in a country in which no Valid Claim exists.

1.23 "**Licensed Service**" means any service the performance of which would, but for the license granted herein, infringe a Valid Claim of the Patent Rights.

1.24 "**Licensee Confidential Information**" means Confidential Information disclosed or provided by, or on behalf of, Licensee to COH or its designees.

1.25 "**Marketing Approval**" means all approvals, licenses, registrations or authorizations of any federal, state or local regulatory agency, department, bureau or other governmental entity, including, without limitation, pricing and reimbursement approvals, necessary for the manufacturing, use, storage, import, transport, distribution, marketing and sale of the applicable Licensed Products or performance of the applicable Licensed Services in a country or regulatory jurisdiction.

1.26 "**NPA**" means a New Drug Application to be filed with the FDA, or any equivalent application in jurisdictions outside the United States.

1.27 "**Net Proceeds**" means the net proceeds actually received by Licensee after deduction of all transaction expenses, finder's fees, advisory fees, legal fees, sales commissions or similar amounts paid to brokers or dealers and other costs and expenses incurred by Licensee or its Affiliates in connection therewith. In the event such net proceeds are not paid to Licensee in cash, the value of such net proceeds will be the fair market value of the assets constituting such net proceeds.

1.28 "**Net Sales**" means the total gross amount invoiced by Licensee, its Affiliates (excluding Designated Affiliates) and Sublicensees (regardless of whether and when such invoices are actually paid) on the sale of the applicable Licensed Products and applicable Licensed Services to Third Parties (including, without limitation, the provision of any product by Licensee, its Affiliates (excluding Designated Affiliates) or Sublicensees that incorporates a Licensed Product or Licensed Service but for clarity excluding documented sponsored research and/or development activities, valued at the actual direct cost of such activities on a fully burdened basis (including reasonable margin for overhead)), less the following items, as determined from the books and records of Licensee, its Affiliates (excluding Designated Affiliates) or Sublicensees:

[**].

In the event that a Licensed Product is a Combination Product (defined below), Net Sales, for the purposes of determining royalty payments on the Combination Product, shall mean the gross amount invoiced for the Combination Product less the deductions set forth in clauses (a) – (e) above, multiplied by a proration factor that shall be determined by the formula [A / (A+B)], where A is the average gross sales price in the relevant country of a Licensed Product during such period (or similar Licensed Product with the same dosage and route of administration) when sold separately from the other active component(s) in finished form, and B is the average gross sales price in such country of the other active component(s) during such period (or similar Licensed Product with the same dosage and route of administration) when sold separately from the Licensed Product in finished form. For purposes of this Agreement, "**Combination Product**" means any Licensed Product sold in combination with one or more other active components which are not Licensed Products and where both the Licensed Product and other active components are each sold separately in the same dosage and route of administration. For clarity, if no such separate sales exist, the proration factor shall not be applied.

Sales of Licensed Products between or among Licensee, its Affiliates, or its Sublicensees shall be excluded from the computation of Net Sales, except in those instances in which the purchaser is also the end-user of the Licensed Product sold. Further, transfers of reasonable quantities of Licensed Product by Licensee, any of its Affiliates or of its Sublicensee to a Third Party that is not a Sublicensee for use in the development of such Licensed Product (and not for resale) and transfers of industry standard quantities of Licensed Product for promotional purposes shall not be deemed a sale of such Licensed Product that gives rise to Net Sales for purposes of this Section 1.28.

1.29 "**Patent Rights**" means (i) all United States and foreign patents, patent applications, continuations and divisional applications that claim the patentable inventions disclosed in the COH internal invention disclosures set forth in Exhibit A, including [**], or the Subject Inventions as defined in the Research Agreement (as defined below) set forth in Exhibit B; (ii) continuation-in-part applications that repeat a substantial portion of any of the foregoing that are Controlled by COH, (iii) any patents or patent applications that claim the same invention(s) or claim priority, directly or indirectly, to any of the foregoing, that are Controlled by COH, (iv) letters patent or the equivalent issued on any of the foregoing throughout the world, and (v) amendments, extensions, renewals, reissues, and re-examinations of any of the foregoing. Notwithstanding the foregoing, excepting all Subject Inventions as defined in the Research Agreement, "Patent Rights" shall only include any continuation-in-part application to the extent that claims in such continuation-in-part application are supported in the specification of the parent application, unless otherwise mutually agreed to in writing by the parties to this Agreement.

1.30 "**Person**" means any person or entity, including any individual, trustee, corporation, partnership, trust, unincorporated organization, limited liability company, business association, firm, joint venture or governmental agency or authority.

1.31 "**Phase 1 Clinical Trial**" means, as to a specific Licensed Product or Licensed Service, a study as described in 21 C.F.R. § 312.21(a) or a comparable clinical study in a country other than the United States.

1.32 "**Phase 2 Clinical Trial**" means, as to a specific Licensed Product or Licensed Service, a study in humans designed with the principal purpose of determining initial efficacy and dosing of such Licensed Product in patients for the indication(s) being studied as described in 21 C.F.R. § 312.21(b); or a similar clinical study in a country other than the United States.

1.33 "**Phase 3 Clinical Trial**" means, as to a specific Licensed Product or Licensed Service, a lawful study in humans of the efficacy and safety of such Licensed Product or Licensed Service, which is prospectively designed to demonstrate statistically whether such Licensed Product is effective and safe for use in a particular indication in a manner sufficient to file an application to obtain Marketing Approval to market and sell that Licensed Product or Licensed Service in the United States or another country for the indication being investigated by the study, as described in 21 C.F.R. § 312.21(c); or similar clinical study in a country other than the United States.

1.34 "**Research Agreement**" has the meaning set forth in Section 4.13 of this Agreement.

1.35 "**Research Expenses**" means those direct research and development expenses directly applicable to personnel, supplies and materials and contracted and outside services, in each case, exclusively related to the development and commercialization of Licensed Products and Licensed Services; *provided that* to the extent that any specific personnel, supplies or materials or contracted or outside services are related to both the development and commercialization of Licensed Products and Licensed Services as well as other activities of Licensee that are not related to the development and commercialization of Licensed Products and Licensed Services, only that portion of the related expense that can reasonably be allocated solely to the development and commercialization of Licensed Products and Licensed Services, as substantiated by the contemporaneous business records of Licensee, may be included in Research Expenses. Research Expenses will be permitted to include an additional [**]%) percent of the foregoing direct research and development expenses as overhead but otherwise do not include any indirect costs, overhead, utilities, equipment or facility-related expenses, any general and administrative expenses or other similar costs. All Research Expenses shall be determined, and all calculations shall be made, in accordance with GAAP.

1.36 "**Sublicensee**" means any Third Party which enters into an agreement with Licensee or an Affiliate (excluding Designated Affiliates) of Licensee involving the grant to such Third Party of any rights under the license granted to Licensee pursuant to this Agreement to offer for sale and sell Licensed Products in a given country or territory. For clarity, the recipient of a sublicense from Licensee as part of any agreement with a contract research organization acting strictly on behalf of Licensee, contract manufacturing organization or other like organization acting strictly on behalf of Licensee where such sublicense does not include the right to sell Licensed Products shall be deemed not to be a Sublicensee for purposes of this Agreement. For the avoidance of doubt, Designated Affiliate Agreements shall not constitute "Sublicensees" for purposes of this Agreement.

1.37 "**Sublicense Revenues**" means all consideration, in whatever form, due from a Sublicensee in return for the grant of a sublicense of Licensee's rights hereunder, excluding consideration in the form of: (i) royalties received by Licensee and calculated wholly as a function of sales of Licensed Products or Licensed Services, (ii) payments received by Licensee at or around the milestone event for which milestone payments are already due to COH according to the schedule listed in Section 4.5, (ii) payments or reimbursement for documented sponsored research and/or development activities, valued at the actual direct cost of such activities on a fully burdened basis (including reasonable margin for overhead), (iii) payment or reimbursement of reasonable patent expenses actually incurred or paid by Licensee and not otherwise reimbursed, or payment of patent expenses required to by paid by Licensee hereunder, (iv) payments for the purchase of equity in Licensee at the fair market value of such equity, and (v) payments recognized as Net Sales under this Agreement for which a royalty is payable to COH. By way of clarification, the principal amount of any loan or other extension of credit provided to Licensee or an Affiliate (excluding a Designated Affiliate) of Licensee in connection with the grant of a sublicense by Licensee that is other than an arm's-length credit relationship shall be deemed to constitute "Sublicense Revenues."

1.38 "**Territory**" means the entire world.

1.39 "**Third Party**" means a Person that is neither a Party to this Agreement nor an Affiliate of a Party.

1.40 "**Valid Claim**" means a claim of a pending patent application or an issued and unexpired patent included in the Patent Rights, which claim has not, in such jurisdiction been finally rejected or been declared invalid or cancelled by the patent office or a court of competent jurisdiction in a decision that is no longer subject to appeal as a matter of right.

ARTICLE 2: DEVELOPMENT AND COMMERCIALIZATION EFFORTS

2.1 **Development and Commercialization Responsibilities**. Licensee and its Sublicensees shall have the sole right and responsibility for, and control over, all development, manufacturing and commercialization activities (including all regulatory activities) with respect to Licensed Products and Licensed Services in the Field.

2.2 **Licensee Diligence**. Licensee shall use Commercially Reasonable Efforts to develop and commercialize Licensed Products and Licensed Services in the Field, directly or through one or more Sublicensees. Without limiting the foregoing, if Licensee, directly or through one or more Sublicensees, fails to accomplish any one of "**Diligence Milestones**" set forth in this Section 2.2 by the date specified (each a "**Deadline Date**") corresponding to such Diligence Milestone, COH shall have the right, on notice to Licensee, to terminate this Agreement or convert the grant of rights hereunder from exclusive to non-exclusive, without any change in the other terms and conditions of this Agreement. [**]. Conversion of the license to non-exclusive pursuant to this Section 2.2 shall not constitute a waiver of COH's right to terminate the license thereafter if Licensee's obligations under this Section 2.2 continue to be unmet. [**]. Licensee shall provide COH with prompt written notice upon reaching each Diligence Milestone, which notice shall be accompanied by written documentation substantiating the achievement of any such Diligence Milestone. Upon written request by COH, Licensee shall supply additional written documentation reasonably requested by COH to confirm the achievement of any such Diligence Milestone.

"**Deadline Date**"	"**Diligence Milestone**"
1. [**] from the Original Effective Date	Licensee or Parent to receive aggregate Net Proceeds of not less than $[**] through any combination of: [**].
2. [**] from the Original Effective Date	Unless Licensee or Parent [**], Licensee or Parent to receive aggregate Net Proceeds of not less than $[**] in total (*i.e.*, including the $[**] in 1 above) through any combination of: [**].
3. [**] from the Original Effective Date	[**].
4. [**] from the Original Effective Date	[**], ***or*** [**].
5. [**] from the Original Effective Date	[**], ***or*** [**].
6. [**] from the Original Effective Date	[**], ***or*** [**].
7. [**] from the Original Effective Date	[**], ***or*** [**].

For avoidance of doubt, the efforts and achievements of all Designated Affiliates acting under Designated Affiliate Agreements shall be included in determining whether Licensee has satisfied its obligations under this Section 2.2.

2.3 **Governance**. COH and Licensee shall each designate one individual to serve as the main point of contact for communications related to development and commercialization of Licensed Products and Licensed Services under this Agreement (each a "**Designated Representative**"). The initial Designated Representative of COH shall be [**] and the initial Designated Representative of Licensee shall be [**]. Each Party may replace its Designated Representative at any time upon prior notice to the other Party. Licensee shall keep COH reasonably informed as to progress in the development and commercialization of Licensed Products and Licensed Services. Without limiting the foregoing, on or before [**] and [**] of each year during the term of this Agreement, Licensee shall provide to COH a written report setting forth, in reasonable detail, its activities and achievements with respect to the development and commercialization of Licensed Products and Licensed Services during the preceding [**], including activities relating to the achievement of the Diligence Milestones (the "**[**] Report**"). The Designated Representatives shall meet in person [**] to present and discuss the current [**] Report at such location and date as mutually agreed. Each Party shall be responsible for all expenses incurred by its Designated Representative in the participation in such annual meetings.

ARTICLE 3: LICENSE GRANTS

3.1 **Grant of Rights**. COH hereby grants to Licensee an exclusive royalty-bearing right and license under the Patent Rights to make, have made, use, offer for sale, sell and import Licensed Products and to perform Licensed Services, in the Field, in the Territory. The foregoing grant of rights shall be subject to: [**].

3.2 **No Implied Licenses**. Licensee acknowledges that the licenses granted in this Agreement are limited to the scope expressly granted and that, subject to the terms and conditions of this Agreement, all other rights under all Patent Rights and other intellectual property rights Controlled by COH are expressly reserved to COH.

3.3 **Sublicensing**. Licensee shall have the right to sublicense its rights hereunder without the consent of COH [**]. The terms and conditions of each sublicense of Licensee's rights hereunder shall be consistent with this Agreement. A true and complete copy of each sublicense of Licensee's rights hereunder, as well as any amendment thereto, shall be delivered to COH within [**] of the effective date of each such sublicense or amendment, *provided that* COH shall treat the contents of each such sublicense agreement and amendment as Licensee Confidential Information. Sublicensees shall also have the right to further sublicense their rights, and so on through multiple sub-license levels.

3.4 **Documentation of Licensed Services**. Licensee and its Sublicensees shall provide Licensed Services only pursuant to one or more written agreements which set forth, in reasonable detail, all consideration due to Licensee for the provision of such services. Licensee shall provide a true and complete copy of each such agreement to COH promptly following the effective date of such agreement, *provided that* COH shall treat the contents of each such agreement as Licensee Confidential Information.

3.5 **Designated Affiliates**.

3.5.1 **Notice of Designated Affiliate**. Licensee shall have the right, from time-to-time during the Term, to designate any of its Affiliates as "Designated Affiliates" by written notice to COH. Such notice shall be accompanied by a Designated Affiliate Agreement that has been completed, duly executed by such Designated Affiliate and executed as acknowledged by Licensee. COH shall execute and deliver such Designated Affiliate Agreement promptly after receipt and a reasonable opportunity to review the agreement for conformity with the form attached hereto as Exhibit C and the other requirements of this Agreement. Such designation shall become effective upon the execution of the Designated Affiliate Agreement and the payment of the fee described in Section 4.2.2.

3.5.2 **Field**. Licensee and COH hereby acknowledge and agree that certain rights and licenses to activities and uses that are included within the field will be conveyed to each Designated Affiliate as and to the extent provided for in, and during the term of, the relevant Designated Affiliate Agreement (the "**Designated Affiliate Field**") and that the Field and the scope of rights granted hereunder to Licensee shall both automatically be amended and restated in their entirety to exclude such Designated Affiliate Field.

ARTICLE 4: PAYMENTS

4.1 **Up-Front Payment**. In consideration for the license to the Patent Rights, COH acknowledges that Licensee satisfied its obligation to pay to COH a one-time non-refundable license fee of $[**] within [**] after the Original Effective Date.

4.2 **License Maintenance Fee; Designated Affiliate Fee**.

4.2.1 **License Maintenance Fee**. Within [**] in consideration for the license to the Patent Rights. The license maintenance fees paid in a given License Year shall be applied as credit against royalties otherwise due to COH pursuant to Section 4.6, below, during the License Year in which payment was made but may not be carried over and applied as credit against royalties due in subsequent years.

4.2.2 **Designated Affiliate Fee**. Licensee shall pay to COH a fee of [**] dollars ($[**]) within [**] after providing notice to COH under Section 3.5.1 that Licensee is designating a Designated Affiliate. Such fee shall be payable each time that Licensee provides a notice of designation under Section 3.5.1.

4.3 **Sale of Licensee Business**. Upon the first Change of Control of Licensee or Parent, Licensee shall pay COH a non-refundable fee of $500,000. Notwithstanding the foregoing, the foregoing payment shall [**].

4.4 **Stock Grant**. COH acknowledges that it received 228,184 common units of Parent in exchange for [**] shares of Licensee's Common Stock that had been issued to COH in connection with execution of the Original Agreement.

4.5 **Diligence Milestone Payments**. Within [**] of the occurrence of *each* "**Diligence Milestone Event**" set forth below, for each of the first three Licensed Products or Licensed Services to reach the applicable Diligence Milestone Event, whether achieved by Licensee, its Affiliate (excluding Designated Affiliates) or a Sublicensee, Licensee shall pay COH or its designee the amount indicated below for each Licensed Product or Licensed Service reaching the applicable Diligence Milestone Event.

Diligence Milestone Event	**Amount Due**
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]

In the event that any Diligence Milestone Event is met with respect to any of the first three Licensed Products or Licensed Services prior to the satisfaction of any prior Diligence Milestone Event with respect to the same Licensed Product or Licensed Service, then Licensee shall also pay the amount due for occurrence of all prior Diligence Milestone Events not previously paid upon meeting the applicable Diligence Milestone Event [**].

For the sake of clarity, Diligence Milestone Payments made to COH by all Designated Affiliates acting under Designated Affiliate Agreements shall be taken into account in determining whether Licensee has satisfied its obligation to make Diligence Milestone Payments to COH for the first three Licensed Products or Licensed Services to reach the applicable Diligence Milestone Event.

Notwithstanding anything to the contrary in this Agreement, each Diligence Milestone Payment set forth in the table above shall not be due more than once per biological target (hence Diligence Milestone Payments are not due on back-up molecules advanced by Licensee or Sublicensee until such back-up molecule has advanced to a Diligence Milestone Event not previously attained by a molecule previously being developed by Licensee or its Sublicensees acting at the same biological target and for which the applicable Diligence Milestone Payment has already been paid).

4.6 **Royalties**. Licensee shall pay to COH or its designee royalties in an amount equal to:

4.6.1 [**]%) percent of annual Net Sales of Licensed Products and Licensed Services up to and including $[**] in annual aggregate Net Sales;

4.6.2 [**]%) percent of annual Net Sales of Licensed Products and Licensed Services that exceed $[**] in annual aggregate Net Sales;

Royalties shall be paid on a Licensed Product-by-Licensed Product, Licensed Service-by-Licensed Service and country-by-country basis until the expiration in each country of the last to expire of the Valid Claims in such country Covering Licensed Products or Licensed Services, as the case may be.

4.7 **Sublicense Revenues**. Licensee shall pay to COH:

4.7.1 The applicable percentage share of all Sublicense Revenues given in Section 4.7.2 below in connection with the grant of a sublicense of the Patent Rights to a Sublicensee, in each case, within [**] after payment is received from the relevant Sublicensee.

4.7.2 If the sublicense grant to the Sublicensee occurs [**], then [**]%. If the sublicense grant to the Sublicensee occurs [**], then [**]%. If the sublicense grant to the Sublicensee occurs [**], then [**]%. If the sublicense grant to the Sublicensee occurs [**], then [**]%.

4.7.3 If Sublicense Revenues are not in cash or cash equivalents, the percentage share payable to COH pursuant to this Section 4.7 shall be due, in the form received by Licensee, unless otherwise agreed by the Parties. In the event that COH requests to be paid the applicable percentage share of Sublicense Revenues in the form of a cash equivalent, Licensee shall reasonably consider such request, taking into consideration its ability to pay such amounts at such time.

4.8 **Royalty Offsets**. If, [**] it is necessary to pay to a Third Party other than a Sublicensee consideration (whether in the form of a royalty or otherwise) for the right to make, have made, use, sell, offer for sale or import a specific Licensed Product or specific Licensed Service in a given jurisdiction, and if the aggregate royalty rates of any and all royalties payable to such Third Party licensors when combined with the royalty rate payable to COH exceeds [**] percent ([**]%) in the case of Net Sales of the specific Licensed Product or specific Licensed Service, then Licensee shall have the right with respect to any period for which royalties are due (i.e., a calendar quarter or calendar year) to set off [**]%) percent of the aggregate royalties otherwise payable with respect to such period and such jurisdiction to such Third Party licensors against royalties that would otherwise be due to COH hereunder with respect to such period and jurisdiction; provided, however, that under no circumstances shall the royalty offsets permitted in this Section 4.8 result in the reduction of the effective adjusted royalty rate in any period for which payment is due and in any jurisdiction pursuant to Section 4.6, above, be less than [**]%) percent of Net Sales).

4.9 **Timing of Royalty Payments**. Royalty payments due under Section 4.6, above, shall be paid [**] within [**] in which aggregate Net Sales across all Licensed Products and Licensed Services reach $[**]. Thereafter, all royalty payments due under Section 4.6 shall be paid [**], within [**].

4.10 **No Deductions from Payments**. Subject to Section 4.7 above, Licensee is solely responsible for payment of any fee, royalty or other payment due to any Third Party not a Sublicensee in connection with the research, development, manufacture, distribution, use, sale, import or export of a Licensed Product or Licensed Service and except as set forth in Section 4.8 above, Licensee shall not have the right to set off any amounts paid to such a Third Party, including fee, royalty or other payment, against any amount payable to COH hereunder.

4.11 **Single Royalty**. Only a single royalty payment shall be due and payable on Net Sales of a Licensed Product or performance of a Licensed Service, regardless if such Licensed Product or Licensed Service is Covered by more than one Valid Claim.

4.12 **Payments Under Single License Only**. Notwithstanding any provision in this Agreement or in the other license agreement of even date herewith between the Parties to the contrary, (i) Research Expenses shall be aggregated across both such license agreements and include expense within the defined parameters incurred by Licensee, Sublicensees and their respective Affiliates, (ii) diligence milestone payments and royalties for a given Licensed Product or Licensed Services shall be payable only once across both such license agreements, and (iii) the sublicense revenue share (under Section 4.7) shall be payable only once if a sublicense is granted under each such license agreement to a single Sublicensee.

4.13 **Research Funding**. On the Original Effective Date, Licensee and COH with Dr. Williams, as the principal investigator, entered into the sponsored research agreement (the "**Research Agreement**") attached hereto as Exhibit B.

ARTICLE 5: REPORTS, AUDITS AND FINANCIAL TERMS

5.1 **Royalty Reports**. Within [**] after [**] in which a royalty payment under Article 4 is required to be made, Licensee shall send to COH a report of Net Sales of the Licensed Products and Licensed Services for which a royalty is due, which report sets forth for such [**] the following information, on a Licensed Product-by-Licensed Product, Licensed Service-by-Licensed Service and country-by-country basis: (i) total Net Sales, (ii) total gross sales of Licensed Products and Licensed Services, (iii) the quantity of each Licensed Products sold and Licensed Services performed, (iv) the exchange rate used to convert Net Sales from the currency in which they are earned to United States dollars; and (v) the total royalty payments due.

5.2 **Additional Financial Terms**.

5.2.1 **Currency**. All payments to be made under this Agreement shall be made in United States dollars, unless expressly specified to the contrary herein. Net Sales outside of the United States shall be first determined in the currency in which they are earned and shall then be converted into an amount in United States dollars. All currency conversions shall use the conversion rate reported by Reuters, Ltd. on the last Business Day of the calendar quarter for which such payment is being determined.

5.2.2 **Payment Method**. Amounts due under this Agreement shall be paid in immediately available funds, by means of wire transfer to an account identified by COH.

5.2.3 **Withholding of Taxes**. Licensee may withhold from payments due to COH amounts for payment of any withholding tax that is required by law to be paid to any taxing authority with respect to such payments. Licensee shall provide to COH all relevant documents and correspondence, and shall also provide to COH any other cooperation or assistance on a reasonable basis as may be necessary to enable COH to claim exemption from such withholding taxes and to receive a full refund of such withholding tax or claim a foreign tax credit. Licensee shall give COH proper evidence from time to time as to the payment of such tax. The Parties shall cooperate with each other in seeking deductions under federal and state tax laws and any double taxation or other similar treaty or agreement from time to time in force.

5.2.4 **Late Payments**. Any amounts not paid on or before the date due under this Agreement are subject to interest from the date due through and including the date upon which payment is received. Interest is calculated, over the period between the date due and the date paid, at a rate equal to [**] percentage point ([**]%) over the "bank prime loan" rate, as such rate is published in the U.S. Federal Reserve Bulletin H.15 or successor thereto on the last Business Day of the applicable calendar quarter prior to the date on which such payment is due.

5.2.5 **Blocked Currency**. If, at any time, legal restrictions prevent the prompt remittance of part or all royalties with respect to any country where a Licensed Product is sold or Licensed Service provided, payment shall be made through such lawful means or methods as Licensee may determine. When in any country, the law or regulations prohibit both the transmittal and deposit of royalties or other payments, Licensee shall continue to report all such amounts, but may suspend payment for as long as such prohibition is in effect. As soon as such prohibition ceases to be in effect, all amounts that would have been obligated to be transmitted or deposited but for the prohibition, together with accrued interested thereon, shall promptly be transmitted to COH.

5.3 **Accounts and Audit**.

5.3.1 **Records**. Licensee shall keep, and shall require that each Sublicensee keep, full, true and accurate books of account containing the particulars of, as the case may be, its Research Expenses, Net Sales and the calculation of royalties. Licensee and its Sublicensees shall each keep such books of account and the supporting data and other records at its principal place of business. Such books and records must be maintained available for examination in accordance with this Section 5.3.1 for [**] after the end of the calendar year to which they pertain, and otherwise as reasonably required to comply with GAAP.

5.3.2 **Appointment of Auditor**. COH may appoint an internationally-recognized independent accounting firm reasonably acceptable to Licensee to inspect the relevant books of account of Licensee and its Sublicensees to verify any Research Expenses, to the extent relied upon by Licensee to achieve a Diligence Milestone, reports or statements provided, or amounts paid or invoiced (as appropriate), by Licensee or its Sublicensees.

5.3.3 **Procedures for Audit**. COH may exercise its right to have Licensee's and its Sublicensees' relevant records examined only during the [**] period during which Licensee is required to maintain records, no more than [**]. Licensee and its Sublicensees are required to make records available for inspection only during regular business hours, only at such place or places where such records are customarily kept, and only upon receipt of at least [**] advance notice from COH.

5.3.4 **Audit Report**. The independent accountant will be instructed to provide to COH an audit report containing only its conclusions and methodology regarding the audit, and specifying whether the amounts paid were correct or the Research Expenses incurred were correctly reported in connection with the achievement of a Diligence Milestone, and, if incorrect, the amount of any underpayment, any overpayment or any Research Expenses incorrectly reported.

5.3.5 **Underpayment and Overpayment**. After review of the auditor's report: (i) if there is an uncontested underpayment by Licensee for all of the periods covered by such auditor's report, then Licensee shall pay to COH the full amount of that uncontested underpayment, and (ii) if there is an uncontested overpayment for such periods, then COH shall provide to Licensee a credit against future payments (such credit equal to the full amount of that overpayment), or, if Licensee is not obligated to make any future payments, then COH shall pay to Licensee the full amount of that overpayment. Contested amounts are subject to dispute resolution under Article 12. If the total amount of any such underpayment (as agreed to by Licensee or as determined under Article 12) exceeds [**]%) percent of the amount previously paid by Licensee for the period subject to audit, then Licensee shall pay the reasonable costs for the audit. Otherwise, all costs of the audit shall be paid by COH.

ARTICLE 6: LICENSEE COVENANTS

6.1 Licensee covenants and agrees that in conducting activities contemplated under this Agreement, it shall comply in all material respects with all applicable laws and regulations including, without limitation, those related to the manufacture, use, labeling importation and marketing of Licensed Products and Licensed Services.

ARTICLE 7: INTELLECTUAL PROPERTY; PATENT PROSECUTION, MAINTENANCE AND ENFORCEMENT.

7.1 **Patent Prosecution, Maintenance and Enforcement**.

(a) As of the Original Effective Date, Licensee assumed and became responsible for the preparation, filing, prosecution, and maintenance of all Patent Rights in the name of COH at Licensee's own expense, using Licensee counsel reasonably acceptable to COH. Licensee will timely provide COH with copies of all relevant documentation relating to such prosecution and COH shall keep such information confidential. Licensee's counsel shall take instructions only from Licensee and COH's counsel shall take instructions only from COH.

(b) Promptly following the end of each [**] or upon request of COH, Licensee will provide COH with an update and details regarding the filing, prosecution and maintenance status of the Patent Rights. Licensee shall provide COH with drafts of all proposed filings (including, without limitation, the initial application as well as any material correspondence related to any filings) in a manner that allows COH a reasonable opportunity to review and comment before any such filing is made or due but in no event, except when impossible, less than [**] prior to any filing deadline. Licensee will consider all of, and incorporate to the extent commercially reasonable for Licensee's conduct of its business, COH's suggestions, recommendations and instructions concerning the preparation, filing, prosecution, defense and maintenance of the Patent Rights (including without limitation any suggestion or recommendation to alter or expand or limit the scope, content and/or claims of any such application), and, to the extent otherwise possible, will undertake the preparation, filing, prosecution and defense of the Patent Rights in a way that is intended to reasonably optimize the scope and enforceability of the Patent Rights. COH shall cooperate with Licensee in the preparation, filing, prosecution, and maintenance of the Patent Rights by disclosing such information as may be necessary and by promptly executing such documents as Licensee may request to effect such efforts. COH shall secure, and upon request provide to Licensee, assignments from all employees and other individuals necessary to grant the rights, licenses and privileges granted in this Agreement. The aforementioned provisions of this subparagraph are collectively the "**Cooperation Provisions**". For clarity, (i) Licensee may not use cost or expense as a basis to deem any proposed COH claim or application commercially unreasonable, provided COH is willing to bear any increased cost or expense, in which case Licensee shall not be entitled to the benefits of any such claim or application unless COH's costs are reimbursed and (ii) if Licensee deems any COH claim or application commercially unreasonable due to cost or expense, COH shall be entitled to require Licensee to file continuation, divisional or other independent applications to be prosecuted and maintained by COH at its cost and expense independent of Licensee and which shall be outside the scope of the rights licensed pursuant to this Agreement.

(c) Licensee will not unreasonably refuse to amend any patent application in the Patent Rights to include claims reasonably requested by COH to protect the products contemplated to be sold by Licensee under this Agreement.

(d) Each Party shall promptly provide written notice to the other in the event it becomes aware of any actual or probable infringement of any of the Patent Rights in or relevant to the Field or of any Third Party claim regarding the enforceability or validity of any Patent Rights ("**Infringement Notice**"). Licensee shall, in cooperation with COH, use reasonable efforts to terminate infringement without litigation.

(e) If infringing activity has not been abated within [**] following the date the Infringement Notice takes effect, then Licensee may, following consultation with COH, in its sole discretion and at its sole expense, take action against any alleged infringer or in defense of such any claim, provided, that, Licensee has exclusive rights under this Agreement. Any recovery obtained by Licensee as the result of legal proceedings initiated and paid for by Licensee pursuant to this subsection (e), after deduction of Licensee's reasonable out-of-pocket expenses incurred in securing such recovery, shall be deemed to be Net Sales of Licensed Products and/or Licensed Services in the calendar quarter in which such recovery was received and royalties shall be due and payable thereon accordingly.

(f) If COH is involuntarily joined in a suit initiated by Licensee, then the Licensee will pay any out-of-pocket costs reasonably incurred by COH arising out of such suit, including but not limited to, reasonable legal fees of counsel that COH selects and retains to represent it in the suit.

(g) In the event that Licensee declines either to cause such infringement to cease (e.g., by settlement or injunction) or to initiate and thereafter diligently maintain legal proceedings against the infringer other than as part of a mutually agreed upon bona fide strategy, developed with the guidance of outside patent counsel, to preserve the Patent Rights, COH may, in its sole discretion and at its sole expense, take action against such alleged infringer or in defense of any Third Party claim. Any recovery obtained by COH as the result of any such legal proceedings shall be for the benefit of COH only. Failure on the part of Licensee to prosecute any such infringement for which it has standing to prosecute, absent a settlement between Licensee and such infringing Third Party, shall be grounds for conversion of the exclusive licenses granted to Licensee hereunder to co-exclusive licenses with Licensee and with such infringing Third Party(ies), with respect to the country in which such infringement occurs, at the option of COH, provided, however, that COH may only subsequently enter into subsequent license agreements with such infringing Third Party(ies) (i.e., not any other Third Party) and, provided further, that such license(s) shall not contain running royalty rates lower than the rates specified in this Agreement nor grant such third parties the right to sublicense. Licensee agrees to execute any and all necessary documents and perform such acts as are reasonably requested by COH in order to effect such grant to such Third Party. All fees, royalties, payments and any other consideration to be paid by that Third Party under the co-exclusive license shall be paid to COH.

7.2 **Trademarks**. Licensee shall be responsible for the selection, registration, maintenance, and defense of all trademarks for use in connection with the sale or marketing of Licensed Products and Licensed Services in the Field in the Territory (the "**Marks**"), as well as all expenses associated therewith. All uses of the Marks by Licensee or a Sublicensee shall comply in all material respects with all applicable laws and regulations (including those laws and regulations particularly applying to the proper use and designation of trademarks in the applicable countries). Licensee shall not, without COH's prior written consent, use any trademarks or house marks of COH (including the COH corporate name), or marks confusingly similar thereto, in connection with Licensee commercialization of Licensed Products or Licensed Services under this Agreement in any promotional materials or applications or in any manner implying an endorsement by COH of Licensee or the Licensed Products or Licensed Services. Licensee shall own all Marks.

7.3 **Challenge to the Patent Rights by Licensee.**

(a) COH may terminate this Agreement and, notwithstanding Section 3.3, above, all Sublicenses issued hereunder, upon written notice to Licensee in the event that Licensee or any of its Affiliates (excluding Designated Affiliates) or Sublicensees directly or indirectly asserts a Patent Challenge. "**Patent Challenge**" means any challenge in a legal or administrative proceeding to the patentability, validity or enforceability of any of the Patent Rights (or any claim thereof), including by: (a) filing or pursuing a declaratory judgment action in which any of the Patent Rights is alleged to be invalid or unenforceable; (b) citing prior art against any of the Patent Rights, filing a request for or pursuing a re-examination of any of the Patent Rights (other than with COH's written agreement), or becoming a party to or pursuing an interference; or (c) filing or pursuing any re-examination, opposition, cancellation, nullity or other like proceedings against any of the Patent Rights; but excluding any challenge raised as a defense against a claim, action or proceeding asserted by COH against Licensee, its Affiliates (excluding Designated Affiliates) or Sublicensees. In lieu of exercising its rights to terminate under this Section 7.3(a) COH may elect upon written notice to increase the payments due under all of Article 4 by [**] percent ([**]%), which election will be effective retroactively to the date of the commencement of the Patent Challenge. Licensee acknowledges and agrees that this Section 7.3(a) is reasonable, valid and necessary for the adequate protection of COH's interest in and to the Patent Rights, and that would not have granted to Licensee the licenses under those Patent Rights, without this Section 7.3(a). COH will have right at any time in its sole discretion to strike this Section 7.3(a) (or any portion thereof) from this Agreement, and COH will have no liability whatsoever as a result of the presence or absence of this Section 7.3(a) (or any struck portion thereof).

(b) If COH obtains a final non-appealable judgment upholding the validity and enforceability of the challenged Patent Rights and finding at least one claim of such Patent Rights to be infringed by Licensee or any one of its Affiliates (excluding Designated Affiliates) or Sublicensees, Licensee shall reimburse COH all of its attorneys' fees and expenses expended in connection with defending such lawsuit or other proceeding.

7.4 **Payment of COH Patent Expenses**.

(a) The Parties acknowledge that, prior to the Original Effective Date, COH incurred [**] with respect to [**] of the Patent Rights. In consideration of such [**] by COH, Licensee shall [**].

(b) In the event that COH, in its reasonable judgment, makes an initial filing to maintain the patentability of a Subject Invention as defined in the Research Agreement set forth in Exhibit B, Licensee shall reimburse COH for all reasonable costs incurred by COH in connection therewith.

7.5 **Marking**. Licensee and its Sublicensees shall mark all Licensed Products and all materials related to Licensed Services in such a matter as to conform with the patent laws of the country to which such Licensed Products are shipped or in which such products are sold and such Licensed Services performed.

ARTICLE 8: TERM AND TERMINATION

8.1 **Term and Expiration of Term**. The term of this Agreement (the "**Term**") shall commence on the Effective Date and, notwithstanding any other provision of this Agreement, unless sooner terminated by mutual agreement or pursuant to any other provision of this Agreement, this Agreement shall expire on a country-by-country basis and on a Patent Right-by-Patent Right basis on the later to occur of: (a) the expiration of the last to expire of any of the Patent Rights in such country (or if no patent issues, until the last patent application in Patent Rights is abandoned), and (b) the date on which the last of the remaining obligations under this Agreement between the Parties with respect to the payment of milestones or royalties with respect to Licensed Products and Licensed Services have been satisfied (such expiry of the Term hereinafter referred to as "**Expiration**").

8.2 **Termination**.

8.2.1 **Material Breach**. Either Party may terminate this Agreement prior to its Expiration for any material breach by the other Party, provided that the Party seeking to terminate shall have first given the breaching Party notice of such material breach with reasonable particulars of the material breach, and the Party receiving the notice of the material breach shall have failed to cure that material breach within [**] after the date of receipt of such notice.

8.2.2 **Bankruptcy**. COH shall have the right to terminate this Agreement prior to its Expiration upon notice to Licensee, in the event that: (i) Licensee seeks protection of any bankruptcy or insolvency law other than with the prior consent of City of Hope, or (ii) a proceeding in bankruptcy or insolvency is filed by or against Licensee and not withdrawn, removed or vacated within [**] of such filing, or there is adjudication by a court of competent jurisdiction that Licensee is bankrupt or insolvent.

8.2.3 **Termination at Will by Licensee**. Licensee shall have the right to terminate this Agreement prior to its Expiration upon notice to COH without cause, effective no fewer than 30 days following the date of such notice.

8.2.4 **Termination by COH for Breach-Based Termination of the Research Agreement**. COH shall have the right to terminate this Agreement following COH's termination of the Research Agreement (i) pursuant to Section 11.2 of the Research Agreement for Licensee's failure to pay amounts due thereunder or (ii) pursuant to Section 11.3 of the Research Agreement for Licensee's uncured material breach thereof; *provided that*, in the event of any such termination of the Research Agreement by COH, Licensee shall provide written notice to COH of such termination, and COH may terminate this Agreement at any time after such termination of the Research Agreement, but in no event later than [**] after the receipt of such notice from Licensee.

8.3 **Effect of Termination**.

8.3.1 Upon any termination of this Agreement pursuant to Section 8.2 (but for clarity, not in the case of its Expiration), all rights and licenses granted to Licensee under Article 3 and all sublicenses granted by Licensee except as provided below shall immediately terminate on and as of the effective date of termination as provided in Section 8.2, except that (a) Licensee and its Sublicensees shall have the right to continue to sell Licensed Products manufactured prior to the effective date of such termination until the sooner of: (i) [**] after the effective date of termination, or (ii) the exhaustion of Licensee's or Sublicensees' inventory of Licensed Products; and (b) each sublicense granted in compliance with this Agreement, provided that the Sublicensee is not then in material default of its obligations under the sublicense, will remain in effect, and each Sublicensee thereafter will be deemed a direct licensee of COH, and each such sublicense agreement will be considered to be a direct license agreement between COH and the Sublicensee, *mutatis mutandis*, provided that COH will not be bound to: (1) perform any obligations set forth in any such sublicense agreement that extend beyond the obligations of COH set forth in this Agreement, or (2) accept compensation under any such sublicense agreement that taken as a whole in COH's reasonable discretion would be less than the compensation payable to COH in respect of such Sublicensee's activities pursuant to this Agreement.

8.3.2 Upon termination of this Agreement pursuant to Section 8.2 (but for clarity, not in the case of its Expiration):

(a) Each Party shall promptly return to the other Party all relevant records and materials in its possession or control containing or comprising the other Party's Confidential Information and to which the Party does not retain rights hereunder.

(b) Licensee shall discontinue making any representation regarding its status as a licensee of COH for Licensed Products and Licensed Services. Subject to Section 8.3.1, above, Licensee shall cease conducting any activities with respect to the marketing, promotion, sale or distribution of Licensed Products and Licensed Services.

8.3.3 Termination of this Agreement through any means and for any reason pursuant to Section 8.2 (but for clarity, not in the case of its Expiration), shall not relieve the Parties of any obligation accruing prior thereto, including the payment of all sums due and payable, and shall be without prejudice to the rights and remedies of either Party with respect to any antecedent breach of any of the provisions of this Agreement.

8.4 **Designated Affiliate Agreements**. The termination or expiration of this Agreement shall have no effect on the continued effectiveness of any Designated Affiliate Agreements. The termination of any Designated Affiliate Agreement shall cause the reversion of the rights granted thereunder to Licensee under this Agreement as if such Designated Affiliate Agreement had never been entered into provided that Licensee assumes in writing any unfulfilled obligations or liabilities of the relevant Designated Affiliate under such Designated Affiliate Agreement.

8.5 **Survival**. Sections 4.9, 5.1, 5.2, 5.3, 8.3, 8.4, 8.5, Article 10, Article 11, Article 12, Sections 14.1-14.11 and Sections 14.14-14.15 shall survive termination of this Agreement for any reason pursuant to Section 8.2 and Expiration pursuant to Section 8.1.

ARTICLE 9: REPRESENTATIONS AND WARRANTIES

9.1 **Mutual Representations and Warranties**. COH and Licensee each represents and warrants as follows:

9.1.1 It has the right and authority to enter into this Agreement and all action required to be taken on its behalf, its officers, directors, partners and stockholders necessary for the authorization, execution, and delivery of this Agreement and, the performance of all of its obligations hereunder, and this Agreement, when executed and delivered, will constitute valid and legally binding obligations of such Party, enforceable in accordance with its terms, subject to: (i) laws limiting the availability of specific performance, injunctive relief, and other equitable remedies; and (ii) bankruptcy, insolvency, reorganization, moratorium, fraudulent conveyance or other similar laws now or hereafter in effect generally relating to or affecting creditors' rights generally;

9.1.2 Entry into this Agreement will not constitute a breach of any other agreement to which it is party;

9.1.3 It has read this Agreement, with assistance from its counsel of choice. It understands all of this Agreement's terms. It has been given a reasonable amount of time to consider the contents of this Agreement before each Party executed it. It agrees that it is executing this Agreement voluntarily with full knowledge of this Agreement's legal significance; and

9.1.4 It has made such investigation of all matters pertaining to this Agreement that it deems necessary, and does not rely on any statement, promise, or representation, whether oral or written, with respect to such matters other than those expressly set forth herein. It agrees that it is not relying in any manner on any statement, promise, representation or understanding, whether oral, written or implied, made by any Party, not specifically set forth in this Agreement. It acknowledges that, after execution of this Agreement, it may discover facts different from or in addition to those which it now knows or believes to be true. Nevertheless, it agrees that this Agreement shall be and remain in full force and effect in all respects, notwithstanding such different or additional facts.

9.2 **Representations and Warranties of Licensee**. Licensee represents and warrants that as of the Original Effective Date:

9.2.1 All authorizations necessary for the issuance of the COH Shares issuable to COH pursuant to Section 4.4(a) of the Original Agreement, were obtained;

9.2.2 no consent, approval, order, or authorization of, or registration, qualification, designation, declaration, or filing with, any federal, state, or local governmental authority on the part of Licensee was required in connection with the offer, sale, or issuance of the COH Shares or the consummation of any other transaction contemplated hereby, except for the following: (i) the filing of a notice of exemption pursuant to Section 25102(f) of the California Corporate Securities Law of 1968, as amended, which was filed by Licensee promptly following the Original Effective Date; and (ii) the compliance with other applicable state securities laws, which compliance will have occurred within the appropriate time periods therefor. The offer, sale, and issuance of the COH Shares in conformity with the terms of the Original Agreement are exempt from the registration requirements of Section 5 of the Act, and from the qualification requirements of Section 25110 of the California Securities Law, and Licensee, nor any authorized agent acting on its behalf will take any action hereafter that would cause the loss of such exemptions;

9.2.3 The sale of the COH Shares was not and will not be subject to any preemptive rights or rights of first refusal that have not been properly waived or complied with;

9.2.4 The COH Shares, when issued, sold and delivered in accordance with the terms of the Original Agreement for the consideration expressed therein, were duly and validly issued, fully paid and nonassessable and free of restrictions on transfer, other than restrictions on transfer under applicable state and federal securities laws;

9.2.5 As of the Original Effective Date, the authorized capital stock of Licensee consisted of 10,000,000 shares of Common Stock, [**]. As such the [**] shares issued to COH pursuant to the Original Agreement and the [**] shares issued to COH (or its designees) pursuant to a second license agreement between the parties executed on or about even date to the Original Agreement together [**] on the date such shares were issued. As of the Original Effective Date, Licensee had not reserved any equity securities for issuance pursuant to Licensee's equity incentive compensation plans. All issued and outstanding shares of Licensee were duly authorized and validly issued and were fully paid and nonassessable. Other than the outstanding Common Stock, including the COH Shares, there were no other outstanding rights, options, warrants, preemptive rights, rights of first refusal, or similar rights for the purchase or acquisition from Licensee of any securities of Licensee nor any commitments to issue or execute any such rights, options, warrants, preemptive rights or rights of first refusal. The respective rights, preferences, privileges, and restrictions of the Common Stock were solely as stated in Licensee's certificate of incorporation, a true and correct copy of which was delivered to COH prior to the Original Effective Date;

9.2.6 Licensee was not in violation or default of any provision of its certificate of incorporation or bylaws on the Original Effective Date or on the date of issuance of the COH Shares, and;

9.2.7 Prior to the Original Effective Date, Licensee had not entered into any agreements pursuant to which the Patent Rights had been sublicensed.

