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**SECURITIES AND EXCHANGE COMMISSION**  
WASHINGTON, DC 20549

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**SCHEDULE 13D**

Under the Securities Exchange Act of 1934

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**XILIO THERAPEUTICS, INC.**  
(Name of Issuer)

**Common Stock, par value \$0.0001 per share**  
(Title of Class of Securities)

**98422T100**  
(CUSIP Number)

**Nancy A. Hong, Ph.D**  
**101 S. Hanley Road, Suite 1850**  
**St. Louis, MO 63105**  
**(314) 726-6700**

**With copy to:**

**Gloria M. Skigen, Esq.**  
**Holland & Knight LLP**  
**One Stamford Plaza, 263 Tresser Boulevard, Suite 1400**  
**Stamford, CT 06901**  
**(203) 905-4526**

(Name, Address and Telephone Number of Person Authorized to Receive Notices and Communications)

**October 26, 2021**  
(Date of Event which Requires Filing of this Statement)

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If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box:

\* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

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1	NAME OF REPORTING PERSON I.R.S. IDENTIFICATION NO. (ENTITIES ONLY)	
	RiverVest Venture Fund IV, L.P.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS  WC	
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e)  <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION  Delaware, USA	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER  0
	8	SHARED VOTING POWER  1,441,444
	9	SOLE DISPOSITIVE POWER  0
	10	SHARED DISPOSITIVE POWER  1,441,444
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  1,441,444	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES  <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  5.4%(1)	
14	TYPE OF REPORTING PERSON  PN	

- (1) The percentage set forth in row (13) is based on the 26,666,008 outstanding shares of common stock, par value \$0.0001 per share (“Common Stock”), of Xilio Therapeutics, Inc., a Delaware corporation (the “Issuer”), reported by the Issuer to be outstanding immediately after the Issuer’s initial public offering on the Issuer’s prospectus filed under Rule 424(b)(4), filed with the Securities and Exchange Commission (“SEC”) on October 22, 2021.

1	NAME OF REPORTING PERSON I.R.S. IDENTIFICATION NO. (ENTITIES ONLY)	
	RiverVest Venture Partners IV, L.P.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS  AF	
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e)  <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION  Delaware, USA	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER  0
	8	SHARED VOTING POWER  1,441,444(2)
	9	SOLE DISPOSITIVE POWER  0
	10	SHARED DISPOSITIVE POWER  1,441,444(2)
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  1,441,444(2)	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES  <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  5.4%(1)	
14	TYPE OF REPORTING PERSON  PN	

- (2) Represents 1,441,444 shares of Common Stock owned by RiverVest Venture Fund IV, L.P., a Delaware limited partnership ("RiverVest IV"). RiverVest Venture Partners IV, L.P., a Delaware limited partnership ("RiverVest Partners IV"), is the general partner of RiverVest IV.

1	NAME OF REPORTING PERSON I.R.S. IDENTIFICATION NO. (ENTITIES ONLY)	
	RiverVest Venture Partners IV, LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS  AF	
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e)  <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION  Delaware, USA	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER  0
	8	SHARED VOTING POWER  1,441,444(3)
	9	SOLE DISPOSITIVE POWER  0
	10	SHARED DISPOSITIVE POWER  1,441,444(3)
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  1,441,444(3)	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES  <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  5.4%(1)	
14	TYPE OF REPORTING PERSON  OO	

- (3) Represents 1,441,444 shares of Common Stock owned by RiverVest IV. RiverVest Venture Partners IV, LLC, a Delaware limited liability company, is the general partner of RiverVest Partners IV, which is the general partner of RiverVest IV.

1	NAME OF REPORTING PERSON I.R.S. IDENTIFICATION NO. (ENTITIES ONLY)	
	Niall O'Donnell, Ph.D.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS  AF	
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e)  <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION  USA	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER  0
	8	SHARED VOTING POWER  1,441,444(4)
	9	SOLE DISPOSITIVE POWER  0
	10	SHARED DISPOSITIVE POWER  1,441,444(4)
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  1,441,444(4)	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES  <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  5.4%(1)	
14	TYPE OF REPORTING PERSON  IN	

(4) Represents 1,441,444 shares of Common Stock owned by RiverVest IV. Dr. O'Donnell is a member of RiverVest Venture Partners IV, LLC, which is the general partner of RiverVest Partners IV, which is the general partner of RiverVest IV.