9.3 **Representations and Warranties of COH**. COH represents and warrants that, as of the Original Effective Date, to the actual knowledge of the Director of its Office of Technology Transfer without independent inquiry, COH has the full power and authority to grant the rights, licenses and privileges granted herein.

9.4 **Exclusions**. Nothing in this Agreement is or shall be construed as:

9.4.1 A warranty or representation by COH as to the validity or scope of any claim or patent or patent application within the Patent Rights;

9.4.2 A warranty or representation by COH that anything made, used, sold, or otherwise disposed of under any license granted in this Agreement is or will be free from infringement of any patent rights or other intellectual property right of any Third Party;

9.4.3 A grant by COH, whether by implication, estoppel, or otherwise, of any licenses or rights under any patents other than Patent Rights as defined herein, regardless of whether such patents are dominant or subordinate to Patent Rights;

9.4.4 An obligation on COH to bring or prosecute any suit or action against a Third Party for infringement of any of the Patent Rights;

9.4.5 An obligation to furnish any know-how not provided in Patent Rights; or

9.4.6 A representation or warranty of the ownership of the Patent Rights other than as set forth in Section 9.3, above.

9.5 DISCLAIMER. EXCEPT AS EXPRESSLY STATED IN SECTIONS 9.1 AND 9.3 OF THIS AGREEMENT, NO WARRANTY IS GIVEN WITH RESPECT TO THE PATENT RIGHTS, EXPRESS OR IMPLIED, EITHER IN FACT OR BY OPERATION OF LAW, BY STATUTE OR OTHERWISE, AND HIE PARTIES SPECIFICALLY DISCLAIM ANY EXPRESS OR IMPLIED WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, VALIDITY OF THE PATENT RIGHTS OR NON-INFRINGEMENT OF THE INTELLECTUAL PROPERTY OR OTHER RIGHTS OF ANY THIRD PARTY. THE WARRANTIES SET FORTH IN SECTIONS 9.1 AND 9.3 ABOVE ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, VALIDITY, NON-INFRINGEMENT AND ALL SUCH OTHER WARRANTIES ARE HEREBY EXPRESSLY DISCLAIMED.

ARTICLE 10: INDEMNIFICATION

10.1 **Indemnification by Licensee**. Licensee shall defend, indemnify and hold harmless COH, its Affiliates, and their respective officers, directors, shareholders, employees and agents ("**COH Indemnitees**") from and against any and all Third Party liabilities, claims, suits, and expenses, including reasonable attorneys' fees (collectively, "**Losses**"), arising out of or are in any way attributable to: (i) the material breach of any representation or warranty made by Licensee under this Agreement, (ii) the research, development, marketing, approval, manufacture, packaging, labeling, handling, storage, transportation, use, distribution, promotion, marketing or sale of Licensed Products or Licensed Services by or on behalf of Licensee, any of its Affiliates (excluding Designated Affiliates) or a Sublicensee or any other exercise of rights under this Agreement or pursuant to any sublicense, or (iii) the negligence, willful misconduct or failure to comply with applicable law by a Licensee Indemnitee or Sublicensee.

10.2 **Procedure**. The indemnities set forth in Section 10.1 are subject to the condition that COH shall forthwith notify Licensee of a liability, claim, suit, action or expense and that Licensee defend and control any proceedings with COH being permitted to participate at its own expense (unless there shall be a conflict of interest which would prevent representation by joint counsel, in which event Licensee shall pay for COH's counsel): provided, that, Licensee may not settle the liability, claim, suit, action or expense, or otherwise admit fault of COH or consent to any judgment, without the written consent of COH (such consent not to be unreasonably withheld). Notwithstanding the foregoing, no delay in the notification of the existence of any claim of Loss shall cause a failure to comply with this Section 10.2 as long as such delay shall not have materially impaired the rights of Licensee.

10.3 **Insurance**.

(a) Within [**] following the first equity or debt financing with net proceeds to Licensee or Parent of greater than $[**], Licensee shall procure at its sole expense (or shall be covered under a policy maintained by an Affiliate) and provide to COH evidence of comprehensive or commercial general liability insurance (contractual liability included) with limits of at least: (i) each occurrence, $[**]; (ii) products/completed operations aggregate, $[**]; (iii) personal and advertising injury, $[**]; and general aggregate (commercial form only), $[**].

(b) The foregoing policies will provide primary coverage to COH and shall name the COH Indemnitees as additional insureds, and shall remain in effect during the term of this Agreement and for [**] following the termination or expiration of the term of this Agreement. The COH Indemnitees shall be notified in writing by Licensee not less than [**] prior to any material modification, cancellation or non-renewal of such policy. Licensee's insurance must include a provision that the coverages will be primary and will not participate with nor will be excess over any valid and collective insurance or program of self-insurance carried or maintained by the COH Indemnitees. Such insurance coverage shall be maintained with an insurance company or companies having an A.M. Best's rating (or its equivalent) of A-XII or better.

(c) Licensee expressly understands that the coverage limits in Section 10.3(a) do not in any way limit the Licensee's liability.

10.4 **LIMITATION ON DAMAGES. NOTWITHSTANDING ANYTHING CONTAINED IN THIS AGREEMENT TO THE CONTRARY: (I) IN NO EVENT SHALL COH BE LIABLE TO LICENSEE FOR ANY SPECIAL, PUNITIVE, CONSEQUENTIAL, INDIRECT, OR INCIDENTAL DAMAGES (INCLUDING LOSS OF PROFITS, COSTS OF PROCURING SUBSTITUTE GOODS, LOST BUSINESS OR ENHANCED DAMAGES FOR INTELLECTUAL PROPERTY INFRINGEMENT) WHETHER BASED UPON BREACH OF WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR ANY OTHER LEGAL THEORY, AND (II) IN NO EVENT SHALL COH BE LIABLE TO LICENSEE FOR AN AGGREGATE AMOUNT IN EXCESS OF ONE-HALF OF THE TOTAL CONSIDERATION PAID TO COH HEREUNDER.**

ARTICLE 11: CONFIDENTIALITY

11.1 **Confidential Information**. During the term of this Agreement and for [**] thereafter without regard to the means of termination: (i) COH shall not use, for any purpose other than the purpose contemplated by this Agreement, or reveal or disclose to any Third Party any Licensee Confidential Information; and (ii) Licensee shall not use, for any purpose other than the purpose contemplated by this Agreement, or reveal or disclose any COH Confidential Information to any Third Party. The Parties shall take reasonable measures to assure that no unauthorized use or disclosure is made by others to whom access to such other Party's Confidential Information is granted.

11.2 **Exceptions**. Notwithstanding the foregoing, a Party may use and disclose Confidential Information of the other Party as follows:

(a) if required by applicable law, rule, regulation, government requirement and/or court order, provided, that, the disclosing Party promptly notifies the other Party of its notice of any such requirement and provides the other Party a reasonable opportunity to seek a protective order or other appropriate remedy and/or to waive compliance with the provisions of this Agreement;

(b) to the extent such use and disclosure occurs in the filing or publication of any patent application or patent on inventions;

(c) as necessary or desirable for securing any regulatory approvals, including pricing approvals, for any Licensed Products or Licensed Services, provided, that, the disclosing Party shall take all reasonable steps to limit disclosure of the Confidential Information outside such regulatory agency and to otherwise maintain the confidentiality of the Confidential Information;

(d) to take any lawful action that it deems necessary to protect its interest under, or to enforce compliance with the terms and conditions of, this Agreement;

(e) to the extent necessary, to its Affiliates, directors, officers, employees, consultants, vendors and clinicians under written agreements of confidentiality at least as restrictive as those set forth in this Agreement, who have a need to know such information in connection with such Party performing its obligations or exercising its rights under this Agreement; and

(f) by Licensee, to actual and potential investors, licensees, Sublicensees, consultants, vendors and suppliers, and academic and commercial collaborators, under written agreements of confidentiality at least as restrictive as those set forth in this Agreement.

11.3 **Certain Obligations**. During the Term and for a period of [**] thereafter and subject to the exceptions set forth in Section 11.2, Licensee, with respect to COH Confidential Information, and COH, with respect to Licensee Confidential Information, agree:

(a) to use such Confidential Information only for the purposes contemplated under this Agreement,

(b) to treat such Confidential Information as it would its own proprietary information which in no event shall be less than a reasonable standard of care,

(c) to take reasonable precautions to prevent the disclosure of such Confidential Information to a Third Party without written consent of the other Party, and

(d) to only disclose such Confidential Information to those employees, agents and Third Parties who have a need to know such Confidential Information for the purposes set forth herein and who are subject to obligations of confidentiality no less restrictive than those set forth herein.

11.4 **Termination**. Upon termination, of this Agreement pursuant to Section 8.2 (but for clarity, not in the case of its Expiration), and upon the request of the disclosing Party, the receiving Party shall promptly return to the disclosing Party or destroy all copies of Confidential Information received from such Party, and shall return or destroy, and document the destruction of, all summaries, abstracts, extracts, or other documents which contain any Confidential Information of the other Party in any form, except that each Party shall be permitted to retain a copy (or copies, as necessary') of such Confidential Information for archival purposes or to enforce or verify compliance with this Agreement, or as required by any applicable law or regulation.

ARTICLE 12: DISPUTE RESOLUTION

All Disputes shall be first referred to [**] of COH (the "**COH [**]**") and the [**] of Licensee for resolution, prior to proceeding under the other provisions of this Article 12. A Dispute shall be referred to such executives upon one Party (the "**Initiating Party**") providing the other Party (the "**Responding Party**") with notice that such Dispute exists, together with a written statement describing the Dispute with reasonable specificity and proposing a resolution to such Dispute that the Initialing Party is willing to accept, if any. Within [**] after having received such statement and proposed resolution, if any, the Responding Party shall respond with a written statement that provides additional information, if any, regarding such Dispute, and proposes a resolution to such Dispute that the Responding Party is willing to accept, if any. In the event that such Dispute is not resolved within [**] after the Responding Party's receipt of the Initiating Party's notice, either Party may bring and thereafter maintain suit against the other with respect to such Dispute; provided, however, that the exclusive jurisdiction of any such suit shall be the state and federal courts located in Los Angeles County, California, and the Parties hereby consent to the exclusive jurisdiction and venue of such courts.

ARTICLE 13: GOVERNMENTAL MATTERS

13.1 **Governmental Approval or Registration**. If this Agreement or any associated transaction is required by the law of any nation to be either approved or registered with any governmental agency, Licensee shall assume all legal obligations to do so. Licensee shall notify COH if it becomes aware that this Agreement is subject to a U.S. or foreign government reporting or approval requirement. Licensee shall make all necessary filings and pay all costs including fees, penalties and all other out-of-pocket costs associated with such reporting or approval process.

13.2 **Export Control Laws**. Licensee shall observe all applicable U.S. and foreign laws with respect to the transfer of Licensed Products and related technical data to foreign countries, including, without limitation, the International Traffic in Arms Regulations and the Export Administration Regulations.

ARTICLE 14: MISCELLANEOUS

14.1 **Assignment and Delegation**. Except as expressly provided in this Section 14.1, neither this Agreement nor any right or obligation hereunder shall be assignable in whole or in part, whether by operation of law, or otherwise by Licensee without the prior written consent of COH. Notwithstanding the foregoing, Licensee or COH, may assign or transfer its rights and obligations under this Agreement to (a) an Affiliate or (b) a Person that succeeds to all or substantially all of such assignor's business or assets, whether by sale, merger, operation of law or otherwise and provided that such Person agrees, in form and substance reasonably acceptable to the non-assigning Party, to be bound as a direct party to this Agreement in addition to Licensee. This Agreement shall be binding upon and inure to the benefit of and be enforceable by the Parties hereto and their respective successors and permitted assignees. Any transfer or assignment of this Agreement in violation of this Section 14.1 shall be null and void.

14.2 **Entire Agreement**. This Agreement contains the entire agreement between the Parties relating to the subject matter hereof, and all prior understandings, representations and warranties between the Parties are superseded by this Agreement. For clarity, the Original Agreement shall be deemed amended and restated in its entirety by and replaced by this Agreement.

14.3 **Amendments**. Changes and additional provisions to this Agreement shall be binding on the Parties only if agreed upon in writing and signed by the Parties.

14.4 **Applicable Law**. This Agreement shall be construed and interpreted in accordance with the laws of the State of California and all rights and remedies shall be governed by such laws without regard to principles of conflicts of law.

14.5 **Force Majeure**. If the performance of this Agreement or any obligations hereunder is prevented, restricted or interfered with by reason of earthquake, fire, flood or other casualty or due to strikes, riot, storms, explosions, acts of God, war, terrorism, or a similar occurrence or condition beyond the reasonable control of the Parties, the Party so affected shall, upon giving prompt notice to the other Parties, be excused from such performance during such prevention, restriction or interference, and any failure or delay resulting therefrom shall not be considered a breach of this Agreement.

14.6 **Severability**. The Parties do not intend to violate any public policy or statutory common law. However, if any sentence, paragraph, clause or combination of this Agreement is in violation of any law or is found to be otherwise unenforceable, such sentence, paragraph, clause or combination of the same shall be deleted and the remainder of this Agreement shall remain binding, provided that such deletion does not alter the basic purpose and structure of this Agreement.

14.7 **Notices**. All notices, requests, demands, and other communications relating to this Agreement shall be in writing in the English language and shall be delivered in person or by mail, international courier or facsimile transmission (with a confirmation copy forwarded by courier or mail). Notices sent by mail shall be sent by first class mail or the equivalent, registered or certified, postage prepaid, and shall be deemed to have been given on the date actually received. Notices sent by international courier shall be sent using a service which provides traceability of packages. Notices shall be sent as follows:

Notices to COH:	with a copy to:
Office of Technology Licensing City of Hope 1500 East Duarte Road Duarte, CA 91010 Attn: VP, Center for Applied Technology Development Fax [**]	Office of General Counsel City of Hope 1500 East Duarte Road Duarte, CA 91010 Attn: General Counsel Fax [**]
Notices to Licensee:	with a copy to:
Akriveia Therapeutics Inc. 23 Southern Hills Drive, Skillman, New Jersey 08558	Morrison & Foerster LLP 12531 High Bluff Drive, Suite 100 San Diego, CA 92130

Either Party may change its address, or the addition or deletion of “copied” persons or entities for notices or facsimile number at any time by sending notice to the other Party.

14.8 **Independent Contractor**. Nothing herein shall create any association, partnership, joint venture, fiduciary duty or the relation of principal and agent between the Parties hereto, it being understood that each Party is acting as an independent contractor, and neither Party shall have the authority to bind the other or the other’s representatives in any way.

14.9 **Waiver**. No delay on the part of either Party hereto in exercising any power or right hereunder shall operate as a waiver thereof, nor shall any single or partial exercise of any power or right hereunder preclude other or further exercise thereof or the exercise of any other power or right. No waiver of this Agreement or any provision hereof shall be enforceable against any Party hereto unless in writing, signed by the Party against whom such waiver is claimed, and shall be limited solely to the one event.

14.10 **Interpretation**. This Agreement has been prepared jointly and no rule of strict construction shall be applied against either Party. In this Agreement, the singular shall include the plural and vice versa and the word "including" shall be deemed to be followed by the phrase "without limitation." The section headings contained in this Agreement are inserted for convenience only and shall not affect in any way the meaning or interpretation of this Agreement.

14.11 **Counterparts**. This Agreement may be executed in counterparts, each of which together shall constitute one and the same Agreement. For purposes of executing this agreement, a facsimile copy or an emailed PDF of this Agreement, including the signature pages, will be deemed an original.

14.12 **Licensee Covenant**. Licensee covenants and agrees that, in conducting activities contemplated under this Agreement, it shall comply in all material respects with all applicable laws and regulations including, without limitation, those related to the manufacture, use, labeling importation and marketing of Licensed Products and Licensed Services.

14.13 **Licensee Certification**. Licensee certifies to COH under penalty of perjury, that Licensee has not been convicted of a criminal offense related to health care, is not currently debarred, excluded or otherwise ineligible for participation in federally funded health care programs and has not arranged or contracted (by employment or otherwise) with any employee, contractor, or agent that it knew or should have known are excluded from participation in any federal health care program, and will not knowingly arrange or contract with any such individuals or entities during the term of this Agreement. Licensee agrees to notify COH in writing immediately of any threatened, proposed or actual conviction relating to health care, of any threatened, proposed or actual debarment or exclusion from participation in federally funded programs, of COH or any employee, contractor or agent of COH. Any material breach of this Section 14.13 by Licensee shall be grounds for termination of this Agreement by COH in accordance with Section 8.2.1.

14.14 **Publicity**. Neither Party may issue a press releases or otherwise disclose the existence or terms of this Agreement without the prior written consent of the other Party, which consent shall not be unreasonably withheld or delayed; provided, however, that once the existence or any terms or conditions of this Agreement has been publicly disclosed in a manner mutually and reasonably agreed-to by the Parties, either Party may republish the facts previously disclosed without the prior consent of the other Party. COH may, in its sole discretion and without the approval of Licensee, publicly disclose the existence of this Agreement and the overall potential value of the Agreement to COH so long as the detailed and specific terms and conditions of this Agreement are not disclosed. If a Third Party inquires whether a license is available, COH may disclose the existence of the Agreement and the extent of its grant in Section 3.1 to such Third Party, but will not disclose the name of the Licensee, except where COH is required to release information under either the California Public Records Act or other applicable law.

14.15 **No Third Party Beneficiaries**. Except for the rights of the COH Indemnities pursuant to Article 10, nothing in this Agreement, either express or implied, is intended to or shall confer upon any Third Party any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

* * * * *

IN WITNESS WHEREOF, the Parties have executed this Agreement by their duly authorized representatives.

AKRIVEIA THERAPEUTICS INC.		**CITY OF HOPE**	
By:	/s/ Simon Tomlinson	By:	/s/ Robert Stone
Name:	Simon Tomlinson	Name:	Robert Stone
Title:	President and CEO	Title:	President and CEO

Exhibit 10.12

Certain identified information has been excluded from the exhibit because it is both (i) not material and (ii) is the type of information that the registrant treats as private or confidential. Double asterisks denote omissions.

CTLA-4 MONOCLONAL ANTIBODY LICENSE AGREEMENT

This **LICENSE AGREEMENT** (the "**Agreement**") is entered into as of September 26, 2016 between:

A. **WUXI BIOLOGICS (HONG KONG) LIMITED**, a Hong Kong corporation having its registration address at Suite 3701-10, 37/F., Jardine House, 1 Connaught Place, Central, Hong Kong ("***WuXi***"); and

B. **AKRIVEIA THERAPEUTICS INC.**, a Delaware corporation having an address at 23 Southern Hills Drive, Skillman, NJ 08558 ("***Akriveia***").

BACKGROUND:

1. *Akriveia* is a company dedicated to the discovery, commercial development and exploitation of proprietary pharmaceutical products and services.

2. *WuXi* is a leading end-to-end biopharmaceutical open-access capability and technology platform with operations in China and the United States. *WuXi* has developed mAb molecules that bind a series of therapeutically relevant biological targets.

3. *Akriveia* wishes to use its proprietary technology to modify *WuXi's* mAb molecules and develop the modified molecules as therapeutic products. *WuXi* is willing to license the mAb molecules to *Akriveia* for this purpose.

AGREEMENT:

In consideration of the mutual promises and conditions set forth herein and other good and valuable consideration, *WuXi* and *Akriveia*, intending to be legally bound, agree as follows:

1. DEFINED TERMS

1.1. The meanings of defined terms used in this *Agreement* are listed in Appendix 1.

1.2. Defined terms are capitalized and may (or may not) be in *italics*.

2. LICENSE

2.1. **Exclusive License Grant.** *WuXi* grants to *Akriveia* - under *WuXi's* rights in the *Licensed Patent Rights* and *Licensed Technology* - an exclusive, royalty-bearing license to:

2.1.1. Modify *Licensed mAbs* using *Akriveia Technology* (both alone and together with one or more other technologies) for the purpose of developing *Products* and for such purpose reproduce and use the Licensed mAbs Materials, and it is understood and agreed that such modifications by Akriveia using Akriveia Technology, both alone and together with one or more other technologies, are hereby expressly contemplated, authorized and deemed within scope of the license granted, irrespective of any rights that may subsequently be granted by WuXi to third parties; and

2.1.2. Manufacture (i.e. make and have made), use, sell, offer for sale and import any *Products* in the *Licensed Territory and* for such purpose reproduce and use the *Licensed mAbs Materials and the Licensed Technology*.

2.2. **Term of Licenses.** The term of the license to *Licensed Patent Rights* in Section 2.1 will end on expiry of the last of the *Licensed Patent Rights* on a country-by-country basis.

2.3. **Paid-Up License.** *Akriveia* will have a paid-up license permitting royalty free manufacture (i.e. making and having made), use, sale, offer for sale and import of *Products* in a country after the end of *Akriveia's* last obligation to pay royalties on the *Product's Net Sales* in that country.

2.4. **Sub-Licenses.**

2.4.1. *Akriveia* may sublicense through multiple tiers the licenses in Section 2.1 to: (i) any *Affiliate*; and (ii) third parties to permit such Affiliates or third parties:

a. To make, have made, use, sell, offer for sale or import a *Product* developed or commercialized by *Akriveia* or its licensees; or

b. To perform services for *Akriveia* in furtherance of the research, development or commercialization of *Products* by *Akriveia* or its licensees.

2.4.2. If *Akriveia* grants a sublicense pursuant to this Section 2.4:

a. *Akriveia* will be responsible for the sub-licensee performing in a manner consistent with *Akriveia*'s obligations under this *Agreement*;

b. *Akriveia* will not be relieved of its obligations under this *Agreement*.

2.5. **Retained Rights.** Each *Party* acknowledges that the rights granted under this Section 2 are limited to the scope expressly granted.

2.5.1. With the exception of the specific rights granted in this Section 2, *WuXi* retains all rights in the *Licensed Technology* and *Licensed Patent Rights* including, without limitation,:

a. The right to develop therapeutic and diagnostic products incorporating the *Licensed mAbs* but that do not use or incorporate any *Akriveia Technology*; and for clarity, no license or other right whatsoever to any *Akriveia Technology* is granted to *WuXi* pursuant to this Agreement;

b. For clarity, *Akriveia* does not under this *Agreement*, nor does it have any obligation to grant, to *WuXi* any rights in any *Patent Rights* or other intellectual property rights owned, controlled or licensed by *Akriveia* that cover any *Product*.

3. TECHNOLOGY TRANSFER.

3.1. **Transfer.** In accordance with the *Technology Transfer Plan* attached as Appendix D *WuXi* will [**]. Each *Party* will [**] in performing the *Technology Transfer Plan*.

4. DILIGENCE.

4.1. **Diligence Standards & Decision Making.** *Akriveia* will [**] develop and exploit *Products* [**]. *Akriveia* will have sole authority and discretion to make all decisions relating to [**] in the *Licensed Territory* .

4.2. **Diligence Reporting**

4.2.1. Annual Development Reports. *Akriveia* will submit to *WuXi* a written annual report summarizing the work undertaken during the year to develop any *Products* under this *License Agreement* with the first such annual report due on [**]. Thereafter, the report must be submitted within [**] after the end of each calendar year.

4.2.2. Annual Commercialization Report. After a *Product* is approved for marketing or sale in any country, *Akriveia* will submit to *WuXi* a written annual report summarizing [**] during the previous year and [**] for any *Products* developed under this *License Agreement*. The annual report must be submitted within [**] after the end of each calendar year.

4.3. **Performance of [**].** *Akriveia* agrees that it will [**] contract with *WuXi* for *WuXi* to perform [**] services [**] for the development of any *Products*. Notwithstanding the foregoing, *Akriveia* may [**] if after [**], *Akriveia* determines, [**] that:

[**].

5. PAYMENT TERMS

5.1. **Upfront Payment.** There will be [**] from *Akriveia* to *WuXi* under this *License Agreement*.

5.2. **Development Milestones Payments.** If a *Product* achieves a *Development Milestone* described in Table 1 below, *Akriveia* will pay *WuXi* the sum noted for that milestone. The milestone will not be payable if:

5.2.1. the *Product* had previously achieved the milestone and the corresponding milestone payment was paid; or

5.2.2. the *Product* is being developed as a back-up to a *Lead Product* and the *Lead Product* had previously achieved the milestone and the corresponding milestone payment was paid; or

5.2.3. the *Product* is being developed as a reformulation or other variant form of a *Product* which had previously achieved the milestone and the corresponding milestone payment was paid.

Each *Development Milestone* associated payment shall be payable only once for a given *Product* (whether a reformulation or variant, or back-up to a *Lead Product*) such that the aggregate payable for *Development Milestones* under this Agreement for each given *Product* is $[**].

Table 1.

Milestone	Payment (USD)
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]

5.3. **Royalty Payments.**

5.3.1. Royalties. *Akriveia* will pay *WuXi* a royalty based on a *Product's Net Sales* in the *Licensed Territory*.

5.3.2. Royalty Rates. The royalty rate will be determined by increments of annual *Net Sales* of the *Product* in the *Licensed Territory* as set out in Table 2 below, and for clarity, without aggregating the *Net Sales* of two or more different *Products* (such as may be determined or defined by the Regulatory Authority).

5.3.3. End of Royalties. *Akriveia*'s obligation to pay royalties will end in each country on the later of:

a. expiry of the last *Valid Claim* of a *Licensed Patent Right* claiming the *Product* in the country; or

b. [**] from the *First Commercial Sale*, provided that if at any time after expiry of the *Valid Claim* as provided in 5.3.3.a, above, and before the foregoing [**] period is completed, the [**] is reached then *Akriveia*'s obligation to pay royalties will immediately end.

Table 2.

Annual Net Sales Tiers (USD) for a Product	Royalty
[**]	[**]
[**]	[**]
[**]	[**]

5.4. **Sales Milestone Payments.** If a *Product* achieves a sales performance milestone described in Table 3, *Akriveia* will pay *WuXi* the sum noted for that milestone on a *Product-by-Product* basis [**]. The milestone payment will only be paid the first time each *Product* achieves the sales milestone. The *Net Sales* used to calculate milestone payments will be based on *Licensed Territory Net Sales* of *Products* on which royalties are payable under Section 5.3.

Table 3.

Annual Net Sales (USD) for a Product	Payment (USD)
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]

5.5. **Currency Conversion.** The amount of *Net Sales* in any foreign currency will be computed by:

5.5.1. Converting the *Net Sales* into U.S. dollars [**] for the close of the last business day of the calendar quarter for which the relevant royalty payment is due; and

5.5.2. Deducting [**].

5.6. **General Payment Matters.**

5.6.1. All payments will be made in U.S. currency by electronic funds transfer.

5.6.2. All payments [**] will be made within [**] after the payment becomes due.

5.6.3. Royalty payments on *Net Sales* will be made within [**] after the end of each calendar quarter in which the *Net Sales* are made. These payments must be accompanied by a statement showing:

a. The *Net Sales* of each Product by *Akriveia* or any sub-licensee of *Akriveia* in each country;

b. The applicable royalty rate(s) for the relevant volume(s) of *Net Sales* of *Product*; and

c. A calculation of the amount of royalty due, including any offsets or credits.

5.7. **Withholding Tax Matters.** If any applicable law or regulation of any jurisdiction requires the withholding or payment of any taxes by *Akriveia* or any of its *Affiliates* or sub-licensees pursuant to Section 5, any such taxes [**]. Unless under the applicable laws or regulations, such payments can [**] *Akriveia* will [**].

6.

6.1. **Records and Inspection.**

6.1.1. Records. *Akriveia* [**] of its *Net Sales*. The records must [**]. The records must be kept for at least [**] from the date of each royalty or sales milestone payment.

6.1.2. Inspection. For [**] after a royalty or sales milestone payment, *WuXi* may [**] appoint an independent, certified public accountant to inspect the records of *Akriveia*. The accountant must be reasonably acceptable to *Akriveia*.

6.1.3. Notice and Place. Before inspecting the records *WuXi* must give *Akriveia* [**] notice. *Akriveia* must make the records available for the inspection during regular business hours at the place where the records are usually kept.

6.1.4. Findings. The accountant's findings will be binding on the *Parties*. If the accountant finds that *Akriveia* has underpaid, then *Akriveia* must pay the underpayment to *WuXi* within [**] of being notified of the finding. If the underpayment is [**] then *Akriveia* must reimburse to *WuXi* the cost of the audit. If the accountant finds that *Akriveia* has overpaid *WuXi*, then the overpayment must be refunded within [**] of *WuXi* being notified of the finding.

6.1.5. Timing and Frequency. *WuXi* may only inspect the records [**] and may only inspect the records for any revenue share payment [**]. If *WuXi* does not inspect the records for a royalty or sales milestone payment within [**] of the payment being made, *WuXi* will be deemed to have accepted the accuracy of the records.

6.1.6. Confidentiality. All information about *Akriveia*'s financial affairs learned by a *WuXi* during an inspection will be deemed *Akriveia*'s *Confidential Information*. It is understood and agreed that the accountant will disclose to *WuXi* only that information necessary to report the accuracy and completeness of *Akriveia*'s royalty and sales milestone payments to *WuXi*.

7. CONFIDENTIALITY

7.1. **Non-Disclosure.** Except as provided in this Section 7 below, a *Receiving Party* may not disclose to a third party the following information without the written permission of the *Disclosing Party*:

7.1.1. *Disclosing Party's Confidential Information* disclosed under this Agreement.

7.1.2. Any information deemed to be the *Confidential Information* of both *Parties*.

7.1.3. The terms of this *Agreement*.

7.2. **Permitted Disclosures**

7.2.1. Required by Law. If a *Receiving Party* is required by law to disclose the information listed in Section 7.1, it must give the Disclosing *Party* prompt notice and cooperate with *Disclosing Party* if it seeks - at its expense - a protective order. If the *Disclosing Party* faits to obtain a protective order, the *Receiving Party* may - without the other's permission - disclose the information that its legal counsel advises it is required to disclose.

7.2.2. Staff. The *Parties* may disclose the information listed in Section 7.1 to their officers, employees, agents and consultants ("Staff"). . The Staff must be bound by contract to maintain such information in confidence on the same terms as are set forth in this Section 7

7.2.3. Sub-Licensees & other Third Parties. *Akriveia* may disclose the information in Section 7.1.1 to a third party: (i) for use under a sublicense that *Akriveia* is entitled to grant under this *Agreement*; or (ii) providing services to *Akriveia* with respect any *Product*. The third party must be bound by contract to maintain such information in confidence on the same terms as are set forth in this Section 7.

7.2.4. Potential Investors. A *Party* may disclose the terms of this *Agreement* to its:

a. advisors;

b. any potential investor that would qualify as accredited as defined in 17 C.F.R. Section 230.501

c. investment bankers; and

d. any potential acquirer of substantially all of the assets to which this *Agreement* relates or any potential sublicensee or potential commercialization partner.

7.3. **Use.** The *Parties* may only use the information listed in Section 7 as expressly permitted by this *Agreement*. *Akriveia* may only use *WuXi*'s *Confidential Information* within the scope of the licenses granted hereunder including under Section 2.

7.4. **Measures.**

7.4.1. General Measures. The *Parties* will use the same measures to protect the other's *Confidential Information* as it uses to protect its own *Confidential Information*. Each *Party* must ensure that each of its officers, employees, agents and consultants that will have access to the other's *Confidential Information* are bound by contract to maintain the information in confidence. Further a *Party* must ensure that each of the individuals or entities listed in Section 7.2.4 are bound by contract to maintain the terms of this *Agreement* in confidence.

7.4.2. Special Measures. During performance of any *Technology Trannsfer Plan* under Section 3, *Akriveia* must, prior to disclosing the sequence or structural information of any *Licensed mAb* to any person, notify *WuXi* in writing of the person or persons that it intends disclosing such information to, provide *WuXi* with a copy of the relevant confidentiality agreement between *Akriveia* and such persons and obtain *WuXi*'s written consent, provided that the foregoing procedure will not be required with respect to Akriveia's designated laboratory.

7.5. **Return of Information.** After termination of this Agreement, a *Receiving Party* will, on the *Disclosing Party*'s request, return or destroy all copies of documents provided by *Disclosing Party* that contain the requesting *Disclosing Party*'s *Confidential Information*. But, one (1) copy may be kept so that the *Receiving Party* can monitor its continuing obligations under this Section 7. The *Confidential Information* will be returned within [**] of the request.

7.6. **Duration.** The obligations of this Section 7 will end if the information listed in Section 7 enters the public domain through no fault of the *Receiving Party* that received the information.

8. RESTRICTIONS ON MATERIALS.

8.1. **Permitted Transfer.** *Akriveia* may transfer *Licensed mAb Materials* to a third party:

8.1.1. for use under a sublicense that *Akriveia* is entitled to grant under this *Agreement*; or

8.1.2. engaged by *Akriveia* to perform services with respect to any *Product*.

8.2. **Permitted Use.** *Akriveia* may only use the *Licensed mAb Materials* as contemplated by this Agreement including as contemplated by Section 2.1.2.

8.3. **Restricted Use & Transfer.** Other than as provided in Section 8.1 and 8.2, *Akriveia* may not transfer *Licensed mAb Materials* to a third party or use the *Licensed mAb Materials* without the written permission of *WuXi*.

9. BANKRUPTCY.

9.1. **Intellectual Property.** All rights granted under this Agreement by *WuXi* are, for the purposes of Article 36S(n) of the U.S. Bankruptcy Code, licenses of rights to "intellectual property" as defined under Article 101 of the U.S. Bankruptcy Code. The *Parties* agree that:

9.1.1. Rights and Elections. *Akriveia* will retain - and may fully exercise - all of its rights and elections under the U.S. Bankruptcy Code, or equivalent legislation in any other jurisdiction.

9.1.2. Delivery of Intellectual Property. In the event a bankruptcy proceeding is commenced by or against *WuXi* under the U.S. Bankruptcy Code, *Akriveia* will be entitled to a complete duplicate of (or complete access to, as appropriate) the intellectual property and its embodiments. If the intellectual property and its embodiments are not already in *Akriveia*'s possession, they must be promptly delivered to *Akriveia* at *Akriveia*'s request when:

a. The bankruptcy proceeding is commenced, unless *WuXi* elects to continue to perform all of its obligations under this *Agreement*; or

b. This *Agreement* is rejected by or on behalf of *WuXi*.

10. PATENT FILING, PROSECUTION & MAINTENANCE

10.1. **WuXi's Obligations.** *WuXi* will [**] file, prosecute, maintain and enforce *Licensed Patent Rights*, provided, however, *WuXi* will: (a) [**] grant to *Akriveia* rights to enforce the *Licensed Patent Rights* [**] if the rights to develop and commercialize the *Licensed mAb* as an unmodified antibody have not been granted by *WuXi* to a third party licensee within [**] after the Effective Date, and upon *Akriveia* request from time-to-time, *WuXi* will provide updates on status of such out-license effort; and (b) until rights to enforce have been granted to *Akriveia*, upon *Akriveia*'s notice of infringing activity in the *Field*, *WuXi* will consider in good faith enforcing the *Licensed Patents Rights* against the infringers with the assistance of, and at the sole cost and expense of Akriveia.

10.2. **Defense.** If a third party brings suit against *Akriveia* or any sub-licensee alleging that *Akriveia*'s practice of *Licensed Patent Rights* [**] infringes the third party's intellectual property rights:

10.2.1. *Akriveia* must give *WuXi* [**] written notice and give *WuXi* a copy of each communication relating to the alleged infringement;

10.2.2. *WuXi* must[**] cooperate with *Akriveia*'s defense of the suit;

10.2.3. *WuXi* will authorize *Akriveia* to conduct and dispose of the suit;

10.2.4. *Akriveia* must obtain *WuXi*'s consent to any part of settlement that contemplates payment or other action by *WuXi* or waiver, amendment or abandonment of any *Licensed Patent Rights* [**];

10.2.5. *Akriveia* may, at its expense, require *WuXi* to institute or join any defense and *WuXi* must execute all documents and take all other actions, which may reasonably be required in connection with the defense.

11. **Term and Termination**

11.1. **Term.** Unless sooner terminated, this *Agreement* will end on the last obligation of *Akriveia* to pay royalties under this *License Agreement*.

11.2. **Breach Events.** The following will be breach events ("Breach Events"):

11.2.1. Any representation or warranty of a party under this *Agreement* proves to have been incorrect in any material respect when made.

11.2.2. A party fails in any material respect to perform or observe any term of this *Agreement*. But, only if the failure remains un-remedied for [**] after written notice from the other *Party*.

11.3. **Termination.**

11.3.1. A *Party* may terminate this Agreement [**] if the other *Party* is responsible for a *Breach Event* by giving written notice, provided that if the alleged breaching *Party* disputes the existence or materiality of a *Breach Event* in a notice provided to the non-breaching *Party*, then the non-breaching Party shall have no right to terminate this Agreement unless and until the arbitrator (per Section 16.2) has confirmed such existence and materiality, and thereafter, the breaching *Party* has failed to cure such breach within [**] after the arbitrator's decision. It is understood and agreed that during the pendency of such dispute, all of the terms and conditions of this Agreement shall remain in effect and the Parties shall continue to perform all of their respective obligations hereunder. The Parties agree that [**] for any Product [**], termination pursuant to this Section 11.3 is a remedy to be invoked only if the breach cannot be adequately remedied through specific performance and/or payment of money damages.

11.3.2. *Akriveia* may terminate this Agreement at anytime without cause by giving *WuXi* 90 days written notice.

11.4. **Effect of Termination.**

11.4.1. Termination of this *Agreement* will not prejudice:

a. The following terms which will survive termination, Sections 5.5, 6, 7, 8, 11.2, 12, 13, 14;

b. A party's right to receive any payments accrued under and in accordance with Section 5; or

c. Any other remedies which either party may otherwise have.

11.4.2. On the date of termination:

a. Licenses. The license under Section 2 will immediately terminate.

b. Use of Licensed mAb. *Akriveia* must; (i) immediately and forever cease research, development or commercialization of any *Product*; and (ii) must at *WuXi*'s request destroy all *Licensed mAb Materials* in its or its sub-licensee's possession.

12. REPRESENTATIONS & WARRANTIES

12.1. **General.** *WuXi* and Akriveia each represents and warrants to the other as follows:

12.1.1. It is a corporation duly organized, validly existing and is in good standing under the laws of Hong Kong in the case of *WuXi* and Delaware in the case of *Akriveia*.

12.1.2. It is qualified to do business and is in good standing in each jurisdiction in which it conducts business.

12.1.3. It has all the power and authority to conduct its business as now being conducted.

12.1.4. It has all power and authority to enter into and perform this *Agreement*.

12.1.5. This Agreement has been duly authorized by all necessary corporate action and will not:

a. require the consent of its stockholders;

b. violate any applicable law;

c. violate its certificate of incorporation or by-laws; or

d. breach any material agreement, permit or other instrument that binds it or its assets.

12.1.6. It does not owe an obligation to a third party that conflicts with this *Agreement* or that would impede its performance of this *Agreement*.

12.1.7. It has sufficient rights in its tangible and intangible assets to perform this *Agreement* and it is not aware that a third party disputes these rights.

12.2. **IP Representation & Warranty.** *WuXi* hereby represents and warrants that:

12.2.1. *WuXi* has no knowledge of any information that adversely affects the validity or enforceability of the *Licensed Patent Rights* or *WuXi*'s rights in the *Licensed Technology*;

12.2.2. The *Licensed Patent Rights* or *Licensed Technology* are not subject to any claim of invalidity, misuse, unenforceability or non-infringement;

12.2.3. *WuXi* is the sole legal and beneficial owner of the *Licensed Patent Rights* and *Licensed Technology* and no license or other right in any of the foregoing that would conflict or restrict the rights granted to *Akriveia* under Section 2 of this *Agreement* has been or will be granted to any third party.

12.3. **IP Licensees Coexistence Covenant.** *WuXi* hereby covenants with *Akriveia* that:

12.3.1. *WuXi* will not grant a license or other right to a third party in the *Licensed Patent Rights* and *Licensed Technology* that would conflict with or restrict the rights granted to *Akriveia* under Section 2 of this *Agreement*;

12.3.2. *WuXi* will include in any agreement granting a third party licenses or rights to the *Licensed Patent Rights* or *Licensed Technology* a contractual provision substantially equivalent in meaning to the following:

"This license expressly excludes any rights whatsoever to research, develop or commercialize any pharmaceutical products developed through [**] of the *Licensed mAb* with the purpose of [**] through selective activation of [**].

Licensee acknowledges that *WuXi* has granted to a third party exclusive rights under the *Licensed Patent Rights* and *Licensed Technology* to [**] pharmaceutical products by modifying the *Licensed mAb* through [**] of the *Licensed mAb* with the purpose of [**] through selective activation of [**], both by itself and together with one or more other technologies, with no restrictions as to the nature or type of technologies. Accordingly, the exclusivity of any license granted to licensee may be limited by the rights already granted by *WuXi* to the aforementioned third-party. Licensee further acknowledges that the pharmacologically active molecule of the third-party's products, after selective activation, may be similar or identical to a *Licensed mAb*"

12.3.3. Within [**] of entering into an agreement granting a third party any rights in the *Licensed Patent Rights* or *Licensed Technology*, *WuXi* will notify *Akriveia* in writing. The notice will identify the third party, the *Licensed mAb* and the territory of the rights granted. The notice will also include a certification from WuXi of compliance with the covenants in 12.3.1 and 12.3.2 above.

13. COVENANTS.

13.1. During the *Agreement*, *WuXi* and *Akriveia* each covenant to the other that it will:

13.1.1. Preserve its corporate existence.

13.1.2. Remain qualified to do business in good standing in each jurisdiction in which it conducts business.

13.1.3. Maintain the rights in its tangible and intangible assets needed to perform this *Agreement*.

13.1.4. Not accept an obligation to a third party that conflicts with this *Agreement* or that would impede its performance of this *Agreement*.

13.1.5. Comply in all material respects with the requirements of all applicable laws.

13.2. *Akriveia* covenants that it will not:

13.2.1. [**] *Products* in [**].

13.2.2. Manufacture, use, sell, offer for sale or import the *Licensed mAbs* or any derivatives or modifications of *Licensed mAbs* except as expressly permitted under this *Agreement* (namely, as one or more *Products*).

14. INDEMNITIES.

14.1. **Akriveia Indemnity**. *Akriveia* will indemnify *WuXi* and its *Affiliates*, and its or their officers, directors, shareholders, employees, agents and representatives ("***WuXi Indemnified Parties***") against all liability and costs resulting from any third party claim made against an *WuXi Indemnified Party* arising from:

a. *Akriveia*'s breach of any of its representations, warranties or covenants in Sections 12 and 13; or

b. *Akriveia*'s manufacture, sale, offer for sale, use or import of a *Product*.

14.1.1. Control. On receipt of notice of the claim, *WuXi Indemnified Party* must:

a. Promptly notify *Akriveia*.

b. Permit *Akriveia* [**] to handle and control the defense and settlement of the claim. But, *WuXi Indemnified Party* will have the right to participate in the defense of the claim at its own expense.

c. Give *Akriveia* [**] all reasonable assistance in *Akriveia*'s handling of the claim.

14.1.2. Exclusions. This indemnity will not apply to the extent any claim arises out of a *WuXi Indemnified Party*'s negligence, willful misconduct or breach of any term, representation, warranty or covenant in this *Agreement*.

14.2. ***WuXi* Indemnity.** *WuXi* will indemnify *Akriveia* and its *Affiliates*, and its or their officers, directors, shareholders, employees, agents and representatives ("***Akriveia Indemnified Parties***") against all liability and costs resulting from any third party claim made against an *Akriveia Indemnified Party* arising from *WuXi*'s breach of any of its representations, warranties or covenants in Sections 12 and 13.

14.2.1. Control. On receipt of notice of the claim, *Akriveia Indemnified Party* must:

a. Promptly notify *WuXi*.

b. Permit *WuXi* [**] to handle and control the defense and settlement of the claim. But, *Akriveia Indemnified Party* will have the right to participate in the defense of the claim at its own expense.

c. Give *WuXi* [**] all reasonable assistance *WuXi*'s handling of the claim.

14.2.2. Exclusions. This indemnity will not apply to the extent any claim arises out of an *Akriveia Indemnified Party's* negligence, willful misconduct or breach of any term, representation, warranty or covenant in this *Agreement*.

15. NOTICES.

15.1. All notices will be in writing and sent by certified mail, return receipt requested, courier, or facsimile to the addresses noted below. Notices will be deemed given on the date it is received.

15.1.1. **If to *Akriveia*:** 23 Southern Hills Drive, Skillman, NJ 08558, USA
Attention: CEO

15.1.2. **If to *WuXi*:** *WuXi* AppTec, Building 1, 288 Fute Zhong Road,
Waigaoqiao Free Trade Zone, Shanghai, China 200131
Attention: CEO

16. MISCELLANEOUS

16.1. **Governing Law.** This Agreement shall be governed by and construed in accordance with the laws of the State of Delaware, U.S.A., but without applying its conflicts of laws rules.

16.2. **Dispute Resolution.** If a dispute cannot be resolved within [**] it will be finally settled by binding arbitration in San Francisco conducted according to the then current Rules of Arbitration of the International Chamber of Commerce and in the English language. Each *Party* has the right to institute an action in a court of proper jurisdiction for injunctive or other equitable relief pending a final decision by the arbitrator.

16.3. **Binding Effect.** This *Agreement* is binding upon and inures to the benefit of a *Party's* legal representatives, successors and permitted assigns.

16.4. **Counterparts.** This *Agreement* may be executed in two or more counterparts, each of which will be deemed an original.

16.5. **Amendment.** This *Agreement* may only be amended or canceled in writing.

16.6. **Waiver.** A *Party's* compliance with the terms of this *Agreement* may only be waived by written notice from the other *Party*. Unless stated otherwise a waiver will not be deemed an ongoing waiver. Any delay or failure of a *Party* to require performance of a term of this *Agreement* will not prevent the *Party* from enforcing the term later.

16.7. **Third Party Beneficiaries.** No third party has any rights under this *Agreement*.

16.8. **Relationship.** The *Parties* are independent contractors. This *Agreement* does not create a partnership between the *Parties* or any third party.

16.9. **Assignment and Successors.** A *Party* may not assign this *Agreement* without the permission of the other *Party*. But, a *Party* may - without the permission of the other *Party* - assign this Agreement to:

16.9.1. Its *Affiliates*;

16.9.2. Any purchaser of all or substantially all of its assets to which this *Agreement* relates; or

16.9.3. Any successor corporation resulting from any merger or consolidation of such *Party* with or into such corporations;

16.10. **Force Majeure.** A *Party* will not be in breach or liable for any failure or delay of its performance of this *Agreement* caused by natural disasters or circumstances reasonably beyond its control.

16.11. **Severability.** If any provision of this *Agreement* is invalid or is unenforceable, the *Parties* intend that the remainder of the *Agreement* will be unaffected.

16.12. **Other Agreements.** This *Agreement* is the sole agreements between the *Parties* with respect to the *Licensed Technology*.

16.13. **Conflicts.** In case of any conflicts in the terms and conditions of this *Agreement* and the terms and conditions of any Appendices to this *Agreement*, the terms and conditions of this *Agreement* shall govern.

[Signature page follows]

This *Agreement* was executed on the date stated in the introductory clause.

WUXI BIOLOGICS (HONG KONG) LIMITED

By: /s/ Jing Li

Name: Jing Li

Title: Vice President
Date: Sept. 26, 2016

AKRIVEIA THERAPEUTICS INC.

By: /s/ Simon Tomlinson

Name: Simon Tomlinson

Title: Chief Executive Officer
Date: Sept. 28, 2016

Index of Appendices

Appendix A

Definitions

"Affiliate"	Means with respect to any *Party*, any person or entity controlling, controlled by or under common control with such *Party*. For purposes of this definition, "control" means: a) Direct or indirect ownership of fifty percent (50%) or more of the stock or shares having the right to vote for the election of directors of such corporate entity; or b) the possession directly or indirectly, of the power to direct, or cause the direction of, the management or policies of such entity, whether through the ownership of voting securities, by contract or otherwise.
"Akriveia Technology"	Means any approach to [**] of an antibody with the purpose of [**] through selective activation of [**].
"[**]"	Means [**].
"China Territory"	Means the People's Republic of China including Hong Kong and Macau.
"Commencement of Phase I"	Means [**] in a Phase I clinical trial initiated by or on behalf of *Akriveia* anywhere in the *Licensed Territory*.
"Commencement of Phase II"	Means [**] in a Phase II clinical trial initiated by or on behalf of *Akriveio* anywhere in the *Licensed Territory*.
"Commencement of Phase III"	Means [**] in a Phase III clinical trial initiated by or on behalf of *Akriveia* anywhere in the *Licensed Territory*.
"Commercially Reasonable Efforts"	Means those efforts and resources that *Akriveia* would use were it developing or commercializing its own pharmaceutical products that are of similar market potential as the *Product*, taking into account [**], all as measured by the facts and circumstances at the time such efforts are due.

"Confidential Information"	Means all information disclosed by one *Party* to the other and which is designated as confidential in writing at the time of disclosure or if disclosed orally, summarized or referenced in a writing within [**] after the oral disclosure by: (a) the *Disclosing Party*; (b) a third party acting on the *Disclosing Party's* behalf; or (c) a third party under an obligation of confidence to the *Disclosing Party*. All *WuXi Licensed Technology* other than *Licensed Patent Rights* that have been published will be deemed *WuXi's Confidential Information*. All Information pertaining to *Akriveia Technology* or the development and/or commercialization of Products hereunder (including the contents of all Development and Commercialization reports provided to *WuXi*) will be deemed *Akriveia's Confidential Information*. The following information is not included in this definition. Information, as established by contemporaneous business records kept in the ordinary course, that: a. at the time of receiving the information such information was already known by the *Receiving Party* without any restriction on disclosure with respect to such information; b. is furnished to the *Receiving Party* by a third party without restriction on disclosure; or c. is independently developed by the *Receiving Party* without reference to any of the Disclosing Party's Confidential Information.
"Control", "Controlled" or "Controller"	Means with respect to any intellectual property right, the possession (whether by ownership or license, other than a license granted by one Party to the other pursuant to this Agreement) by a Party of the ability to grant to the other Party a license or to extend other rights as provided herein, under such first Party's intellectual property right without violating the terms of any agreement or other arrangements with any third party.
"Disclosing Party"	Means a *Party* that discloses or is deemed to disclose its own *Confidential Information* to the other *Party*. With respect to any *Confidential Information* that is deemed to be the *Confidential Information* of both *Parties* then with respect to a *Party* in possession of such information the other *Party* will be considered the *Disclosing Party*.
"Effective Date"	Means the date set forth at the top of the first page of this Agreement.
"Field"	Means prevention and treatment of [**].
"Indemnified Parties"	Is defined in Section 13.1 and 13.2.
"Lead Product"	Is a *Product* for which *Akriveia* is developing an alternative *Product* that binds the same biological target and is being developed for the same therapeutic indications as a backup in case the initial *Product's* development is terminated or delayed.

"Licensed mAbs"	Means the monoclonal antibody molecules described in Appendix B.
"Licensed mAb Materials"	Means any tangible samples of *Licensed mAbs* [**]: (i) provided by *WuXi* to *Akriveia*; or (ii) propagated or duplicated by *Akriveia* in the course of conducting the development and commercialization activities under this Agreement, in each case as listed in Appendix B.
"Licensed Patent Rights"	Means (i) all the *Patent Rights* listed in Exhibit F to this *Agreement*, and (ii) all other *Patent Rights* owned, in-licensed or otherwise controlled by *WuXi* or its *Affiliates* during the term of the *Agreement* with the right to sublicense (where applicable), that cover the *Licensed mAbs* or any of the *Products*.
"Licensed Technology"	Means the *Licensed mAbs*, *Licensed mAb Materials*, *Licensed Patent Rights* and all associated data, information and know-how.
"Licensed Territory"	Means [**]
"Net Sales"	means the gross sales of a *Product* by *Akriveia*, its *Affiliates*, or its sub-licensees to third parties, less the following deductions: [**]

"Party" or "Parties"	*WuXi* and *Akriveia* are referred to in this *Agreement* collectively as the "Parties" and individually as a "Party"
"Patent Rights"	Means all the *Valid Claims* of patent applications and issued patents, whether domestic or foreign, including all continuations, continuations-in-part, divisions, and renewals, and letters of patent granted thereon, and all reissues, re-examination and extensions thereof and any patent restoration or extension period granted by a governmental authority, including but not limited to compensation for patent term lost during the clinical trial or regulatory approval process.
"Product"	Means any product in the *Field* that is developed by or on behalf of *Akriveia* or any of its sub-licensees that incorporates a *Licensed mAb* that has been modified using *Akriveia's Technology either alone or together with one or more other technologies*.
"Receiving Party"	Means a Party that receives or is deemed to receive from the other Party the *Confidential Information* of such other *Party*. With respect to any *Confidential Information* that is deemed to be the *Confidential Information* of both *Parties* then with respect to a *Party* in possession of such information it will be considered the *Receiving Party*.
"Regulatory Approval"	Means, with respect to a nation or, where applicable, a multinational jurisdiction, any approvals, licenses, registrations or authorizations granted by *Regulatory Authority* necessary for the manufacture, marketing and sale of a *Product* in such nation or such jurisdiction.
"Regulatory Authority"	Means any national (e.g., FDA), supranational (e.g., the EMEA), regional, state or local regulatory agency that has authority to grant Regulatory Approval of pharmaceutical products.
"Valid Claim"	Means a claim within *Patent Rights* so long as such claim shall not have been disclaimed by *WuXi* or shall not have been held invalid in a final decision rendered by a tribunal of competent jurisdiction from which no appeal has been or can be taken.

AMENDMENT
TO THE
CTLA-4 MONOCLONAL ANTIBODY LICENSE AGREEMENT
BY AND BETWEEN
WUXI BIOLOGICS (HONG KONG) LIMITED AND AKRIVEIA CONCERTO LLC.

This AMENDMENT (the "**Amendment**") amends the CTLA-4 Monoclonal Antibody License Agreement, dated September 26, 2016 ("Agreement") entered into by and between WuXi Biologics (Hong Kong) Limited, a Hong Kong corporation having its registered address at Suite 3701-10 , 37/F, Jardine House, 1 Connaught Place, Central, Hong Kong ("**WuXi**") and Akriveia Concerto LLC, a Delaware corporation having an address at 23 Southern Hills Drive, Skillman, NJ 08558 (as successor in interest to Akriveia Therapeutics Inc.) ("**Akriveia**"), and is effective as of December 30th, 2017 ("**Amendment Effective Date**"). Capitalized terms in this Amendment will have the meanings set forth in the Agreement.

A. Pursuant to the Agreement, WuXi granted to Akriveia a license under the Licensed Patent Rights to use its proprietary technology to develop and modify WuXi's mAb molecules and develop and commercialize such molecules as therapeutic products.

B. The Parties wish to amend the Agreement to expand the scope of the existing exclusive license under the Licensed Patent Rights in accordance with the terms and conditions of this Amendment.

Notwithstanding anything to the contrary contained in the Agreement, and in consideration of the mutual promises and covenants set forth in the Agreement and this Amendment, the receipt and sufficiency of which are hereby acknowledged, and pursuant to Section 16.5 of the Agreement, the Parties agree as follows:

1. The Parties agree to amend Appendix A of the Agreement to replace the definitions of "*Licensed mAbs*", "*Licensed mAbs Materials*", "*Licensed Patent Rights*", "*Licensed Territory*" and "*Product*" in their entirety with the following:

> "**Licensed mAbs**" means (i) any and all antibodies disclosed in the Licensed Patent Rights, together with (ii) [**], and (iii) [**] of (i) or (ii).
>
> "**Licensed mAbs Materials**" means any tangible samples of Licensed mAbs and their associated cell-lines and nucleic acid vectors: (i) provided by WuXi to Akriveia, or (ii) propagated or duplicated by Akriveia in the course of conducting the development and commercialization activities under this Agreement.
>
> "**Licensed Patent Rights**" means (i) all the Patent Rights listed in Appendix C to this Agreement, and (ii) all other Patent Rights owned, in-licensed or otherwise controlled by WuXi or its Affiliates during the term of the Agreement with the right to sublicense (where applicable), that cover the licensed mAbs or any of the Products.

"**Licensed Territory**" means any country in the world including the China Territory.

"**Product**" means any product in the Field that is developed by or on behalf of Akriveia or any of its sub- licensees that incorporates a Licensed mAb.

2. The Parties agree to amend Appendix A of the Agreement to add the following:

"Fab" means a fragment of an antibody that contains [**].

"First Commercial Sale" means the first sale of any Product under this Agreement following Regulatory Approval of such Product anywhere in the Licensed Territory.

3. The Parties agree to amend Section 2 of the Agreement to replace that section in its entirety with the following:

2. License

2.1 Exclusive License Grant. WuXi grants to Akriveia, under WuXi's rights in the Licensed Patent Rights and Licensed Technology, an exclusive (even as to WuXi), sublicensable (subject to Section 2.4), transferable (subject to Section 16.9), royalty-bearing license to make, have made, use, sell, offer for sale, import and export any Products and for such purpose reproduce and use the Licensed Technology (and the Licensed mAbs Materials contained therein) in the Licensed Territory.

2.2 Term of Licenses. The term of the license to Licensed Patent Rights in Section 2.1 will end on expiry of the last of the Licensed Patent Rights on a country-by-country basis, and thereafter, the license to the Licensed Technology continues on a royalty-free basis in perpetuity.

2.3 Paid-Up License. Akriveia will have a paid-up license permitting royalty-free manufacture (i.e. making and having made), use, sale, offer for sale and import of Products in a country after the end of Akriveia's last obligation to pay royalties on the Product's Net Sales in that country and shall have no further obligations to WuXi in that country with respect to such Licensed Patents Rights or such Products.

2.4 Sub-Licenses. Akriveia may sublicense through multiple tiers the licenses in Section 2.1, on the condition that (a) Akriveia will be responsible for the sub-licensee performing in a manner consistent with Akriveia's obligations under this Agreement and (b) Akriveia will not be relieved of its obligations under this Agreement due to the existence of such sublicense.

2.5 Refrained Rights. Each Party acknowledges that the rights granted under this Section 2 are limited to the scope expressly granted.

2.5.1. With the exception of the specific rights granted in this Section 2, WuXi retains all rights in the Licensed Technology and Licensed Patent Rights.

2.5.2. For clarity, (a) Akriveia does not under this Agreement, nor does it have any obligation to, grant to WuXi any rights in any Patent Rights or other intellectual property rights owned, controlled or licensed by Akriveia that cover any Product; and (b) for clarity, no license or other right whatsoever to any Akriveia Technology is granted to WuXi pursuant to this Agreement.

2.6. Grant-Back License. Subject to the terms and conditions of this Agreement, and without limitation of any of Akriveia's rights under this Section 2, Akriveia grants to WuXi, under its rights in the licensed Patent Rights and Licensed Technology granted in this Agreement, a payment-free, royalty-free, non-exclusive, transferable (subject to Section 16.9), license to make, have made, use, sell, offer for sale, import and export multi-specific antibodies incorporating a Fab from any Licensed mAb in the Licensed Territory together with at least one Fab derived from an antibody other than a Licensed mAb which additional Fab specifically targets a molecular target different from the Fob derived from the Licensed mAb. WuXi may sublicense the license granted in this Section 2.6, on the condition that (a) WuXi will be responsible for the sub-licensee performing in a manner consistent with WuXi's obligations under this Agreement (including, without limitation, the preservation of Akriveia's exclusive rights granted hereunder), and (b) WuXi will not be relieved of its obligations under this Agreement due to the existence of such sublicense.

4. As consideration for entry into this Amendment and WuXi's delivering PCT application to Akriveia, Akriveia will pay WuXi the sum of [**] dollars (US $[**]) within [**] after the Amendment Effective Date.

5. The Parties agree to amend Section 5.2 of the Agreement to replace that section in its entirety with the following:

5.2. Development Milestones Payments. If a Product achieves a Development Milestone described in Table 1 below, Akriveia will pay WuXi the sum noted for that milestone. The milestone will not be payable if:

5.2.1. the Product had previously achieved the milestone and the corresponding milestone payment was paid; or

5.2.2. the Product is being developed as a back-up to a Lead Product and the Lead Product had previously achieved the milestone and the corresponding milestone payment was paid; or

5.2.3. the Product is being developed as a reformulation or other variant form of a Product which had previously achieved the milestone and the corresponding milestone payment was paid.

Each Development Milestone associated payment shall be payable only once for a given Product (whether a reformulation or variant, or back-up to a Lead Product) such that the aggregate payable for Development Milestones under this Agreement for each given Product is $25,750,000.00; provided, however, that the Regulatory Milestone is payable more than once by Akriveia if a Regulatory Approval is for a Product that (a) incorporates a different Licensed mAb to an already marketed Product; and (b) the existing, earlier approved, Product is intended to stay on the market and not be replaced by the subsequently approved Product (i.e., the later launched Product is not a "backup" that replaces an earlier molecule because it is deemed superior, but rather will be incorporated in a Product that is marketed alongside an already-launched Product containing a different licensed mAb).

Table 1.

Milestone	Payment (USD)
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]
[**]	[**]

As used in this Section 5.2:

"[**]" means [**]; and

"[**]" means [**].

6. The Parties agree to amend Sections 5.3.1 and 5.3.2 of the Agreement to replace those sections in their entirety with the following:

5.3.1 Royalties. Akriveia will pay WuXi a royalty based on the Net Sales of all Products in the Licensed Territory.

5.3.2. Royalty Rates. The royalty rate will be determined by increments of annual Net Sales of all Product(s) in the Licensed Territory as set out in Table 2 below. For clarity, the royalty rates set forth in Table 2 below are payable on the total Net Sales of all Products (i.e., aggregating the Net Soles of all of the Products.

7. The Parties agree to amend Table 2 in Section 5.3.3 of the Agreement to replace such table in its entirety with the following:

Table 2.

Annual Net Sales Tiers (USD) for all Products	Royalty
[**]	[**]
[**]	[**]
[**]	[**]

8. The Parties agree to amend Section 5.4 of the Agreement to delete that section in its entirety.

9. The Parties agree to amend Section 7.4.2 of the Agreement to delete that section in its entirety.

10. The Parties agree to amend Section 10.1of the Agreement to replace that section in its entirety with the following:

10.1. Patent Prosecution, Maintenance and Enforcement.

10.1 For each patent application and patent under the Licensed Patents Rights, Akriveia shall: (a) prepare, file, and prosecute such patent application; (b) maintain such patent; (c) [**]; (d) keep WuXi informed of the filing and progress of all material aspects of the prosecution of such patent application and the issuance of patents from any such patent application; (e) permit WuXi to [**] with respect to the preparation, filings and prosecution of Licensed Patent Rights; (f) [**] with WuXi concerning any decisions which [**] of such patent application or patent; and (g) notify WuXi in writing of [**] in the status of such patent or patent application.

10.2 A Party receiving notice of alleged infringement of any of the Licensed Patent Rights in the Licensed Territory shall promptly provide written notice to the other Party of the alleged infringement. Akriveia shall have first right to bring suit and control the conduct thereof, including settlement, to stop infringement of any Licensed Patent Rights, as determined by Akriveia. If Akriveia does not commence a particular infringement action [**], WuXi, after notifying Akriveia in writing, shall be entitled to bring such infringement action at its own expense. The party conducting such action shall have full control over its conduct. In any event, Akriveia and WuXi shall [**] in any such litigation [**].

11. The Parties agree to amend Section 11.4 of the Agreement to replace that section in its entirety with the following:

11.4 Effect of Termination

11.4.1. Termination or expiration of this Agreement will not prejudice:

(a) The following terms, which will survive any termination or expiration: Sections 1, 2.3, 2.5, 2.6, 5.5, 5.6, 5.7, 6.1, 7, 8, 11.4, 13.2, 14, 15, and 16;

(b) A Party's right to receive any payment s accrued under and in accordance with Section 5; or

(c) Any other remedies which either Party might otherwise have.

11.4.2. On the effective date of termination of this Agreement (other than termination by Akriveia for a Breach Event for which WuXi is responsible):

(a) Licenses. The license under Section 2 will immediately terminate.

(b) Use of Licensed mAb. Akriveia must: (i) immediately and forever cease research, development or commercialization of any Product; and (ii) must at WuXi' s request destroy all Licensed mAb Materials in its or its sub-licensee's possession.

11.4.3 On the effective date of termination of this Agreement by Akriveia for a Breach Event for which WuXi is responsible, the license in Section 2.1 will automatically convert to an exclusive, perpetual, fully paid-up, royalty-free license on the terms set forth in Section 2.3.

12. The Parties agree to amend Section 12.3 of the Agreement to delete subsections 12.3.2 and 12.3.3 in their entirety.

13. The Parties agree to amend Section 13.2 of the Agreement to replace that section in its entirety with the following:

13.2 Without limiting Akriveia's rights under Section 2 of this Agreement, subject to WuXi's compliance with the terms and conditions of this Agreement, Akriveia covenants that [**].

14. The Parties agree to amend Appendix B and D to delete that Appendix in its entirety.

15. The Parties agree to amend Appendix C to replace the contents of that Appendix in its entirety with the following:

Title	Patent Application No.	Jurisdiction
[**]	[**]	[**]

16. To the extent there is any conflict between the terms and conditions of this Amendment and the terms and conditions of the Agreement, the terms and conditions of this Amendment will control.

17. Except as set forth in Sections 1 to 16 of this Amendment, all terms and conditions of the Agreement (including the Appendices to the Agreement) will remain in full force and effect without modification.

[SIGNATURES ON NEXT PAGE]

IN WITNESS WHEREOF, the Parties to this Amendment have caused it to be executed by their respective duly authorized representatives as of the Amendment Effective Date.

WuXi Biologics (Hong Kong) Limited	Akriveia Concerto LLC
By: /s/ Chris Chen	By: /s/ Simon Tomlinson
Name: Chris Chen [Type or Print]	Name: Simon Tomlinson [Type or Print]
Title: CEO	Title: Chief Executive Officer

(Signature Page to Amendment to CTLA-4 Monoclonal Antibody License Agreement)

828 WINTER STREET
WALTHAM, MASSACHUSETTS

LEASE SUMMARY SHEET

Execution Date:	August 26, 2019
Tenant:	**AKREVIA THERAPEUTICS INC.**, a Delaware corporation
Tenant's Mailing Address Prior to Occupancy:	Akrevia Therapeutics Inc. 610 Main Street Cambridge, MA 02139 Attn: Joseph Farmer
Landlord:	**PPF OFF 828-830 WINTER STREET, LLC**, a Delaware limited liability company
Building:	828 Winter Street, Waltham, Massachusetts. The Building consists of three (3) stories, containing approximately 144,910 rentable square feet, including a four-story garage with 523 spaces (the "**Garage**"). The land on which the Building and the Garage and the 830 Building (as hereinafter defined) are located (the "**Land**") is more particularly described in Exhibit 2 attached hereto and made a part hereof.
Premises:	Approximately 27,829 rentable square feet, consisting of: Prime Premises: Approximately 26,624 rentable square feet of space in the Building, located on a portion of the third (3rd) floor, which includes storage and mechanical space. Basement Premises: Approximately 600 rentable square feet of space located in the basement, consisting of (i) the PH Premises located in the "**PH System Room**" which contains the PH systems of other tenants, and (ii) storage space. Chemical Storage Premises: Approximately 375 rentable square feet of space located in the first (1st) floor common chemical storage and waste rooms of the Building. Mechanical Penthouse Storage Premises: Approximately 231 rentable square feet of space located in the penthouse of the Building. The term "**Premises**" shall mean the Prime Premises, Basement Premises, Chemical Storage Premises, and the Mechanical Penthouse Storage Premises, as applicable. The Premises are shown on the Lease Plans attached hereto as Exhibit 1A, Exhibit 1B, Exhibit 1C, and Exhibit 1D and made a part hereof (the "**Lease Plans**"). Landlord and Tenant stipulate and agree that the Rentable Square Footage of the Building and the Rentable Square Footage of the Premises are correct and shall not be remeasured.

Property:	The existing 186,135 square foot lab/biotech building known and numbered as 830 Winter Street (the "**830 Building**"), the Building, the Land, and the other improvements located on, and to be constructed on, the Land. The Property is part of the Waltham Woods/Reservoir Woods area (the "**Waltham Woods/Reservoir Woods Park**") which, as of the date hereof, consists of the following properties and such other properties as may from time to time participate in the sharing of common exterior maintenance expenses: 840 Winter Street, Waltham Woods (860, 870, 880, and 890 Winter Street), and Reservoir Woods (920, 930, and 940 Winter Street).
Parking Areas:	The Garage and the surface parking spaces adjacent to the Building and the 830 Building, but not including the spaces in the existing garage level of the 830 Building (the "**830 Garage**").
Term Commencement Date:	The date Landlord delivers possession of the Premises to Tenant, which is estimated to be the Execution Date.
Rent Commencement Date:	The date that is the earlier to occur of (i) the date that is eight (8) months after the Term Commencement Date or (ii) the date Tenant occupies any portion of the Premises for the conduct of business.
Expiration Date:	The last day of the calendar month in which the tenth (10^{th}) anniversary of the Rent Commencement Date occurs.
Extension Term:	Subject to Section 1.2 below, one (1) extension term of five (5) years.

Landlord's Contribution:	Either the Option One Landlord Contribution or the Option Two Landlord Contribution, as defined and more particularly set forth in the attached Exhibit 4.
Permitted Uses:	Prime Premises. Subject to Legal Requirements, general office, research, development and laboratory use, and other ancillary uses (including, but not limited to, vivarium uses), related to the foregoing. Basement Premises: Subject to Legal Requirements, installation and maintenance of equipment for Tenant's PH waste water treatment system for the Prime Premises, in accordance with applicable Environmental Laws, and other ancillary uses related to the foregoing. Chemical Storage Premises: Subject to Legal Requirements, storage of Hazardous Materials which are permitted to be introduced by Tenant to the Premises in accordance with the provisions of the Lease and applicable Environmental Laws, and other ancillary uses related to the foregoing. Mechanical Penthouse Storage Premises: Subject to Legal Requirements, the placement of Tenant's mechanical equipment or storage.
Base Rent:	As set forth on Exhibit 1, subject to the provisions of Section 5.1 hereof.
Operating Costs and Taxes:	See Sections 5.2 and 5.3
Tenant's Share:	A fraction, the numerator of which is the number of rentable square feet in the Premises and the denominator of which is the number of rentable square feet in the Building. As of the Execution Date, Tenant's Share with respect to the Premises is 19.2%. Notwithstanding the foregoing, with respect to Cafeteria Costs, as defined in Section 1.3(c), Tenant's Share shall be defined as a fraction, the numerator of which is the number of employees of Tenant located in the Building and the denominator of which is the number of employees of all tenants in the Property (including Tenant) that have the right to use the Cafeterias.

Security Deposit/Letter of Credit:	$1,530,594.96, subject to the provisions of Section 7.1 hereof.

EXHIBIT 1	RENT SCHEDULE—OPTION 1 AND OPTION 2
EXHIBIT 1A	LEASE PLAN – PRIME PREMISES
EXHIBIT 1B	LEASE PLAN – BASEMENT PREMISES
EXHIBIT 1C	LEASE PLAN – CHEMICAL STORAGE PREMISES
EXHIBIT 1D	LEASE PLAN – MECHANICAL PENTHOUSE STORAGE PREMISES
EXHIBIT 1E	LEASE PLAN – EMERGENCY BACKUP GENERATOR LOCATION
EXHIBIT 2	LEGAL DESCRIPTION - LAND
EXHIBIT 4	WORK LETTER
EXHIBIT 5	INTENTIONALLY OMITTED
EXHIBIT 6	INTENTIONALLY OMITTED
EXHIBIT 7	LANDLORD'S SERVICES
EXHIBIT 8	TENANT'S HAZARDOUS MATERIALS
EXHIBIT 8-1	CONTROL AREAS
EXHIBIT 9	RULES AND REGULATIONS
EXHIBIT 9-1	BUILDING RULES AND REGULATIONS
EXHIBIT 9-2	CONSTRUCTION RULES AND REGULATIONS
EXHIBIT 10	TENANT WORK INSURANCE SCHEDULE
EXHIBIT 11	PARKING AND TRAFFIC DEMAND MANAGEMENT PLAN
EXHIBIT 11-1	840 WINTER PARKING OVERFLOW PLAN
EXHIBIT 12	LEED GUIDELINES
EXHIBIT 13	TENANT'S BASE BUILDING AIR AND POWER CAPACITY
EXHIBIT 14	PLAN – LOADING DOCKS, RECEIVING AREA, AND FREIGHT ELEVATORS
EXHIBIT 15	INITIAL TENANT WORK

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THIS INDENTURE OF LEASE (this "**Lease**") is hereby made and entered into on the Execution Date by and between Landlord and Tenant.

Each reference in this Lease to any of the terms and titles contained in any Exhibit attached to this Lease shall be deemed and construed to incorporate the data stated under that term or title in such Exhibit. All capitalized terms not otherwise defined herein shall have the meanings ascribed to them as set forth in the Lease Summary Sheet which is attached hereto and incorporated herein by reference.

CREATION OF CONDOMINIUM

(1) Tenant hereby acknowledges and agrees that, at Landlord's sole election, Landlord may establish a condominium (the "**Condominium**") by filing the Master Deed and Declaration of Trust of the Condominium. If Landlord makes such election, then the Building and the 830 Building shall each be Units of the Condominium; provided that no such Condominium shall materially adversely affect Tenant's rights or increase Tenant's obligations under this Lease (the Master Deed, as may be amended from time to time, being referred to herein as the "**Master Deed**" and the Declaration of Trust, as may be amended from time to time, being referred to herein as the "**Declaration of Trust**").

(2) The Lease shall be subject and subordinate, in all respects, to the Master Deed, the Declaration of Trust, and the other documents establishing the Condominium (the "**Condominium Documents**"). Tenant shall, at Landlord's request, execute a reasonable instrument, in recordable form, confirming that the Lease is subject and subordinate to the Condominium Documents.

1. LEASE GRANT; TERM; APPURTENANT RIGHTS; EXCLUSIONS

1.1 Lease Grant. Landlord hereby leases to Tenant, and Tenant hereby leases from Landlord, the Premises upon and subject to terms and conditions of this Lease, for a term of years commencing on the Term Commencement Date and, unless earlier terminated or extended pursuant to the terms hereof, ending on the Expiration Date (the "Initial Term"; the Initial Term and any duly exercised Extension Terms are hereinafter collectively referred to as the "Term").

1.2 Extension Term.

(a) Provided that the following conditions, which may be waived by Landlord in its sole discretion, are satisfied (i) Tenant, an Affiliated Entity (hereinafter defined) and/or a Successor (hereinafter defined) is/are then occupying one hundred percent (100%) of the Premises; and (ii) no uncured Event of Default exists (1) as of the date of the Extension Notice (hereinafter defined), and (2) at the commencement of the Extension Term (hereinafter defined), Tenant shall have the option to extend the Term for one (1) additional term of five (5) years (the "Extension Term"), commencing as of the expiration of the Initial Term. Tenant must exercise such option to extend, if at all, by giving Landlord written notice (the "**Extension Notice**") on or before the date that is fifteen (15) months prior to the Expiration Date, but not prior to the date that is eighteen (18) months prior to the Expiration Date, *time being of the essence*. Upon the timely giving of such notice, the Term shall be deemed extended upon all of the terms and conditions of this Lease, except that Base Rent during the Extension Term shall be calculated in accordance with this Section 1.2, Landlord shall have no obligation to construct or renovate the Premises, and Tenant shall have no further right to extend the Term. If Tenant fails to give timely notice, as aforesaid, Tenant shall have no further right to extend the Term. Notwithstanding the fact that Tenant's proper and timely exercise of such option to extend the Term shall be self-executing, the parties shall promptly execute a lease amendment reflecting such Extension Term after Tenant exercises such option. The execution of such lease amendment shall not be deemed to waive any of the conditions to Tenant's exercise of its rights under this Section 1.2.

(b) The Base Rent during the Extension Term (the "**Extension Term Base Rent**") shall be determined in accordance with the process described hereafter. Extension Term Base Rent shall be the fair market rental value of the Premises then demised to Tenant as of the commencement of the Extension Term as determined in accordance with the process described below, for renewals of combination laboratory and office space in the Winter Street area of Waltham of equivalent quality, size, utility and location, with the length of the Extension Term, the credit standing of Tenant, any economic concessions (including, without limitation, tenant improvement allowances and free rent) then being provided by landlords to tenants, and all other relevant factors to be taken into account. Within thirty (30) days after receipt of the Extension Notice, Landlord shall deliver to Tenant written notice of its determination of the Extension Term Base Rent for the Extension Term. Tenant shall, within thirty (30) days after receipt of such notice, notify Landlord in writing whether Tenant accepts or rejects Landlord's determination of the Extension Term Base Rent ("**Tenant's Response Notice**"). If Tenant fails timely to deliver Tenant's Response Notice, Landlord's determination of the Extension Term Base Rent shall be binding on Tenant.

(c) If, and only if, Tenant's Response Notice is timely delivered to Landlord and indicates both that Tenant rejects Landlord's determination of the Extension Term Base Rent and desires to submit the matter to arbitration, then the Extension Term Base Rent shall be determined in accordance with the procedure set forth in this Section 1.2(c). In such event, within ten (10) days after receipt by Landlord of Tenant's Response Notice indicating Tenant's desire to submit the determination of the Extension Term Base Rent to arbitration, Tenant and Landlord shall each notify the other, in writing, of their respective selections of an appraiser (respectively, "**Landlord's Appraiser**" and "**Tenant's Appraiser**"). Landlord's Appraiser and Tenant's Appraiser shall then jointly select a third appraiser (the "**Third Appraiser**") within ten (10) days of their appointment. All of the appraisers selected shall be individuals with at least five (5) consecutive years' commercial appraisal experience for office and laboratory space in the area in which the Premises are located, shall be members of the Appraisal Institute (M.A.I.), and, in the case of the Third Appraiser, shall not have acted in any capacity for either Landlord or Tenant within five (5) years of his or her selection. The three appraisers shall determine the Extension Term Base Rent in accordance with the requirements and criteria set forth in Section 1.2(b) above, employing the method commonly known as Baseball Arbitration, whereby Landlord's Appraiser and Tenant's Appraiser each sets forth its determination of the Extension Term Base Rent as defined above, and the Third Appraiser must select one or the other (it being understood that the Third Appraiser shall be expressly prohibited from selecting a compromise figure). Landlord's Appraiser and Tenant's Appraiser shall deliver their determinations of the Extension Term Base Rent to the Third Appraiser within five (5) days of the appointment of the Third Appraiser, and the Third Appraiser shall render his or her decision within ten (10) days after receipt of both of the other two determinations of the Extension Term Base Rent. The Third Appraiser's decision shall be binding on both Landlord and Tenant. Each party shall bear the cost of its own appraiser and the cost of the Third Appraiser shall be paid by the party whose determination is not selected.

1.3 Appurtenant Rights.

(a) Common Areas. Subject to the terms of this Lease and the Rules and Regulations (hereinafter defined), Tenant shall have, as appurtenant to the Premises, rights to use in common with others entitled thereto, the following areas (such areas are hereinafter referred to as the "**Common Areas**"): (i) the common loading docks, hallways, lobby, and elevator of the Building serving the Premises, (ii) the common lavatories located on the floor(s) on which the Premises are located, (iii) common walkways and driveways necessary for access to the Building, (iv) the Parking Areas and (v) other areas and facilities designated by Landlord from time to time for the common use of tenants of the Building and others entitled thereto; and no other appurtenant rights or easements. The current location of the loading docks, receiving areas and freight elevators serving the Building are as shown on Exhibit 14 attached hereto, and are available for the use of the tenants in the Building and are part of the Common Areas.

(b) Parking. During the Term, Landlord shall, subject to the terms hereof, make available up to seventy (70) parking spaces free of charge (except that the costs of maintenance and repair of the parking areas shall, subject to Section 5.2, be included in Operating Costs) for Tenant's use in the Parking Areas serving the Building. The number of parking spaces in the parking areas reserved for Tenant, as modified pursuant to this Lease or as otherwise permitted by Landlord, are hereinafter referred to as the "**Parking Spaces**." Tenant shall have no right to hypothecate or encumber the Parking Spaces, and shall not sublet, assign, or otherwise transfer the Parking Spaces other than to employees of Tenant occupying the Premises or to a Successor (hereinafter defined), an Affiliated Entity (hereinafter defined) or a transferee pursuant to an approved Transfer under Section 13 of this Lease. Subject to Landlord's right to reserve parking for other tenants of the Building, said Parking Spaces will be on an unassigned, non-reserved basis, and shall be subject to such reasonable rules and regulations as may be in effect for the use of the parking areas from time to time. Reserved and handicap parking spaces must be honored. Notwithstanding anything to the contrary contained herein, Landlord shall have the right, upon at least three (3) months' written notice to Tenant, to temporarily (i.e., for a period not to exceed three (3) months, other than for reasons of Force Majeure) relocate all or any portion of the Parking Spaces in to other portions of the Property and/or parking areas owned, controlled or leased by Landlord within a half-mile radius of the Property. In addition, Landlord may, at its election, implement valet and tandem parking in order to accommodate the parking needs of the Property from time to time. Tenant hereby acknowledges that Landlord has granted to an adjacent property owner the right to park up to 120 vehicles in the parking facilities serving the Building, for overflow parking, in the location shown on the plan attached hereto as Exhibit 11-1, on a daily basis between the hours of 7 p.m. to 7 a.m. (the "**Off Business Hours Parking Hours**"). The foregoing acknowledgement shall not affect Tenant's rights under this Section 1.3(b) with respect to any time period other than during the Off Business Hours Parking Hours.

(c) Cafeterias. Subject to the provisions of this Section 1.3(c), Tenant, its employees, contractors, and visitors shall have the right to use in common with others entitled thereto: (i) the existing cafeteria currently being operated in the Building ("**828 Cafeteria**"), and (ii) the cafeteria in the 830 Building (the "**830 Cafeteria**"), (the 828 Cafeteria and the 830 Cafeteria are referred to collectively herein as the "**Cafeterias**", as the same may be relocated as hereinafter set forth, so long as Tenant has the right the right to use them). Notwithstanding the foregoing, the 828 Cafeteria may not be in operation prior to the time when the Building has achieved occupancy of at least thirty-five percent (35%) of the rentable area of the Building. Subject to the provisions of Section 5.2, any amounts paid by Landlord to such third-party operator(s) on account of its operation of the Cafeteria(s) in excess of the net revenues derived from the operation of the Cafeteria(s) shall be included in Operating Costs, as shall all of Landlord's costs of cleaning, maintaining, and repairing the Cafeteria(s) (collectively referred to herein as ("**Cafeteria Costs**"). Notwithstanding anything to the contrary contained herein, during the Term, as the same may be extended hereby, Landlord shall be obligated to operate at least one Cafeteria which will provide food services substantially similar to those currently provided at the 830 Cafeteria, and Tenant shall be entitled to use the same in accordance with this Section 1.3(c). If for any reason Landlord or the owner of the 830 Building decides to cease operating a Cafeteria, then within thirty (30) days after delivery of written notice from Landlord to Tenant of Landlord's decision, then Tenant shall no longer have the right to use such Cafeteria and that portion of the Building shall be removed from the calculation of Common Areas and Tenant's Proportionate Shares shall be adjusted accordingly.

(d) Shower and Changing Rooms. During the Term, Tenant and its employees shall have the right to use in common with others entitled thereto the shower and changing rooms located in the Building (the "**Shower and Changing Rooms**"), for so long as Landlord or any third-party operator shall operate the Shower and Changing Rooms. Landlord shall, at its expense, install and maintain card readers at appropriate access points to the Shower and Changing Rooms and issue identification cards to authorized users. Subject to Section 5.2 of this Lease, any amounts paid by Landlord on account of its operation of the Shower and Changing Rooms (including, without limitation, Landlord's costs of cleaning, maintaining, and repairing the Shower and Changing Rooms) shall be included in Operating Costs. If for any reason Landlord decides to cease operating the Shower and Changing Rooms, then within thirty (30) days after delivery of written notice from Landlord to Tenant of Landlord's decision, then (x) Tenant shall no longer have the right to use the Shower and Changing Rooms and that portion of the Building shall be removed from the calculation of Common Areas and Tenant's Proportionate Shares shall be adjusted accordingly, and (y) Landlord shall provide shower and changing rooms located in the 830 Building, which rooms shall be of similar size and quality as the Shower and Changing Rooms, and Tenant shall be entitled to use the same in accordance with this Section 1.3(d).

(e) On-Site Generator. Subject to Legal Requirements and Landlord's prior written approval of plans and specifications therefor, Tenant may install, operate and maintain, in the rooftop location shown on Exhibit 1E attached or another location mutually agreed to by the parties (the "**Generator Location**"), an emergency generator and equipment related thereto (collectively, the "**Emergency Back-up Equipment**") at Tenant's sole cost and expense. Landlord shall have no obligation to provide any services including, without limitation, electric current or gas service, to the Emergency Back-up Equipment, provided, however, subject to Legal Requirements and Landlord's prior written approval of plans and specifications therefor, Tenant may also install, maintain and operate necessary utility connections between the Emergency Back-up Equipment and the Premises (which utility connections shall be deemed part of the Emergency Back-up Equipment). Landlord may, in its sole and absolute discretion, require Tenant, at Landlord's cost, to relocate any or all of the Emergency Back-up Equipment to a location with comparable functionality, which relocation shall be performed by Tenant within a reasonable period following such request (taking into account any reasonable time necessary to obtain permits and approvals for such work, Tenant hereby agreeing to use diligent good faith efforts to obtain the same and to promptly commence and prosecute to completion such relocation thereafter). Landlord agrees to require such relocation no more than once during the Term (provided that such limitation shall not apply to temporary relocations required in connection with any required maintenance, repair or replacement by Landlord). Landlord's approval of the Emergency Back-up Equipment shall not be unreasonably withheld, conditioned or delayed. Tenant shall be responsible for the cost of repairing and maintaining the Emergency Back-up Equipment in good order, condition and repair and in compliance with Legal Requirements and, subject to the provisions of Section 14.5, for the cost of repairing any damage to the Property, or the cost of any necessary improvements to the Property, caused by or as a result of the installation, replacement and/or removal of the Emergency Back-up Equipment. Landlord makes no warranties or representations to Tenant as to the suitability of the Generator Location for the installation and operation of the Emergency Back-up Equipment. Tenant shall not install or operate the Emergency Back-up Equipment until Tenant has obtained and submitted to Landlord copies of all required governmental permits, licenses, and authorizations necessary for the installation and operation thereof. In addition, Tenant shall comply with all reasonable Rules and Regulations in connection with the installation, maintenance and operation of the Emergency Back-up Equipment.

1.4 **Tenant's Access**. From and after the Term Commencement Date and until the end of the Term, Tenant shall have access to the Premises twenty-four (24) hours a day, seven (7) days a week, subject to Landlord's reasonable Building security requirements, causes beyond Landlord's reasonable control, Legal Requirements, the Rules and Regulations, the terms of this Lease, Force Majeure (hereinafter defined) and matters of record.

1.5 **No recording // Notice of Lease**. Neither party shall record this Lease. Tenant shall not record a memorandum of this Lease and/or a notice of this Lease. Notwithstanding the foregoing, if the Initial Term plus any Extension Term(s) exceed in the aggregate seven (7) years, Landlord agrees to join in the execution, in recordable form, of a statutory notice of lease and/or written declaration in which shall be stated the Term Commencement Date, the Rent Commencement Date, the number and length of the Extension Term(s) and the Expiration Date, which notice of lease may be recorded by Tenant with the Middlesex South Registry of Deeds and/or filed with the Middlesex South Registry District of the Land Court, as appropriate (alternatively and collectively, the "**Registry**") at Tenant's sole cost and expense. If a notice of lease was previously recorded with the Registry, upon the expiration or earlier termination of this Lease, Landlord shall deliver to Tenant a notice of termination of lease and Tenant shall promptly execute, acknowledge, and deliver the same (together with any other instrument(s) that may be necessary in order to record and/or file same with the Registry) to Landlord for Landlord's execution and recordation with the Registry, which obligation shall survive the expiration or earlier termination of the Lease.

1.6 **Exclusions**. The following are expressly excluded from the Premises and reserved to Landlord: all the perimeter walls of the Premises (except the inner surfaces thereof), the Common Areas, and any space in or adjacent to the Premises used for shafts, stacks, pipes, conduits, wires and appurtenant fixtures, fan rooms, ducts, electric or other utilities, sinks or other Building facilities, and the use of all of the foregoing, except as expressly permitted pursuant to Section 1.3(a) above.

1.7 **Acid Neutralization Tank**.

(a) The provisions of this Section 1.7 are subject to Section 10.1 below:

(b) Tenant shall have the right to install within the PH Premises for Tenant's exclusive use a separate acid neutralization tank ("**Tenant's Acid Neutralization Tank**") in accordance with the provisions of this Lease, including, without limitation, Section 11 hereof. Tenant shall have the exclusive right, throughout the Term of the Lease, as the same may be extended, to use the Acid Neutralization Tank in accordance with Legal Requirements. Tenant shall obtain, and maintain all governmental permits and approvals necessary for the operation and maintenance of the Acid Neutralization Tank. Tenant shall be responsible for all costs, charges and expenses incurred from time to time in connection with or arising out of the operation, use, maintenance, repair or refurbishment of the Acid Neutralization Tank, including all clean-up costs relating to the Acid Neutralization Tank (collectively, "**Tank Costs**"), except, subject to Section 14.5, to the extent such costs are caused by the negligence or willful misconduct of any of the Landlord Parties (as hereinafter defined).

(c) Tenant shall be responsible for the operation, cleanliness, and maintenance of the Acid Neutralization Tank and the appurtenances, all of which shall remain the personal property of Landlord, and shall be left in place by Tenant at the expiration or earlier termination of the Lease. Such maintenance and operation shall be performed in a manner to avoid any unreasonable interference with any other tenants or Landlord. Without limiting the foregoing, Landlord makes no warranties or representations to Tenant as to the suitability of the PH System Premises for the operation of the Acid Neutralization Tank. Tenant shall have no right to make any changes, alterations, additions, decorations or other improvements to the PH System Premises without Landlord's prior written consent which shall not be unreasonably withheld, conditioned or delayed. Tenant agrees to maintain the Acid Neutralization Tank in good condition and repair. Landlord shall have no obligation to provide any services, including, without limitation, electric current, to the Acid Neutralization Tank.

2. RIGHTS RESERVED TO LANDLORD

2.1 **Additions and Alterations**. Landlord reserves the right, at any time and from time to time, to make such changes, alterations, additions, improvements, repairs or replacements in or to the Property (including the Premises but, with respect to the Premises, only for purposes of repairs, maintenance, replacements and the exercise of any other rights expressly reserved to Landlord herein) and the fixtures and equipment therein, as well as in or to the street entrances and/or the Common Areas, as it may deem necessary or desirable, provided, however, that there be no material obstruction of permanent access to, or material interference with the use and enjoyment of, the Premises by Tenant. Subject to the foregoing, Landlord expressly reserves the right to temporarily close all, or any portion, of the Common Areas for the purpose of making repairs or changes thereto.