1	NAME OF REPORTING PERSON I.R.S. IDENTIFICATION NO. (ENTITIES ONLY)	
	John P. McKearn, Ph.D	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS  AF	
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e)  <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION  USA	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER  0
	8	SHARED VOTING POWER  1,441,444(5)
	9	SOLE DISPOSITIVE POWER  0
	10	SHARED DISPOSITIVE POWER  1,441,444(5)
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  1,441,444(5)	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES  <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  5.4%(1)	
14	TYPE OF REPORTING PERSON  IN	

(5) Represents 1,441,444 shares of Common Stock owned by RiverVest IV. Dr. McKearn is a member of RiverVest Venture Partners IV, LLC, which is the general partner of RiverVest Partners IV, which is the general partner of RiverVest IV.

1	NAME OF REPORTING PERSON I.R.S. IDENTIFICATION NO. (ENTITIES ONLY)	
	Jay Schmelter	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS  AF	
5	CHECK IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) OR 2(e)  <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION  USA	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER  0
	8	SHARED VOTING POWER  1,441,444(6)
	9	SOLE DISPOSITIVE POWER  0
	10	SHARED DISPOSITIVE POWER  1,441,444(6)
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  1,441,444(6)	
12	CHECK IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES  <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11)  5.4%(1)	
14	TYPE OF REPORTING PERSON  IN	

(6) Represents 1,441,444 shares of Common Stock owned by RiverVest IV. Mr. Schmelter is a member of RiverVest Venture Partners IV, LLC, which is the general partner of RiverVest Partners IV, which is the general partner of RiverVest IV.

**Item 1. Security and Issuer.**

The title and class of securities to which this Statement on Schedule 13D (this "Statement") relates is the common stock, par value \$0.0001 per share (the "Common Stock"), of Xilio Therapeutics, Inc., a Delaware corporation (the "Issuer"). The address of the principal executive offices of the Issuer is 828 Winter Street, Suite 300, Waltham, Massachusetts 02451. Information given in response to each item shall be deemed incorporated by reference in all other items as applicable.

**Item 2. Identity and Background.**

- (a) Name of Person Filing (each a "Reporting Person" and collectively, the "Reporting Persons")

RiverVest Venture Fund IV, L.P., a Delaware limited partnership  
RiverVest Venture Partners IV, L.P., a Delaware limited partnership  
RiverVest Venture Partners IV, LLC, a Delaware limited liability company  
Niall O'Donnell, Ph.D  
John P. McKearn, Ph.D  
Jay Schmelter

RiverVest IV is referred to herein as the "Control Entity." Each of RiverVest Partners IV and RiverVest Venture Partners IV, LLC are referred to herein as the "Managing Entities." Messrs. O'Donnell, McKearn and Schmelter are referred to herein as the "Managers."

- (b) Residence or Business Address

101 S. Hanley Road, Suite 1850, St. Louis, MO 63105.

- (c) Present Principal Occupation or Employment

The principal business of the Control Entity is making venture capital investments. The principal business of each of the Managing Entities is acting as the general partner or member (directly or indirectly) of the Control Entity. The principal business of the Manager is managing the Managing Entities and a number of affiliated partnerships and other entities with similar businesses.

- (d) During the last five years, none of the Reporting Persons has been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).

- (e) During the last five years, none of the Reporting Persons has been named as a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

- (f) Each of the Reporting Persons who is a natural person is a citizen of the United States of America.

**Item 3. Source and Amount of Funds or Other Consideration.**

Prior to the Issuer's initial public offering (the "IPO") the Reporting Persons held the following securities of the Issuer:

RiverVest IV purchased an aggregate of 3,942,569 Series B preferred units (which converted into shares of Series B preferred stock of the issuer on a 1-to-1 basis upon the reorganization of the Issuer from a limited liability company to a corporation), 3,952,569 shares of Series B preferred stock of the Issuer (together with the Series B preferred units of the Issuer, the "Series B Preferred Stock") and an aggregate of 3,413,582 shares of Series C preferred stock of the Issuer ("Series C Preferred Stock") in a series of private placement transactions for an aggregate purchase price of \$14,749,999.92.



On October 15, 2021, the Issuer effected a 9.5-for-1 reverse stock split for each share of issued and outstanding Common Stock. On October 26, 2021, the Issuer completed the closing IPO. All shares of Series B Preferred Stock and Series C Preferred Stock issued and outstanding converted on a 1-for-9.5 basis into shares of Common Stock in connection with the IPO. In addition, concurrently with the closing of the IPO, RiverVest IV purchased an aggregate of 250,000 shares of Common Stock in the IPO at the IPO price of \$16.00 per share.

The purchase price paid by the Control Entities for all of the shares described in this Item 3 came from the capital contributions of their general and limited partners.