2.2 **Additions to the Property**.

(a) Landlord may at any time or from time to time (i) construct additional improvements and related site improvements (collectively, "**Future Development**") in all or any part of the Property, (ii) change the location or arrangement of any improvement outside the Building in or on the Property or all or any part of the Common Areas, or add or deduct any land to or from the Property; provided that there shall be no material increase in Tenant's obligations or material interference with Tenant's rights under this Lease in connection with the exercise of the foregoing reserved rights.

(b) In case any excavation shall be made for building or improvements or for any other purpose upon the land adjacent to or near the Premises, Tenant will afford without charge to Landlord, or the person or persons, firms or corporations causing or making such excavation, license to enter upon the Premises for the purpose of doing such work as Landlord or such person or persons, firms or corporation shall deem to be necessary to preserve the walls or structures of the Building from injury, and to protect the Building by proper securing of foundations.

2.3 **Name and Address of Building**. Landlord reserves the right at any time and from time to time to change the name or address of the Building and/or the Property, provided Landlord gives Tenant at least three (3) months' prior written notice thereof.

2.4 **Landlord's Access**.

(a) Subject to the terms hereof, Tenant shall (a) upon reasonable advance notice, (not less than forty-eight (48) hours), which may be by email at farmer@akrevia.com or some other address as may be provided in writing by Tenant to Landlord (except that no notice shall be required in emergency situations), permit Landlord and any holder of a Mortgage (hereinafter defined) (each such holder, a "**Mortgagee**"), and the agents, representatives, employees and contractors of each of them, to have reasonable access to the Premises at all reasonable hours for the purposes of inspection, making repairs, replacements or improvements in or to the Premises or the Building or equipment therein (including, without limitation, sanitary, electrical, heating, air conditioning or other systems), complying with all applicable laws, ordinances, rules, regulations, statutes, by-laws, court decisions and orders and requirements of all public authorities (collectively, "**Legal Requirements**"), or exercising any right reserved to Landlord under this Lease (including without limitation the right to take upon or through, or to keep and store within the Premises all necessary materials, tools and equipment); (b) permit Landlord and its agents and employees, at reasonable times, upon reasonable advance notice, to show the Premises during normal business hours (i.e., Monday – Friday 8 A.M. - 6 P.M., Saturday 8 A.M. – 1 P.M., excluding holidays) to any prospective Mortgagee or purchaser of the Building and/or the Property or of the interest of Landlord therein, and, during the last twelve (12) months of the Term or at any time after the occurrence of an Event of Default, prospective tenants; and (c) upon reasonable prior written notice from Landlord, permit Landlord and its agents, at Landlord's sole cost and expense, to perform environmental audits, environmental site investigations and environmental site assessments ("**Site Assessments**") in, on, under and at the Premises and the Land, it being understood that Landlord shall repair any damage arising as a result of the Site Assessments, and such Site Assessments may include both above and below the ground testing and such other tests as may be necessary or appropriate to conduct the Site Assessments. In addition, to the extent that it is necessary to enter the Premises in order to access any area that serves any portion of the Building outside the Premises, then Tenant shall, upon as much advance notice as is practical under the circumstances, and in any event at least twenty-four (24) hours' prior written notice (except that no notice shall be required in emergency situations), permit contractors engaged by other occupants of the Building to pass through the Premises in order to access such areas but only if accompanied by a representative of Landlord. Notwithstanding anything to the contrary contained herein, Tenant shall be entitled to have a representative present for any access by Landlord or any Landlord Parties in exercising its rights under this Section 2.4.

(b) Secure Areas within the Premises. Notwithstanding the foregoing, Tenant, at its own expense may, as hereinafter set forth, designate one or more areas of the Premises to be "**Secure Areas**" (i.e., portions of the Premises to which Landlord shall not have a right of entry or access for any reason whatsoever (except as otherwise provided below). Tenant may, from time to time, exercise its right to create Secure Areas by delivering to Landlord, for Landlord's written approval, a plan showing the location of any such Secure Areas. Landlord agrees that it will not unreasonably withhold, condition or delay such consent. If Landlord must gain access to a Secure Areas in a non-emergency situation, Landlord shall contact Tenant, and Landlord and Tenant shall arrange a mutually agreed upon time for Landlord to have such access. Landlord shall be accompanied by an employee of Tenant or a party designated by Tenant (the "**Escort**"). Tenant shall make an Escort available to Landlord during business hours. At all times, Landlord shall comply with all reasonable security measures of the Tenant pertaining to the Secure Areas. If an emergency representing an imminent risk of injury to persons or material property damage in the Building or the Premises, including, without limitation, a suspected fire or flood, requires Landlord to gain access to the Secure Areas, Landlord may enter the Secure Areas without an Escort. If practicable under the circumstances, Landlord shall immediately notify (which may be oral notification) and request that Tenant make an Escort available to Landlord if time permits, and if Tenant shall not make an Escort available to accompany Landlord, then Tenant hereby authorizes Landlord to enter the Secure Areas forcibly or with a master key, and to enter without an Escort. In any such event, except (subject to Section 14.5 of this Lease) to the extent resulting from Landlord's negligence or willful misconduct, Landlord shall have no liability whatsoever to Tenant, and Tenant shall pay all reasonable expenses incurred by Landlord in repairing or reconstructing any entrance, corridor, door or other portions of the Premises damaged as a result of a forcible entry by Landlord. Landlord shall have no obligation to provide either janitorial service or cleaning in the Secure Areas unless Tenant shall make arrangements to have an Escort in the Secure Areas at the time such service or cleaning is provided to the remainder of the Premises

2.5 **Pipes, Ducts and Conduits**. Tenant shall permit Landlord to erect, use, maintain and relocate pipes, ducts and conduits in and through the Premises, provided the same do not reduce the rentable square footage of the Premises, other than by a de minimis amount, or adversely affect the appearance of the Premises. In exercising its rights under this Section 2.5, Landlord shall make commercially reasonable efforts to locate any pipes, ducts, and conduits behind walls and above ceilings so as to minimize interference with the Premises.

2.6 **Minimize Interference**. Except in the event of an emergency, Landlord shall use commercially reasonable efforts to minimize any interference with Tenant's business operations and use and occupancy of the Premises in connection with the exercise any of the foregoing rights under this Section 2.

3. CONDITION OF PREMISES

3.1 **Condition of Premises**. Subject to Landlord's obligation to perform Landlord's Work (as set forth in the Work Letter attached hereto as Exhibit 4), Tenant acknowledges and agrees that Tenant is leasing the Premises in their "**AS IS**," "**WHERE IS**" condition and with all faults on the Execution Date, without representations or warranties, express or implied, in fact or by law, of any kind, and without recourse to Landlord. Tenant shall not exceed its allotted base building capacities defined on Exhibit 13 attached hereto.

3.2 **Condition of Base Building**. Landlord hereby represents to Tenant ("**Landlord's Warranty**") that, as of the Execution Date: (i) all of the following existing portions of the Building are in good repair and working order: the roof, foundation, footings, slab, structural walls, exterior windows, plumbing, fire sprinkler/life safety system, lighting, heating, ventilation and air conditioning systems, and electrical systems serving the Premises (except to the extent modified or otherwise impaired by any improvements constructed by Tenant), and (ii) the existing base building improvements in the Premises are in compliance with all applicable zoning and building laws and other ordinances and regulations. Landlord's obligations under this Section 3.2 shall only apply during the Warranty Period, as hereinafter defined. The "**Warranty Period**" shall commence as of the Term Commencement Date and shall expire twelve (12) months following the Term Commencement Date. Landlord agrees to correct or repair, at Landlord's expense (and not in Operating Costs), items which are in breach of Landlord's Warranty, provided that Landlord receives written notice of the need for such correction or repair prior to the end of the Warranty Period. Landlord shall be deemed to have satisfied all of its obligations under this Section 3.2 to the extent that Landlord has not received written notice of the need for corrective work or repairs prior to the end of the Warranty Period. In the event of any breach of Landlord's Warranty, then Landlord shall correct such breach, as promptly as possible, and to the extent that the correction of such breach is covered under valid and enforceable warranties given Landlord by contractors or subcontractors, Landlord, at its option, may pursue such claims directly or assign any such warranties to Tenant for enforcement.

3.3 **Tenant Work**. Tenant, at Tenant's sole cost and expense, but subject to Tenant's right to receive Landlord's Contribution (as defined in Exhibit 4 attached hereto), shall perform the Tenant Work (as defined in Exhibit 4), as more particularly described in Exhibit 4 attached hereto. The Tenant Work shall be performed in accordance with the provisions of Section 11 and Exhibit 4 of this Lease.

4. USE OF PREMISES

4.1 **Permitted Uses**. During the Term, Tenant shall use the Premises only for the Permitted Uses and for no other purposes. Service and utility areas (whether or not a part of the Premises) shall be used only for the particular purpose for which they are designed. Tenant shall keep the Premises equipped with appropriate safety appliances to the extent required by applicable laws or insurance requirements. Landlord shall cooperate with Tenant, in such manner as Tenant may reasonably request, in assisting Tenant to obtain any governmental permits or approvals necessary to enable Tenant to use the Premises for any of the Permitted Uses, provided that Landlord shall not be obligated to incur any out-of-pocket costs or expenses or incur any liability in connection with any such request.

4.2 **Prohibited Uses**.

(a) Notwithstanding any other provision of this Lease, Tenant shall not use the Premises or the Building, or any part thereof, or suffer or permit the use or occupancy of the Premises or the Building or any part thereof by any of the Tenant Parties (i) in a manner which would violate any of the covenants, agreements, terms, provisions and conditions of this Lease or otherwise applicable to or binding upon the Premises; (ii) for any unlawful purposes or in any unlawful manner; (iii) which, in the reasonable judgment of Landlord (taking into account the use of the Building as a combination laboratory, research and development and office building and the Permitted Uses) shall (a) impair, interfere with or otherwise diminish the quality of any of the Building services or the proper and economic heating, cleaning, ventilating, air conditioning or other servicing of the Building or Premises, or the use or occupancy of any of the Common Areas; (b) occasion impairment, interference or injury in any material respect (and Tenant shall not install or use any electrical or other equipment of any kind, which, in the reasonable judgment of Landlord, will cause any such impairment, interference, or injury), or cause any injury or damage to any occupants of the Premises or other tenants or occupants of the Building or their property; or (c) cause harmful air emissions, laboratory odors or noises or any unusual or other objectionable odors, noises or emissions to emanate from the Premises; (iv) in a manner which is inconsistent with the operation and/or maintenance of the Building as a first- class combination office, research, development and laboratory facility; or (v) in a manner which shall increase such insurance rates on the Building or on property located therein over that applicable when Tenant first took occupancy of the Premises hereunder. Notwithstanding the foregoing, Landlord agrees that Tenant's use of the Premises for the Permitted Use (as opposed to the particular manner of Tenant's use of the Premises) shall not, in and of itself, be deemed to breach the provisions of this Section 4.2.

(b) With respect to the use and occupancy of the Premises and the Common Areas, Tenant will not: (i) place or maintain any signage (except as set forth in Section 12.2 below), trash, refuse or other articles in any vestibule or entry of the Premises, on the footwalks or corridors adjacent thereto or elsewhere on the exterior of the Premises, nor obstruct any driveway, corridor, footwalk, parking area, mall or any other Common Areas; (ii) permit undue accumulations of or burn garbage, trash, rubbish or other refuse within or without the Premises; (iii) permit the parking of vehicles so as to interfere with (x) the ability of others, entitled thereto, to park in the common parking areas, or (y) the use of any driveway, corridor, footwalk, parking area, or other Common Areas; (iv) receive or ship articles of any kind outside of those areas reasonably designated by Landlord; (v) conduct or permit to be conducted any auction, going out of business sale, bankruptcy sale (unless directed by court order), or other similar type sale in or connected with the Premises; (vi) use the name of Landlord, or any of Landlord's affiliates in any publicity, promotion, trailer, press release, advertising, printed, or display materials without Landlord's prior written consent; or (vii) except in connection with Alterations (hereinafter defined) approved by Landlord, cause or permit any hole to be drilled or made in any part of the Building.

4.3 **Transportation of Animals**. No animals, animal waste, food or supplies relating to the animals maintained from time to time in the animal storage areas of the Premises shall be transported within the Building except as provided in this Section 4.3. All deliveries of animals or animal food or supplies to Tenant at the Building shall be made prior to 9:00 a.m. No transportation of animals, animal waste, food or supplies within the Building shall occur between the hours of 11:00 a.m. and 1:00 p.m. At all times that animals are transported within the Common Areas, they shall be transported in an appropriate cage or other container. At no time shall any animals, animal waste, food or supplies relating to the animals be brought into, transported through, or delivered to the lobby of the Building or be transported within the Building in elevators other than the freight elevator.

4.4 **MWRA Permit**. Tenant shall establish and maintain with respect to its use of wastewater facilities exclusively serving the Leased Premises, an MWRA waste water discharge program administered by a licensed, qualified individual (which individual may be (i) a third party contractor/consultant approved by Landlord, which approval shall not be unreasonably withheld, or (ii) an employee of Tenant or Tenant's affiliate) in accordance with the requirements of the Massachusetts Water Resources Authority ("**MWRA**") and any other applicable governmental authority. Tenant shall be solely responsible for all costs incurred in connection with such MWRA waste water discharge, and Tenant shall provide Landlord with such documentation as Landlord may reasonably require evidencing Tenant's compliance with the requirements of (a) the MWRA and any other applicable governmental authority with respect to such chemical safety program and (b) this Section. Tenant shall obtain and maintain during the Term (i) any permit required by the MWRA ("**MWRA Permit**") and (ii) a wastewater treatment operator license from the Commonwealth of Massachusetts with respect to Tenant's use of any acid neutralization tank exclusively serving the Leased Premises in the Building. Tenant shall not introduce anything into the acid neutralization tank serving the Premises, if any (x) in violation of the terms of the MWRA Permit, (y) in violation of Legal Requirements or (z) that would interfere with the proper functioning of any such acid neutralization tank.

4.5 **Parking and Traffic Demand Management Plan**. The Property is subject to a Parking and Traffic Demand Management Plan with the City of Waltham, a copy of which is attached hereto as Exhibit 11 (the "**Initial PTDM**"). Tenant agrees, at its sole expense, to comply with the requirements of the Initial PTDM, only insofar as they apply to the Premises and/or Tenant's use and occupancy thereof. In the event that the Initial PTDM is ever modified, supplemented, amended or replaced (**"PTDM Modifications**"), Tenant agrees, at its sole expense, to comply with the requirements of the PTDM Modifications, only insofar as they apply to the Premises and/or Tenant's use and occupancy thereof.

4.6 **Vivarium**. Tenant shall be responsible, at its sole expense, for the operations of its vivarium in accordance with all Legal Requirements and with best industry practices. Without limiting the general application of the foregoing, Tenant shall separately dispose of all waste products from the operation of Tenant's vivarium, including, without limitation, dead animals, strictly in accordance with Legal Requirements. Landlord shall have the right, from time to time by written notice to Tenant, to promulgate reasonable rules and regulations with respect to the operation of Tenant's vivarium so as to minimize any adverse effects that such operation may have on other occupants of the Building, including without limitation, regulations as to noise mitigation.

5. RENT; ADDITIONAL RENT

5.1 Base Rent. The Base Rent during the Term shall be determined in accordance with the process described hereafter. Base Rent shall be either (i) in the event Tenant elects, or is deemed to have elected, the Option One Landlord Contribution (as defined in Exhibit 4), the Option One Base Rent as set forth on Exhibit 1, or (ii) in the event Tenant elects the Option Two Landlord Contribution (as defined in Exhibit 4), the Option Two Base Rent as set forth on Exhibit 1. Commencing upon the Rent Commencement Date, and thereafter during the Term, subject to and in accordance with this Section 5.1, Tenant shall pay to Landlord the applicable Base Rent specified in Exhibit 1. During the Term, Tenant shall pay to Landlord Base Rent in equal monthly installments, in advance and without demand on the first day of each month for and with respect to such month. Unless otherwise expressly provided herein, the payment of Base Rent, additional rent and other charges reserved and covenanted to be paid under this Lease with respect to the Premises (collectively, "**Rent**") shall commence on the Rent Commencement Date, and shall be prorated for any partial months. Rent shall be payable to Landlord or, if Landlord shall so direct in writing, to Landlord's agent or nominee, in lawful money of the United States which shall be legal tender for payment of all debts and dues, public and private, at the time of payment.

5.2 Operating Costs.

(a) "**Operating Costs**" shall mean all costs incurred and expenditures of whatever nature made by Landlord in the operation, management, repair, replacement, maintenance and insurance (including, without limitation, environmental liability insurance and property insurance on Landlord-supplied leasehold improvements for tenants, but not property insurance on tenants' equipment) of the Property or allocated to the Property, including without limitation all costs of labor (wages, salaries, fringe benefits, etc.) up to and including the Director of Property Management, however denominated, any costs for utilities supplied to exterior areas and the Common Areas, and any costs for repair and replacements, cleaning and maintenance of the exterior areas and the Common Areas (including, without limitation, the Building's share of Common Expenses under the Condominium Documents and costs of maintaining and operating the exterior common areas and facilities of the Waltham Woods/Reservoir Woods Park allocable to the Building), related equipment, facilities and appurtenances and HVAC equipment, security services, a management fee paid to Landlord's property manager in the amount not to exceed four percent (4%) of gross revenues of the Building, the costs ("**Management Office Costs**"), including, without limitation, a commercially reasonable rental factor, of Landlord's management office for the Property, which management office may be located outside the Property and which may serve other properties in addition to the Property (in which event such costs shall be equitably allocated among the properties served by such office), the cost of operating any amenities in the Property available to all tenants of the Property and any subsidy provided by Landlord for or with respect to any such amenity, and the Annual Charge-Off (as hereinafter defined) with respect to a Permitted Capital Expenditure (as hereinafter defined). Operating Costs shall not include Excluded Costs (hereinafter defined).

(b) Capital Expenditures. Permitted Capital Expenditures (as hereinafter defined) shall only be included in Operating Costs for each fiscal year during the Term of the Lease to the extent of the Annual Charge-Off, as hereinafter defined, for such fiscal year with respect to such capital expenditure. Operating Costs shall not include any Annual Charge-Off with respect to Excluded Costs, as hereinafter defined. For the purposes hereof:

(i) "**Annual Charge-Off**" means the annual amount of principal and interest payments which would be required to repay a loan in equal monthly installments over the Useful Life, as defined below, of the capital item in question on a direct reduction basis at an annual interest rate equal to the Capital Interest Rate, as defined below, where the initial principal balance is the cost of the capital item in question.

(ii) "**Useful Life**" shall be reasonably determined by Landlord in accordance with generally accepted accounting principles and commercially reasonable practices in effect at the time of acquisition of the capital item.

(iii) "**Capital Interest Rate**" shall be defined as an annual rate of either one percentage point over the AA bond rate (Standard & Poor's corporate composite or, if unavailable, its equivalent) as reported in the financial press at the time the capital expenditure is made or, if the capital item is acquired through third-party financing, then the actual (including fluctuating) rate paid by Landlord in financing the acquisition of such capital item.

(c) "**Excluded Costs**" shall be defined as (i) any fixed or percentage ground rent payable to any ground lessor, or any mortgage charges (including interest, principal, points and fees and any debt service costs (provided however, that the provisions of this clause (i) shall not be deemed to exclude mortgage charges and debt service costs incurred with respect to Permitted Capital Expenditures, as hereinafter defined, from Operating Costs); (ii) brokerage commissions, marketing costs, concessions and leasehold improvement costs incurred in connection with the leasing of any rentable space at the Building including, without limitation, finders' fees, attorneys' fees and expenses, entertainment costs and travel expenses; (iii) salaries and bonuses and benefits of officers, executives of Landlord and administrative employees above the grade of Director of Property Management; (iv) the cost of work done by Landlord for a particular tenant or any special work or service performed for any tenant (including Tenant) billable to such tenant or any costs in connection with services or benefits that are provided to or for the particular benefit of other tenants but not offered to Tenant; (v) the cost of items which, by generally accepted accounting principles, would be capitalized on the books of Landlord or are otherwise not properly chargeable against income, except to the extent such capital item is (A) required by any Legal Requirements following the Execution Date of this Lease, or (B) reasonably projected to reduce Operating Costs (collectively, "**Permitted Capital Expenditures**"); (vi) the costs of Landlord's Work and any contributions made by Landlord to any tenant of the Property in connection with the build-out of its premises; (vii) franchise or income taxes imposed on Landlord; (viii) costs paid directly by individual tenants to suppliers, including tenant electricity, telephone and other utility costs; (ix) increases in premiums for insurance when such increase is caused by the use of the Building by Landlord or any other tenant of the Building; (x) depreciation of the Building; (xi) costs relating to maintaining Landlord's existence as a corporation, partnership or other entity; (xii) the cost of any items for which Landlord is reimbursed by insurance, condemnation awards, refund, rebate or otherwise, and expenses for repairs or maintenance covered by warranties, guaranties and service contracts; (xiii) costs incurred in connection with any disputes between Landlord and its employees, between Landlord and Building management, or between Landlord and other tenants or occupants; (xiv) attorneys' fees incurred in connection with lease negotiations, disputes with individual tenants and/or for the existence, maintenance or non-Building related operations of the legal entity or entities of which Landlord is comprised or the development of additional space at the Building; (xv) Taxes; (xvi) the cost of any repairs or restoration required because of fire, other casualty or taking, provided, however, that Operating Costs may include costs of repairs which are not covered because the cost of such repairs is within a commercially reasonable deductible carried under Landlord's casualty insurance policy (Tenant hereby agreeing that, as of the Execution Date, $25,000.00 is a commercially reasonable deductible), (xvii) management and administrative fees, other than as provided in Section 5.2(a) above; (xviii) the cost of remediating Hazardous Materials from the Building other than Included Hazardous Materials, as hereinafter defined; "**Included Hazardous Materials**" shall be defined as all Hazardous Materials, other than: (A) any material or substance located in the Building or the Property on the Execution Date which, as of the Execution Date, is not considered under then existing Legal Requirements, to be Hazardous Material, but which is subsequently determined to be a Hazardous Material by reason of a Legal Requirement which first becomes effective after the Execution Date of this Lease, and (B) any material or substance that is introduced to the Building or the Property after the Execution Date which, when introduced to the Building or the Property, is not then (i.e., at the time of introduction to the Building or the Property) considered, as a matter of any Legal Requirement, to be a Hazardous Material, but which is subsequently determined to be a Hazardous Material by reason of Legal Requirements which first becomes effective after the date of introduction of such material or substance to the Building or Property; (xix) any cost covered by a warranty that Landlord is required to obtain in connection with the Building or the Land; (xx) any amounts paid to a person, firm, corporation or other entity under common ownership and control with Landlord that is in excess of a commercially reasonable amount paid on a market rate basis (other than management fees); (xxi) the cost of acquiring sculptures, paintings, and other objects of art; (xxii) depreciation of the Building or any part thereof (provided however, that the provisions of this clause (xxii) shall not be deemed to exclude depreciation incurred with respect to Permitted Capital Expenditures from Operating Costs; (xxiii) any compensation paid to personnel in retail concessions operated by Landlord and any subsidies or concessions to third parties operating retail concessions at the Building, provided that the provisions of this clause (xxiii) shall not be deemed to exclude from Operating Costs such compensation, subsidies or concessions incurred by Landlord with respect to the Cafeterias; (xxiv) replacement or contingency reserves; (xxv) Landlord's general overhead, provided however, that the provisions of this clause (xxv) shall not be deemed to exclude an equitable allocation of Management Office Costs, as set forth in Section 5.2(a) above; and (xxvi) any costs incurred with respect to the retail portions of the Building, provided that the provisions of this clause (xxvi) shall not be deemed to exclude from Operating Costs incurred by Landlord with respect to the Cafeterias and the Shower and Changing Rooms. Notwithstanding anything to the contrary contained herein, the properly passed through cost of any Permitted Capital Expenditures shall be amortized over the useful life of such capital item.

(d) Payment of Operating Costs. Commencing as of the Rent Commencement Date and continuing thereafter throughout the remainder of the Term of the Lease, Tenant shall pay to Landlord, as additional rent, Tenant's Share of Operating Costs. Landlord may make a good faith estimate of Tenant's Share of Operating Costs for any fiscal year or part thereof during the Term, and Tenant shall pay to Landlord, on the Rent Commencement Date and on the first (1st) day of each calendar month thereafter, an amount equal to Tenant's Share of Operating Costs for such fiscal year and/or part thereof divided by the number of months therein. Landlord may estimate and re-estimate Tenant's Share of Operating Costs and deliver a copy of the estimate or re-estimate to Tenant. Thereafter, the monthly installments of Tenant's Share of Operating Costs shall be appropriately adjusted in accordance with the estimations so that, by the end of the fiscal year in question, Tenant shall have paid all of Tenant's Share of Operating Costs as estimated by Landlord. Any amounts paid based on such an estimate shall be subject to adjustment as herein provided when actual Operating Costs are available for each fiscal year. As of the Execution Date, the Property's fiscal year is January 1 - December 31.

(e) Annual Reconciliation. Landlord shall, within one hundred twenty (120) days after the end of each fiscal year, deliver to Tenant a reasonably detailed statement of the actual amount of Operating Costs for such fiscal year ("**Year End Statement**"). Failure of Landlord to provide the Year End Statement within the time prescribed shall not relieve Tenant from its obligations hereunder, provided, however, Landlord shall be obligated to bill any Operating Costs on or before the date ("**Outside Billing Date**") which is two (2) years after the end of the fiscal year in which the expenditure is made. If the total of such monthly remittances on account of any fiscal year is greater than Tenant's Share of Operating Costs actually incurred for such fiscal year, then, provided no Event of Default has occurred, Tenant may credit the difference against the next installment of additional rent on account of Operating Costs due hereunder, except that if such difference is determined after the end of the Term, Landlord shall refund such difference to Tenant within thirty (30) days after such determination to the extent that such difference exceeds any amounts then due from Tenant to Landlord. If the total of such remittances is less than Tenant's Share of Operating Costs actually incurred for such fiscal year, Tenant shall pay the difference to Landlord, as additional rent hereunder, within thirty (30) days of Tenant's receipt of an invoice therefor. Landlord's estimate of Operating Costs for the next fiscal year shall be based upon the Operating Costs actually incurred for the prior fiscal year as reflected in the Year-End Statement plus a reasonable adjustment based upon estimated increases in Operating Costs. The provisions of this Section 5.2(d) shall survive the expiration or earlier termination of this Lease.

(f) Part Years. If the Rent Commencement Date or the Expiration Date occurs in the middle of a fiscal year, Tenant shall be liable for only that portion of the Operating Costs with respect to such fiscal year within the Term from and after the Rent Commencement Date on pro-rated basis.

(g) Gross-Up. If, during any fiscal year, less than 95% of the Building is occupied by tenants or if Landlord was not supplying all tenants with the services being supplied to Tenant hereunder, actual Operating Costs incurred shall be reasonably extrapolated by Landlord on an item-by-item basis to the reasonable Operating Costs that would have been incurred if the Building was 95% occupied and such services were being supplied to all tenants, and such extrapolated Operating Costs shall, for all purposes hereof, be deemed to be the Operating Costs for such fiscal year. This "gross up" treatment shall be applied only with respect to variable Operating Costs arising from services provided to Common Areas or to space in the Building being occupied by tenants (which services are not provided to vacant space or may be provided only to some tenants) in order to allocate equitably such variable Operating Costs to the tenants receiving the benefits thereof.

(h) Audit Right. Provided there is no Event of Default nor any event which, with the passage of time and/or the giving of notice would constitute an Event of Default, Tenant may, upon at least sixty (60) days' prior written notice, inspect or audit Landlord's records relating to Operating Costs for any periods of time within the previous fiscal year before the audit or inspection. However, no audit or inspection shall extend to periods of time before the Rent Commencement Date. If Tenant fails to object to the calculation of Tenant's Share of Operating Costs on the Year-End Statement within ninety (90) days after such statement has been delivered to Tenant and/or fails to complete any such audit or inspection within one- hundred twenty (120) days after receipt of the Year End Statement, then Tenant shall be deemed to have waived its right to object to the calculation of Tenant's Share of Operating Costs for the year in question and the calculation thereof as set forth on such statement shall be final. Tenant's audit or inspection shall be conducted only at Landlord's offices or the offices of Landlord's property manager during business hours reasonably designated by Landlord. Tenant shall pay the cost of such audit or inspection. Tenant may not conduct an inspection or have an audit performed more than once during any fiscal year. If, after such inspection or audit has been performed, it is finally determined or mutually agreed that there has been an underpayment by Tenant, then Tenant shall pay to Landlord, as additional rent hereunder, any underpayment of any such costs, as the case may be, within thirty (30) days after receipt of an invoice therefor. In the event the Landlord disagrees in good faith with the results of the audit, Landlord shall notify Tenant within fifteen (15) days of the audit, and Landlord and Tenant shall mutually select a neutral third party to evaluate the charges for Tenant's Share of Operating Costs, and the results of such third party's evaluation shall bind Landlord and Tenant and shall be final. Costs charged by any such third party shall be shared equally by Landlord and Tenant. If, after such inspection or audit has been performed, it is finally determined or mutually agreed that that there has been overpayment by Tenant, then Landlord shall credit such overpayment against the next installment(s) of Base Rent thereafter payable by Tenant, except that if such overpayment is determined after the termination or expiration of the Term, Landlord shall promptly refund to Tenant the amount of such overpayment less any amounts then due from Tenant to Landlord. Tenant shall maintain the results of any such audit or inspection confidential and shall not be permitted to use any third party to perform such audit or inspection, other than an independent firm of certified public accountants (A) reasonably acceptable to Landlord, (B) which is not compensated on a contingency fee basis or in any other manner which is dependent upon the results of such audit or inspection, and (C) which executes Landlord's standard confidentiality agreement whereby it shall agree to maintain the results of such audit or inspection confidential. The provisions of this Section 5.2(g) shall survive the expiration or earlier termination of this Lease.

5.3 Taxes.

(a) "**Taxes**" shall mean the real estate taxes and other taxes, levies and assessments imposed upon the Building and the Land, and upon any personal property of Landlord used in the operation thereof, or on Landlord's interest therein or such personal property; charges, fees and assessments for transit, housing, police, fire or other services or purported benefits to the Building and the Land (including without limitation any community preservation assessments); service or user payments in lieu of taxes; and any and all other taxes, levies, betterments, assessments and charges arising from the ownership, leasing, operation, use or occupancy of the Building and the Land or based upon rentals derived therefrom, which are or shall be imposed by federal, state, county, municipal or other governmental authorities. From and after substantial completion of any occupiable improvements constructed as part of a Future Development, if such improvements are not separately assessed, Landlord shall reasonably allocate Taxes between the Building and such improvements and the land area associated with the same. Taxes shall not include any inheritance, estate, succession, gift, franchise, rental, income or profit tax, capital stock tax, capital levy or excise, or any income taxes arising out of or related to the ownership and operation of the Building and the Land, provided, however, that any of the same and any other tax, excise, fee, levy, charge or assessment, however described, that may in the future be levied or assessed as a substitute for or an addition to, in whole or in part, any tax, levy or assessment which would otherwise constitute Taxes, whether or not now customary or in the contemplation of the parties on the Execution Date of this Lease, shall constitute Taxes, but only to the extent calculated as if the Building and the Land were the only real estate owned by Landlord. "Taxes" shall also include reasonable expenses (including without limitation legal and consultant fees) of tax abatement or other proceedings contesting assessments or levies.

(b) "**Tax Period**" shall be any fiscal/tax period in respect of which Taxes are due and payable to the appropriate governmental taxing authority (i.e., as mandated by the governmental taxing authority), any portion of which period occurs during the Term of this Lease.

(c) Payment of Taxes. Commencing as of the Rent Commencement Date and continuing thereafter throughout the remainder of the Term of the Lease, Tenant shall pay to Landlord, as additional rent, Tenant's Share of Taxes. Landlord may make a good faith estimate of the Taxes to be due by Tenant for any Tax Period or part thereof during the Term, and Tenant shall pay to Landlord, on the Rent Commencement Date and on the first (1st) day of each calendar month thereafter, an amount equal to Tenant's Share of Taxes for such Tax Period or part thereof divided by the number of months therein. Landlord may estimate and re-estimate Tenant's Share of Taxes and deliver a copy of the estimate or re-estimate to Tenant. Thereafter, the monthly installments of Tenant's Share of Taxes shall be appropriately adjusted in accordance with the estimations so that, by the end of the Tax Period in question, Tenant shall have paid all of Tenant's Share of Taxes as estimated by Landlord. Any amounts paid based on such an estimate shall be subject to adjustment as herein provided when actual Taxes are available for each Tax Period. If the total of such monthly remittances is greater than Tenant's Share of Taxes actually due for such Tax Period, then, provided no Event of Default has occurred, Tenant may credit the difference against the next installment of additional rent on account of Taxes due hereunder, except that if such difference is determined after the end of the Term, Landlord shall refund such difference to Tenant within thirty (30) days after such determination to the extent that such difference exceeds any amounts then due from Tenant to Landlord. If the total of such remittances is less than Tenant's Share of Taxes actually due for such Tax Period, Tenant shall pay the difference to Landlord, as additional rent hereunder, within thirty (30) days of Tenant's receipt of an invoice therefor. Landlord's estimate for the next Tax Period shall be based upon actual Taxes for the prior Tax Period plus a reasonable adjustment based upon estimated increases in Taxes. The provisions of this Section 5.3(c) shall survive the expiration or earlier termination of this Lease.

(d) Effect of Abatements. Appropriate credit against Taxes shall be given for any refund obtained by reason of a reduction in any Taxes by the assessors or the administrative, judicial or other governmental agency responsible therefor after deduction of Landlord's expenditures for reasonable legal fees and for other reasonable expenses incurred in obtaining the Tax refund.

(e) Part Years. If the Rent Commencement Date or the Expiration Date occurs in the middle of a Tax Period, Tenant shall be liable for only that portion of the Taxes, as the case may be, with respect to such Tax Period within the Term from and after the Rent Commencement Date.

5.4 Late Payments.

(a) Any payment of Rent due hereunder not paid when due shall bear interest for each month or fraction thereof from the due date until paid in full at the annual rate of eighteen percent (18%), or at any applicable lesser maximum legally permissible rate for debts of this nature (the "**Default Rate**").

(b) Additionally, if Tenant fails to make any payment within five (5) business days after the due date therefor, Landlord may charge Tenant a fee, which shall constitute liquidated damages, equal to three percent (3%) of any such late payment; provided, however, Landlord shall waive the late fee once in any twelve-(12)-month period in the event Tenant shall pay such late payment within five (5) business days following Landlord's written notice to Tenant of the occurrence of such late payment.

(c) For each Tenant payment check to Landlord that is returned by a bank for any reason, Tenant shall pay a returned check charge equal to the amount as shall be customarily charged by Landlord's bank at the time.

(d) Money paid by Tenant to Landlord shall be applied to Tenant's account in the following order: first, to any unpaid additional rent, including without limitation late charges, returned check charges, legal fees and/or court costs chargeable to Tenant hereunder; and then to unpaid Base Rent.

(e) The parties agree that the late charge referenced in Section 5.4(b) represents a fair and reasonable estimate of the costs that Landlord will incur by reason of any late payment by Tenant, and the payment of late charges and interest are distinct and separate in that the payment of interest is to compensate Landlord for the use of Landlord's money by Tenant, while the payment of late charges is to compensate Landlord for Landlord's processing, administrative and other costs incurred by Landlord as a result of Tenant's delinquent payments. Acceptance of a late charge or interest shall not constitute a waiver of Tenant's default with respect to the overdue amount or prevent Landlord from exercising any of the other rights and remedies available to Landlord under this Lease or at law or in equity now or hereafter in effect.

(f) If Tenant during any six (6) month period shall be more than five (5) days delinquent in the payment of any installment of Rent on three (3) or more occasions, then, notwithstanding anything herein to the contrary, Landlord may, by written notice to Tenant, elect to require Tenant to pay all Base Rent and additional rent on account of Operating Costs and Taxes quarterly in advance. Such right shall be in addition to and not in lieu of any other right or remedy available to Landlord hereunder or at law on account of Tenant's default hereunder.

5.5 **No Offset; Independent Covenants; Waiver**. Rent shall be paid without notice or demand, and without setoff, counterclaim, defense, abatement, suspension, deferment, reduction or deduction, except as expressly provided herein. **TENANT WAIVES ALL RIGHTS (I) TO ANY ABATEMENT, SUSPENSION, DEFERMENT, REDUCTION OR DEDUCTION OF OR FROM RENT, AND (II) TO QUIT, TERMINATE OR SURRENDER THIS LEASE OR THE PREMISES OR ANY PART THEREOF, EXCEPT AS EXPRESSLY PROVIDED HEREIN. TENANT HEREBY ACKNOWLEDGES AND AGREES THAT THE OBLIGATIONS OF TENANT HEREUNDER SHALL BE SEPARATE AND INDEPENDENT COVENANTS AND AGREEMENTS, THAT RENT SHALL CONTINUE TO BE PAYABLE IN ALL EVENTS AND THAT THE OBLIGATIONS OF TENANT HEREUNDER SHALL CONTINUE UNAFFECTED, UNLESS THE REQUIREMENT TO PAY OR PERFORM THE SAME SHALL HAVE BEEN TERMINATED PURSUANT TO AN EXPRESS PROVISION OF THIS LEASE. LANDLORD AND TENANT EACH ACKNOWLEDGES AND AGREES THAT THE INDEPENDENT NATURE OF THE OBLIGATIONS OF TENANT HEREUNDER REPRESENTS FAIR, REASONABLE, AND ACCEPTED COMMERCIAL PRACTICE WITH RESPECT TO THE TYPE OF PROPERTY SUBJECT TO THIS LEASE, AND THAT THIS AGREEMENT IS THE PRODUCT OF FREE AND INFORMED NEGOTIATION DURING WHICH BOTH LANDLORD AND TENANT WERE REPRESENTED BY COUNSEL SKILLED IN NEGOTIATING AND DRAFTING COMMERCIAL LEASES IN MASSACHUSETTS, AND THAT THE ACKNOWLEDGEMENTS AND AGREEMENTS CONTAINED HEREIN ARE MADE WITH FULL KNOWLEDGE OF THE HOLDING IN WESSON V. LEONE ENTERPRISES, INC., 437 MASS. 708 (2002). SUCH ACKNOWLEDGEMENTS, AGREEMENTS AND WAIVERS BY TENANT ARE A MATERIAL INDUCEMENT TO LANDLORD ENTERING INTO THIS LEASE.**

5.6 **Survival**. Any obligations under this Section 5 which shall not have been paid at the expiration or earlier termination of the Term shall survive such expiration or earlier termination and shall be paid when and as the amount of same shall be determined and be due.

6. INTENTIONALLY OMITTED

7. LETTER OF CREDIT

7.1 **Amount**. Contemporaneously with the execution of this Lease, Tenant shall deliver to Landlord cash in the amount of $765,297.48 (the "**Initial Cash Security Deposit**"), which shall be held by Landlord in accordance with Section 7.4 below. Notwithstanding the foregoing, in the event Tenant elects the Option Two Landlord Contribution (as defined in Exhibit 4), Tenant shall, within five (5) business days of such election, deliver to Landlord either (x) additional cash in the amount of $10,435.90, for a total amount of $775,733.38, or (y) if Tenant has already delivered a Letter of Credit (as hereinafter defined) as set forth below, then an amendment to such Letter of Credit increasing the amount thereof to $775,733.38, and in either case such total amount shall then be considered to be the Initial Cash Security Deposit for all purposes under this Lease. Notwithstanding anything to the contrary herein contained, Tenant shall, no later than six (6) months after the Execution Date (the "**Letter of Credit Replacement Date**"), deliver to Landlord a Letter of Credit (as hereinafter defined) in an amount equal to either (a) the Initial Cash Security Deposit if the Letter of Credit Replacement Date occurs before the Increase Date (as hereinafter defined), or (b) the Total Security Deposit Amount (as hereinafter defined) if the Letter of Credit Replacement Date occurs on or after the Increase Date, which Letter of Credit shall serve to replace the Initial Cash Security Deposit. Tenant shall, within ten (10) business days after the date (the "**Increase Date**") which is the earlier to occur of (x) December 1, 2019, and (y) the date Tenant completes its Series B financing, deliver to Landlord either (I) the balance of the Total Security Deposit Amount in cash, if the Letter of Credit Replacement Date has not yet occurred, (II) an amendment to the existing Letter of Credit ("**Letter of Credit Amendment**"), if applicable, in form and substance reasonably acceptable to Landlord, increasing the amount of the Letter of Credit to the Total Security Deposit Amount, or (III) a Letter of Credit in an amount equal to the Total Security Deposit Amount, which Letter of Credit shall serve to replace the Initial Cash Security Deposit as security for the full and faithful performance by Tenant of each and every term, provision, covenant and condition of this Lease. Promptly following Landlord's receipt of the Letter of Credit, Landlord shall return the remaining balance of the Initial Cash Security Deposit to Tenant. The "**Total Security Deposit Amount**" shall mean either (x) in the event Tenant elects, or is deemed to have elected, the Option One Landlord Contribution, $1,530,595.00, or (y) in the event Tenant elects the Option Two Landlord Contribution, $1,551,466.75. The "**Letter of Credit**" shall mean an irrevocable letter of credit that shall (a) be in the applicable amount in accordance with the provisions of this Section 7.1; (b) be issued in a form reasonably approved by Landlord; (c) name Landlord as its beneficiary; (d) be drawn on an FDIC insured financial institution reasonably satisfactory to Landlord ("**Approved Issuer**") that both (x) has an office in the greater Boston metropolitan area that will accept presentation of, and pay against, or allow for facsimile presentment for the payment of the Letter of Credit and (y) satisfies both the Minimum Rating Agency Threshold and the Minimum Capital Threshold (as those terms are defined below). The "**Minimum Rating Agency Threshold**" shall mean that the issuing bank has outstanding unsecured, uninsured and unguaranteed senior long-term indebtedness that is then rated (without regard to qualification of such rating by symbols such as "+" or "-" or numerical notation) "Baa" or better by Moody's Investors Service, Inc. and/or "BBB" or better by Standard & Poor's Rating Services, or a comparable rating by a comparable national rating agency designated by Landlord in its discretion. The "**Minimum Capital Threshold**" shall mean that the issuing bank has combined capital, surplus and undivided profits of not less than $10,000,000,000. Notwithstanding the foregoing, Landlord hereby agrees that, as of the Execution Date, Silicon Valley Bank is an Approved Issuer. The Letter of Credit (and any renewals or replacements thereof) shall (1) be for a term of not less than one (1) year, (2) permit multiple drawings, (3) either be fully transferable by Landlord without the payment of any fees or charges by Landlord, or Tenant shall be obligated to cause a replacement Letter of Credit to be issued for the benefit of Landlord's transferee, at no fee or charge to Landlord, subject only to the return of the original Letter of Credit and (4) automatically renew for successive one (1) year periods unless at least sixty (60) days prior to the then current expiration date Tenant provides written notice to Landlord that the Letter of Credit will not be extended beyond the current expiration date. If the issuer of the Letter of Credit gives notice of its election not to renew such Letter of Credit for any additional period, Tenant shall be required to deliver a substitute Letter of Credit satisfying the conditions hereof at least thirty (30) days prior to the expiration of the term of such Letter of Credit. If the issuer of the Letter of Credit fails to satisfy either or both of the Minimum Rating Agency Threshold or the Minimum Capital Threshold, Tenant shall be required to deliver a substitute letter of credit from another issuer reasonably satisfactory to the Landlord and that satisfies both the Minimum Rating Agency Threshold and the Minimum Capital Threshold not later than ten (10) business days after Landlord notifies Tenant of such failure. Tenant agrees that it shall from time to time, as necessary, whether as a result of a draw on the Letter of Credit by Landlord pursuant to the terms hereof or as a result of the expiration of the Letter of Credit then in effect, renew or replace the original and any subsequent Letter of Credit so that a Letter of Credit, in the amount required hereunder, is in effect until a date which is at least sixty (60) days after the Expiration Date. If Tenant fails to furnish such renewal or replacement at least sixty (60) days prior to the stated expiration date of the Letter of Credit then held by Landlord, Landlord may draw upon such Letter of Credit and hold the proceeds thereof (and such proceeds need not be segregated) as a Security Deposit pursuant to the terms of this Article 7. Any renewal or replacement of the original or any subsequent Letter of Credit shall meet the requirements for the original Letter of Credit as set forth above, except that such replacement or renewal shall be issued by an Approved Issuer.

7.2 **Application of Proceeds of Letter of Credit**. Upon an Event of Default, or if any proceeding shall be instituted by or against Tenant pursuant to any of the provisions of any Act of Congress or State law relating to bankruptcy, reorganizations, arrangements, compositions or other relief from creditors (and, in the case of any proceeding instituted against it, if Tenant shall fail to have such proceedings dismissed within thirty (30) days) or if Tenant is adjudged bankrupt or insolvent as a result of any such proceeding, Landlord at its sole option may draw down all or a part of the Letter of Credit. The balance of any Letter of Credit cash proceeds shall be held in accordance with Section 7.4 below. Should the entire Letter of Credit, or any portion thereof, be drawn down by Landlord, Tenant shall, upon the written demand of Landlord, deliver a replacement Letter of Credit in the amount drawn, and Tenant's failure to do so within ten (10) days after receipt of such written demand shall constitute an additional Event of Default hereunder. The application of all or any part of the cash proceeds of the Letter of Credit to any obligation or default of Tenant under this Lease shall not deprive Landlord of any other rights or remedies Landlord may have nor shall such application by Landlord constitute a waiver by Landlord.