**Item 4. Purpose of the Transaction.**

The Reporting Persons purchased the shares of Series B Preferred Stock and Series C Preferred Stock described above for investment purposes. Except as set forth in Item 6 below, none of the Reporting Persons has any present plans which relate to or would result in:

- (a) The acquisition by any person of additional securities of the Issuer, or the disposition of securities of the Issuer;
- (b) An extraordinary corporate transaction, such as a merger, reorganization or liquidation, involving the Issuer or any of its subsidiaries;
- (c) A sale or transfer of a material amount of assets of the Issuer or any of its subsidiaries;
- (d) Any change in the present board of directors or management of the Issuer, including any plans or proposals to change the number or term of directors or to fill any existing vacancies on the board;
- (e) Any material change in the present capitalization or dividend policy of the Issuer;
- (f) Any other material change in the Issuer's business or corporate structure;
- (g) Changes in the Issuer's charter, bylaws or instruments corresponding thereto or other actions which may impede the acquisition of control of the Issuer by any person;
- (h) Causing a class of securities of the Issuer to be delisted from a national securities exchange or to cease to be authorized to be quoted in an inter-dealer quotation system of a registered national securities association;
- (i) A class of equity securities of the Issuer becoming eligible for termination of registration pursuant to Section 12(g)(4) of the Securities Exchange Act of 1934, as amended (the "Act"); or
- (j) Any action similar to any of those enumerated above.

However, each of the Reporting Persons reserve the right to propose or participate in future transactions which may result in one or more of such actions, including but not limited to, an extraordinary corporate transaction, such as a merger, reorganization or liquidation, sale of a material amount of assets of the Issuer or its subsidiaries, or other transactions which might have the effect of causing the Common Stock to become eligible for termination of registration under Section 12(g) of the Act. The Reporting Persons also retain the right to change their investment intent at any time, to acquire additional shares of Common Stock or other securities of the Issuer from time to time, or to sell or otherwise dispose of all or part of the Common Stock beneficially owned by them (or any shares of Common Stock into which such securities are converted) in any manner permitted by law. The Reporting Persons may engage from time to time in ordinary course transactions with financial institutions with respect to the securities described herein.

#### Item 5. Interest in Securities of the Issuer.

(a) and (b)

<u>Entity or Individual</u>	<u>Shares Held Directly</u>	<u>Sole Voting Power</u>	<u>Shared Voting Power</u>	<u>Sole Dispositive Power</u>	<u>Shared Dispositive Power</u>	<u>Beneficial Ownership</u>	<u>Percentage of Class(*)</u>
RiverVest Venture Fund IV, L.P.	1,441,444	0	1,441,444	0	1,441,444	1,441,444	5.4%
RiverVest Venture Partners IV, L.P.(1)	0	0	1,441,444	0	1,441,444	1,441,444	5.4%
RiverVest Venture Partners IV, LLC(2)	0	0	1,441,444	0	1,441,444	1,441,444	5.4%
Niall O'Donnell, Ph.D(3)	0	0	1,441,444	0	1,441,444	1,441,444	5.4%
John P. McKearn, Ph.D(4)	0	0	1,441,444	0	1,441,444	1,441,444	5.4%
Jay Schmelter(5)	0	0	1,441,444	0	1,441,444	1,441,444	5.4%

(\*) Based on the 26,666,008 outstanding shares of Common Stock of the Issuer, reported by the Issuer to be outstanding immediately after the IPO on the Issuer's prospectus filed under Rule 424(b)(4), filed with the SEC on October 22, 2021.

- (1) RiverVest Partners IV is the general partner of RiverVest IV, and as a result, may be deemed to beneficially own the 1,441,444 shares of Common Stock owned by RiverVest IV.
- (2) RiverVest Venture Partners IV, LLC is the sole general partner of RiverVest Partners IV, which is the general partner of RiverVest IV, and as a result, may be deemed to beneficially own the 1,441,444 shares of Common Stock owned by RiverVest IV.
- (3) Dr. O'Donnell is a member of RiverVest Venture Partners IV, LLC, which is the sole general partner of RiverVest Partners IV. RiverVest Partners IV is the general partner of RiverVest IV. As a result, Dr. O'Donnell may be deemed to beneficially own the 1,441,444 shares of Common Stock owned by RiverVest IV.
- (4) Dr. McKearn is a member of RiverVest Venture Partners IV, LLC, which is the sole general partner of RiverVest Partners IV. RiverVest Partners IV is the general partner of RiverVest IV. As a result, Dr. McKearn may be deemed to beneficially own the 1,441,444 shares of Common Stock owned by RiverVest IV.
- (5) Mr. Schmelter is a member of RiverVest Venture Partners IV, LLC, which is the sole general partner of RiverVest Partners IV. RiverVest Partners IV is the general partner of RiverVest IV. As a result, Mr. Schmelter may be deemed to beneficially own the 1,441,444 shares of Common Stock owned by RiverVest IV.