7.3 **Transfer of Letter of Credit**. In the event that Landlord transfers its interest in the Premises, Tenant shall upon notice from and at no cost to Landlord, deliver to Landlord an amendment to the Letter of Credit or a replacement Letter of Credit naming Landlord's successor as the beneficiary thereof. If Tenant fails to deliver such amendment or replacement within ten (10) days after written notice from Landlord, Landlord shall have the right to draw down the entire amount of the Letter of Credit and hold the proceeds thereof in accordance with *Section 7.5* below.

7.4 **Cash Proceeds of Letter of Credit**. Landlord shall hold the Initial Cash Security Deposit and/or the balance of proceeds remaining after a draw on the Letter of Credit (each hereinafter referred to as the "**Security Deposit**") as security for Tenant's performance of all its Lease obligations. After an Event of Default, Landlord may apply the Security Deposit, or any part thereof, to Landlord's damages without prejudice to any other Landlord remedy. Landlord has no obligation to pay interest on the Security Deposit and may co-mingle the Security Deposit with Landlord's funds. If Landlord conveys its interest under this Lease, the Security Deposit, or any part not applied previously, may be turned over to the grantee in which case Tenant shall look solely to the grantee for the proper application and return of the Security Deposit.

7.5 **Return of Security Deposit or Letter of Credit**. Should Tenant comply with all of such terms, covenants and conditions and promptly pay all sums payable by Tenant to Landlord hereunder, the Security Deposit and/or Letter of Credit or the remaining proceeds therefrom, as applicable, shall (less any portion thereof which may have been utilized by Landlord to cure any default or applied to any actual damage suffered by Landlord) be returned to Tenant within forty-five (45) days after the latest to occur of: (i) the end of the Term, (ii) the delivery by Tenant to Landlord of the Premises free and clear of all parties claiming under Tenant and in compliance with Section 21 of the Lease, and (iii) the delivery to Landlord of an acceptable Surrender Report, as defined in Section 21 of the Lease, unless an Event of Default (or a default that with notice and the passage of time would constitute an Event of Default) exists at the end of the Term, in which event, the forty-five-(45)-day period shall commence on the date that Tenant cures such Event of Default or default.

8. INTENTIONALLY OMITTED

9. UTILITIES, LANDLORD'S SERVICES

9.1 **Electricity**. Commencing on the Rent Commencement Date, Tenant shall pay all charges for electricity furnished to the Premises and any equipment exclusively serving the Premises, as additional rent, as measured by a separate check meter which shall be installed by Tenant as part of the Tenant Work. Tenant shall, at Tenant's sole cost and expense, maintain and keep in good order, condition and repair the metering equipment used to measure electricity furnished to the Premises and any equipment exclusively serving the same. Tenant shall pay to Landlord the full amount of any charges attributable to such check meter, based on Landlord's reading of such check meter, on or before the later to occur of (i) the due date therefor or thirty (30) days following delivery of an invoice for such costs from Landlord. At Tenant's request, Landlord shall provide Tenant with reasonable back-up documentation regarding the total charges and the method of allocating the charges to Tenant.

9.2 **Water**. Landlord shall contract with the utility provider for water service to the Property, including the Premises. Except as otherwise provided below, the cost of providing water service to the Premises and all other portions of the Building (including, without limitation, the premises of other tenants or occupants of the Building) shall be included in Operating Costs. Notwithstanding the foregoing, if Landlord determines that Tenant is using water in excess of its proportionate share (by floor area) of the total water usage in the Building, Landlord may elect, at Tenant's expense, to furnish and install in a location in or near the Premises metering equipment to measure water furnished to the Premises and any equipment exclusively serving the same. In such event, Tenant shall, within thirty (30) days after Landlord's written demand therefor from time to time, pay to Landlord, as additional rent, the full amount of any water service charges attributable to such meter.

9.3 **Gas**. Landlord shall contract with the utility provider for gas service to the Property, including the Premises. The cost of gas used to serve base building plumbing, mechanical and electrical systems shall be included in the costs reimbursed by Tenant pursuant to Section 9.6 below. If Tenant requires gas service for the operation of Tenant's laboratory equipment in the Premises, Tenant shall pay all charges for gas furnished to the Premises and/or any equipment exclusively serving the Premises as additional rent, based, at Landlord's election, (i) on Landlord's reasonable estimate of such gas usage or (ii) on metering or submetering equipment installed by Landlord at Tenant's expense.

9.4 **Other Utilities**. Subject to Landlord's reasonable rules and regulations governing the same, Tenant shall obtain and pay, as and when due, for all other utilities and services consumed in and/or furnished to the Premises, together with all taxes, penalties, surcharges and maintenance charges pertaining thereto.

9.5 **Interruption or Curtailment of Utilities**. When necessary by reason of accident or emergency, or for repairs, alterations, replacements or improvements which in the reasonable judgment of Landlord are desirable or necessary to be made, Landlord reserves the right, upon as much prior notice to Tenant as is practicable under the circumstances and no less than twenty- four (24) hours' notice except in the event of an emergency, to interrupt, curtail, or stop (i) the furnishing of hot and/or cold water, and (ii) the operation of the plumbing and electric systems. Landlord shall exercise reasonable diligence to eliminate the cause of any such interruption, curtailment, stoppage or suspension, but, except as set forth in Section 10.7, there shall be no diminution or abatement of Rent or other compensation due from Landlord to Tenant hereunder, nor shall this Lease be affected or any of Tenant's obligations hereunder reduced, and Landlord shall have no responsibility or liability for any such interruption, curtailment, stoppage, or suspension of services or systems.

9.6 **Landlord's Services**. Subject to reimbursement pursuant to Section 5.2 above, Landlord shall provide the services described in Exhibit 7 attached hereto and made a part hereof ("**Landlord's Services**"), at the level of service set forth therein. All costs incurred in connection with the provision of Landlord's Services shall be included in Operating Costs. Tenant shall pay such costs monthly, together with monthly installments of Base Rent, on an estimated basis in amounts from time to time reasonably determined by Landlord. After the close of each fiscal year, Landlord shall determine the actual amount of such costs for such year and deliver to Tenant a reasonably detailed statement thereof, together with a statement of the amounts paid by Tenant on an estimated basis toward such costs as aforesaid. If such statement indicates that the estimated amounts paid by Tenant are less than Tenant's allocable share of the actual amount of such costs for such fiscal year, then Tenant shall pay the amount of such shortfall to Landlord within thirty (30) days after delivery of such statement. If such statement indicates that Tenant's estimated payments for such year exceed the actual amount of such costs for such year, then Landlord shall credit the excess against the next due installment(s) of additional rent payable under this Section 9.6.

10. MAINTENANCE AND REPAIRS

10.1 **Maintenance and Repairs by Tenant**. Tenant shall keep neat and clean and free of insects, rodents, vermin and other pests and in good repair, order and condition the Premises, including without limitation the entire interior of the Premises, all electronic, phone and data cabling and related equipment (other than building service equipment) that is installed by or for the exclusive benefit of the Tenant (whether located in the Premises or other portions of the Building), all fixtures, equipment and specialty lighting therein, electrical equipment wiring, doors, non-structural walls, windows and floor coverings, reasonable wear and tear and damage by Casualty excepted.

10.2 **Maintenance and Repairs by Landlord**. Except as otherwise provided in Section 15, and subject to Tenant's obligations in Section 10.1 above, Landlord shall maintain and keep in good working order (i) the Building foundation, the roof, Building structure, exterior windows and related assemblies, structural floor slabs and columns of the Building, and (ii) the base Building systems, including, without limitation, all common mechanical, electrical and HVAC systems serving the Building in good repair, order and condition. In addition, Landlord shall operate and maintain the Common Areas in substantially the same manner as comparable combination office and laboratory facilities in the vicinity of the Premises. All costs incurred by Landlord under this Section 10.2 shall be included in Operating Costs, subject to, and in accordance with Section 5.2.

10.3 **Accidents to Sanitary and Other Systems**. Tenant shall give to Landlord prompt notice of any fire or accident in the Premises or in the Building and of any damage to, or defective condition in, any part or appurtenance of the Building including, without limitation, sanitary, electrical, ventilation, heating and air conditioning or other systems located in, or passing through, the Premises. Except as otherwise provided in Section 15, and subject to Tenant's obligations in Section 10.1 above, such damage or defective condition shall be remedied by Landlord with reasonable diligence, but, subject to Section 14.5 below, if such damage or defective condition was caused by any of the Tenant Parties, the cost to remedy the same shall be paid by Tenant.

10.4 **Floor Load--Heavy Equipment**. Tenant shall not place a load upon any floor of the Premises exceeding the floor load per square foot of area which such floor was designed to carry and which is allowed by Legal Requirements. The floor load capacity of the Premises is 100 pounds per square foot. Landlord reserves the right to prescribe the weight and position of all safes, heavy machinery, heavy equipment, freight, bulky matter or fixtures (collectively, "**Heavy Equipment**"), in a commercially reasonable manner, which shall be placed so as to distribute the weight. Heavy Equipment shall be placed and maintained by Tenant at Tenant's expense in settings sufficient in Landlord's reasonable judgment to absorb and prevent vibration, noise and annoyance. Tenant shall not move any Heavy Equipment into or out of the Building without giving Landlord prior written notice thereof and observing all of Landlord's Rules and Regulations with respect to the same. If such Heavy Equipment requires special handling, Tenant agrees to employ only persons holding a Master Rigger's License to do said work, and that all work in connection therewith shall comply with Legal Requirements. Any such moving shall be at the sole risk and hazard of Tenant and Tenant will defend, indemnify and save Landlord and Landlord's agents (including without limitation its property manager), contractors and employees (collectively with Landlord, the "**Landlord Parties**") harmless from and against any and all claims, damages, losses, penalties, costs, expenses and fees (including without limitation reasonable legal fees) (collectively, "**Claims**") resulting directly or indirectly from such moving, except, subject to Section 14.5 hereof, to the extent caused by the negligence or willful misconduct of any Landlord Parties. Proper placement of all Heavy Equipment in the Premises shall be Tenant's responsibility.

10.5 **Premises Cleaning**. Tenant shall be responsible, at its sole cost and expense, for janitorial and trash removal services and other biohazard disposal services for the Premises, including the laboratory areas thereof. Such services shall be performed by licensed (where required by law or governmental regulation), insured and qualified contractors approved in advance, in writing, by Landlord (which approval shall not be unreasonably withheld, delayed or conditioned) and on a sufficient basis to ensure that the Premises are at all times kept neat and clean. Landlord shall provide a dumpster and/or compactor at the Building loading dock for Tenant's disposal of non-biohazard material. All costs incurred by Landlord in connection with such dumpster and/or compactor shall be included in Operating Costs as provided in Section 5.2.

10.6 **Pest Control**. Tenant, at Tenant's sole cost and expense, shall cause the Premises to be exterminated on a monthly basis to Landlord's reasonable satisfaction and shall cause all portions of the Premises used for the storage, preparation, service or consumption of food or beverages to be cleaned daily in a manner reasonably satisfactory to Landlord, and to be treated against infestation by insects, rodents and other vermin and pests whenever there is evidence of any infestation. Tenant shall not permit any person to enter the Premises for the purpose of providing such extermination services, unless such persons have been approved by Landlord. If requested by Landlord, Tenant shall, at Tenant's sole cost and expense, store any refuse generated in the Premises by the consumption of food or beverages in a cold box or similar facility.

10.7 **Service Interruptions**.

(a) Abatement of Rent. In the event that: (i) there shall be an interruption, curtailment or suspension of any service or failure to perform any obligation required to be provided or performed by Landlord pursuant to Sections 9 and/or 10 (and no reasonably equivalent alternative service or supply is provided by Landlord) that shall materially interfere with Tenant's use and enjoyment of the Premises, or any portion thereof (any such event, a "**Service Interruption**"), and (ii) such Service Interruption shall continue for five (5) consecutive business days following receipt by Landlord of written notice (the "**Service Interruption Notice**") from Tenant describing such Service Interruption ("**Abatement Service Interruption Cure Period**"), and (iii) such Service Interruption shall not have been caused by an act or omission of Tenant or Tenant's agents, employees, contractors or invitees (an event that satisfies the foregoing conditions (i)-(iii) being referred to hereinafter as a "**Material Service Interruption**") then, Tenant, subject to the next following sentence, shall be entitled to an equitable abatement of Base Rent, Operating Costs and Taxes based on the nature and duration of the Material Service Interruption and the area of the Premises affected, for any and all days following the Material Service Interruption Cure Period that both (x) the Material Service Interruption is continuing and (y) Tenant does not use such affected areas of the Premises for any of the Permitted Uses. Any efforts by Tenant to respond or react to any Material Service Interruption, including, without limitation, any activities by Tenant to remove its personal property from the affected areas of the Premises, shall not constitute a use that precludes abatement pursuant to this Section 10.7(a). The Abatement Service Interruption Cure Period shall be extended by reason of any delays in Landlord's ability to cure the Service Interruption in question caused by Landlord's Force Majeure, provided however, that in no event shall the Abatement Service Interruption Cure Period with respect to any Service Interruption be longer than ten (10) consecutive business days after Landlord receives the applicable Service Interruption Notice.

(b) Tenant's Termination Right. In the event that: (i) a Service Interruption occurs, and (ii) such Service Interruption continues for a period of ninety (90) consecutive days after Landlord receives a Service Interruption Notice with respect to such Service Interruption ("**Termination Service Interruption Cure Period**"), and (iii) such Service Interruption shall not have been caused by an act or omission of Tenant or Tenant's agents, employees, contractors or invitees, and (iv) for so long as Tenant ceases to use the affected portion of the Premises during such Service Interruption, then Tenant shall have the right to terminate this Lease by giving a written termination notice to Landlord after the expiration of the Termination Service Interruption Cure Period. If such Service Interruption is cured within ten (10) days ("**Post Termination Notice Cure Period**") after Landlord receives such termination notice, then Tenant shall have no right to terminate this Lease based upon such Service Interruption and Tenant's termination notice shall be of no force or effect. The Termination Service Interruption Cure Period and the Post-Termination Notice Cure Period shall each be extended by reason of any delays in Landlord's ability to cure the Service Interruption in question caused by Landlord's Force Majeure, provided however, that in no event shall the aggregate extension of the Termination Service Interruption Cure Period and the Post-Termination Notice Cure Period by reason of Landlord's Force Majeure exceed sixty (60) days.

(c) The provisions of this Section 10.7 shall not apply in the event of a Service Interruption caused by Casualty or Taking (see Section 15 hereof).

(d) The provisions of this Section 10.7 set forth Tenant's sole rights and remedies, both in law and in equity, in the event of any Service Interruption.

11. ALTERATIONS AND IMPROVEMENTS BY TENANT

11.1 Landlord's Consent Required.

(a) Tenant shall not make any alterations, decorations, installations, removals, additions or improvements (collectively with the Tenant Work, "**Alterations**") in or to the Premises without Landlord's prior written approval of the contractor(s), written plans and specifications and a time schedule therefor. Landlord reserves the right to require that Tenant use Landlord's preferred vendor(s) for any Alterations that involve roof penetrations, alarm tie- ins, sprinklers, fire alarm and other life safety equipment. Tenant shall not make any amendments or additions to plans and specifications approved by Landlord without Landlord's prior written consent. Landlord's approval of non-structural Alterations shall not be unreasonably withheld, conditioned or delayed. Notwithstanding the foregoing, except to the extent as set forth in Exhibit 4, Landlord may withhold its consent in its sole discretion (a) to any Alteration to or affecting the fixed lab benches, fume hoods, roof and/or building systems, (b) with respect to matters of aesthetics relating to Alterations to or affecting the exterior of the Building, and (c) to any Alteration affecting the Building structure. Tenant shall be responsible for all elements of the design of Tenant's plans (including, without limitation, compliance with Legal Requirements, functionality of design, the structural integrity of the design, the configuration of the Premises and the placement of Tenant's furniture, appliances and equipment), and Landlord's approval of Tenant's plans shall in no event relieve Tenant of the responsibility for such design. In seeking Landlord's approval, Tenant shall provide Landlord, at least fourteen (14) business days in advance of any proposed construction, with plans, specifications, bid proposals, certified stamped engineering drawings and calculations by Tenant's engineer of record or architect of record, (including connections to the Building's structural system, modifications to the Building's envelope, non-structural penetrations in slabs or walls, and modifications or tie-ins to life safety systems), work contracts, requests for laydown areas and such other information concerning the nature and cost of the Alterations as Landlord may reasonably request. Landlord shall have no liability or responsibility for any claim, injury or damage alleged to have been caused by the particular materials (whether building standard or non-building standard), appliances or equipment selected by Tenant in connection with any work performed by or on behalf of Tenant. Except as otherwise expressly set forth herein, all Alterations shall be done at Tenant's sole cost and expense and at such times and in such manner as Landlord may from time to time reasonably designate. If Tenant shall make any Alterations, then Landlord may elect to require Tenant at the expiration or sooner termination of the Term to restore the Premises to substantially the same condition as existed immediately prior to the Alterations, provided that Landlord's election shall be made in writing at the time it grants its consent to the particular Alteration. Notwithstanding the foregoing, if Tenant shall make any Alterations, then, if Landlord, in Landlord's reasonable judgment, determines that the Alterations (i) adversely affect the general utility of the Building for use by prospective tenants thereof, or (ii) require unusual expense to restore and/or readapt the Premises to usual use as a biotechnology office and research and development facility, such Alterations being hereinafter referred to as "**Specialty Alterations**", Landlord may elect to require Tenant at the expiration or sooner termination of the Term to restore the Premises to substantially the same condition as existed immediately prior to the Specialty Alterations. Landlord agrees that it will make such election with respect to any Specialty Alteration at the time that Landlord approves Tenant's plans and specifications for a Specialty Alteration, if Tenant gives written notice to Landlord requesting Landlord to make such election at the time of such approval. Without limiting the foregoing, Alterations associated with Tenant's vivarium operations in the Premises ("**Vivarium Alterations**") may, at Landlord's election, be deemed to be Specialty Alterations. Tenant shall provide Landlord with reproducible record drawings (in CAD format) of all Alterations within sixty (60) days after completion thereof,

(b) **Alterations Permitted without Landlord's Consent**. Notwithstanding anything to the contrary herein contained, Tenant shall have the right without obtaining the prior consent of Landlord, but upon prior notice to Landlord as provided below, to make Alterations to the Premises where: (i) the same are within the interior of the Premises, and do not affect the exterior of the Building and do not affect any of the Building's systems or the ceiling of the Premises; (ii) the same do not affect the roof or any structural element of the Building, or the fire protection systems of the Building; (iii) the same do not create a nuisance and do not interfere with the rights of other tenants located in the Building; (iv) the cost of any individual Alteration shall not exceed $150,000.00 in cost; (v) Tenant shall comply with the provisions of this Lease, and if such work increases the cost of insurance or taxes, Tenant shall pay for any such increase in cost; and (vi) Tenant gives Landlord at least five (5) business days' prior notice describing such work in reasonable detail, accompanied by copies of plans and specifications therefor (to the extent plans and specifications are typically prepared in accordance with such work (the "**Permitted Alterations**")).

11.2 **After-Hours**. Landlord and Tenant recognize that to the extent Tenant elects to perform some or all of the Alterations during times other than normal construction hours (i.e., Monday-Friday, 7:00 a.m. to 3:00 p.m., excluding holidays), Landlord may need to make arrangements to have supervisory personnel on site. Accordingly, Landlord and Tenant agree as follows: Tenant shall give Landlord at least two (2) business days' prior written notice of any time outside of normal construction hours when Tenant intends to perform any Alterations (the "**After-Hours Work**"). Tenant shall reimburse Landlord, within ten (10) days after demand therefor, for the cost of Landlord's supervisory personnel overseeing the After-Hours Work. In addition, if construction during normal construction hours unreasonably disturbs other tenants of the Building, in Landlord's sole discretion, Landlord may require Tenant to stop the performance of Alterations during normal construction hours and to perform the same after hours, subject to the foregoing requirement to pay for the cost of Landlord's supervisory personnel.

11.3 **Harmonious Relations**. Tenant agrees that it will not, either directly or indirectly, use any contractors and/or materials if their use will create any difficulty, whether in the nature of a labor dispute or otherwise, with other contractors and/or labor engaged by Tenant or Landlord or others in the construction, maintenance and/or operation of the Building, the Property or any part thereof. In the event of any such difficulty, upon Landlord's request, Tenant shall cause all contractors, mechanics or laborers causing such difficulty to leave the Property immediately.

11.4 **Liens**. No Alterations shall be undertaken by Tenant until: (i) Tenant has made provision for written waiver of liens from all contractors for such Alteration; and (ii) with respect to any Alteration, the cost of which exceeds $500,000: (x) Tenant has provided Landlord with reasonable evidence that there is sufficient funding to pay for such Alteration, and (y) Tenant has required its general contractor to obtain appropriate surety payment and performance bonds which shall name Landlord as an additional obligee and has filed lien bond(s) (in jurisdictions where available) on behalf of such contractors. Any mechanic's lien filed against the Premises or the Building for work claimed to have been done for, or materials claimed to have been furnished to, Tenant shall be discharged by Tenant within ten (10) business days thereafter, at Tenant's expense by filing the bond required by law or otherwise.

11.5 **General Requirements**. Unless Landlord and Tenant otherwise agree in writing, Tenant shall (a) procure or cause others to procure on its behalf all necessary permits before undertaking any Alterations in the Premises (and provide copies thereof to Landlord); (b) perform all of such Alterations in a good and workmanlike manner, employing materials of good quality and in compliance with Landlord's construction rules and regulations, all insurance requirements of this Lease, and Legal Requirements; and (c) defend, indemnify and hold the Landlord Parties harmless from and against any and all Claims occasioned by or growing out of such Alterations, except to the extent caused by the negligence or willful misconduct of any Landlord Parties.

12. SIGNAGE

12.1 **Restrictions**. Tenant shall have the right to install Building standard signage identifying Tenant's business at the entrance to the Premises, which signage shall be subject to Landlord's prior written consent (which consent shall not be unreasonably withheld, conditioned or delayed). Subject to the foregoing, and subject to Section 12.2 below, Tenant shall not, without first obtaining Landlord's written approval (which approval Landlord may withhold, in Landlord's sole discretion), place or suffer to be placed or maintained on the exterior of the Premises, or any part of the interior visible from the exterior thereof, any sign, banner, advertising matter or any other thing of any kind (including, without limitation, any hand-lettered advertising), and shall not place or maintain any decoration, letter or advertising matter on the glass of any window or door of the Premises without first obtaining Landlord's written approval. No signs may be put on or in any window or elsewhere if visible from the exterior of the Building.

12.2 **Monument Signage.** For so long as (x) there is no Event of Default of Tenant and (y) the Lease is in full force and effect (the "**Monument Signage Condition**"), then Tenant shall have the right to require Landlord to list, at Landlord's initial cost and expense, Tenant's name ("**Tenant's Monument Signage**") on the existing exterior monument sign (the "**Monument Sign**") serving the Property at the entrance from the MWF Road during the initial Term of the Lease, and any extensions thereof, subject to the provisions of this Section 12.2. The parties hereby agree that the maintenance and removal of such Tenant's Monument Signage (including, without limitation, the repair and cleaning of the existing monument facade upon removal of Tenant's Monument Signage) shall be performed at Landlord's sole cost and expense, except that Tenant shall be responsible for the cost of any change in Tenant's Monument Signage during the initial Term of the lease.

12.3 Building Directory/Premises Entrance Signage.

(a) Landlord shall list Tenant within the directory in the Building lobby once installed. The initial listing shall be at Landlord's cost and expense, and any changes to such directory listing shall be at Tenant's cost and expense.

(b) Tenant shall have the right, at Tenant's cost, to install a building standard Tenant identification sign at the entrance to the Premises.

13. ASSIGNMENT, MORTGAGING AND SUBLETTING

13.1 Landlord's Consent Required. Tenant shall not mortgage or encumber this Lease or in whole or in part whether at one time or at intervals, operation of law or otherwise. Except as expressly otherwise set forth herein, Tenant shall not, without Landlord's prior written consent, assign, sublet, license or transfer this Lease or the Premises in whole or in part whether by changes in the ownership or control of Tenant, or any direct or indirect owner of Tenant, whether at one time or at intervals, by sale or transfer of stock, partnership or beneficial interests, operation of law or otherwise, or permit the occupancy of all or any portion of the Premises by any person or entity other than Tenant's employees (each of the foregoing, a "**Transfer**"). Any purported Transfer made without Landlord's consent, if required hereunder, shall be void and confer no rights upon any third person, provided that if there is a Transfer, Landlord may collect rent from the transferee without waiving the prohibition against Transfers, accepting the transferee, or releasing Tenant from full performance under this Lease. In the event of any Transfer in violation of this Article 13, Landlord shall have the right to terminate this Lease upon thirty (30) days' written notice to Tenant given within sixty (60) days after receipt of written notice from Tenant to Landlord of any Transfer, or within one (1) year after Landlord first learns of the Transfer if no notice is given. No Transfer shall relieve Tenant of its primary obligation as party Tenant hereunder, nor shall it reduce or increase Landlord's obligations under this Lease.

13.2 Landlord's Recapture Right

(a) Except as for Permitted Transfers, as provided in Section 13.7 below, Tenant shall, prior to offering or advertising the Premises or any portion thereof for a Transfer, give a written notice (the "**Recapture Notice**") to Landlord which: (i) states that Tenant desires to make a Transfer, (ii) identifies the affected portion of the Premises (the "**Recapture Premises**"), (iii) identifies the period of time (the "**Recapture Period**") during which Tenant proposes to sublet the Recapture Premises, or indicates that Tenant proposes to assign its interest in this Lease, and (iv) offers to Landlord to terminate this Lease with respect to the Recapture Premises (in the case of a proposed assignment of Tenant's interest in this Lease or a subletting for the remainder of the Term of this Lease) or to suspend the Term for the Recapture Period (i.e. the Term with respect to the Recapture Premises shall be terminated during the Recapture Period and Tenant's rental obligations shall be proportionately reduced). Landlord shall have fifteen (15) business days within which to respond to the Recapture Notice.

(b) Notwithstanding anything to the contrary contained herein, if Landlord notifies Tenant that it accepts the offer contained in the Recapture Notice or any subsequent Recapture Notice, Tenant shall have the right, for a period of fifteen (15) days following receipt of such notice from Landlord, *time being of the essence*, to notify Landlord in writing that it wishes to withdraw such offer and this Lease shall continue in full force and effect.

13.3 **Standard of Consent to Transfer**. If Landlord does not timely give written notice to Tenant accepting a Recapture Offer or declines to accept the same, then Landlord agrees that, subject to the provisions of this Article 13, Landlord shall not unreasonably withhold, condition or delay its consent to a Transfer on the terms contained in the Recapture Notice to an entity which will use the Premises for any of the Permitted Uses. Without limiting the reasonable reasons why Landlord may withhold its consent to a proposed Transfer, it shall be reasonable for Landlord to withhold its consent to a proposed Transfer if, in Landlord's reasonable opinion: (a) the Proposed Transferee does not have a tangible net worth and other financial indicators sufficient to meet the Transferee's obligations under the Transfer instrument in question; (b) the Proposed Transferee has a business reputation that is not compatible with the operation of a first-class combination laboratory, research, development and office building; or (c) the intended use of such entity violates any restrictive use provisions then in effect with respect to space in the Building.

13.4 **Listing Confers no Rights**. The listing of any name other than that of Tenant, whether on the doors of the Premises or on the Building directory, or otherwise, shall not operate to vest in any such other person, firm or corporation any right or interest in this Lease or in the Premises or be deemed to effect or evidence any consent of Landlord, it being expressly understood that any such listing is a privilege extended by Landlord revocable at will by written notice to Tenant.

13.5 **Profits In Connection with Transfers**. Except with respect to any Permitted Transfers, as defined in Section 13.7, Tenant shall, within thirty (30) days of receipt thereof, pay to Landlord fifty percent (50%) of any rent, sum or other consideration to be paid or given in connection with any Transfer, either initially or over time, after deducting reasonable actual out- of-pocket legal, and brokerage expenses incurred by Tenant and unamortized improvements paid for by Tenant in connection therewith and any rental concessions, in excess of Rent hereunder as if such amount were originally called for by the terms of this Lease as additional rent.

13.6 **Prohibited Transfers**. Notwithstanding any contrary provision of this Lease, Tenant shall have no right to make a Transfer unless on both (i) the date on which Tenant notifies Landlord of its intention to enter into a Transfer and (ii) the date on which such Transfer is to take effect, there is no Event of Default under this Lease. Notwithstanding anything to the contrary contained herein, Tenant agrees that in no event shall Tenant make a Transfer to (a) any government agency; (b) any tenant, subtenant or occupant of other space in the Building; or (c) any entity with whom Landlord is currently negotiating, or shall have negotiated in the three (3) months immediately preceding such proposed Transfer, for space in the Property.

13.7 **Exceptions to Requirement for Consent**. Notwithstanding anything to the contrary herein contained, Tenant shall have the right, without obtaining Landlord's consent and without giving Landlord a Recapture Notice, but upon prior written notice to Landlord, to (a) make a Transfer to an Affiliated Entity (hereinafter defined) so long as the transfer to such Affiliated Entity is for legitimate business purposes (and not for the purpose of avoiding the provisions of this Section 13), and (b) assign all of Tenant's interest in and to the Lease to a Successor, provided that prior to or simultaneously with any assignment pursuant to this Section 13.7, such Affiliated Entity or Successor, as the case may be, and Tenant execute and deliver to Landlord an assignment and assumption agreement in form and substance reasonably acceptable to Landlord whereby such Affiliated Entity or Successor, as the case may be, shall agree to be independently bound by and upon all the covenants, agreements, terms, provisions and conditions set forth in the Lease on the part of Tenant to be performed, and whereby such Affiliated Entity or Successor, as the case may be, shall expressly agree that the provisions of this Article 13 shall, notwithstanding such Transfer, continue to be binding upon it with respect to all future Transfers. In addition, a public offering of the stock of Tenant on a national securities exchange shall not be a Transfer pursuant to this Article 13. For the purposes hereof, an "**Affiliated Entity**" shall be defined as any entity which is controlled by, is under common control with, or which controls Tenant. For the purposes hereof, a "**Successor**" shall be defined as any entity into or with which Tenant is merged or with which Tenant is consolidated or which acquires all or substantially all of Tenant's stock or assets, provided that the surviving entity shall have a net worth and other financial indicators sufficient to meet Tenant's obligations hereunder. Transfers to Affiliated Entities and to Successors which are permitted pursuant to this Section 13.7, are referred to collectively herein as "**Permitted Transfers**", and such Affiliated Entities and Successors are referred to herein as "**Permitted Transferees"**.

14. INSURANCE; INDEMNIFICATION; EXCULPATION

14.1 **Tenant's Insurance**.

(a) Tenant shall procure, pay for and keep in force throughout the Term (and for so long thereafter as Tenant remains in occupancy of the Premises) commercial general liability insurance insuring Tenant on an occurrence basis against all claims and demands for personal injury liability (including, without limitation, bodily injury, sickness, disease, and death) or damage to property which may be claimed to have occurred from and after the time any of the Tenant Parties shall first enter the Premises, of not less than One Million Dollars ($1,000,000) per occurrence and Two Million Dollars ($2,000,000) in the aggregate annually, and from time to time thereafter shall be not less than such higher amounts, if procurable, as may be reasonably required by Landlord. Tenant shall also carry umbrella liability coverage in an amount of no less than Ten Million Dollars ($10,000,000). Such policy shall also include contractual liability coverage covering Tenant's liability assumed under this Lease, including without limitation Tenant's indemnification obligations. Such insurance policy(ies) shall name Landlord, Landlord's managing agent and persons claiming by, through or under them, if any, as additional insureds.

(b) Tenant shall take out and maintain throughout the Term a policy of fire, vandalism, malicious mischief, extended coverage and so-called "all risk" coverage in an amount equal to one hundred percent (100%) of the replacement cost insuring (i) all items or components of Alterations (collectively, the "**Tenant-Insured Improvements**"), and (ii) all Lab Services Equipment, as defined in Section 10.1, and (iii) of Tenant's furniture, equipment, fixtures and property of every kind, nature and description related or arising out of Tenant's leasehold estate hereunder, which may be in or upon the Premises or the Building, (collectively, "**Tenant's Property**"). The insurance required to be maintained by Tenant pursuant to this Section 14.1(b) referred to herein as "**Tenant Property Insurance**" shall insure the interests of both Landlord and Tenant as their respective interests may appear from time to time.

(c) Workers' Compensation and Employer's Liability insurance affording statutory coverage and containing statutory limits with the Employer's Liability portion thereof to have minimum limits of $1,000,000.00.

(d) Tenant shall take out and maintain a policy of business interruption insurance throughout the Term sufficient to cover twenty-four (24) months of Rent due hereunder and Tenant's business losses during such 24-month period.

(e) During periods when the Tenant Work and/or any Alterations are being performed, Tenant shall maintain, or cause to be maintained, so-called all risk or special cause of loss property insurance or its equivalent and/or builders risk insurance on 100% replacement cost coverage basis, including hard and soft costs coverages. Such insurance shall protect and insure Landlord, Landlord's agents, Tenant and Tenant's contractors, as their interests may appear, against loss or damage by fire, water damage, vandalism and malicious mischief, and such other risks as are customarily covered by so-called all risk or special cause of loss property / builders risk coverage or its equivalent.

(f) Tenant shall procure and maintain at its sole expense such additional insurance as may be necessary to comply with any Legal Requirements.

(g) Tenant shall cause all contractors and subcontractors to maintain during the performance of any Alterations the insurance described in Exhibit 10 attached hereto.

(h) The insurance required pursuant to **Sections 14.1(a), (b), (c), (d), (e)** and **(f)** (collectively, "**Tenant's Insurance Policies**") shall be effected with insurers approved by Landlord, with a rating of not less than "A-XI" in the current *Best's Insurance Reports*, and authorized to do business in the Commonwealth of Massachusetts under valid and enforceable policies. Tenant's Insurance Policies shall each provide that it shall not be canceled or modified without at least ten (10) days' prior written notice to each insured named therein; provided, however, in the event Tenant's insurer will not provide such notice, Tenant shall be obligated to provide Landlord with ten (10) days' prior written notice of any cancellation or modification. Tenant's Insurance Policies may include deductibles in an amount no greater than the greater of $25,000 or commercially reasonable amounts. On or before the date on which any of the Tenant Parties shall first enter the Premises and thereafter not less than five (5) days prior to the expiration date of each expiring policy, Tenant shall deliver to Landlord binders of Tenant's Insurance Policies issued by the respective insurers setting forth in full the provisions thereof together with evidence satisfactory to Landlord of the payment of all premiums for such policies. In the event of any claim, and upon Landlord's request, Tenant shall deliver to Landlord complete copies of Tenant's Insurance Policies. Upon request of Landlord, Tenant shall deliver to any Mortgagee copies of the foregoing documents.

14.2 **Indemnification**. Except to the extent caused by the negligence or willful misconduct of any of the Landlord Parties, Tenant shall defend, indemnify and save the Landlord Parties harmless from and against any and all Claims asserted by or on behalf of any person, firm, corporation or public authority arising from:

(a) Tenant's breach of any covenant or obligation under this Lease;

(b) Any injury to or death of any person, or loss of or damage to property, sustained or occurring in, at or upon the Premises;

(c) Any injury to or death of any person, or loss of or damage to property arising out of the use or occupancy of the Premises by or the negligence or willful misconduct of any of the Tenant Parties; and

(d) On account of or based upon any work or thing whatsoever done (other than by Landlord or any of the Landlord Parties) at the Premises during the Term and during the period of time, if any, prior to the Term Commencement Date that any of the Tenant Parties may have been given access to the Premises.

14.3 **Property of Tenant**. Tenant covenants and agrees that, to the maximum extent permitted by Legal Requirements, all of Tenant's Property at the Premises shall be at the sole risk and hazard of Tenant, and that if the whole or any part thereof shall be damaged, destroyed, stolen or removed from any cause or reason whatsoever, no part of said damage or loss shall be charged to, or borne by, Landlord, except, subject to Section 14.5 hereof, to the extent such damage or loss is due to the negligence or willful misconduct of any of the Landlord Parties.

14.4 **Limitation of Landlord's Liability for Damage or Injury**. Landlord shall not be liable for any injury or damage to persons, animals or property resulting from fire, explosion, falling plaster, steam, gas, air contaminants or emissions, electricity, electrical or electronic emanations or disturbance, water, rain or snow or leaks from any part of the Building or from the pipes, appliances, equipment or plumbing works or from the roof, street or sub-surface or from any other place or caused by dampness, vandalism, malicious mischief or by any other cause of whatever nature, except, subject to Section 14.5, to the extent caused by or due to the negligence or willful misconduct of any of the Landlord Parties, and then, where notice and an opportunity to cure are appropriate (i.e., where Tenant has an opportunity to know of such condition sufficiently in advance of the occurrence of any such injury or damage resulting therefrom as would have enabled Landlord to prevent such damage or loss had Tenant notified Landlord of such condition) only after (i) notice to Landlord of the condition claimed to constitute negligence or willful misconduct, and (ii) the expiration of a reasonable time after such notice has been received by Landlord without Landlord having commenced to take all reasonable and practicable means to cure or correct such condition. Notwithstanding the foregoing, in no event shall any of the Landlord Parties be liable for any loss which is covered by insurance policies actually carried or required to be so carried by this Lease; nor shall any of the Landlord Parties be liable for any such damage caused by other tenants or persons in the Building or caused by operations in construction of any private, public, or quasi-public work; nor shall any of the Landlord Parties be liable for any latent defect in the Premises or in the Building.

14.5 **Waiver of Subrogation; Mutual Release**. Landlord and Tenant each hereby waives on behalf of itself and its property insurers (none of which shall ever be assigned any such claim or be entitled thereto due to subrogation or otherwise) any and all rights of recovery, claim, action, or cause of action against the other and its agents, officers, servants, partners, shareholders, or employees (collectively, the "**Related Parties**") for any loss or damage that may occur to or within the Premises or the Building or any improvements thereto, or any personal property of such party therein which is insured against under any Property Insurance (as defined in Section 14.7) policy actually being maintained by the waiving party from time to time, even if not required hereunder, or which would be insured against under the terms of any Property Insurance policy required to be carried or maintained by the waiving party hereunder, whether or not such insurance coverage is actually being maintained, including, in every instance, such loss or damage that may be caused by the negligence of the other party hereto and/or its Related Parties. Landlord and Tenant each agrees to cause appropriate clauses to be included in its Property Insurance policies necessary to implement the foregoing provisions. For avoidance of doubt, each party ("**Waiving Party**") expressly waives any claim which it might have against the other party ("**Released Party**") for damage to property which is not covered by reason of any deductible or self-insured retention under the Waiving Party's Property Insurance, or by reason of the fact that the Waiving Party is self-insuring damage to its property.

14.6 **Tenant's Acts--Effect on Insurance**. Tenant shall not do or permit any Tenant Party to do any act or thing upon the Premises or elsewhere in the Building which will invalidate or be in conflict with any insurance policies covering the Building and the fixtures and property therein; and shall not do, or permit to be done, any act or thing upon the Premises which shall subject Landlord to any liability or responsibility for injury to any person or persons or to property by reason of any business or operation being carried on upon said Premises or for any other reason. Notwithstanding anything to the contrary contained herein, Tenant shall not be liable for any increases in the rate of insurance unless such increases arise from Tenant's manner of use of the Premises (as opposed to Tenant's use of the Premises for the Permitted Uses). If by reason of the failure of Tenant to comply with the provisions hereof the insurance rate applicable to any policy of insurance shall at any time thereafter be higher than it otherwise would be, Tenant shall reimburse Landlord within thirty (30) days of Landlord's written demand for that part of any insurance premiums which shall have been charged because of such failure by Tenant, together with interest at the Default Rate until paid in full, within thirty (30) days after receipt of an invoice therefor. In addition, Tenant shall reimburse Landlord for any increase in insurance premium arising as a result of Tenant's use and/or storage of any Hazardous Materials in the Premises.

14.7 **Landlord's Insurance**. Landlord shall carry at all times during the Term of this Lease: (i) commercial general liability insurance with respect to the Building, the Land and the Common Areas thereof in an amount not less than Five Million Dollars ($5,000,000) combined single limit per occurrence, (ii) with respect to the Building, excluding Tenant-Insured Improvements and improvements made by other tenants or occupants, insurance against loss or damage caused by any peril covered under fire, extended coverage and all risk insurance with coverage against vandalism, malicious mischief and such other insurable hazards and contingencies as are from time to time normally insured against by owners of similar first-class multi-tenant buildings in the City of Waltham or which are required by Landlord's mortgagee, in an amount equal to one hundred percent (100%) of the full replacement cost thereof above foundation walls ("**Landlord Property Insurance**"), and (iii) rent interruption insurance covering at least eighteen (18) months. Any and all such insurance: (x) may be maintained under a blanket policy affecting other properties of Landlord and/or its affiliated business organizations, and (y) may be written with commercially reasonable deductibles as determined by Landlord. The costs incurred by Landlord related to such insurance shall be included in Operating Costs. Tenant Property Insurance and Landlord Property Insurance are referred to collectively herein as "**Property Insurance**".

15. CASUALTY; TAKING

15.1 **Damage**. If the Premises are damaged in whole or part because of fire or other insured casualty ("**Casualty**"), or if the Premises are subject to a taking in connection with the exercise of any power of eminent domain, condemnation, or purchase under threat or in lieu thereof (any of the foregoing, a "**Taking**"), then unless this Lease is terminated in accordance with Section 15.2 below, Landlord shall restore the Building and/or the Premises to substantially the same condition as existed immediately following the completion of Landlord's Work, or in the event of a partial Taking which affects the Building and the Premises, restore the remainder of the Building and the Premises not so Taken to substantially the same condition as is reasonably feasible. Landlord shall, within sixty (60) days after any Casualty, deliver to Tenant an engineering estimate ("**Restoration Estimate**") from a reputable contractor or engineer, setting forth an estimate of the period of time ("**Restoration Period**") that it will take for Landlord to restore the Building and/or Premises, as aforesaid. If, in Landlord's reasonable judgment, any element of the Tenant-Insured Improvements can more effectively be restored as an integral part of Landlord's restoration of the Building or the Premises, such restoration shall also be made by Landlord, but at Tenant's sole cost and expense. Subject to rights of Mortgagees, Tenant Delays, Legal Requirements then in existence and to delays for adjustment of insurance proceeds or Taking awards, as the case may be, and instances of Force Majeure, Landlord shall substantially complete such restoration within one (1) year after Landlord's receipt of all required permits therefor with respect to substantial reconstruction of at least 50% of the Building, or, within one hundred eighty (180) days after Landlord's receipt of all required permits therefor in the case of restoration of less than 50% of the Building. Upon substantial completion of such restoration by Landlord, Tenant shall use diligent efforts to complete restoration of the Premises to substantially the same condition as existed immediately prior to such Casualty or Taking, as the case may be, as soon as reasonably possible. Tenant agrees to cooperate with Landlord in such manner as Landlord may reasonably request to assist Landlord in collecting insurance proceeds due in connection with any Casualty which affects the Premises or the Building. In no event shall Landlord be required to expend more than the Net (hereinafter defined) insurance proceeds Landlord receives for damage to the Premises and/or the Building or the Net Taking award attributable to the Premises and/or the Building. "**Net**" means the insurance proceeds or Taking award actually paid to Landlord (and not paid over to a Mortgagee) less all costs and expenses, including adjusters and attorney's fees, of obtaining the same. In the Operating Year in which a Casualty occurs, there shall be included in Operating Costs Landlord's deductible under its property insurance policy. Except as Landlord may elect pursuant to this Section 15.1, under no circumstances shall Landlord be required to repair any damage to, or make any repairs to or replacements of, any Tenant-Insured Improvements.

15.2 Termination Rights.

(a) Landlord's Termination Rights. Landlord may terminate this Lease upon thirty (30) days' prior written notice to Tenant if:

(i) any material portion of the Building or any material means of access thereto is taken;

(ii) more than thirty-five percent (35%) of the Building is damaged by Casualty; or

(iii) if the estimated time to complete restoration exceeds one (1) year from the date on which Landlord receives all required permits for such restoration.

(b) Tenant's Termination Rights. Tenant may terminate this Lease upon thirty (30) days' prior written notice to Landlord if:

(i) any material portion of the Premises or any material means of access thereto is taken, so that, in Tenant's reasonable judgment, the continued operation of Tenant's business in the Premises is materially adversely affected;

(ii) if, 50% or more of the Building is damaged by a Casualty and the estimated Restoration Period, as set forth in the Restoration Estimate, exceeds one (1) year from the date on which Landlord receives all required permits for such restoration; or

(iii) if less than 50% of the Building is damaged by a Casualty, Tenant's use of and/or access to the Premises is materially adversely affected by such Casualty, estimated Restoration Period, as set forth in the Restoration Estimate, exceeds six (6) months from the date on which Landlord receives all required permits for such restoration; and

(iv) if Landlord is so required but fails to complete restoration of the Premises within the time frames and subject to the conditions set forth in Section 15.1 above, then Tenant may terminate this Lease upon thirty (30) days written notice to Landlord; provided, however, that if Landlord completes such restoration within thirty (30) days after receipt of any such termination notice on account of Landlord's failure to so complete within the time period required, such termination notice shall be null and void and this Lease shall continue in full force and effect.

The remedies set forth in this Section 15.2(b) and in Section 15.2(c) below are Tenant's sole and exclusive rights and remedies based upon Landlord's failure to complete the restoration of the Premises as set forth herein.

(c) Either Party May Terminate. In the case of any Casualty or Taking affecting the Premises and occurring during the last twelve (12) months of the Term, then (i) if such Casualty or Taking results in more than twenty-five percent (25%) of the floor area of the Premises being unsuitable for the Permitted Uses, or (ii) the damage to the Premises costs more than $250,000 to restore, then either Landlord or Tenant shall have the option to terminate this Lease upon thirty (30) days' written notice to the other. In addition, if Landlord's Mortgagee does not release sufficient insurance proceeds to cover the cost of Landlord's restoration obligations, then Landlord shall (i) notify Tenant thereof, and (ii) have the right to terminate this Lease. If Landlord does not terminate this Lease pursuant to the previous sentence and such notice by Landlord does not include an agreement by Landlord to pay for the difference between the cost of such restoration and such released insurance proceeds, then Tenant may terminate this Lease by written notice to Landlord on or before the date that is thirty (30) days after such notice.

(d) Automatic Termination. In the case of a Taking of the entire Premises, then this Lease shall automatically terminate as of the date of possession by the Taking authority.

15.3 **Rent Abatement**. In the event of a Casualty affecting the Premises, there shall be an equitable adjustment of Base Rent, Operating Costs and Taxes based upon the degree to which Tenant's ability to conduct its business in the Premises is impaired by reason of such Casualty from and after the date of a Casualty, and continuing until the following portions of the repair and restoration work to be performed by Landlord, as set forth above, are substantially completed: (i) any repair and restoration work to be performed by Landlord within the Premises, and (ii) repair and restoration work with respect to the Common Areas to the extent that damage to the Common Areas caused by such Casualty materially adversely affects Tenant's use of, or access to, the Premises.

15.4 **Taking for Temporary Use**. If the Premises are Taken for temporary use, this Lease and Tenant's obligations, including without limitation the payment of Rent, shall continue. For purposes hereof, a "**Taking for temporary use**" shall mean a Taking of ninety (90) days or less.

15.5 **Disposition of Awards**. Except for any separate award for Tenant's movable trade fixtures, relocation expenses, and unamortized leasehold improvements paid for by Tenant (provided that the same may not reduce Landlord's award), all Taking awards to Landlord or Tenant shall be Landlord's property without Tenant's participation, and Tenant hereby assigns to Landlord Tenant's interest, if any, in such award. Tenant may pursue its own claim against the Taking authority.

16. ESTOPPEL CERTIFICATE.

Tenant shall at any time and from time to time upon not less than ten (10) business days' prior written notice from Landlord, execute, acknowledge and deliver to Landlord a statement in writing certifying that this Lease is unmodified and in full force and effect (or if there have been modifications, that the same is in full force and effect as modified and stating the modifications), and the dates to which Rent has been paid in advance, if any, stating to Tenant's knowledge whether or not Landlord is in default in performance of any covenant, agreement, term, provision or condition contained in this Lease and, if so, specifying each such default, and such other facts as Landlord may reasonably request, it being intended that any such statement delivered pursuant hereto may be relied upon by Landlord, any prospective purchaser of the Building or of any interest of Landlord therein, any Mortgagee or prospective Mortgagee thereof, any lessor or prospective lessor thereof, any lessee or prospective lessee thereof, or any prospective assignee of any mortgage thereof. *Time is of the essence with respect to any such requested certificate*, Tenant hereby acknowledging the importance of such certificates in mortgage financing arrangements, prospective sales and the like.

17. HAZARDOUS MATERIALS

17.1 **Prohibition**. Tenant shall not, without the prior written consent of Landlord, bring or permit to be brought or kept in or on the Premises or elsewhere in the Building or the Property (i) any inflammable, combustible or explosive fluid, material, chemical or substance (except for standard office supplies stored in proper containers); and (ii) any Hazardous Material (hereinafter defined), other than the types and quantities of Hazardous Materials which are listed on Exhibit 8 attached hereto ("**Tenant's Hazardous Materials**"), provided that the same shall at all times be brought upon, kept or used in Tenant's 'control areas', as described in, and in accordance with Exhibit 8-1 attached hereto and in accordance with all applicable Legal Requirements, including, without limitation, the International Building Code (2018) and Environmental Laws (hereinafter defined), and prudent environmental practice and (with respect to medical waste and so-called "biohazard" materials) good scientific and medical practice. Tenant shall be responsible for assuring that all laboratory uses are adequately and properly vented. On or before each anniversary of the Term Commencement Date, and on any earlier date during the 12-month period on which Tenant intends to add a new Hazardous Material or materially increase the quantity of any Hazardous Material to the list of Tenant's Hazardous Materials, Tenant shall submit to Landlord an updated list of Tenant's Hazardous Materials for Landlord's review and approval, which approval shall not be unreasonably withheld, conditioned or delayed. Landlord shall have the right, from time to time, to inspect the Premises for compliance with the terms of this Section 17.1. Notwithstanding the foregoing, with respect to any of Tenant's Hazardous Materials which Tenant does not properly handle, store or dispose of in compliance with all applicable Environmental Laws (hereinafter defined), prudent environmental practice and (with respect to medical waste and so-called "biohazard materials") good scientific and medical practice, Tenant shall, upon written notice from Landlord, no longer have the right to bring such material into the Building or the Property until Tenant has demonstrated, to Landlord's reasonable satisfaction, that Tenant has implemented programs to thereafter properly handle, store or dispose of such material. In order to induce Landlord to waive its otherwise applicable requirement that Tenant maintain insurance in favor of Landlord against liability arising from the presence of radioactive materials in the Premises, and without limiting the foregoing, Tenant hereby represents and warrants to Landlord that at no time during the Term will Tenant bring upon, or permit to be brought upon, the Premises any radioactive materials whatsoever.

17.2 **Environmental Laws**. For purposes hereof, "**Environmental Laws**" shall mean all laws, statutes, ordinances, rules and regulations of any local, state or federal governmental authority having jurisdiction concerning environmental, health and safety matters, including but not limited to any discharge by any of the Tenant Parties into the air, surface water, sewers, soil or groundwater of any Hazardous Material (hereinafter defined) whether within or outside the Premises, including, without limitation (a) the Federal Water Pollution Control Act, 33 U.S.C. Section 1251 et seq., (b) the Federal Resource Conservation and Recovery Act, 42 U.S.C. Section 6901 et seq., (c) the Comprehensive Environmental Response, Compensation and Liability Act, 42 U.S.C. Section 9601 et seq., (d) the Toxic Substances Control Act of 1976, 15 U.S.C. Section 2601 et seq., and (e) Chapter 21E of the General Laws of Massachusetts. Tenant, at its sole cost and expense, shall comply with (i) Environmental Laws, and (ii) any rules, requirements and safety procedures of the Massachusetts Department of Environmental Protection, the City of Waltham and any insurer of the Building or the Premises with respect to Tenant's use, storage and disposal of any Hazardous Materials.

17.3 **Hazardous Material Defined**. As used herein, the term "**Hazardous Material**" means asbestos, oil or any hazardous, radioactive or toxic substance, material or waste or petroleum derivative which is or becomes regulated by any Environmental Law, including without limitation live organisms, viruses and fungi, medical waste and any so-called "biohazard" materials. The term "Hazardous Material" includes, without limitation, oil and/or any material or substance which is (i) designated as a "hazardous substance," "hazardous material," "oil," "hazardous waste" or toxic substance under any Environmental Law.

17.4 **Chemical Safety Program**. Tenant shall establish and maintain a chemical safety program administered by a licensed, qualified individual in accordance with the requirements of any applicable governmental authority. Tenant shall be solely responsible for all costs incurred in connection with such chemical safety program, and Tenant shall provide Landlord with such documentation as Landlord may reasonably require evidencing Tenant's compliance with the requirements of (a) any applicable governmental authority with respect to such chemical safety program and (b) this Section. Tenant shall obtain and maintain during the Term any permit required by any such applicable governmental authority.

17.5 **Testing**. If any Mortgagee or governmental authority requires testing to determine whether there has been any release of Hazardous Materials and such testing is required as a result of the acts or omissions of any of the Tenant Parties in violation of this Lease, then Tenant shall reimburse Landlord within thirty (30) days of Landlord's written demand, as additional rent, for the reasonable costs thereof, together with interest at the Default Rate until paid in full. Tenant shall execute affidavits, certifications and the like, as may be reasonably requested by Landlord from time to time concerning Tenant's best knowledge and belief concerning the presence of Hazardous Materials in or on the Premises, the Building or the Property. In addition to the foregoing, if Landlord reasonably believes that any Hazardous Materials have been released on the Premises in violation of this Lease or any Legal Requirement, Landlord shall have the right to conduct appropriate tests of the Premises or any portion thereof to demonstrate that Hazardous Materials are present or that contamination has occurred due to the acts or omissions of any of the Tenant Parties in violation of this Lease. Tenant shall pay all reasonable costs of such tests if such tests reveal that Hazardous Materials exist at the Premises in violation of this Lease or any Legal Requirement. Further, Landlord shall have the right to cause a third-party consultant retained by Landlord, at Landlord's expense (provided, however, that such costs shall be included in Operating Costs, if allowed pursuant to Section 5.2), to review, but not more than once in any calendar year, Tenant's lab operations, procedures and permits to ascertain whether or not Tenant is complying with law and adhering to best industry practices. Tenant agrees to cooperate in good faith with any such review and to provide to such consultant any information requested by such consultant and reasonably required in order for such consultant to perform such review, but nothing contained herein shall require Tenant to provide proprietary or confidential information to such consultant.

17.6 Indemnity; Remediation.

(a) Tenant hereby covenants and agrees to indemnify, defend and hold the Landlord Parties harmless from and against any and all Claims against any of the Landlord Parties arising out of contamination of any part of the Property or other adjacent property, which contamination arises as a result of: (i) the presence of Hazardous Material in the Premises, the presence of which is caused by any act or omission of any of the Tenant Parties, or (ii) from a breach by Tenant of its obligations under this Article 17. This indemnification of the Landlord Parties by Tenant includes, without limitation, reasonable costs incurred in connection with any investigation of site conditions or any cleanup, remedial, removal or restoration work or any other response actions required by any federal, state or local governmental agency or political subdivision because of Hazardous Material present in the soil, soil vapor or ground water on or under or any indoor air in the Building based upon the circumstances identified in the first sentence of this Section 17.6. The indemnification and hold harmless obligations of Tenant under this Section 17.6 shall survive the expiration or any earlier termination of this Lease. Without limiting the foregoing, if the presence of any Hazardous Material in the Building or otherwise in the Property is caused or permitted by any of the Tenant Parties and results in any contamination of any part of the Property or any adjacent property, Tenant shall promptly take all actions at Tenant's sole cost and expense as are necessary to return the Property and/or the Building or any adjacent property to their condition as of the date of this Lease, provided that Tenant shall first obtain Landlord's written approval of such actions, which approval shall not be unreasonably withheld, conditioned or delayed so long as such actions, in Landlord's reasonable discretion, would not potentially have any adverse effect on the Property, and, in any event, Landlord shall not withhold its approval of any proposed actions which are required by applicable Environmental Laws. The provisions of this Section 17.6 shall survive the expiration or earlier termination of the Lease.

(b) Without limiting the obligations set forth in Section 17.6(a) above, if any Hazardous Material is in, on, under, at or about the Building or the Property as a result of the acts or omissions of any of the Tenant Parties and results in any contamination of any part of the Property or any adjacent property that is in violation of any applicable Environmental Law or that requires the performance of any response action pursuant to any Environmental Law, Tenant shall promptly take all actions at Tenant's sole cost and expense as are necessary to reduce such Hazardous Material to amounts below any applicable Reportable Quantity, any applicable Reportable Concentration and any other applicable standard set forth in any Environmental Law such that no further response actions are required; provided that Tenant shall first obtain Landlord's written approval of such actions, which approval shall not be unreasonably withheld, conditioned or delayed so long as such actions would not be reasonably expected to have an adverse effect on the market value or utility of the Property for the Permitted Uses, and in any event, Landlord shall not withhold its approval of any proposed actions which are required by applicable Environmental Laws (such approved actions, "**Tenant's Remediation**").

(c) In the event that Tenant fails to complete Tenant's Remediation prior to the end of the Term, then:

(i) until the completion of Tenant's Remediation (as evidenced by the certification of Tenant's Licensed Site Professional (as such term is defined by applicable Environmental Laws), who shall be reasonably acceptable to Landlord) (the "**Remediation Completion Date**"), Tenant shall pay to Landlord, with respect to the portion of the Premises which reasonably cannot be occupied by a new tenant until completion of Tenant's Remediation, (A) additional rent on account of Operating Costs and Taxes and (B) Base Rent in an amount equal to the greater of (1) the fair market rental value of such portion of the Premises (determined in substantial accordance with the process described in Section 1.2 above), and (2) Base Rent attributable to such portion of the Premises in effect immediately prior to the end of the Term; and

(ii) Tenant shall maintain responsibility for Tenant's Remediation and Tenant shall complete Tenant's Remediation as soon as reasonably practicable in accordance with Environmental Laws. If Tenant does not diligently pursue completion of Tenant's Remediation, Landlord shall have the right to either (A) assume control for overseeing Tenant's Remediation, in which event Tenant shall pay all reasonable costs and expenses of Tenant's Remediation (it being understood and agreed that all costs and expenses of Tenant's Remediation incurred pursuant to contracts entered into by Tenant shall be deemed reasonable) within thirty (30) days of demand therefor (which demand shall be made no more often than monthly), and Landlord shall be substituted as the party identified on any governmental filings as the party responsible for the performance of such Tenant's Remediation or (B) require Tenant to maintain responsibility for Tenant's Remediation, in which event Tenant shall complete Tenant's Remediation as soon as reasonably practicable in accordance with Environmental Laws, it being understood that Tenant's Remediation shall not contain any requirement that Tenant remediate any contamination to levels or standards more stringent than those associated with the Property's current office, research and development, laboratory, and vivarium uses.

(d) The provisions of this Section 17.6 shall survive the expiration or earlier termination of this Lease.

17.7 **Disclosures**. Prior to bringing any Hazardous Material into any part of the Property, Tenant shall deliver to Landlord the following information with respect thereto: (a) a description of handling, storage, use and disposal procedures; (b) all plans or disclosures and/or emergency response plans which Tenant has prepared, including without limitation Tenant's Spill Response Plan, and all plans which Tenant is required to supply to any governmental agency or authority pursuant to any Environmental Laws; (c) copies of all Required Permits relating thereto; and (d) other information reasonably requested by Landlord.

17.8 **Removal**. Tenant shall be responsible, at its sole cost and expense, for Hazardous Material and other biohazard disposal services for the Premises. Such services shall be performed by contractors reasonably acceptable to Landlord and on a sufficient basis to ensure that the Premises are at all times kept neat, clean and free of Hazardous Materials and biohazards except in appropriate, specially marked containers reasonably approved by Landlord.

17.9 **Landlord Obligations with respect to Hazardous Materials**.

(a) Landlord Representations, Covenants and Indemnity. Landlord hereby represents and warrants to Tenant that, to the Best of Landlord's Knowledge (as that term is defined in clause (c) below), except to the extent (if any) as may be disclosed in the following described environmental assessment reports which have been made available by Landlord to Tenant (the "**Disclosed Materials**"), there exist, as of the Execution Date of this Lease, no Hazardous Materials on the Property which are in violation of applicable Environmental Laws or that require reporting, investigation, remediation or other response under Chapter 21E or other Environmental Laws:

•Phase I Environmental Site Assessment, 830 Winter Street, Waltham, Massachusetts, prepared by Boston Environmental Corporation, dated June 26, 2015.

Landlord covenants that neither Landlord nor any of the Landlord Parties shall bring any Hazardous Materials in or on to the Property or discharge any Hazardous Materials in or on to the Property which are, in either case, in violation of applicable Environmental Laws. Landlord hereby indemnifies and shall defend and hold Tenant, its officers, directors, employees, and agents harmless from any Claims arising as result of any breach by Landlord of its representations, warranties, or covenants under this Section 17.9(a).

(b) Landlord Remediation. If Hazardous Materials are discovered in, on or under the Property which are not in compliance with applicable Environmental Laws or that require reporting, investigation, remediation or other response under Chapter 21E or other Environmental Laws, and which are not the responsibility of Tenant pursuant to this Article 17, then Landlord shall remove or remediate the same, when, if, and in the manner required by applicable Environmental Laws.

(c) To the Best of Landlord's Knowledge. The phrase "to the Best of Landlord's Knowledge" under shall mean the best of the knowledge of Tyson Reynoso, Landlord's asset manager with respect to the Property.

18. RULES AND REGULATIONS.

18.1 Rules and Regulations. Tenant will faithfully observe and comply with the Rules and Regulations attached hereto as Exhibit 9 ("**Current Rules and Regulations**") and reasonable rules and regulations as may be promulgated, from time to time, with respect to the Building, the Property and construction within the Property (collectively, the "**Rules and Regulations**"). The Current Rules and Regulations consist of the Building Rules and Regulations attached hereto as Exhibit 9-1 and the Construction Rules and Regulations attached hereto as Exhibit 9-2. In the case of any conflict between the provisions of this Lease and any future rules and regulations, the provisions of this Lease shall control. Nothing contained in this Lease shall be construed to impose upon Landlord any duty or obligation to enforce the Rules and Regulations or the terms, covenants or conditions in any other lease as against any other tenant and Landlord shall not be liable to Tenant for violation of the same by any other tenant, its servants, employees, agents, contractors, visitors, invitees or licensees.

18.2 Energy Conservation. Landlord may institute upon written notice to Tenant such policies, programs and measures as may be necessary, required, or expedient for the conservation and/or preservation of energy or energy services (collectively, the "**Conservation Program**"), provided however, that the Conservation Program does not, by reason of such policies, programs and measures, reduce the level of energy or energy services being provided to the Premises below the level of energy or energy services then being provided in comparable combination laboratory, research and development and office buildings in the vicinity of the Premises, provided the same shall not come at a material cost to Tenant, or materially adversely affect Tenant's use of the Premises for any of the Permitted Uses, or (ii) as may be necessary or required to comply with Legal Requirements or standards or the other provisions of this Lease. Upon receipt of such notice, Tenant shall comply with the Conservation Program.

18.3 Recycling. Upon written notice, Landlord may establish policies, programs and measures for the recycling of paper, products, plastic, tin and other materials (a "**Recycling Program**"). Upon receipt of such notice, Tenant will comply with the Recycling Program at Tenant's sole cost and expense.

19. LAWS AND PERMITS.

19.1 Legal Requirements. Tenant shall not cause or permit the Premises, or cause the Property or the Building to be used in any way that violates any Legal Requirement, order, permit, approval, variance, covenant or restrictions of record or any provisions of this Lease, interferes with the rights of tenants of the Building, or constitutes a nuisance or waste. Tenant shall obtain, maintain and pay for all permits and approvals needed for the operation of Tenant's business, as soon as reasonably possible, and in any event shall not undertake any operations or use unless all applicable permits and approvals are in place and shall, promptly take all actions necessary to comply with all Legal Requirements, including, without limitation, the Occupational Safety and Health Act, applicable to Tenant's use of the Premises, the Property or the Building. Tenant shall maintain in full force and effect all certifications or permissions required by any authority having jurisdiction to authorize, franchise or regulate Tenant's use of the Premises. Tenant shall be solely responsible for procuring and complying at all times with any and all necessary permits and approvals directly or indirectly relating or incident to: the conduct of its activities on the Premises; its scientific experimentation, transportation, storage, handling, use and disposal of any chemical or radioactive or bacteriological or pathological substances or organisms or other hazardous wastes or environmentally dangerous substances or materials or medical waste or animals or laboratory specimens. Within ten (10) days of a request by Landlord, which request shall be made not more than once during each period of twelve (12) consecutive months during the Term hereof, unless otherwise requested by any mortgagee of Landlord or unless Landlord reasonably suspects that Tenant has violated the provisions of this Section 19.1, Tenant shall furnish Landlord with copies of all such permits and approvals that Tenant possesses or has obtained together with a certificate certifying that such permits are all of the permits that Tenant possesses or has obtained with respect to the Premises. Tenant shall promptly give written notice to Landlord of any warnings or violations relative to the above received from any federal, state or municipal agency or by any court of law and shall promptly cure the conditions causing any such violations. Tenant shall not be deemed to be in default of its obligations under the preceding sentence to promptly cure any condition causing any such violation in the event that, in lieu of such cure, Tenant shall contest the validity of such violation by appellate or other proceedings permitted under applicable law, provided that: (i) any such contest is made reasonably and in good faith, (ii) Tenant makes provisions, including, without limitation, posting bond(s) or giving other security, reasonably acceptable to Landlord to protect Landlord, the Building and the Property from any liability, costs, damages or expenses arising in connection with such alleged violation and failure to cure, (iii) Tenant shall agree to indemnify, defend (with counsel reasonably acceptable to Landlord) and hold Landlord harmless from and against any and all liability, costs, damages, or expenses arising in connection with such condition and/or violation, (iv) Tenant shall promptly cure any violation in the event that its appeal of such violation is overruled or rejected, and (v) Tenant's decision to delay such cure shall not, in Landlord's good faith determination, be likely to result in any actual or threatened bodily injury, property damage, or any civil or criminal liability to Landlord, any tenant or occupant of the Building or the Property, or any other person or entity. Nothing contained in this Section 19.1 shall be construed to expand the uses permitted hereunder beyond the Permitted Uses. Landlord shall comply with any Legal Requirements and with any direction of any public office or officer relating to the maintenance or operation of the structural elements of the Building and the Common Areas, and the costs so incurred by Landlord shall be included in Operating Costs in accordance with the provisions of Section 5.2.

20. DEFAULT

20.1 **Events of Default**. The occurrence of any one or more of the following events shall constitute an "**Event of Default**" hereunder by Tenant:

(a) If Tenant fails to make any payment of Rent or any other payment required hereunder, as and when due, and such failure shall continue for a period of five (5) business days after notice thereof from Landlord to Tenant; provided, however, an Event of Default shall occur hereunder without any obligation of Landlord to give any notice if (i) Tenant fails to make any payment within five (5) days after the due date therefor, and (ii) Landlord has given Tenant written notice under this Section 20.1(a) on more than two (2) occasions during the twelve (12) month interval preceding such failure by Tenant;

(b) Intentionally omitted;

(c) If Tenant shall fail to execute and deliver to Landlord an estoppel certificate pursuant to Article 16 above or a subordination and attornment agreement pursuant to Article 22 below, within the timeframes set forth therein;

(d) If Tenant shall fail to maintain any insurance required hereunder;

(e) If Tenant shall fail to timely deliver a Letter of Credit by the Letter of Credit Replacement Date, restore the Security Deposit to its original amount or deliver a replacement Letter of Credit, in each case as and when required under Article 7 above;

(f) If Tenant causes or suffers any release of Hazardous Materials in or near the Property;

(g) If Tenant shall make a Transfer in violation of the provisions of Article 13 above, or if any event shall occur or any contingency shall arise whereby this Lease, or the term and estate thereby created, would (by operation of law or otherwise) devolve upon or pass to any person, firm or corporation other than Tenant, except as expressly permitted under Article 13 hereof;

(h) Tenant's failure to timely deliver to Landlord the Total Security Deposit Amount, as defined in Section 7.1;

(i) The failure by Tenant to observe or perform any of the covenants or provisions of this Lease to be observed or performed by Tenant, other than as specified above, and such failure continues for more than thirty (30) days after notice thereof from Landlord; provided, further, that if the nature of Tenant's default is such that more than thirty (30) days are reasonably required for its cure, then Tenant shall not be deemed to be in default if Tenant shall commence such cure within said thirty (30) day period and thereafter diligently prosecute such cure to completion, which completion shall occur not later than ninety (90) days from the date of such notice from Landlord;

(j) Tenant shall be involved in financial difficulties as evidenced by an admission in writing by Tenant of Tenant's inability to pay its debts generally as they become due, or by the making or offering to make a composition of its debts with its creditors;

(k) Tenant shall make an assignment or trust mortgage, or other conveyance or transfer of like nature, of all or a substantial part of its property for the benefit of its creditors,

(l) an attachment on mesne process, on execution or otherwise, or other legal process shall issue against Tenant or its property and a sale of any of its assets shall be held thereunder;

(m) the leasehold hereby created shall be taken on execution or by other process of law and shall not be revested in Tenant within thirty (30) days thereafter;

(n) a receiver, sequesterer, trustee or similar officer shall be appointed by a court of competent jurisdiction to take charge of all or any part of Tenant's Property and such appointment shall not be vacated within thirty (30) days; or

(n) any proceeding shall be instituted by or against Tenant pursuant to any of the provisions of any Act of Congress or State law relating to bankruptcy, reorganizations, arrangements, compositions or other relief from creditors, and, in the case of any proceeding instituted against it, if Tenant shall fail to have such proceedings dismissed within thirty (30) days or if Tenant is adjudged bankrupt or insolvent as a result of any such proceeding.

With respect to the defaults set forth in subsections (c), (d), (e), (f) and (g) above, if Tenant shall fail to cure the default within the respective required timeframes set forth in this Lease, and such failure shall continue for three (3) business days after Tenant's receipt of a Reminder Notice (as defined below), then such events shall be deemed to be an Event of Default. For purposes hereof, a "**Reminder Notice**" shall be a notice from Landlord to Tenant that states in bold faced capital letters at the top of the first page thereof the following: "**TENANT'S FAILURE TO CURE DEFAULT WITHIN THREE (3) BUSINESS DAYS AFTER RECEIPT OF THIS NOTICE SHALL CONSTITUTE AN EVENT OF DEFAULT**.

20.2 **Remedies**. Upon an Event of Default, Landlord may, by notice to Tenant, elect to terminate this Lease; and thereupon (and without prejudice to any remedies which might otherwise be available for arrears of Rent or preceding breach of covenant or agreement and without prejudice to Tenant's liability for damages as hereinafter stated), upon the giving of such notice, this Lease shall terminate as of the date specified therein as though that were the Expiration Date. Upon such termination, Landlord shall have the right to utilize the Security Deposit or draw down the entire Letter of Credit, as applicable, and apply the proceeds thereof to its damages hereunder. Without being taken or deemed to be guilty of any manner of trespass or conversion, and without being liable to indictment, prosecution or damages therefor, Landlord may, by lawful process, enter into and upon the Premises (or any part thereof in the name of the whole); repossess the same, as of its former estate; and expel Tenant and those claiming under Tenant. The words "re-entry" and "re-enter" as used in this Lease are not restricted to their technical legal meanings.

20.3 Damages - Termination.

(a) Upon the termination of this Lease under the provisions of this Article 20, Tenant shall pay to Landlord Rent up to the time of such termination, shall continue to be liable for any preceding breach of covenant, and in addition, shall pay to Landlord as damages, at the election of Landlord, either:

(i) the amount (discounted to present value at the rate of five percent (5%) per annum) by which, at the time of the termination of this Lease (or at any time thereafter if Landlord shall have initially elected damages under Section 20.3(a)(ii) below), (x) the aggregate of Rent projected over the period commencing with such termination and ending on the Expiration Date, exceeds (y) the aggregate projected rental value of the Premises for such period, taking into account a reasonable time period during which the Premises shall be unoccupied, plus all Reletting Costs (hereinafter defined); or

(ii) amounts equal to Rent which would have been payable by Tenant had this Lease not been so terminated, payable upon the due dates therefor specified herein following such termination and until the Expiration Date, *provided, however*, if Landlord shall re-let the Premises during such period, that Landlord shall credit Tenant with the net rents received by Landlord from such re-letting, such net rents to be determined by first deducting from the gross rents as and when received by Landlord from such re-letting the expenses incurred or paid by Landlord in terminating this Lease, as well as the expenses of re-letting, including altering and preparing the Premises for new tenants, brokers' commissions, and all other similar and dissimilar expenses properly chargeable against the Premises and the rental therefrom (collectively, "**Reletting Costs**"), it being understood that any such re-letting may be for a period equal to or shorter or longer than the remaining Term; and *provided, further*, that (x) in no event shall Tenant be entitled to receive any excess of such net rents over the sums payable by Tenant to Landlord hereunder and (y) in no event shall Tenant be entitled in any suit for the collection of damages pursuant to this Section 20.3(a)(ii) to a credit in respect of any net rents from a re-letting except to the extent that such net rents are actually received by Landlord prior to the commencement of such suit. If the Premises or any part thereof should be re-let in combination with other space, then proper apportionment on a square foot area basis shall be made of the rent received from such re-letting and of the expenses of re-letting.

(b) In calculating the amount due under Section 20.3(a)(i), above, there shall be included, in addition to the Base Rent, all other considerations agreed to be paid or performed by Tenant, including without limitation Tenant's Share of Operating Costs and Taxes, on the assumption that all such amounts and considerations would have increased at the rate of three percent (3%) per annum for the balance of the full term hereby granted.

(c) Suit or suits for the recovery of such damages, or any installments thereof, may be brought by Landlord from time to time at its election, and nothing contained herein shall be deemed to require Landlord to postpone suit until the date when the Term would have expired if it had not been terminated hereunder.

(d) Nothing herein contained shall be construed as limiting or precluding the recovery by Landlord against Tenant of any sums or damages to which, in addition to the damages particularly provided above, Landlord may lawfully be entitled by reason of any Event of Default hereunder.

20.4 **Landlord's Self-Help; Fees and Expenses**. If Tenant shall default in the performance of any covenant on Tenant's part to be performed in this Lease contained, including without limitation the obligation to maintain the Premises in the required condition pursuant to Section 10.1 above, Landlord may, upon reasonable advance notice, except that no notice shall be required in an emergency, immediately, or at any time thereafter, perform the same for the account of Tenant. Tenant shall pay to Landlord within thirty (30) days of Landlord's demand therefor any costs incurred by Landlord in connection therewith, together with interest at the Default Rate until paid in full. In addition, Tenant shall pay all of Landlord's costs and expenses, including without limitation reasonable attorneys' fees, incurred (i) in enforcing any obligation of Tenant under this Lease or (ii) as a result of Landlord or any of the Landlord Parties, without its fault, being made party to any litigation pending by or against any of the Tenant Parties.

20.5 **Waiver of Redemption, Statutory Notice and Grace Periods**. Tenant does hereby waive and surrender all rights and privileges which it might have under or by reason of any present or future Legal Requirements to redeem the Premises or to have a continuance of this Lease for the Term hereby demised after being dispossessed or ejected therefrom by process of law or under the terms of this Lease or after the termination of this Lease as herein provided. Except to the extent prohibited by Legal Requirements, any statutory notice and grace periods provided to Tenant by law are hereby expressly waived by Tenant.

20.6 **Landlord's Remedies Not Exclusive**. The specified remedies to which Landlord may resort hereunder are cumulative and are not intended to be exclusive of any remedies or means of redress to which Landlord may at any time be lawfully entitled, and Landlord may invoke any remedy (including the remedy of specific performance) allowed at law or in equity as if specific remedies were not herein provided for.

20.7 **No Waiver**. Landlord's failure to seek redress for violation, or to insist upon the strict performance, of any covenant or condition of this Lease, or any of the Rules and Regulations promulgated hereunder, shall not prevent a subsequent act, which would have originally constituted a violation, from having all the force and effect of an original violation. The receipt by Landlord of Rent with knowledge of the breach of any covenant of this Lease shall not be deemed a waiver of such breach. The failure of Landlord to enforce any of such Rules and Regulations against Tenant and/or any other tenant in the Building shall not be deemed a waiver of any such Rules and Regulations. No provisions of this Lease shall be deemed to have been waived by either party unless such waiver be in writing signed by such party. No payment by Tenant or receipt by Landlord of a lesser amount than the Rent herein stipulated shall be deemed to be other than on account of the stipulated Rent, nor shall any endorsement or statement on any check or any letter accompanying any check or payment as Rent be deemed an accord and satisfaction, and Landlord may accept such check or payment without prejudice to Landlord's right to recover the balance of such Rent or pursue any other remedy in this Lease provided.

20.8 **Restrictions on Tenant's Rights**. During the continuation of any Event of Default, (a) Landlord shall not be obligated to provide Tenant with any notice pursuant to Sections 2.3 and 2.4 above; and (b) Tenant shall not have the right to make, nor to request Landlord's consent or approval with respect to, any Alterations or Transfers.

20.9 **Landlord Default**. Notwithstanding anything to the contrary contained in the Lease, Landlord shall in no event be in default in the performance of any of Landlord's obligations under this Lease unless Landlord shall have failed to perform such obligations within thirty (30) days (or such additional time as is reasonably required to correct any such default, provided Landlord commences cure within 30 days) after notice by Tenant to Landlord properly specifying wherein Landlord has failed to perform any such obligation. Except as expressly set forth in this Lease, Tenant shall not have the right to terminate or cancel this Lease or to withhold rent or to set-off or deduct any claim or damages against rent as a result of any default by Landlord or breach by Landlord of its covenants or any warranties or promises hereunder, except in the case of a wrongful eviction of Tenant from the Premises (constructive or actual) by Landlord, and then only if the same continues after notice to Landlord thereof and an opportunity for Landlord to cure the same as set forth above. In addition, Tenant shall not assert any right to deduct the cost of repairs or any monetary claim against Landlord from rent thereafter due and payable under this Lease.

21. SURRENDER; ABANDONED PROPERTY; HOLD-OVER

21.1 Surrender

(a) Upon the expiration or earlier termination of the Term, Tenant shall (i) peaceably quit and surrender to Landlord the Premises (including without limitation all fixed lab benches, fume hoods, electric, plumbing, heating and sprinkling systems, fixtures and outlets, vaults, paneling, molding, shelving, radiator enclosures, cork, rubber, linoleum and composition floors, ventilating, silencing, air conditioning and cooling equipment therein and all other furniture, fixtures, and equipment that was either provided by Landlord or paid for in whole or in part by any allowance provided to Tenant by Landlord under this Lease) broom clean, in good order, repair and condition excepting only ordinary wear and tear and damage by fire or other insured Casualty; (ii) remove all of Tenant's Property, all autoclaves and cage washers and, to the extent specified by Landlord, Alterations made by Tenant (in accordance with Section 11.1(a)); and (iii) repair any damages to the Premises or the Building caused by the installation or removal of Tenant's Property and/or such Alterations. Tenant's obligations under this Section 21.1(a) shall survive the expiration or earlier termination of this Lease.

(b) Prior to the expiration of this Lease (or within thirty (30) days after any earlier termination), Tenant shall clean and otherwise decommission all interior surfaces (including floors, walls, ceilings, and counters), piping, supply lines, waste lines, acid neutralization systems and plumbing in and/or exclusively serving the Premises, and all exhaust or other ductwork in and/or exclusively serving the Premises, in each case which has carried or released or been contacted by any Hazardous Materials or other chemical or biological materials used in the operation of the Premises, and shall otherwise clean the Premises so as to permit the Surrender Plan (defined below) to be issued. At least thirty (30) days prior to the expiration of the Term (or, if applicable, within five (5) business days after any earlier termination of this Lease), Tenant shall deliver to Landlord a reasonably detailed narrative description of the actions proposed (or required by any Legal Requirements) to be taken by Tenant in order to render the Premises (including any Alterations permitted or required by Landlord to remain therein) free of Hazardous Materials and otherwise released for unrestricted use and occupancy including without limitation causing the Premises to be decommissioned in accordance with the regulations of the U.S. Nuclear Regulatory Commission and/or the Massachusetts Department of Public health (the "**MDPH**") for the control of radiation, and cause the Premises to be released for unrestricted use by the Radiation Control Program of the MDPH (the "**Surrender Plan**"). The Surrender Plan (i) shall be accompanied by a current list of (A) all Required Permits held by or on behalf of any Tenant Party with respect to Hazardous Materials in, on, under, at or about the Premises, and (B) Tenant's Hazardous Materials, and (ii) shall be subject to the review and approval of Landlord's environmental consultant. In connection with review and approval of the Surrender Plan, upon request of Landlord, Tenant shall deliver to Landlord or its consultant such additional non-proprietary information concerning the use of and operations within the Premises as Landlord shall request. On or before the expiration of the Term (or within thirty (30) days after any earlier termination of this Lease, during which period Tenant's use and occupancy of the Premises shall be governed by Section 21.3 below), Tenant shall (i) perform or cause to be performed all actions described in the approved Surrender Plan, and (ii) deliver to Landlord a certification from a third party certified industrial hygienist reasonably acceptable to Landlord certifying that the Premises do not contain any Hazardous Materials and evidence that the approved Surrender Plan shall have been satisfactorily completed by a contractor acceptable to Landlord, and Landlord shall have the right, subject to reimbursement at Tenant's expense as set forth below, to cause Landlord's environmental consultant to inspect the Premises and perform such additional procedures as may be deemed reasonably necessary to confirm that the Premises are, as of the expiration of the Term (or, if applicable, the date which is thirty (30) days after any earlier termination of this Lease), free of Hazardous Materials and otherwise available for unrestricted use and occupancy as aforesaid. Landlord shall have the unrestricted right to deliver the Surrender Plan and any report by Landlord's environmental consultant with respect to the surrender of the Premises to third parties. Such third parties and the Landlord Parties shall be entitled to rely on the Surrender Report. If Tenant shall fail to prepare or submit a Surrender Plan approved by Landlord, or if Tenant shall fail to complete the approved Surrender Plan, or if such Surrender Plan, whether or not approved by Landlord, shall fail to adequately address the use of Hazardous Materials by any of the Tenant Parties in, on, at, under or about the Premises, Landlord shall have the right to take any such actions as Landlord may deem reasonable or appropriate to assure that the Premises and the Property are surrendered in the condition required hereunder, the cost of which actions shall be reimbursed by Tenant as additional rent within thirty (30) days of Landlord's written demand. Tenant's obligations under this Section 21.1(b) shall survive the expiration or earlier termination of the Term.

(c) No act or thing done by Landlord during the Term shall be deemed an acceptance of a surrender of the Premises, and no agreement to accept such surrender shall be valid, unless in writing signed by Landlord. Unless otherwise agreed by the parties in writing, no employee of Landlord or of Landlord's agents shall have any power to accept the keys of the Premises prior to the expiration or earlier termination of this Lease. The delivery of keys to any employee of Landlord or of Landlord's agents shall not operate as a termination of this Lease or a surrender of the Premises.

(d) Notwithstanding anything to the contrary contained herein, Tenant shall, at its sole cost and expense, remove from the Premises, prior to the end of the Term, any item installed by or for Tenant and which, pursuant to Legal Requirements, must be removed therefrom before the Premises may be used by a subsequent tenant.

21.2 **Abandoned Property**. After the expiration or earlier termination hereof, if Tenant fails to remove any property from the Building or the Premises which Tenant is obligated by the terms of this Lease to remove within five (5) business days after written notice from Landlord, such property (the "**Abandoned Property**") shall be conclusively deemed to have been abandoned, and may either be retained by Landlord as its property or sold or otherwise disposed of in such manner as Landlord may see fit. If any item of Abandoned Property shall be sold, Tenant hereby agrees that Landlord may receive and retain the proceeds of such sale and apply the same, at its option, to the expenses of the sale, the cost of moving and storage, any damages to which Landlord may be entitled under **Section 20** hereof or pursuant to law, and to any arrears of Rent.

21.3 **Holdover**. If any of the Tenant Parties holds over (which term shall include, without limitation, the failure of Tenant or any Tenant Party to perform all of its obligations under Section 21.1 above) after the end of the Term, Tenant shall be deemed a tenant-at- sufferance subject to the provisions of this Lease. Whether or not Landlord has previously accepted payments of Rent from Tenant:

(a) Tenant shall pay Base Rent at the Hold Over Percentage, as hereinafter defined, of the highest rate of Base Rent payable during the Term,

(b) Tenant shall continue to pay to Landlord all additional rent, and

(c) in the event such hold over extends beyond thirty (30) days after the end of the Term, Tenant shall be liable for all damages, including without limitation lost business and consequential damages, incurred by Landlord as a result of such holding over, Tenant hereby acknowledging that Landlord may need the Premises after the end of the Term for other tenants and that the damages which Landlord may suffer as the result of Tenant's holding over cannot be determined as of the Execution Date. Nothing contained herein shall grant Tenant the right to holdover after the expiration or earlier termination of the Term. The "**Hold Over Percentage**" shall be 150% for the first sixty (60) days of such holdover, and 200% for any period of hold over after the first sixty (60) days. Nothing contained herein shall grant Tenant the right to holdover after the expiration or earlier termination of the Term.

21.4 **Warranties**. Tenant hereby assigns to Landlord any warranties in effect on the last day of the Term with respect to any fixtures and Alterations installed in the Premises. Tenant shall provide Landlord with copies of any such warranties prior to the expiration of the Term (or, if the Lease is earlier terminated, within five (5) days thereafter).

22. MORTGAGEE RIGHTS

22.1 **Subordination**. Tenant's rights and interests under this Lease shall be (i) subject and subordinate to any ground lease, overleases, mortgage, deed of trust, or similar instrument covering the Premises, the Building and/or the Land and to all advances, modifications, renewals, replacements, and extensions thereof (each of the foregoing, a "**Mortgage**") so long as the applicable Mortgagee and Tenant execute an SNDA, as hereinafter defined, or (ii) if any Mortgagee elects, prior to the lien of any present or future Mortgage. Tenant further shall attorn to and recognize any successor landlord, whether through foreclosure or otherwise, as if the successor landlord were the originally named landlord. The provisions of this Section 22.1 shall be self-operative and no further instrument shall be required to effect such subordination or attornment; however, Tenant agrees to execute, acknowledge and deliver such instruments, confirming such subordination and attornment in such form as shall be requested by any such holder within fifteen (15) days of request therefor.

Landlord agrees to use reasonable efforts to obtain an SNDA, as hereinafter defined, from the holder of any future mortgage which affects the Property. An "**SNDA**" shall be defined as a subordination, non-disturbance and attornment agreement on the standard form of SNDA then being used by the holder of the Mortgage in question, with such commercially reasonable modifications as may be requested by Tenant.

22.2 **Notices**. Tenant shall give each Mortgagee the same notices given to Landlord concurrently with the notice to Landlord, and each Mortgagee shall have a reasonable opportunity thereafter to cure a Landlord default, and Mortgagee's curing of any of Landlord's default shall be treated as performance by Landlord.

22.3 **Mortgagee Consent**. Tenant acknowledges that, where applicable, any consent or approval hereafter given by Landlord may be subject to the further consent or approval of a Mortgagee; and the failure or refusal of such Mortgagee to give such consent or approval shall, notwithstanding anything to the contrary in this Lease contained, constitute reasonable justification for Landlord's withholding its consent or approval.

22.4 **Mortgagee Liability**. Tenant acknowledges and agrees that if any Mortgage shall be foreclosed, (a) the liability of the Mortgagee and its successors and assigns shall exist only so long as such Mortgagee or purchaser is the owner of the Premises, and such liability shall not continue or survive after further transfer of ownership; and (b) subject to the last sentence of this Section 22.4, such Mortgagee and its successors or assigns shall not be (i) liable for any act or omission of any prior lessor under this Lease; (ii) liable for the performance of Landlord's covenants pursuant to the provisions of this Lease which arise and accrue prior to such entity succeeding to the interest of Landlord under this Lease or acquiring such right to possession; (iii) subject to any offsets or defense which Tenant may have at any time against Landlord; (iv) bound by any base rent or other sum which Tenant may have paid previously for more than one (1) month; or (v) liable for the performance of any covenant of Landlord under this Lease which is capable of performance only by the original Landlord. Notwithstanding the foregoing: (x) nothing shall relieve any Mortgagee, purchaser at foreclosure, or grantee of a deed in lieu of foreclosure from: (i) any liability which it has as Landlord under the Lease from and after the date (the "**Succession Date**") which it succeeds to Landlord's interest under the Lease, and (y) any obligation which Landlord has to perform repairs or maintenance under the Lease based upon the fact that the need for such repairs or maintenance first arose after the Succession Date.

23. QUIET ENJOYMENT.

Landlord covenants that so long as Tenant keeps and performs each and every covenant, agreement, term, provision and condition herein contained on the part and on behalf of Tenant to be kept and performed, Tenant shall peaceably and quietly hold, occupy and enjoy the Premises during the Term from and against the claims of all persons lawfully claiming by, through or under Landlord subject, nevertheless, to the covenants, agreements, terms, provisions and conditions of this Lease, any matters of record or of which Tenant has knowledge and to any Mortgage to which this Lease is subject and subordinate, as hereinabove set forth.

24. NOTICES.

Any notice, consent, request, bill, demand or statement hereunder (each, a "**Notice**") by either party to the other party shall be in writing and shall be deemed to have been duly given when either delivered by hand or by nationally recognized overnight courier (in either case with evidence of delivery or refusal thereof) addressed as follows:

If to Landlord:	PPF OFF 828-830 WINTER STREET, LLC c/o King Street Properties 800 Boylston Street, Suite 1570 Boston, MA 02199 Attention: Stephen D. Lynch
With a copy to:	Morgan Stanley 585 Broadway, 37th Floor New York, NY 10036 Attention: Jennie P. Friend [**]
And to:	Goulston & Storrs PC 400 Atlantic Avenue Boston, MA 02110 Attention: King Street
If to Tenant:	Akrevia Therapeutics Inc. 610 Main Street Cambridge, MA 02139 Attn: Joe Farmer

Notwithstanding the foregoing, any notice from Landlord to Tenant regarding ordinary business operations (e.g., exercise of a right of access to the Premises, maintenance activities, invoices, etc.) may also be given by written notice delivered by email to those parties listed in Section 2.4. Either party may at any time change the address or specify an additional address for such Notices by delivering or mailing, as aforesaid, to the other party a notice stating the change and setting forth the changed or additional address, provided such changed or additional address is within the United States. Notices shall be effective upon the date of receipt or refusal thereof.

25. MISCELLANEOUS

25.1 **Separability**. If any provision of this Lease or portion of such provision or the application thereof to any person or circumstance is for any reason held invalid or unenforceable, the remainder of this Lease (or the remainder of such provision) and the application thereof to other persons or circumstances shall not be affected thereby.

25.2 **Captions**. The captions are inserted only as a matter of convenience and for reference, and in no way define, limit or describe the scope of this Lease nor the intent of any provisions thereof.

25.3 **Broker**. Tenant and Landlord each warrants and represents that it has dealt with no broker in connection with the consummation of this Lease other than Colliers International and CBRE (collectively, the "**Broker**"). Tenant and Landlord each agrees to defend, indemnify and save the other harmless from and against any Claims arising in breach of the representation and warranty set forth in the immediately preceding sentence. Landlord shall be solely responsible for the payment of any brokerage commissions to Broker.

25.4 **Entire Agreement**. This Lease, Lease Summary Sheet and Exhibits 1-12 attached hereto and incorporated herein contain the entire and only agreement between the parties and any and all statements and representations, written and oral, including previous correspondence and agreements between the parties hereto, are merged herein. Tenant acknowledges that all representations and statements upon which it relied in executing this Lease are contained herein and that Tenant in no way relied upon any other statements or representations, written or oral. This Lease may not be modified orally or in any manner other than by written agreement signed by the parties hereto.

25.5 **Governing Law**. This Lease is made pursuant to, and shall be governed by, and construed in accordance with, the laws of the Commonwealth of Massachusetts and any applicable local municipal rules, regulations, by-laws, ordinances and the like.

25.6 **Representation of Authority**. By his or her execution hereof, each of the signatories on behalf of the respective parties hereby warrants and represents to the other that he or she is duly authorized to execute this Lease on behalf of such party. Upon Landlord's request, Tenant shall provide Landlord with evidence that any requisite resolution, corporate authority and any other necessary consents have been duly adopted and obtained.

25.7 **Expenses Incurred by Landlord Upon Tenant Requests**.

(a) Tenant shall, upon demand, reimburse Landlord for all reasonable expenses, including, without limitation, legal fees, incurred by Landlord in connection with all requests by Tenant for consents, approvals or execution of collateral documentation related to this Lease, including, without limitation, costs incurred by Landlord in the review and approval of Tenant's plans and specifications in connection with proposed Alterations to be made by Tenant to the Premises or in connection with requests by Tenant for Landlord's consent to make a Transfer. Such costs shall be deemed to be additional rent under this Lease.

(b) Notwithstanding the foregoing: (i) the amount of legal fees which Tenant is required to reimburse Landlord with respect to any Transfer shall not exceed the Transfer Legal Fee Cap, as hereinafter defined, with respect to such Transfer, and (ii) with respect any request by Tenant to review and approve Tenant's plans and specifications with respect to any Alteration, Tenant shall only be required to reimburse Landlord for third party consultants engaged by Landlord to review such plans and specifications as Landlord, in good faith determines is necessary (e.g., reviews by structure engineers, MEP engineers, etc.). The "Transfer Legal Fees Cap" shall be defined as $2,500.00, except that (a) the Transfer Legal Fees Cap shall increase by $500 every fifth (5th) anniversary of the Term Commencement Date, and (b) the Transfer Legal Fees Cap shall not apply to Tenant's request for Landlord's approval of any sub-sublease of any tier.

(c) In the case of litigation or other legal proceeding between Landlord and Tenant relating to the provisions of this Lease or Tenant's occupancy of the Premises, the losing party shall, upon demand, reimburse the prevailing party for its reasonable costs of prosecuting and/or defending such proceeding (including, without limitation, reasonable attorneys' fees.

25.8 **Survival**. Without limiting any other obligation of Tenant which may survive the expiration or prior termination of the Term, all obligations on the part of Tenant to indemnify, defend, or hold Landlord harmless, as set forth in this Lease shall survive the expiration or prior termination of the Term.

25.9 **Limitation of Liability**.

(a) Limitation on Landlord's Liability. Tenant shall neither assert nor seek to enforce any claim against Landlord or any of the Landlord Parties, or the assets of any of the Landlord Parties, for breach of this Lease or otherwise, other than against Landlord's interest in the Building and in the uncollected rents, issues and profits thereof, and Tenant agrees to look solely to such interest for the satisfaction of any liability of Landlord under this Lease. This Section 25.9 shall not limit any right that Tenant might otherwise have to obtain injunctive relief against Landlord. **Landlord and Tenant specifically agree that in no event shall any officer, director, trustee, employee or representative of Landlord or any of the other Landlord Parties ever be personally liable for any obligation under this Lease, nor shall Landlord or any of the other Landlord Parties be liable for consequential or incidental damages or for lost profits whatsoever in connection with this Lease.**

(b) Limitation on Tenant's Liability. Landlord shall neither assert nor seek to enforce any claim against Tenant or any of the Tenant Parties for breach of this Lease or otherwise, other than against the assets and property of Tenant, and Landlord agrees to look solely to such assets and property for the satisfaction of any liability of Tenant or any Tenant Parties under this Lease. This Section 25.9(b) shall not limit any right that Landlord might otherwise have to obtain injunctive relief against Tenant. Landlord and Tenant specifically agree that in no event: (i) any officer, director, trustee, employee or representative of Tenant or any of the other Tenant Parties ever be personally liable for any obligation under this Lease, and (ii) Tenant or any of the other Tenant Parties be liable for consequential or incidental damages or for lost profits whatsoever in connection with this Lease, except that nothing in this Section 25.9(b) shall limit or affect any liability or obligation which Tenant may have in the event of any breach by Tenant of its obligations under either Section 17 (Hazardous Materials) or Section 21.3 (Holdover).

25.10 **Binding Effect**. The covenants, agreements, terms, provisions and conditions of this Lease shall bind and benefit the successors and assigns of the parties hereto with the same effect as if mentioned in each instance where a party hereto is named or referred to, except that no violation of the provisions of Article 13 hereof shall operate to vest any rights in any successor or assignee of Tenant. A facsimile signature on this Lease shall be equivalent to, and have the same force and effect as, an original signature.

25.11 **Landlord Obligations upon Transfer**. Upon any sale, transfer or other disposition of the Building, Landlord shall be entirely freed and relieved from the performance and observance thereafter of all covenants and obligations hereunder on the part of Landlord to be performed and observed, it being understood and agreed in such event (and it shall be deemed and construed as a covenant running with the land) that the person succeeding to Landlord's ownership of said reversionary interest shall thereupon and thereafter assume, and perform and observe, any and all of such covenants and obligations of Landlord, except as otherwise agreed in writing.

25.12 **No Grant of Interest**. Tenant shall not grant any interest whatsoever in any fixtures within the Premises or any item paid in whole or in part by Landlord's Contribution or by Landlord.

25.13 **Financial Information**. Tenant shall deliver to Landlord, within thirty (30) days after Landlord's reasonable request (which request may be made no more often than one time every twelve (12) month period provided that such limitation shall not apply in the event of a sale or financing of any of Landlord's interest in the Lease or the Premises), Tenant's most recently completed balance sheet and related statements of income, shareholder's equity and cash flows statements (audited if available) reviewed by an independent certified public accountant and certified by an officer of Tenant as being true and correct in all material respects. Any such financial information may be relied upon by any actual or potential lessor, purchaser, or mortgagee of the Property or any portion thereof.

25.14 **OFAC Certification**. As an inducement to Landlord to enter into this lease, Tenant hereby represents and warrants that: (i) Tenant is not, nor is it owned or Controlled directly or, to Tenant's knowledge, indirectly by, any person, group, entity or nation named on any list issued by the Office of Foreign Assets Control of the United States Department of the Treasury pursuant to Executive Order 13224 or any similar list or any law, order, rule or regulation or any Executive Order of the President of the United States as a terrorist, "Specially Designated National and Blocked Person" or other banned or blocked person (any such person, group, entity or nation being hereinafter referred to as a "Prohibited Person"); (ii) Tenant is not (nor is it owned, Controlled, directly or, to Tenant's knowledge, indirectly, by any person, group, entity or nation which is) acting directly or, to Tenant's knowledge, indirectly for or on behalf of any Prohibited Person; and (iii) neither Tenant (nor any person, group, entity or nation which owns or Controls Tenant, directly or, to Tenant's knowledge, indirectly) has conducted or will conduct business or has engaged or will engage in any transaction or dealing with any Prohibited Person, including without limitation any assignment of this lease or any subletting or all or any portion of the Premises or the making or receiving of any contribution or funds, goods or services to or for the benefit of a Prohibited Person. In connection with the foregoing, it is expressly understood and agreed that (x) any breach by Tenant of the foregoing representations and warranties shall be an Event of Default, and (y) the representations, warranties and covenants contained in this Section 25.14 shall be continuing in nature and shall survive the expiration or earlier termination of this Lease.

25.15 **Confidentiality**. Tenant acknowledges and agrees that the terms of this Lease are confidential. Disclosure of the terms hereof could adversely affect the ability of Landlord to negotiate other leases with respect to the Building and may impair Landlord's relationship with other tenants of the Building. Tenant shall not disclose the terms and conditions of this Lease ("**Landlord Confidential Information**") to any other person or entity without the prior written consent of Landlord, which may be given or withheld by Landlord, in Landlord's sole discretion, except as required for financial disclosures or securities filings, as required by the order of any court or public body with authority over Tenant, or in connection with any litigation between Landlord and Tenant with respect to this Lease or to Tenant's partners, officers, directors, employees, brokers, attorneys, or as may be required as part of any financing or Tenant's normal course of business, provided that any recipient from Tenant of Landlord Confidential Information is required by Tenant to keep Landlord's Confidential Information confidential in accordance with the terms of this Section 25.15. It is understood and agreed that damages alone would be an inadequate remedy for the breach of this provision by Tenant, and Landlord shall also have the right to seek specific performance of this provision and to seek injunctive relief to prevent its breach or continued breach.

25.16 **Force Majeure**. Other than for Tenant's obligations under this Lease that can be performed by the payment of money (e.g., payment of Rent and maintenance of insurance), whenever a period of time is herein prescribed for action to be taken by either party hereto, such party shall not be liable or responsible for, and there shall be excluded from the computation of any such period of time, any delays due to strikes, riots, acts of God, shortages of labor or materials, war, acts of terrorism, governmental laws, regulations, or restrictions, or any other causes of any kind whatsoever which are beyond the control of such party (collectively "**Force Majeure**"). In no event shall financial inability of a party be deemed to be Force Majeure.

25.17 **LEED Guidelines**. Tenant acknowledges and agrees that the Building is LEED Certified, and Landlord has provided Tenant with a copy of the LEED Guidelines attached hereto as Exhibit 12, Tenant shall comply with such reasonable rules and regulations as Landlord may require in order to maintain such status, provided the same shall not materially adversely affect Tenant's rights or increase Tenant's obligations under this Lease.

[SIGNATURES ON FOLLOWING PAGE]

IN WITNESS WHEREOF the parties hereto have executed this Lease as a sealed instrument as of the Execution Date.

LANDLORD

PPF OFF 828-830 WINTER STREET, LLC,

a Delaware limited liability company

By: PPF MASS REIT, LLC, a Delaware limited liability company, its Sole Member

By: PPF OP, LP, a Delaware limited partnership, its Sole Partner

By: PPF OPGP, LLC, a Delaware limited liability company, its General Partner

By: Prime Property Fund, LLC, a Delaware limited liability company, its Sole Member

By: Morgan Stanley Real Estate Advisor, Inc., a Delaware corporation, its Investment Adviser

By: /s/ Matthew Miller

Name: Matthew Miller

Title: Vice President

TENANT

AKREVIA THERAPEUTICS INC.,
a Delaware corporation By:

By: /s/ Joseph Farmer

Name: Joseph Farmer

Title: COO

EXHIBIT 1

RENT SCHEDULE—OPTION 1 AND OPTION 2

OPTION 1
BASE RENT:

Year	Premises	Rent/SF	Annual Total	Monthly
1	27,829	$ 55.00	$ 1,530,595.00	$ 127,549.58
2	27,829	$ 56.65	$ 1,576,512.85	$ 131,376.07
3	27,829	$ 58.35	$ 1,623,822.15	$ 135,318.51
4	27,829	$ 60.10	$ 1,672,522.90	$ 139,376.91
5	27,829	$ 61.90	$ 1,722,615.10	$ 143,551.26
6	27,829	$ 63.76	$ 1,774,377.04	$ 147,864.75
7	27,829	$ 65.67	$ 1,827,530.43	$ 152,294.20
8	27,829	$ 67.64	$ 1,882,353.56	$ 156,862,80
9	27,829	$ 69.67	1,938,846.43	$ 161,570.54
10	27,829	$ 72.76	$ 1,997,009.04	$ 166,417.42

OPTION 2
BASE RENT:

Year	Premises	Rent/SF	Annual Total	Monthly
1	27,829	$ 55.75	$ 1,551,466.75	$ 129,288.90
2	27,829	$ 57.42	$ 1,597,941.18	$ 133,161.77
3	27,829	$ 59.14	$ 1,645,807.06	$ 137,150.59
4	27,829	$ 60.91	$ 1,695,064.39	$ 141,255.37
5	27,829	$ 62.74	$ 1,745,991.46	$ 145,499.29
6	27,829	$ 64.62	$ 1,798,309.98	$ 149,859.17
7	27,829	$ 66.56	$ 1,852,298.24	$ 154,358.19
8	27,829	$ 68.56	$ 1,907,956.24	$ 158,996.35
9	27,829	$ 70.62	$ 1,965,283.98	$ 163,773.67
10	27,829	$ 72.74	$ 2,024,281.46	$ 168,690.12

Exhibit 10.15

May 24, 2019

Joseph L. Farmer

Re: Employment Agreement

Dear Joe:

On behalf of Akrevia Therapeutics Inc. (the "Company"), I am pleased to offer you the position as the Company's Chief Operating Officer ("COO"). The terms of your employment are set forth below in this Employment Agreement (the "Agreement.)

1. Position. As the Company's CBO/COO, you will report to the Company's Chief Executive Officer ("CEO"). This is a full-time employment position. It is understood and agreed that, while you render services to the Company, you will not engage in any other employment, consulting or other business activities (whether full-time or part-time). Notwithstanding the foregoing, you may engage in the activities listed on Exhibit A hereto and engage in religious, charitable or other community activities as long as such services and activities are disclosed to the Board and do not interfere with your performance of your duties to the Company.

2. Start Date. Your employment with the Company will begin on May 28, 2019 (the "Start Date").

3. Salary. The Company will pay you an initial base salary at the rate of $350,000 per year, payable in accordance with the Company's standard payroll schedule and subject to applicable deductions and withholdings. Your base salary will be subject to periodic review and upward adjustment at the Company's discretion. The base salary in effect at any given time is referred to herein as "Base Salary."

4. Annual Bonus. During the term of your employment with the Company, you will be considered for an annual incentive bonus with respect to each fiscal year of your employment with the Company. The amount, terms and conditions of such bonus (if any) are to be determined at the sole discretion of the Board. Your initial target annual incentive bonus (the "Target Bonus") shall be 40% of your Base Salary, with any bonus payable in respect of 2019 prorated from the Start Date. To earn an incentive bonus, you must be employed by the Company as of the payment date of such incentive bonus. The actual payout amount for any calendar year is discretionary and will be subject to the Board's assessment of your performance, business conditions at the Company, and the terms of any applicable annual bonus plan. The annual incentive bonus, if any, shall be paid between January 1st and March 15th of the calendar year following the calendar year to which such bonus relates. The Board expects to review your job performance on an annual basis and the Board will mutually agree with you the criteria that it will use to assess your performance, including for bonus purposes.

5. **Equity**. In connection with the commencement of your employment and subject to the approval of the Board of Directors of the Company's parent, Akrevia Therapeutics, LLC ("Parent"), you will be granted 556,480 Incentive Units of the Parent, which Incentive Units are intended to qualify as profits interests, and which units represent 1.5% of the Parent's outstanding capitalization following the completion of the Parent's Series A Preferred Unit financing, such issuance to be submitted to the Parent's Board for approval and subject to the terms and conditions set forth herein. The Board is currently obtaining a fair market valuation of this profits interest and will proceed with this grant once obtained. Subject to your continued employment with the Company on each applicable vesting date, this grant will vest over four years, with 25% of the Incentive Units to vest twelve months after the Start Date and with the remainder vesting monthly thereafter over the following 36 months, in approximately equal amounts. This Incentive Unit grant shall be governed by the terms and conditions of the Incentive Unit Grant Agreement entered into by yourself and the Parent and the Parent's Limited Liability Company Agreement, as amended or restated from time to time.

6. **Benefits/Vacation**. You will be eligible, subject to the terms of the applicable plans and programs, to participate in health and dental insurance and other benefits programs, such as life and disability insurance, that have been, or may be, adopted by the Company to the same extent as, and subject to the same terms, conditions and limitations applicable to, other employees of the Company (the "Benefits Programs"). You will also be eligible to accrue at least 15 days of paid vacation per calendar year, of which up to 5 accrued but unused days may be rolled over to the following calendar year. In addition, you will be entitled to all paid holidays given by the Company to its executive officers. The Company reserves the right to modify, amend or cancel one or more of the Benefits Programs.

7. **Expenses**. You will be entitled to receive prompt reimbursement for all reasonable expenses you incur during your employment in performing services hereunder, in accordance with the policies and procedures then in effect and established by the Company for its executive officers.

8. **At-Will Employment; Accrued Obligations**. Your employment is "at will," meaning you or the Company may terminate it at any time for any or no reason, with or without notice or cause, subject to the terms of this Agreement. In the event of the ending of your employment for any reason, the Company shall pay you (i) your Base Salary plus any accrued but unused vacation through your last day of employment (the "Date of Termination"), and (ii) the amount of any documented expenses properly incurred by you on behalf of the Company prior to any such termination and not yet reimbursed (the "Accrued Obligations").

9. **Severance Pay and Benefits Upon a Qualifying Termination Outside of the Change in Control Period**. In the event that a Qualifying Termination occurs outside of the Change in Control Period, then subject to (i) you signing a separation agreement and release in a form and manner reasonably satisfactory to the Company, which shall include, without limitation, a general release of claims against the Company and all related persons and entities and a reaffirmation of all of your Continuing Obligations (as defined below), and shall provide that if you materially breach any of the Continuing Obligations (as determined by the Board of Directors in good faith), all payments of the Severance Amount shall immediately cease (the "Separation Agreement and Release"), and (ii) the Separation Agreement and Release becoming irrevocable, all within 60 days after the Date of Termination (or such shorter period as set forth in the Separation Agreement and Release):

(a) The Company shall pay you an amount equal to the sum of (i) 9 months of your Base Salary, and (ii) your Target Bonus for the year in which the Date of Termination occurs, without regard to whether the metrics have been established or achieved for such year (such bonus amount prorated to reflect the period during such year that you were employed prior to the Date of Termination) (the "Severance Amount"); provided in the event you are entitled to any payments pursuant to the Restrictive Covenants Agreement, the Severance Amount received in any calendar year will be reduced by the amount you are paid in the same such calendar year pursuant to the Restrictive Covenants Agreement (the "Restrictive Covenants Agreement Setoff"); and

(b) subject to your copayment of premium amounts at the applicable active employees' rate and your proper election to receive benefits under the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("COBRA"), the Company shall pay to the group health plan provider or the COBRA provider a monthly payment equal to the monthly employer contribution that the Company would have made to provide health insurance to you if you had remained employed by the Company until the earliest of (A) the 9 month anniversary of the Date of Termination; (B) your eligibility for group medical plan benefits under any other employer's group medical plan; or (C) the cessation of your continuation rights under COBRA; provided, however, if the Company reasonably determines that it cannot pay such amounts to the group health plan provider or the COBRA provider (if applicable) without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then the Company shall convert such payments to payroll payments directly to you for the time period specified above. Such payments, if to you, shall be subject to tax-related deductions and withholdings and paid on the Company's regular payroll dates. For the avoidance of doubt, the taxable payments described above may be used for any purpose, including, but not limited to, continuation coverage under COBRA.

The amounts payable under Section 9, to the extent taxable, shall be paid out in substantially equal installments in accordance with the Company's payroll practice over 12 months commencing within 60 days after the Date of Termination; provided, however, that if the 60-day period begins in one calendar year and ends in a second calendar year, the Severance Amount, to the extent it qualifies as "non-qualified deferred compensation" within the meaning of Section 409A of the Internal Revenue Code of 1986, as amended (the "Code"), shall begin to be paid in the second calendar year by the last day of such 60-day period; provided, further, that the initial payment shall include a catch-up payment to cover amounts retroactive to the day immediately following the Date of Termination. Each payment pursuant to this Agreement is intended to constitute a separate payment for purposes of Treasury Regulation Section l.409A-2(b)(2).

10. Severance Pay and Benefits Upon a Qualifying Termination Within the Change in Control Period. The provisions of this Section 10 shall apply in lieu of, and expressly supersede, the provisions of Section 9 regarding severance pay and benefits upon a Qualifying Termination if such termination of employment occurs within the Change in Control Period.

These provisions shall terminate and be of no further force or effect after the Change in Control Period.

(a) Change in Control Period. In the event that a Qualifying Termination occurs within the Change in Control Period, then, subject to your signing the Separation Agreement and Release and the Separation Agreement and Release becoming fully effective, all within the time frame set forth in the Separation Agreement and Release but in no event more than 60 days after the Date of Termination:

(i) the Company shall pay you an amount equal to the sum of (x) 12 months of your then current Base Salary (or your Base Salary in effect immediately prior to the Change in Control, if higher) and (y) 100% of your Target Bonus for the year in which the Date of Termination occurs, without regard to whether the metrics have been established or achieved for such year) (the "Change in Control Payment"); provided the Change in Control Payment shall be reduced by the amount of the Restrictive Covenants Agreement Setoff, if applicable, paid or to be paid in the same calendar year; and

(ii) notwithstanding anything to the contrary in any applicable incentive unit agreement, option agreement or other stock-based award agreement, all incentive units, stock options and other stock-based awards subject to time-based vesting held by you (the "Time-Based Equity Awards") shall immediately accelerate and become fully exercisable or nonforfeitable as of the later of (i) the Date of Termination or (ii) the Effective Date of the Separation Agreement and Release (the "Accelerated Vesting Date"); *provided* that any termination or forfeiture of the unvested portion of such Time-Based Equity Awards that would otherwise occur on the Date of Termination in the absence of this Agreement will be delayed until the Effective Date of the Separation Agreement and Release and will only occur if the vesting pursuant to this subsection does not occur due to the absence of the Separation Agreement and Release becoming fully effective within the time period set forth therein. Notwithstanding the foregoing, no additional vesting of the Time-Based Equity Awards shall occur during the period between the Date of Termination and the Accelerated Vesting Date; and

(iii) subject to your copayment of premium amounts at the applicable active employees' rate and your proper election to receive benefits under COBRA, the Company shall pay to the group health plan provider or the COBRA provider a monthly payment equal to the monthly employer contribution that the Company would have made to provide health insurance to you if you had remained employed by the Company until the earliest of (A) the 12 month anniversary of the Date of Termination; (B) your eligibility for group medical plan benefits under any other employer's group medical plan; or (C) the cessation of your continuation rights under COBRA; provided, however, if the Company reasonably determines that it cannot pay such amounts to the group health plan provider or the COBRA provider (if applicable) without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), then the Company shall convert such payments to payroll payments directly to you for the time period specified above. Such payments, if to you, shall be subject to tax-related deductions and withholdings and paid on the Company's regular payroll dates. For the avoidance of doubt, the taxable payments described above may be used for any purpose, including, but not limited to, continuation coverage under COBRA.

The amounts payable under this Section 10, to the extent taxable, shall be paid out in substantially equal installments in accordance with the Company's payroll practice over 12 months commencing within 60 days after the Date of Termination; provided, however, that if the 60-day period begins in one calendar year and ends in a second calendar year, such payments to the extent they qualify as "non-qualified deferred compensation" within the meaning of Section 409A of the Code, shall be paid or commence to be paid in the second calendar year by the last day of such 60-day period.

11. Definitions

(a) "Cause" shall mean any of the following: (i) conduct by you constituting a material act of misconduct in connection with the performance of your duties, including, without limitation, (A) willful failure or refusal to perform material responsibilities that have been requested by the Board; (B) dishonesty to the Board with respect to any material matter; or (C) misappropriation of funds or property of the Parent, the Company or any of its subsidiaries or affiliates other than the occasional, customary and de minimis use of Company property for personal purposes; (ii) your commission of acts satisfying the elements of (A) any felony or (B) a misdemeanor involving moral turpitude, deceit, dishonesty or fraud; (iii) any misconduct by you, regardless of whether or not in the course of your employment, that would reasonably be expected to result in material injury or substantial reputational harm to the Parent, the Company or any of its subsidiaries or affiliates if you were to continue to be employed in the same position; (iv) your continued non-performance of your duties hereunder (other than by reason of your physical or mental illness, incapacity or disability) which has continued for more than 30 days following written notice of such non-performance from the Board; (v) your material breach of any of the provisions contained in this Agreement or the Restrictive Covenants Agreement (as defined below); or (vi) your failure to reasonably cooperate with a bona fide internal investigation or an investigation by regulatory or law enforcement authorities, after being instructed by the Company to cooperate, or the willful destruction or failure to preserve documents or other materials known to be relevant to such investigation or the inducement of others to fail to cooperate or to produce documents or other materials in connection with such investigation.

(b) "Change in Control" shall mean any of the following:

(i) any "person," as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (the "Act") (other than the Company or the Parent, any of its or their subsidiaries, or any trustee, fiduciary or other person or entity holding securities under any employee benefit plan or trust of the Company or the Parent, or any of its or their subsidiaries), together with all "affiliates" and "associates" (as such terms are defined in Rule 12b-2 under the Act) of such person, shall become the "beneficial owner" (as such term is defined in Rule 13d-3 under the Act), directly or indirectly, of securities of the Company or the Parent representing 50 percent or more of the combined voting power of the Company's or the Parent's then outstanding securities having the right to vote in an election of the Company's or the Parent's Board ("Voting Securities") (in such case other than as a result of an acquisition of securities directly from the Company or the Parent); or

(ii) the date a majority of the members of the Company' s or the Parent's Board is replaced during any 12-month period by directors whose appointment or election is not endorsed by a majority of the members of the Company's or the Parent's Board before the date of the appointment or election; or

(iii) the consummation of (A) any consolidation or merger of the Company or the Parent where the stockholders of the Company or the Parent, immediately prior to the consolidation or merger, would not, immediately after the consolidation or merger, beneficially own (as such term is defined in Rule 13d-3 under the Act), directly or indirectly, shares representing in the aggregate more than 50 percent of the voting shares of the Company or the Parent issuing cash or securities in the consolidation or merger (or of its ultimate parent corporation, if any), or (B) any sale or other transfer (in one transaction or a series of transactions contemplated or arranged by any party as a single plan) of all or substantially all of the assets of the Company or the Parent.

Notwithstanding the foregoing, a "Change in Control" shall not be deemed to have occurred for purposes of the foregoing clause (i) solely as the result of an acquisition of securities by the Company or the Parent which, by reducing the number of shares of Voting Securities outstanding, increases the proportionate number of Voting Securities beneficially owned by any person to 50 percent or more of the combined voting power of all of the then outstanding Voting Securities; provided, however, that if any person referred to in this sentence shall thereafter become the beneficial owner of any additional shares of Voting Securities (other than pursuant to a stock split, stock dividend, or similar transaction or as a result of an acquisition of securities directly from the Company or the Parent) and immediately thereafter beneficially owns 50 percent or more of the combined voting power of all of the then outstanding Voting Securities, then a "Change in Control" shall be deemed to have occurred for purposes of the foregoing clause (i). Further, and notwithstanding anything herein, to the extent required under Section 409A of the Internal Revenue Code, no event shall constitute a Change in Control unless such event also constitutes a "change in control event" within the meaning of Treasury Regulation 1.409A-3(i)(5).

(c) "Change in Control Period" means the 12 months immediately following the occurrence of the first event constituting a Change in Control.

(d) "Good Reason" shall mean that you have completed all steps of the Good Reason Process (hereinafter defined) following the occurrence of any of the following events without your consent (each, a "Good Reason Condition"): (i) a material diminution in your role, responsibilities, authority or duties; (ii) a material diminution in your Base Salary except for across-the-board salary reductions based on the Company's financial performance similarly affecting all or substantially all senior management employees of the Company; (iii) a material change in the geographic location at which you provide services to the Company, such that there is an increase of at least thirty (30) miles of driving distance to such location from your principal residence as of such change; or (iv) a material breach of this Agreement by the Company.

(e) "Good Reason Process" consists of the following steps: (i) you reasonably determine in good faith that a Good Reason Condition has occurred; (ii) you notify the Company in writing of the first occurrence of the Good Reason Condition within 90 days of the first occurrence of such condition; (iii) you cooperate in good faith with the Company's efforts, for a period of not less than 30 days following such notice (the "Cure Period"), to remedy the Good Reason Condition; (iv) notwithstanding such efforts, the Good Reason Condition continues to exist; and (v) you terminate employment within 90 days after the end of the Cure Period. If the Company cures the Good Reason Condition during the Cure Period, Good Reason shall be deemed not to have occurred.

(f) "Qualifying Termination" shall mean the termination of your employment by the Company without Cause or the termination of your employment by you for Good Reason. For the avoidance of doubt, in the event your employment is terminated by the Company for any reason other than a termination by the Company without Cause or by you for Good Reason, you will be entitled to the Accrued Obligations but not to any severance pay or benefits pursuant to Section 9 or Section 10 of this Agreement.

12. Confidential Information and Restricted Activities. As a condition of employment, you will be required to enter into the Employee Proprietary Information and Invention Assignment Agreement attached hereto as Exhibit B (the "Restrictive Covenants Agreement"). For purposes of this Agreement, the obligations that arise in the Restrictive Covenants Agreement and any other agreement relating to confidentiality, assignment of inventions, or other restrictive covenants shall collectively be referred to as the "Continuing Obligations."

13. Taxes; Section 409A

(a) All forms of compensation referred to in this Agreement are subject to reduction to reflect applicable withholding and payroll taxes and other deductions required by law. You hereby acknowledge that the Company does not have a duty to design its compensation policies in a manner that minimizes your tax liabilities, and you will not make any claim against the Company or the Board related to tax liabilities arising from your compensation.

(b) Anything in this Agreement to the contrary notwithstanding, if at the time of your separation from service within the meaning of Section 409A of the Code, the Company determines that you are a "specified employee" within the meaning of Section 409A(a)(2)(B)(i) of the Code, then to the extent any payment or benefit that you become entitled to under this Agreement on account of your separation from service would be considered deferred compensation subject to the 20% additional tax imposed pursuant to Section 409A(a) of the Code as a result of the application of Section 409A(a)(2)(B)(i) of the Code, such payment shall not be payable and such benefit shall not be provided until the date that is the earlier of (A) six months and one day after your separation from service, or (B) your death. If any such delayed cash payment is otherwise payable on an installment basis, the first payment shall include a catch-up payment covering amounts that would otherwise have been paid during the six-month period but for the application of this provision, and the balance of the installments shall be payable in accordance with their original schedule. All in-kind benefits provided and expenses eligible for reimbursement under this Agreement shall be provided by the Company or incurred by you during the time periods set forth in this Agreement. All reimbursements shall be paid as soon as administratively practicable, but in no event shall any reimbursement be paid after the last day of the taxable year following the taxable year in which the expense was incurred. The amount of in-kind benefits provided or reimbursable expenses incurred in one taxable year shall not affect the in-kind benefits to be provided or the expenses eligible for reimbursement in any other taxable year. Such right to reimbursement or in-kind benefits is not subject to liquidation or exchange for another benefit. To the extent that any payment or benefit described in this Agreement constitutes "non-qualified deferred compensation" under Section 409A of the Code, and to the extent that such payment or benefit is payable upon your termination of employment, then such payments or benefits shall be payable only upon your "separation from service." The determination of whether and when a separation from service has occurred shall be made in accordance with the presumptions set forth in Treasury Regulation Section l.409A-l(h). The Company and you intend that this Agreement will be administered in accordance with Section 409A of the Code. To the extent that any provision of this Agreement is ambiguous as to its compliance with Section 409A of the Code, the provision shall be read in such a manner so that all payments hereunder comply with Section 409A of the Code. The Company makes no representation or warranty and shall have no liability to you or any other person if any provisions of this Agreement are determined to constitute deferred compensation subject to Section 409A of the Code but do not satisfy an exemption from, or the conditions of, such Section.

14. Interpretation and Enforcement. This Agreement, including the Restrictive Covenants Agreement, constitutes the complete agreement between you and the Company, contains all of the terms of your employment with the Company and supersedes any prior agreements, representations or understandings (whether written, oral or implied) between you and the Company, including without limitation the Offer Letter. The terms of this Agreement and the resolution of any disputes as to the meaning, effect, performance or validity of this Agreement or arising out of, related to, or in any way connected with this Agreement, your employment with the Company or any other relationship between you and the Company (the "Disputes") will be governed by Massachusetts law, excluding laws relating to conflicts or choice of law. You and the Company submit to the exclusive personal jurisdiction of the federal and state courts located in the Commonwealth of Massachusetts in connection with any Dispute or any claim related to any Dispute.

15. Assignment. Neither you nor the Company may make any assignment of this Agreement or any interest in it, by operation of law or otherwise, without the prior written consent of the other; *provided, however*, that the Company may assign its rights and obligations under this Agreement (including the Restrictive Covenants Agreement) without your consent to any affiliate or to any person or entity with whom the Company shall hereafter effect a reorganization, consolidate with, or merge into or to whom it transfers all or substantially all of its properties or assets. This Agreement shall inure to the benefit of and be binding upon you and the Company, and each of your and its respective successors, executors, administrators, heirs and permitted assigns.

16. Conditions. Notwithstanding anything to the contrary herein, the effectiveness of this Agreement shall be conditioned on (i) your satisfactory completion of reference and background checks, if so requested by the Company, and (ii) your submission of satisfactory proof of your legal authorization to work in the United States

17. **Miscellaneous**. This Agreement may not be modified or amended, and no breach shall be deemed to be waived, unless agreed to in writing by you and a Board member of the Company. The headings and captions in this Agreement are for convenience only and in no way define or describe the scope or content of any provision of this Agreement. The words "include," "includes" and "including" when used herein shall be deemed in each case to be followed by the words "without limitation." This Agreement may be executed in two or more counterparts, each of which shall be an original and all of which together shall constitute one and the same instrument. By signing this Agreement, you represent to the Company that you have no contractual commitments or other legal obligations that would or may prohibit you from performing your duties for the Company.

Please acknowledge, by signing below, that you have accepted this Agreement.

Very truly yours,

AKREVIA THERAPEUTICS INC.

By: /s/ Rene Russo
Rene Russo, CEO

I have read and accept this employment offer:

/s/ Joseph L. Farmer
Joseph L. Farmer

Dated: May 24, 2019

Exhibit A

Permitted Activities

Exhibit B

Restrictive Covenants Agreement

Exhibit 10.17

VIA ELECTRONIC MAIL

March 12, 2021

Joseph L. Farmer

Dear Joe:

As we discussed, your employment with Xilio Therapeutics, Inc. (f/k/a/ Akrevia Therapeutics, Inc., and hereinafter, the "Company") will end effective March 12, 2021 (the "Separation Date"). As we also discussed, although you are electing to leave the Company, the Company has agreed to provide you with the severance benefits described in detail in paragraph 1 below if you sign and return this letter agreement to me no later than April 3, 2021 (but no earlier than the Separation Date) and do not revoke your agreement (as described below). By signing and returning this letter agreement and not revoking your acceptance, you will be entering into a binding agreement with the Company and will be agreeing to the terms and conditions set forth in the numbered paragraphs below, including the release of claims set forth in paragraph 2. Therefore, you are advised to consult with an attorney before signing this letter agreement and you have been given at least twenty-one (21) days to do so. If you sign this letter agreement, you may change your mind and revoke your agreement during the seven (7) business day period after you have signed it (the "Revocation Period") by notifying me in writing. If you do not so revoke, this letter agreement will become a binding agreement between you and the Company upon the expiration of the Revocation Period.

Although your receipt of the severance benefits is expressly conditioned on your timely entering into this letter agreement, the following will apply regardless of whether or not you do so:

- As of the Separation Date, all salary payments from the Company will cease and any benefits you had as of the Separation Date under Company-provided benefit plans, programs, or practices will terminate, except as required by applicable law.

- You will receive payment for your final wages and any unused vacation time accrued through the Separation Date.

- You may, if eligible and at your own cost, elect to continue receiving group medical insurance pursuant to the "COBRA" law. Please consult the COBRA materials to be provided under separate cover for details regarding these benefits.

- You are obligated to keep confidential and not to use or disclose any and all non-public information concerning the Company that you acquired during the course of your employment with the Company, including any non-public information concerning the Company's business affairs, business prospects, and financial condition, except as otherwise permitted by paragraph 9 below. Further, you remain subject to your continuing obligations to the Company as set forth in the Employee Proprietary Information and Invention Assignment Agreement (the "Restrictive Covenants Agreement") you previously executed in connection with your commencement of employment with the Company, which obligations remain in full force and effect.

- You must return to the Company no later than the Separation Date all Company property.

If you elect to timely sign and return this letter agreement and do not revoke your acceptance within the Revocation Period, the following terms and conditions will also apply:

1. **Severance Benefits** – The Company will provide you with the following severance benefits (the "severance benefits"):

a. **Severance Pay**. The Company will pay to you an aggregate amount of two hundred eighty-five thousand eight hundred thirty-three dollars ($285,833), less all applicable taxes and withholdings (the "Severance Sum"), which is equivalent to the sum of (i) nine (9) months of your current base salary, plus (ii) your prorated 2021 bonus at target; provided, however, that the Severance Sum shall be reduced by any Garden Leave Pay that the Company provides to you pursuant to the Restrictive Covenants Agreement. The Severance Sum will be paid in equal installments over a nine (9) month period in accordance with the Company's regular payroll practices (with each such installment during the first six (6) months following the Separation Date reduced to reflect the Garden Leave Pay being provided to you during the same period), but in no event shall payments begin earlier than the Company's first payroll date following expiration of the Revocation Period. Should you materially breach any of your material obligations under the Restrictive Covenants Agreement (as determined by the Company's Board of Directors in good faith), these severance payments shall immediately cease and no further amounts shall be due to you hereunder.

b. **COBRA Contribution**. Should you timely elect and be eligible to continue receiving group health insurance pursuant to the "COBRA" law, the Company will, until the earlier of (x) the date that is nine (9) months following the Separation Date, and (y) the date on which you are eligible to obtain alternative coverage with another employer (as applicable, the "COBRA Contribution Period"), continue to pay the share of the premiums for such coverage to the same extent it was paying such premiums on your behalf immediately prior to the Separation Date. The remaining balance of any premium costs during the COBRA Contribution Period, and all premium costs thereafter, shall be paid by you on a monthly basis for as long as, and to the extent that, you remain eligible for COBRA continuation. You agree that, should you become eligible to obtain alternative health insurance coverage with another employer prior to the date that is nine (9) months following the Separation Date, you will so inform the Company in writing within five (5) business days of obtaining such coverage.

c. **Consulting Agreement**. The Company will enter into a consulting agreement with you in the form attached hereto as Attachment A (the "Consulting Agreement"). During the Consultation Period set forth in the Consulting Agreement, you shall provide services to the Company as a consultant pursuant to the terms set forth therein. During the Consultation Period, and contingent on your continued provision of services to the Company, the outstanding equity awards previously granted to you by the Company (collectively, the "Equity Awards") will continue to vest and be exercisable in accordance with the applicable equity plans and agreements. Notwithstanding the foregoing or the provisions of any equity award agreement between the Company and you, you acknowledge that any outstanding stock options that were granted in connection with your employment with the Company and that were intended to be incentive stock options at the time of grant will be treated as nonstatutory stock options beginning three (3) months after the Separation Date. For the avoidance of doubt, you acknowledge that should you revoke your acceptance of this letter agreement during the Revocation Period, the Consulting Agreement will immediately terminate on the date of any such revocation, in accordance with the terms set forth in the Consulting Agreement.

You will not be eligible for, nor shall you have a right to receive, any payments or benefits from the Company following the Separation Date other than as set forth in this paragraph.

2. **Release of Claims** – In consideration of the severance benefits, which you acknowledge you would not otherwise be entitled to receive, you hereby fully, forever, irrevocably and unconditionally release, remise and discharge the Company, its affiliates, subsidiaries, parent companies, predecessors, and successors, and all of their respective past and present officers, directors, stockholders, partners, members, employees, agents, representatives, plan administrators, attorneys, insurers and fiduciaries (each in their individual and corporate capacities) (collectively, the "Released Parties") from any and all claims, charges, complaints, demands, actions, causes of action, suits, rights, debts, sums of money, costs, accounts, reckonings, covenants, contracts, agreements, promises, doings, omissions, damages, executions, obligations, liabilities, and expenses (including attorneys' fees and costs), of every kind and nature that you ever had or now have against any or all of the Released Parties, whether known or unknown, including, but not limited to, any and all claims arising out of or relating to your employment with and/or separation from the Company, including, but not limited to, all claims under Title VII of the Civil Rights Act of 1964, 42 U.S.C. § 2000e et seq., the Americans With Disabilities Act of 1990, 42 U.S.C. § 12101 et seq., the Age Discrimination in Employment Act, 29 U.S.C. § 621 et seq., the Genetic Information Nondiscrimination Act of 2008, 42 U.S.C. § 2000ff et seq., the Family and Medical Leave Act, 29 U.S.C. § 2601 et seq., the Worker Adjustment and Retraining Notification Act ("WARN"), 29 U.S.C. § 2101 et seq., the Rehabilitation Act of 1973, 29 U.S.C. § 701 et seq., Executive Order 11246, Executive Order 11141, the Fair Credit Reporting Act, 15 U.S.C. § 1681 et seq., and the Employee Retirement Income Security Act of 1974 ("ERISA"), 29 U.S.C. § 1001 et seq., all as amended; all claims arising out of the Massachusetts Fair Employment Practices Act, Mass. Gen. Laws ch. 151B, § 1 et seq., the Massachusetts Wage Act, Mass. Gen. Laws ch. 149, § 148 et seq. (Massachusetts law regarding payment of wages and overtime), the Massachusetts Civil Rights Act, Mass. Gen. Laws ch. 12, §§ 11H and 11I, the Massachusetts Equal Rights Act, Mass. Gen. Laws. ch. 93, § 102, Mass. Gen. Laws ch. 214, § 1C (Massachusetts right to be free from sexual harassment law), the Massachusetts Labor and Industries Act, Mass. Gen. Laws ch. 149, § 1 et seq., Mass. Gen. Laws ch. 214, § 1B (Massachusetts right of privacy law), the Massachusetts Maternity Leave Act, Mass. Gen. Laws ch. 149, § 105D, and the Massachusetts Small Necessities Leave Act, Mass. Gen. Laws ch. 149, § 52D, all as amended; all common law claims including, but not limited to, actions in defamation, intentional infliction of emotional distress, misrepresentation, fraud, wrongful discharge, and breach of contract (including without limitation all claims arising out of or related to the Employment Agreement between you and the Company dated May 24, 2019); all claims to any non-vested ownership interest in the Company, contractual or otherwise; all state and federal whistleblower claims to the maximum extent permitted by law; and any claim or damage arising out of your employment with and/or separation from the Company (including a claim for retaliation) under any common law theory or any federal, state or local statute or ordinance not expressly referenced above; *provided, however, that this release of claims does not prevent you from filing a charge with, cooperating with, or participating in any investigation or proceeding before, the Equal Employment Opportunity Commission or a state fair employment practices agency (except that you acknowledge that you may not recover any monetary benefits in connection with any such charge, investigation, or proceeding, and you further waive any rights or claims to any payment, benefit, attorneys' fees or other remedial relief in connection with any such charge, investigation or proceeding).*

3. **Continuing Obligations** – You acknowledge and reaffirm your confidentiality and non-disclosure obligations discussed on the first page of this letter agreement, as well as all of your obligations set forth in the Restrictive Covenant Agreements, including without limitation your non-competition obligations set forth in Section 3(d) thereof, all of which obligations survive your separation from employment with the Company.

4. **Non-Disparagement** – You understand and agree that, to the extent permitted by law and except as otherwise permitted by paragraph 9 below, you will not, in public or private, make any false, disparaging, derogatory or defamatory statements, online (including, without limitation, on any social media, networking, or employer review site) or otherwise, to any person or entity, including, but not limited to, any media outlet, industry group, financial institution or current or former employee, board member, consultant, client or customer of the Company, regarding the Company or any of its directors or officers, or regarding the Company's business affairs, business prospects, or financial condition. In return, the Company's directors and officers will not to make any false, disparaging, derogatory or defamatory statements, online or otherwise, to any third party regarding you.

5. **Company Affiliation** – You agree that, following the Separation Date, you will not hold yourself out as an officer, employee, or otherwise as a representative of the Company, and you agree to update any directory information that indicates you are currently affiliated with the Company. Without limiting the foregoing, you confirm that, within five (5) days following the Separation Date, you will update any and all social media accounts (including, without limitation, LinkedIn, Facebook, Twitter and Four Square) to reflect that you are no longer employed by or associated with the Company.

6. **Return of Company Property** – You confirm that, except as mutually agreed and required to perform the services described in the Consulting Agreement you have returned to the Company all keys, files, records (and copies thereof), equipment (including, but not limited to, computer hardware, software, printers, flash drives and other storage devices, wireless handheld devices, cellular phones, tablets, etc.), Company identification, and any other Company owned property in your possession or control, and that you have left intact all, and have otherwise not destroyed, deleted, or made inaccessible to the Company any, electronic Company documents, including, but not limited to, those that you developed or helped to develop during your employment, and that you have not (a) retained any copies in any form or media; (b) maintained access to any copies in any form, media, or location; (c) stored any copies in any physical or electronic locations that are not readily accessible or not known to the Company or that remain accessible to you; or (d) sent, given, or made accessible any copies to any persons or entities that the Company has not authorized to receive such electronic or hard copies. You further confirm that you have cancelled all accounts for your benefit, if any, in the Company's name, including but not limited to, credit cards, telephone charge cards, cellular phone accounts, and computer accounts.

7. **Business Expenses and Final Compensation** – You acknowledge that you have been reimbursed by the Company for all business expenses incurred in conjunction with the performance of your employment and that no other reimbursements are owed to you. You further acknowledge that you have received payment in full for all services rendered in conjunction with your employment by the Company, including payment for all wages, bonuses, commissions, and accrued, unused vacation time, and that no other compensation is owed to you except as provided herein.

8. **Confidentiality** – You understand and agree that, to the extent permitted by law and except as otherwise permitted by paragraph 9 below, the terms and contents of this letter agreement, and the contents of the negotiations and discussions resulting in this letter agreement, shall be maintained as confidential by you and your agents and representatives and shall not be disclosed except as otherwise agreed to in writing by the Company.

9. **Scope of Disclosure Restrictions** – Nothing in this letter agreement prohibits you from communicating with government agencies about possible violations of federal, state, or local laws or otherwise providing information to government agencies, filing a complaint with government agencies, or participating in government agency investigations or proceedings. You are not required to notify the Company of any such communications; provided, however, that nothing herein authorizes the disclosure of information you obtained through a communication that was subject to the attorney-client privilege. Further, notwithstanding your confidentiality and nondisclosure obligations, you are hereby advised as follows pursuant to the Defend Trade Secrets Act: "An individual shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that (A) is made (i) in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney; and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. An individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose the trade secret to the attorney of the individual and use the trade secret information in the court proceeding, if the individual (A) files any document containing the trade secret under seal; and (B) does not disclose the trade secret, except pursuant to court order."

10. **Cooperation** – You agree that, to the extent permitted by law, you shall cooperate with the Company in the investigation, defense or prosecution of any claims or actions which already have been brought, are currently pending, or which may be brought in the future against the Company by a third party or by or on behalf of the Company against any third party, whether before a state or federal court, any state or federal government agency, or a mediator or arbitrator related to events about which you have relevant knowledge. Your cooperation in connection with such claims or actions shall include, but not be limited to, being available to meet with the Company's counsel, at reasonable times and locations mutually agreed by you and the Company, to investigate or prepare the Company's claims or defenses, to prepare for trial or discovery or an administrative hearing, mediation, arbitration or other proceeding and to act as a witness when requested by the Company. The Company will reimburse you for all reasonable and documented out of pocket costs that you incur to comply with this paragraph. You further agree that, to the extent permitted by law, you will notify the Company promptly in the event that you are served with a subpoena (other than a subpoena issued by a government agency), or in the event that you are asked to provide a third party (other than a government agency) with information concerning any actual or potential complaint or claim against the Company.

11. **Amendment and Waiver** – This letter agreement shall be binding upon the parties and may not be modified in any manner, except by an instrument in writing of concurrent or subsequent date signed by duly authorized representatives of the parties hereto. This letter agreement is binding upon and shall inure to the benefit of the parties and their respective agents, assigns, heirs, executors, successors, and administrators. No delay or omission by the Company in exercising any right under this letter agreement shall operate as a waiver of that or any other right. A waiver or consent given by the Company on any one occasion shall be effective only in that instance and shall not be construed as a bar to or waiver of any right on any other occasion.

12. **Validity** – Should any provision of this letter agreement be declared or be determined by any court of competent jurisdiction to be illegal or invalid, the validity of the remaining parts, terms or provisions shall not be affected thereby and said illegal or invalid part, term or provision shall be deemed not to be a part of this letter agreement.

13. **Nature of Agreement** – You understand and agree that this letter agreement is a severance agreement and does not constitute an admission of liability or wrongdoing on the part of the Company.

14. **Acknowledgments** – You acknowledge that you have been given at least twenty- one (21) days to consider this letter agreement, and that the Company is hereby advising you to consult with an attorney of your own choosing prior to signing this letter agreement. You understand that you may revoke this letter agreement for a period of seven (7) days after you sign this letter agreement by notifying me in writing, and the letter agreement shall not be effective or enforceable until the expiration of this seven (7) day revocation period. You understand and agree that by entering into this letter agreement, you are waiving any and all rights or claims you might have under the Age Discrimination in Employment Act, as amended by the Older Workers Benefit Protection Act, and that you have received consideration beyond that to which you were previously entitled.

15. **Voluntary Assent** – You affirm that no other promises or agreements of any kind have been made to or with you by any person or entity whatsoever to cause you to sign this letter agreement, and that you fully understand the meaning and intent of this letter agreement. You further state and represent that you have carefully read this letter agreement, understand the contents herein, freely and voluntarily assent to all of the terms and conditions hereof, and sign your name of your own free act.

16. **Applicable Law** – This letter agreement shall be interpreted and construed by the laws of the Commonwealth of Massachusetts, without regard to conflict of laws provisions. You hereby irrevocably submit to and acknowledge and recognize the jurisdiction of the courts of the Commonwealth of Massachusetts, or if appropriate, a federal court located in the Commonwealth of Massachusetts (which courts, for purposes of this letter agreement, are the only courts of competent jurisdiction), over any suit, action or other proceeding arising out of, under or in connection with this letter agreement or the subject matter hereof.

17. **Entire Agreement** – This letter agreement contains and constitutes the entire understanding and agreement between the parties hereto with respect to your severance benefits and the settlement of claims against the Company and cancels all previous oral and written negotiations, agreements, and commitments in connection therewith.

18. **Tax Acknowledgement** – In connection with the severance benefits provided to you pursuant to this letter agreement, the Company shall withhold and remit to the tax authorities the amounts required under applicable law, and you shall be responsible for all applicable taxes with respect to such severance benefits under applicable law. You acknowledge that you are not relying upon the advice or representation of the Company with respect to the tax treatment of any of the severance benefits set forth in paragraph 1 of this letter agreement.

[*signature page follows*]

Very truly yours,

By: /s/ Rene Russo
Rene Russo
CEO

I hereby agree to the terms and conditions set forth above. I have been given at least twenty-one (21) days to consider this letter agreement, and I have chosen to execute this on the date below. I intend that this letter agreement will become a binding agreement between me and the Company if I do not revoke my acceptance in seven (7) days.

/s/ Joseph L. Farmer	3/12/2021
Joseph L. Farmer	Date

To be returned in a timely manner as set forth on the first page of this letter agreement.

ATTACHMENT A

CONSULTING AGREEMENT

This Consulting Agreement (the "**Agreement**"), effective as of the Effective Date (as defined herein), is entered into between Xilio Therapeutics, Inc. (the "**Company**") and Joseph L. Farmer (the "**Consultant**").

WHEREAS, the Company desires to retain the services of the Consultant and the Consultant desires to perform certain services for the Company; and

WHEREAS, the Consultant is in the business of providing such services and has agreed to provide such services pursuant to the terms and conditions set forth in this Agreement.

NOW, THEREFORE in consideration of the mutual covenants and promises contained herein and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged by the parties hereto, the parties agree as follows:

1. Services. The Consultant agrees to perform such consulting and advisory services to and for the Company as may be reasonably requested from time to time by the Company, as specified on Schedule A to this Agreement.

2. Term. Provided the Consultant has timely signed and returned to the Company the letter agreement to which this Agreement is attached as Attachment A (the "**Letter Agreement**"),the term of this Agreement shall commence on March 13, 2021 and shall continue through November 30, 2021 (the "**Expiration Date**"), unless terminated earlier pursuant to the provisions of Section 4 (such period being referred to as the "**Consultation Period**").

3. Consideration and Reimbursement.

a. Equity Vesting. In full consideration of the services performed by the Consultant under this Agreement, and for so long as the Consultant provides services to the Company pursuant to this Agreement, any and all outstanding and unvested equity awards granted to the Consultant by the Company will continue to vest and be exercisable in accordance with the applicable equity plans and award agreements. Vesting will cease immediately upon termination of this Agreement for any reason in accordance with Section 4 below. The Consultant shall have three (3) months following the end of the Consultation Period to exercise any equity awards that have vested and become exercisable as of such date in accordance with and subject to applicable equity plans and award agreements.

b. Expense Reimbursement. The Company shall reimburse the Consultant for all reasonable out-of-pocket expenses incurred by the Consultant in connection with the performance of the services under this Agreement. The Consultant shall submit to the Company itemized monthly statements, in a form satisfactory to the Company, of such expenses incurred in the previous month. The Company shall pay to the Consultant amounts shown on each such statement within thirty (30) days after receipt thereof. Notwithstanding the foregoing, the Consultant shall not incur total expenses in excess of $500.00 per month without the prior written approval of the Company.

c. No Employee Benefits. The Consultant's relationship with the Company will be that of an independent contractor, and the Consultant shall not, in connection with this relationship, be entitled to any benefits, coverages or privileges, including, without limitation, health insurance, social security, unemployment, workers compensation, or pension payments, made available to employees of the Company.

4. Termination. This Agreement may be terminated prior to the Expiration Date in the following manner: (a) by the Company at any time immediately upon written notice if the Consultant has materially breached this Agreement or the Letter Agreement; (b) by the Consultant at any time immediately upon written notice if the Company has materially breached this Agreement or the Letter Agreement; (c) by either the Company or the Consultant upon not less than thirty (30) days' prior written notice; or (d) at any time upon the mutual written consent of the parties hereto. Notwithstanding the foregoing, and for the avoidance of doubt, the Company may terminate this Agreement effective immediately by giving written notice to the Consultant if the Consultant fails to timely sign the Letter Agreement, or revokes the Letter Agreement within seven (7) days after signing it as set forth in the Letter Agreement. In the event of any termination, the Consultant shall be entitled only to reimbursements for expenses incurred in accordance with Section 3(b) prior to termination, and no further payments of any kind will be due. In addition, vesting of the equity will cease immediately upon termination.

5. Cooperation. The Consultant shall perform the services hereunder in a professional manner and consistent with the highest industry standards. The Company shall provide such access to its information and property as may be reasonably required in order to permit the Consultant to perform the Consultant's obligations hereunder. The Consultant shall cooperate with the Company's personnel, shall not interfere with the conduct of the Company's business, and shall observe all rules, regulations and security requirements of the Company concerning the safety of persons and property.

6. Proprietary Information and Inventions.

6.1 Proprietary Information.

a. The Consultant acknowledges that the Consultant's relationship with the Company is one of high trust and confidence and that in the course of the Consultant's service to the Company, Consultant will have access to and contact with Proprietary Information. The Consultant will not disclose any Proprietary Information to any person or entity other than employees of the Company or use the same for any purposes (other than in the performance of the services) without written approval by an officer of the Company, either during or after the Consultation Period, unless and until such Proprietary Information has become public knowledge without fault by the Consultant.

b. For purposes of this Agreement, Proprietary Information shall mean, by way of illustration and not limitation, all information, whether or not in writing, whether or not patentable and whether or not copyrightable, of a private, secret or confidential nature, owned, possessed or used by the Company, concerning the Company's business, business relationships or financial affairs, including, without limitation, any Invention, formula, vendor information, customer information, apparatus, equipment, trade secret, process, research, report, technical or research data, clinical data, know-how, computer program, software, software documentation, hardware design, technology, product, processes, methods, techniques, formulas, compounds, projects, developments, marketing or business plan, forecast, unpublished financial statement, budget, license, price, cost, customer, supplier or personnel information or employee list that is communicated to, learned of, developed or otherwise acquired by the Consultant in the course of the Consultant's service as a consultant to the Company.

c. The Consultant agrees that all files, documents, letters, memoranda, reports, records, data sketches, drawings, models, laboratory notebooks, program listings, computer equipment or devices, computer programs or other written, photographic, or other tangible material containing Proprietary Information, whether created by the Consultant or others, which shall come into Consultant's custody or possession, shall be and are the exclusive property of the Company to be used by the Consultant only in the performance of the Consultant's duties for the Company and shall not be copied or removed from the Company premises except in the pursuit of the business of the Company. All such materials or copies thereof and all tangible property of the Company in the custody or possession of the Consultant shall be delivered to the Company, upon the earlier of (i) a request by the Company or (ii) the termination of this Agreement. After such delivery, the Consultant shall not retain any such materials or copies thereof or any such tangible property.

d. The Consultant agrees that Consultant's obligation not to disclose or to use information and materials of the types set forth in paragraphs (b) and (c) above, and Consultant's obligation to return materials and tangible property set forth in paragraph (c) above extends to such types of information, materials and tangible property of customers of the Company or suppliers to the Company or other third parties who may have disclosed or entrusted the same to the Company or to the Consultant.

e. The Consultant acknowledges that the Company from time to time may have agreements with other persons or with the United States Government, or agencies thereof, that impose obligations or restrictions on the Company regarding inventions made during the course of work under such agreements or regarding the confidential nature of such work. The Consultant agrees to be bound by all such obligations and restrictions that are known to the Consultant and to take all action necessary to discharge the obligations of the Company under such agreements.

f. The Consultant's obligations under this Section 6.1 shall not apply to any information that (i) is or becomes known to the general public under circumstances involving no breach by the Consultant or others of the terms of this Section 6.1, (ii) is generally disclosed to third parties by the Company without restriction on such third parties, or (iii) is approved for release by written authorization of an officer of the Company. Further, nothing herein prohibits the Consultant from communicating with government agencies about possible violations of federal, state, or local laws or otherwise providing information to government agencies or participating in government agency investigations or proceedings. In addition, notwithstanding the Consultant's confidentiality and nondisclosure obligations, the Consultant is hereby advised as follows pursuant to the Defend Trade Secrets Act: "An individual shall not be held criminally or civilly liable under any Federal or State trade secret law for the disclosure of a trade secret that (A) is made (i) in confidence to a Federal, State, or local government official, either directly or indirectly, or to an attorney; and (ii) solely for the purpose of reporting or investigating a suspected violation of law; or (B) is made in a complaint or other document filed in a lawsuit or other proceeding, if such filing is made under seal. An individual who files a lawsuit for retaliation by an employer for reporting a suspected violation of law may disclose the trade secret to the attorney of the individual and use the trade secret information in the court proceeding, if the individual (A) files any document containing the trade secret under seal; and (B) does not disclose the trade secret, except pursuant to court order."

6.2 Inventions.

a. The Consultant will make full and prompt disclosure to the Company of all inventions, creations, improvements, enhancements, designs, innovations, discoveries, processes, methods, techniques, developments, software, computer programs, and works of authorship, whether or not patentable and whether or not copyrightable, that are created, made, conceived or reduced to practice by the Consultant or under the Consultant's direction or jointly with others during the Consultation Period, whether or not during normal working hours or on the premises of the Company (all of which are collectively referred to in this Agreement as "**Inventions**"). The Consultant agrees to assign and does hereby assign to the Company (or any person or entity designated by the Company) all of the Consultant's right, title and interest in and to all Inventions and all related patents, patent applications, copyrights created in the work(s) of authorship, trademarks, trade names, and other industrial and intellectual property rights and applications therefor in the United States and elsewhere. However, the previous sentence shall not apply to Inventions that do not relate to the present or planned business or research and development of the Company and that are made and conceived by the Consultant not during normal working hours, not on the Company's premises and not using the Company's tools, devices, equipment or Proprietary Information. The Consultant understands that, to the extent this Agreement shall be construed in accordance with the laws of any state that precludes a requirement that an individual assign certain classes of inventions, this Section 6.2(a) shall be interpreted not to apply to any invention that a court rules and/or the Company agrees falls within such classes. The Consultant further acknowledges that each original work of authorship that is made by the Consultant (solely or jointly with others) within the scope of the Agreement and which is protectable by copyright is a "work made for hire," as that term is defined in the United States Copyright Act. The Consultant hereby waives all claims to moral rights in any Inventions. ·

b. The Consultant agrees that if, in the course of performing the services, the Consultant incorporates into any Invention developed under this Agreement any preexisting invention, improvement, development, concept, discovery or other proprietary information owned by the Consultant or in which the Consultant has an interest ("**Prior Inventions**"), (i) the Consultant will inform the Company, in writing before incorporating such Prior Inventions into any Invention, and (ii) the Company is hereby granted a nonexclusive, royalty-free, perpetual, irrevocable, transferable worldwide license with the right to grant and authorize sublicenses, to make, have made, modify, use, import, offer for sale, sell, reproduce, distribute, modify, adapt, prepare derivative works of, display, perform, and otherwise exploit such Prior Inventions, without restriction, including, without limitation, as part of or in connection with such Invention, and to practice any method related thereto. The Consultant will not incorporate any invention, improvement, development, concept, discovery or other proprietary information owned by any third party into any Invention without the Company's prior written permission.

c. The Consultant agrees to cooperate fully with the Company, both during and after the Consultation Period, with respect to the procurement, maintenance, and enforcement of copyrights, patents and other intellectual property rights (both in the United States and foreign countries) relating to Inventions. The Consultant shall sign all papers, including, without limitation, copyright applications, patent applications, declarations, oaths, formal assignments, assignments of priority rights, and powers of attorney, which the Company may deem necessary or desirable in order to protect its rights and interests in any Invention. The Consultant further agrees that if the Company is unable, after reasonable effort, to secure the signature of the Consultant on any such papers, any executive officer of the Company shall be entitled to execute any such papers as the agent and the attorney-in-fact of the Consultant, and the Consultant hereby irrevocably designates and appoints each executive officer of the Company as the Consultant's agent and attorney-in-fact to execute any such papers on the Consultant's behalf, and to take any and all actions as the Company may deem necessary or desirable in order to protect its rights and interests in any Invention, under the conditions described in this sentence.

d. The Consultant shall maintain adequate and current written records (in the form of notes, sketches, drawings and as may be specified by the Company) to document the conception and/or first actual reduction to practice of any Invention. Such written records shall be available to and remain the sole property of the Company at all times.

7. Non-Exclusivity. The Company retains the right to contract with other companies and/or individuals for consulting services without restriction. Similarly, except as and to the extent set forth in the Letter Agreement and the Restrictive Covenants Agreement (as defined in the Letter Agreement), the Consultant retains the right to contract with other companies or entities for the Consultant's consulting services.

8. Other Agreements; Warranty.

a. The Consultant hereby represents that, except as the Consultant has disclosed in writing to the Company, the Consultant is not bound by the terms of any agreement with any third party to refrain from using or disclosing any trade secret or confidential or proprietary information in the course of Consultant's consultancy with the Company, to refrain from competing, directly or indirectly, with the business of such third party or to refrain from soliciting employees, customers or suppliers of such third party. The Consultant further represents that Consultant's performance of all the terms of this Agreement and the performance of the services as a consultant of the Company do not and will not breach any agreement with any third party to which the Consultant is a party (including, without limitation, any nondisclosure or non-competition agreement), and that the Consultant will not disclose to the Company or induce the Company to use any confidential or proprietary information or material belonging to any current or previous employer or others.

b. The Consultant hereby represents, warrants and covenants that Consultant has the skills and experience necessary to perform the services, that Consultant will perform said services in a professional, competent and timely manner, that Consultant has the power to enter into this Agreement and that Consultant's performance hereunder will not infringe upon or violate the rights of any third party or violate any federal, state or municipal laws.

9. Independent Contractor Status.

a. The Consultant shall perform all services under this Agreement as an "independent contractor" and not as an employee or agent of the Company. The Consultant is not authorized to assume or create any obligation or responsibility, express or implied, on behalf of, or in the name of, the Company or to bind the Company in any manner. Nothing herein shall create, expressly or by implication, a partnership, joint venture or other association between the parties.

b. The Consultant shall have the right to control and determine the time, place, methods, manner and means of performing the services. In performing the services, the amount of time devoted by the Consultant on any given day will be entirely within the Consultant's control, and the Company will rely on the Consultant to put in the amount of time necessary to fulfill the requirements of this Agreement. The Consultant will provide all equipment and supplies required to perform the services. The Consultant is not required to attend regular meetings at the Company. However, upon reasonable notice, the Consultant shall meet with representatives of the Company at a location to be designated by the parties to this Agreement.

c. In the performance of the services, the Consultant has the authority to control and direct the performance of the details of the services, the Company being interested only in the results obtained. However, the services contemplated by the Agreement must meet the Company's standards and approval and shall be subject to the Company's general right of inspection and supervision to secure their satisfactory completion.

d. The Consultant shall not use the Company's trade names, trademarks, service names or service marks without the prior approval of the Company.

e. The Consultant shall be solely responsible for all state and federal income taxes, unemployment insurance and social security taxes in connection with this Agreement and for maintaining adequate workers' compensation insurance coverage.

10. Remedies. The Consultant acknowledges that any breach of the provisions of Section 6 of this Agreement shall result in serious and irreparable injury to the Company for which the Company cannot be adequately compensated by monetary damages alone. The Consultant agrees, therefore, that, in addition to any other remedy the Company may have, the Company shall be entitled to enforce the specific performance of this Agreement by the Consultant and to seek both temporary and permanent injunctive relief (to the extent permitted by law) without the necessity of proving actual damages or posting a bond.

11. Indemnification. The Consultant shall be solely liable for, and shall indemnify, defend and hold harmless the Company and its successors and assigns from any claims, suits, judgments or causes of action initiated by any third party against the Company where such actions result from or arise out of the services performed by the Consultant under this Agreement. The Consultant shall further be solely liable for, and shall indemnify, defend and hold harmless the Company and its successors and assigns from and against any claim or liability of any kind (including penalties, fees or charges) resulting from the Consultant's failure to pay the taxes, penalties, and payments referenced in Section 9 of this Agreement. The Consultant shall further indemnify, defend and hold harmless the Company and its successors and assigns from and against any and all loss or damage resulting from any misrepresentation, or any non-fulfillment of any representation, responsibility, covenant or agreement on Consultants part, as well as any and all acts, suits, proceedings, demands, assessments, penalties, judgments of or against the Company relating to or arising out of the activities of the Consultant and the Consultant shall pay reasonable attorneys' fees, costs and expenses incident thereto.

12. Notices. All notices required or permitted under this Agreement shall be in writing and shall be deemed effective upon personal delivery or upon deposit in the United States Post Office, by registered or certified mail, postage prepaid, addressed to the other party at the address shown above, or at such other address or addresses as either party shall designate to the other in accordance with this Section 12.I

13. Pronouns. Whenever the context may require, any pronouns used in this Agreement shall include the corresponding masculine, feminine or neuter forms, and the singular forms of nouns and pronouns shall include the plural, and vice versa.

14. Entire Agreement. This Agreement constitutes the entire agreement between the parties and supersedes all prior agreements and understandings, whether written or oral, relating to the subject matter of this Agreement; provided, however, for the avoidance of doubt, that nothing herein supersedes the Letter Agreement or the Restrictive Covenants Agreement into which the Consultant entered in connection with his prior employment by the Company, which remains in full force and effect.

15. Amendment. This Agreement may be amended or modified only by a written instrument executed by both the Company and the Consultant.

16. Non-Assignability of Contract. This Agreement is personal to the Consultant and the Consultant shall not have the right to assign any of Consultant's rights or delegate any of Consultant's duties without the express written consent of the Company. Any non-consented-to assignment or delegation, whether express or implied or by operation of law, shall be void and shall constitute a breach and a default by the Consultant.

17. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the Commonwealth of Massachusetts without giving effect to any choice or conflict of law provision or rule that would cause the application of laws of any other jurisdiction.

18. Successors and Assigns. This Agreement shall be binding upon, and inure to the benefit of, both parties and their respective successors and assigns, including any corporation with which, or into which, the Company may be merged or which may succeed to its assets or business, provided, however, that the obligations of the Consultant are personal and shall not be assigned by Consultant.

19. Interpretation. If any restriction set forth in Section 6 is found by any court of competent jurisdiction to be unenforceable because it extends for too long a period of time or over too great a range of activities or in too broad a geographic area, it shall be interpreted to extend only over the maximum period of time, range of activities or geographic area as to which it may be enforceable.

20. Survival. Sections 4 through 20 shall survive the expiration or termination of this Agreement.

21. Miscellaneous.

a. No delay or omission by the Company in exercising any right under this Agreement shall operate as a waiver of that or any other right. A waiver or consent given by the Company on any one occasion shall be effective only in that instance and shall not be construed as a bar or waiver of any right on any other occasion.

b. The captions of the sections of this Agreement are for convenience of reference only and in no way define, limit, or affect the scope or substance of any section of this Agreement.

c. In the event that any provision of this Agreement shall be invalid, illegal or otherwise unenforceable, the validity, legality and enforceability of the remaining provisions shall in no way be affected or impaired thereby.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties hereto have executed this Consulting Agreement as of the date and year first above written.

Xilio Therapeutics, Inc.

By: /s/ Rene Russo
Name: Rene Russo
Title: CEO

CONSULTANT:

/s/ Joseph L. Farmer
Joseph L. Farmer

SCHEDULE A

DESCRIPTION OF SERVICES

The Consultant shall, from time to time, and upon the Company's request, provide the Company with consulting and advisory services related to the Company's finances. It is anticipated that the Consultant shall perform such services for the Company no more than 5 hours per week.

Exhibit 10.18

EXECUTION VERSION

SERVICE AGREEMENT

THIS SERVICE AGREEMENT (this "Agreement"), made this 11th day of June, 2020, is entered into by Xilio Therapeutics Inc., a Delaware corporation (the "Company"), and Daniel S. Lynch (the "Director").

INTRODUCTION

The Company and the Director desire to establish the terms and conditions under which the Director will serve as the Chairman of the boards of directors of the Company Entities (as defined below).

It is anticipated that on or about June 30, 2020, the Company and its parent company, Xilio Therapeutics LLC (the "LLC Parent"), will undergo a restructuring pursuant to which a wholly owned subsidiary of a corporation newly formed under the laws of Delaware (such newly formed corporation, the "Ultimate Corporate Parent") will be merged with and into the LLC Parent, with the LLC Parent becoming a wholly owned subsidiary of the Ultimate Corporate Parent and the current equityholders of the LLC Parent receiving in such transaction shares of capital stock of the Ultimate Corporate Parent (the "Restructuring").

In consideration of the mutual covenants and promises contained herein and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged by the parties hereto, the parties agree as follows:

1. Services. The Director agrees to serve as Chairman of the Boards (as defined below) and to provide related advisory and oversight services to and for the Company as may be reasonably requested from time to time by the Boards, the Company, the LLC Parent and, following the effectiveness of the Restructuring, the Ultimate Corporate Parent relating to their ongoing operations and strategic matters. Such services shall be performed at such times and places as shall be mutually agreed to by the Company and the Director. The Company agrees to cause the Director (a) to be elected, promptly after the execution and delivery of this Agreement, to (i) the Board of Directors (as defined in the Fourth Amended and Restated Limited Liability Company Agreement of the LLC Parent, dated as of December 12, 2019, as amended to date) of the LLC Parent (the "LLC Parent Board"), (ii) the Board of Directors of the Company (the "Company Board"), (iii) upon the effectiveness of the Restructuring, the Board of Directors of the Ultimate Corporate Parent (the "Ultimate Corporate Parent Board", and together with the LLC Parent Board and the Company Board, the "Boards") and (iv) the Compensation Committee of whichever of the LLC Parent Board, the Company Board or the Ultimate Corporate Parent Board that, from time to time, has a committee that principally makes compensation decisions with respect to the Company Entities (such committee, the "Compensation Committee") and (b) to be appointed as Chairman of the LLC Parent Board, Chairman of the Company Board, Chairman of the Compensation Committee and, upon the effectiveness of the Restructuring, Chairman of the Ultimate Corporate Parent Board, and the Director agrees to serve in such capacities. The Director shall serve as Chairman of the LLC Parent Board, the Company Board and, from and after the effectiveness of the Restructuring, the Ultimate Corporate Parent Board, in each case until his resignation, retirement or removal as Chairman of the applicable Board in accordance with the bylaws or organizational documents that are then applicable to such entity.

2. Term. This Agreement shall commence on the date hereof and shall continue until terminated in accordance with the provisions of Section 4 (the "Service Period").

3. Compensation.

3.1 Director Fees. During the Service Period, the Company shall pay to the Director fees for his service as a director of $20,833.33 per month ($250,000 on an annual basis (the "Cash Compensation")), payable in arrears on the last day of each month. Payment for any partial month during the Service Period shall be prorated. The Company and the Director acknowledge and agree that the Cash Compensation shall be for the Director's service as a director.

3.2 Equity Compensation.

(a) Initial Equity Grant. As soon as practicable after the effectiveness of the Restructuring, the Ultimate Corporate Parent shall grant the Director a stock option (the "Initial Option") for the purchase of 1,280,572 shares of common stock of the Ultimate Corporate Parent (the "Initial Shares") at a purchase price per share equal to the fair market value per share of common stock of the Ultimate Corporate Parent on the date of grant as determined by the Ultimate Corporate Parent Board based on the results of a Section 409A valuation. The Company hereby represents and warrants that the Initial Shares will represent a one and one half percent (1.5%) ownership interest in the Ultimate Corporate Parent as of the date of grant (based on the number of shares of common stock of the Ultimate Corporate Parent then outstanding, assuming the issuance of all shares of capital stock reserved for future issuance under any stock incentive plan of the Ultimate Corporate Parent, the exercise of all outstanding options, warrants and other rights to purchase capital stock of the Ultimate Corporate Parent and the conversion of all securities convertible, directly or indirectly, into common stock of the Ultimate Corporate Parent (the method of such calculation, a "Fully Diluted Basis")). Subject to the acceleration provisions set forth in Sections 3.2(c) and 3.5, the Initial Option will vest, starting on the date hereof (the "Vesting Commencement Date"), at the rate of 1/48th of the Initial Shares for each consecutive month that the Director continues to provide services to the Ultimate Corporate Parent or any of its parent companies or subsidiaries, including the LLC Parent and the Company (collectively, the "Company Entities"), from and after the Vesting Commencement Date until the date that is four (4) full years after the Vesting Commencement Date, at which time, subject to the Director's continued service, the Initial Option will be fully vested.

(b) Additional Equity Grants. In addition, for so long as the Director continues to provide services to any Company Entity, the Ultimate Corporate Parent shall grant the Director one or more additional stock options (the "Additional Options") for the purchase of additional shares of common stock of the Ultimate Corporate Parent (the "Additional Shares") on the terms and subject to the conditions set forth in this Section 3.2(b). The Ultimate Corporate Parent shall grant the Director an Additional Option in connection with each issuance by the Ultimate Corporate Parent of any of its equity securities that causes the Initial Shares and any Additional Shares subject to outstanding Additional Options or issued to the Director pursuant to the exercise of Additional Options collectively to represent, immediately following such issuance, less than a one and one half percent (1.5%) overall ownership position in the Ultimate Corporate Parent, calculated on a Fully Diluted Basis (each, a "Dilutive Issuance"). The number of Additional Shares purchasable pursuant to the Additional Option to be issued in connection with each Dilutive Issuance shall equal the number of whole shares of common stock of the Ultimate Corporate Parent necessary for the Director to maintain a one and one half percent (1.5%) overall ownership position in the Ultimate Corporate Parent after such Dilutive Issuance and the grant of such Additional Option (calculated on a Fully Diluted Basis). The per share exercise price of each Additional Option will be equal to the fair market value of one share of common stock of the Ultimate Corporate Parent at the time of the grant of such Additional Option. An Additional Option will be issued concurrently with or as soon as reasonably practicable after each Dilutive Issuance. Subject to the acceleration provisions set forth in Sections 3.2(c) and 3.5 hereof, each Additional Option will vest over four (4) years, calculated using the Vesting Commencement Date as the start date of such vesting, at the rate of 1/48th of the applicable Additional Shares for each consecutive month that the Director continues to provide services to any Company Entity until the date that is four (4) full years after the Vesting Commencement Date, at which time, subject to the Director's continued service, such Additional Option will be fully vested. The obligation of the Ultimate Corporate Parent to grant Additional Options pursuant to this Section 3.2(b) shall terminate immediately prior to the initial underwritten public offering of the Ultimate Corporate Parent's common stock pursuant to a registration statement under the Securities Act of 1933, as amended (an "IPO").

(c) Acceleration. Notwithstanding the vesting schedules of the Initial Option and any Additional Options, upon an Acceleration Event (as defined below), the vesting schedule of the Initial Option and any Additional Options shall be accelerated in full and the Initial Option and any Additional Options shall be immediately exercisable with respect to the full number of Initial Shares and Additional Shares, respectively. An "Acceleration Event" means, regardless of form thereof, consummation of (a) the sale of all or substantially all of the assets of the Company Entities on a consolidated basis to an unrelated person or entity, (b) a merger, reorganization or consolidation in which the outstanding shares of capital stock of the Ultimate Corporate Parent are converted into or exchanged for securities of the successor entity and the holders of the Ultimate Corporate Parent's outstanding voting power immediately prior to such transaction do not own, in substantially the same proportions, a majority of the outstanding voting power of the successor entity immediately upon completion of such transaction, (c) the sale of all or a majority of the outstanding capital stock of the Ultimate Corporate Parent in a single transaction or series of related transactions to an unrelated person or entity, (d) any other transaction in which the owners of the Ultimate Corporate Parent's outstanding voting power immediately prior to such transaction do not own, in substantially the same proportions, a majority of the outstanding voting power of the successor entity immediately upon completion of the transaction (the events described in clauses (a) through (d), a "Sale") or (e) an IPO in connection with which (i) the Director ceases to serve as the Chairman of the Ultimate Corporate Parent Board (or, in the event that the Restructuring has not been completed, of the LLC Parent Board or its successor entity) and (ii) the Ultimate Corporate Parent (or the LLC Parent or its successor entity) does not offer to engage the Director as an advisor through the date that is four (4) full years after the Vesting Commencement Date on fair and reasonable terms and in a manner that, if Director were to accept such offer, would result in the Initial Option and any Additional Options continuing to vest following the Director ceasing to serve as Chairman.

(d) No Restructuring. In the event that the Restructuring has not been effected prior to July 15, 2020, on such date the LLC Parent shall issue a profits interest to the Director that reflects, *mutatis mutandis*, the terms of the Initial Option set forth in Section 3.2(a). Further, in the event that the Restructuring has not been effected prior to July 15, 2020, then, following the issuance of the profits interest that reflects the terms of the Initial Option and for so long as the Restructuring has not become effective, in connection with each issuance by the LLC Parent of any of its equity securities that would, if such issuance were instead issued by the Ultimate Corporate Parent after the Restructuring, constitute a Dilutive Issuance, the LLC Parent shall issue a profits interest to the Director that reflects, *mutatis mutandis*, the terms of the Additional Option that would have been issued in connection with such issuance, as set forth in Section 3.2(b). The acceleration provisions set forth in Sections 3.2(c) and 3.5 hereof shall apply to each profits interest, if any, issued in accordance with this Section 3.2(d).

3.3 Reimbursement of Expenses. The Company shall reimburse the Director for all reasonable, documented, out-of-pocket expenses incurred or paid by the Director in connection with, or related to, the performance of his duties, responsibilities or services under this Agreement, including a pro rata portion of Director's out-of-pocket administrative support expenses and other general business expenses incurred or paid by the Director generally in connection with his chairman or senior executive positions with the Company Entities and other companies (determined on the basis of the total number of chairman or senior executive positions from time to time held by the Director). The Director shall submit to the Company documentation, expense statements and other supporting evidence as the Company may reasonably request from the Director and an itemized monthly statement of such expenses incurred in the previous month. The Company shall pay to the Director amounts shown on each such statement within thirty (30) days after receipt thereof. Without limiting the foregoing, the Company shall pay the reasonable and documented fees and expenses of The Moulton Law Group, PLLC, counsel for the Director, incurred in connection with the engagement of the Director by the Company and the related equity grants to the Director contemplated herein, not to exceed $7,500.

3.4 Benefits. The Director shall not be entitled to any benefits, coverages or privileges, including, without limitation, social security, unemployment, medical or pension payments, made available to employees of the Company.

3.5 Termination Payment and Vesting Acceleration.

(a) In the event the Director ceases to serve as Chairman of the LLC Parent Board, the Company Board and, if applicable, the Ultimate Corporate Parent Board, then (i) the Director shall be entitled to Cash Compensation that would have been payable to the Director pursuant to Section 3.1 during the Post Termination Period (but only to the extent not already paid) (the "Termination Payment"), which amount shall be paid in a lump sum within fifteen (15) days following the Effective Date, and (ii) the Initial Option and the Additional Option, if any, that would have vested during the Post Termination Period if the Director has not ceased serving as Chairman of the LLC Parent Board, the Company Board and, if applicable, the Ultimate Corporate Parent Board shall vest and become exercisable (the "Termination Accelerated Vesting").

(b) For purposes of this Agreement, "Post Termination Period" shall mean a period immediately following the date that the Director ceases to serve as Chairman of the LLC Parent Board, the Company Board and, if applicable, the Ultimate Corporate Parent Board of twelve (12) successive months.

4. Termination. This Agreement shall automatically terminate upon the date that the Director ceases to serve as Chairman of the LLC Parent Board, the Company Board and, if applicable, the Ultimate Corporate Parent Board. In the event of the termination of this Agreement, the Director shall be entitled to (a) (i) payment of his Cash Compensation accrued through the effective date of such termination, (ii) payment for expenses paid or incurred prior to the effective date of termination and (iii) payment of the Termination Payment, and (b) the Termination Accelerated Vesting.

5. Cooperation. The Director shall use his best efforts in the performance of his obligations under this Agreement. The Company shall provide such access to its information and property as may be reasonably required in order to permit the Director to perform his obligations hereunder. The Director shall cooperate with the Company's personnel and shall observe all rules, regulations and security requirements of the Company concerning the safety of persons and property.

6. Proprietary Information and Inventions.

6.1 Proprietary Information.

(a) The Director acknowledges that his relationship with the Company is one of high trust and confidence and that in the course of his service to the Company he will have access to and contact with Proprietary Information. The Director will not disclose any Proprietary Information to any person or entity other than employees of the Company or use the same for any purposes (other than in the performance of his duties as director of the Company Entities) without written approval by an officer of the Company, either during or after the Service Period, unless and until such Proprietary Information has become public knowledge without fault by the Director.

(b) For purposes of this Agreement, "Proprietary Information" shall mean, by way of illustration and not limitation, all information, whether or not in writing, whether or not patentable and whether or not copyrightable, of a private, secret or confidential nature, owned, possessed or used by the Company Entities, concerning the Company Entities' business, business relationships or financial affairs, including, without limitation, any Invention (as defined below), formula, vendor information, customer information, apparatus, equipment, trade secret, process, research, report, technical or research data, clinical data, know-how, computer program, software, software documentation, hardware design, technology, product, processes, methods, techniques, formulas, compounds, projects, developments, marketing or business plan, forecast, unpublished financial statement, budget, license, price, cost, customer, supplier or personnel information or employee list that is communicated to, learned of, developed or otherwise acquired by the Director in the course of performing his service to the Company.

(c) The Director's obligations under this Section 6.1 shall not apply to any information that (i) is or becomes known to the general public under circumstances involving no breach by the Director of the terms of this Section 6.1, (ii) is generally disclosed to third parties by the Company without restriction on such third parties, or (iii) is approved for release by written authorization of an officer of the Company.

(d) The Director agrees that all files, documents, letters, memoranda, reports, records, data sketches, drawings, models, laboratory notebooks, program listings, computer equipment or devices, computer programs or other written, photographic, or other tangible material containing Proprietary Information, whether created by the Director or others, which shall come into his custody or possession, shall be and are the exclusive property of the Company to be used by the Director only in the performance of his service to the Company and shall not be copied or removed from the Company premises except in the pursuit of the business of the Company. All such materials or copies thereof and all tangible property of the Company in the custody or possession of the Director shall promptly be delivered to the Company, upon the earlier of (i) a request by the Company or (ii) the termination of this Agreement. After such delivery, the Director shall not retain any such materials or copies thereof or any such tangible property.

(e) The Director agrees that his obligation not to disclose or to use information and materials of the types set forth in paragraphs (b) and (d) above, and his obligation to return materials and tangible property set forth in paragraph (d) above extends to such types of information, materials and tangible property of customers of the Company or suppliers to the Company or other third parties who may have disclosed or entrusted the same to the Company or to the Director.

(f) The Director acknowledges that any of the Company Entities from time to time may have agreements with other persons or with the United States Government, or agencies thereof, that impose obligations or restrictions on such party regarding inventions made during the course of work under such agreements or regarding the confidential nature of such work. The Director agrees to be bound by all such obligations and restrictions that are known to him and to take all action necessary to discharge the obligations of the Company Entities under such agreements.

6.2 Inventions.

(a) All inventions, creations, discoveries, computer programs, data, developments, technology, designs, innovations and improvements (whether or not patentable and whether or not copyrightable) which are made, conceived, reduced to practice, created, written, designed or developed by the Director, solely or jointly with others or under his direction and whether during normal business hours or otherwise, (i) during the Service Period if made, conceived, reduced to practice, created, written, designed or developed in the course of Director's performance of duties pursuant to this Agreement or (ii) during or after the Service Period if resulting or directly derived from Proprietary Information (collectively under clauses (i) and (ii), "Inventions"), shall be the sole property of the Company. The Director hereby assigns and transfers and, to the extent any such assignment cannot be made at present, will assign and transfer, to the Company all Inventions and any and all related patents, copyrights, trademarks, trade names, and other industrial and intellectual property rights and applications therefor, in the United States and elsewhere and appoints any officer of the Company as his duly authorized attorney to execute, file, prosecute and protect the same before any government agency, court or authority.

(b) Upon the request of the Company and at the Company's expense, the Director shall execute such further assignments, documents and other instruments as may be necessary or desirable to fully and completely assign all Inventions to the Company and to assist the Company in applying for, obtaining and enforcing patents or copyrights or other rights in the United States and in any foreign country with respect to any Invention. The Director also hereby waives all claims to moral rights in any Inventions.

(c) The Director shall promptly disclose to the Company all Inventions and will maintain adequate and current written records (in the form of notes, sketches, drawings and as may be specified by the Company) to document the conception and/or first actual reduction to practice of any Invention. Such written records shall be available to and remain the sole property of the Company at all times.

6.3 Remedies. The Director acknowledges that any breach of the provisions of this Section 6 shall result in serious and irreparable injury to the Company Entities for which such parties cannot be adequately compensated by monetary damages alone. The Director agrees, therefore, that, in addition to any other remedy it may have, each Company Entity shall be entitled to enforce the specific performance of this Section 6 by the Director and to seek both temporary and permanent injunctive relief (to the extent permitted by law) without the necessity of proving actual damages.

7. Independent Contractor Status. The Director shall perform all services under this Agreement as an "independent contractor" and not as an employee or agent of the Company.

8. Notices. All notices required or permitted under this Agreement shall be in writing and shall be deemed effective upon personal delivery or three days after deposit in the United States Post Office, by registered or certified mail (return receipt requested), postage prepaid, addressed to the other party at the address shown above, or at such other address or addresses as either party shall designate to the other in accordance with this Section 8.

9. Pronouns. Whenever the context may require, any pronouns used in this Agreement shall include the corresponding masculine, feminine or neuter forms, and the singular forms of nouns and pronouns shall include the plural, and vice versa.

10. Entire Agreement. This Agreement constitutes the entire agreement between the parties and supersedes all prior agreements and understandings, whether written or oral, relating to the subject matter of this Agreement.

11. Third-Party Beneficiary. Each of the LLC Parent and, following the effectiveness of the Restructuring, the Ultimate Corporate Parent shall be an express third-party beneficiary of this Agreement.

12. Amendment. This Agreement may be amended or modified only by a written instrument executed by both the Company and the Director.

13. Governing Law. This Agreement shall be construed, interpreted and enforced in accordance with the laws of the Commonwealth of Massachusetts.

14. Successors and Assigns. This Agreement shall be binding upon, and inure to the benefit of, both parties and their respective successors and assigns, including any corporation with which, or into which, the Company may be merged or which may succeed to its assets or business, provided, however, that the obligations of the Director are personal and shall not be assigned by him.

15. Survival. Section 3.5 and Sections 4 through 16 shall survive the expiration or termination of this Agreement.

16. Miscellaneous.

16.1 No delay or omission by the Company in exercising any right under this Agreement shall operate as a waiver of that or any other right. A waiver or consent given by the Company on any one occasion shall be effective only in that instance and shall not be construed as a bar or waiver of any right on any other occasion.

16.2 The captions of the sections of this Agreement are for convenience of reference only and in no way define, limit or affect the scope or substance of any section of this Agreement.

16.3 In the event that any provision of this Agreement shall be invalid, illegal or otherwise unenforceable, the validity, legality and enforceability of the remaining provisions shall in no way be affected or impaired thereby.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year set forth above.

XILIO THERAPEUTICS INC.

By: /s/ Rene Russo
Name: Rene Russo
Title: CEO

DIRECTOR

/s/ Daniel S. Lynch
Daniel S. Lynch

[SIGNATURE PAGE TO SERVICE AGREEMENT]

Exhibit 21.1

Subsidiaries of the Registrant

Entity	Jurisdiction of Incorporation
Xilio Securities Corporation	Massachusetts
Xilio Therapeutics LLC	Delaware
Xilio Concerto LLC	Delaware
Xilio Development, Inc.	Delaware