By virtue of the relationships described herein, the Reporting Persons may be deemed to constitute a "group" for purposes of Section 13(d)(3) of the Act. The filing of this Statement shall not be construed as an admission that the Reporting Persons are a group, or have agreed to act as a group. Each Reporting Person expressly disclaims beneficial ownership of the securities reported herein, except to the extent such Reporting Person actually exercises voting or dispositive power with respect to such securities.

- (c) Except as set forth herein, none of the Reporting Persons has effected any transactions in shares of the Issuer's Common Stock during the last 60 days.
- (d) No other person is known to have the right to receive or the power to direct the receipt of dividends from, or any proceeds from the sale of, the shares of Common Stock beneficially owned by any of the Reporting Persons.
- (e) Not applicable.

## **Item 6. Contracts, Arrangements, Understandings or Relationships With Respect to Securities of the Issuer.**

### **Registration Rights**

The Issuer, RiverVest IV, and certain other investors are party to that certain amended and restated registration rights agreement (the "Registration Rights Agreement") dated February 23, 2021, giving such parties the right to demand the registration of their shares of Common Stock (the "registerable securities") under the Securities Act of 1933, as amended. Beginning 180 days after the completion of the IPO, the holders of a majority of the then-outstanding registrable securities have demand rights to request the registration on Form S-1 of their registrable securities, provided the anticipated aggregate offering price is at least \$10.0 million. The Issuer is required to file up to two registration statements that are declared effective upon exercise of these demand registration rights. In addition, the holders of at least twenty-five percent (25%) then-outstanding registrable securities can request that the Issuer register all or part of their shares on Form S-3 if the Issuer is eligible to file a registration statement on Form S-3 and if the aggregate price to the public of the shares offered is at least \$3.0 million. The stockholders may only require two registration statements on Form S-3 in a 12-month period. If the Issuer registers any of its securities for public sale, holders of then-outstanding registrable securities or their permitted transferees will have the right to include their registrable securities in such registration statement, subject to certain exclusions. All of these registration rights will expire, with respect to any particular holder, upon the earliest to occur of: (a) the closing of a merger or consolidation in which the Issuer constitutes a constituent party or a subsidiary of the Issuer is a constituent party and the Issuer issues shares of its capital stock pursuant to such merger or consolidation (subject to certain exceptions), or the sale, lease, transfer, exclusive license or other disposition by the Company of all or substantially all of its assets; (b) a stockholder holds less than 1% of the Issuer's outstanding Common Stock or can sell all of its registrable securities under Rule 144A of the Securities Act during any 3-month period or (c) on the fifth anniversary of the consummation of the IPO.

This foregoing description of the Registration Rights Agreement is qualified in its entirety by reference to the Registration Rights Agreement, a copy of which is filed as Exhibit B hereto and is incorporated herein by reference.

### **Lock-up Agreement**

The Issuer, along with its directors, executive officers and substantially all of its other stockholders, including RiverVest IV, have agreed with the underwriters for the IPO that they will not, subject to limited exceptions, during the period ending 180 days following the completion of the IPO, 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 of shares of the Issuer's 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 shares of the Issuer's common stock, or make any public announcement of an intention to do any of the foregoing, or enter into any swap or any other arrangement that transfers to another, in whole or in part, any of the economic consequence of ownership of the securities.

**Item 7. Material to be Filed as Exhibits.**

- Exhibit A: [Joint Filing Agreement, dated November 5, 2021, by and among RiverVest Venture Fund IV, L.P., RiverVest Venture Partners IV, L.P., RiverVest Venture Partners IV, LLC, Niall O'Donnell, Ph.D, John McKearn, Ph.D and Jay Schmelter.](#)
- Exhibit B: [Amended and Restated Registration Rights Agreement, dated February 23, 2021 \(incorporated by reference to Exhibit 10.01 to the Issuer's Registration Statement on Form S-1 \(Registration No. 333-259973\), filed with the SEC on October 1, 2021\).](#)
- Exhibit C: [Form of Lock-up Agreement \(incorporated by reference to Exhibit A to that certain Underwriting Agreement between the Issuer and the Underwriters \(as defined therein\) filed as Exhibit 1.1 to the Issuer's Registration Statement on Form S-1/A \(Registration No. 333-259973\), filed with the Commission on October 18, 2021\).](#)

**SIGNATURES**

After reasonable inquiry and to the best of our knowledge and belief, the undersigned certify that the information set forth in this statement is true, complete and correct.

November 5, 2021

**RiverVest Venture Fund IV, L.P.**

By: RiverVest Venture Partners IV, L.P.,  
its general partner  
By: RiverVest Venture Partners IV, LLC,  
its sole general partner

By: /s/ Jay Schmelter  
Name: Jay Schmelter  
Title: Member

**RiverVest Venture Partners IV, LLC**

By: /s/ Jay Schmelter  
Name: Jay Schmelter  
Title: Member

**RiverVest Venture Partners IV, L.P.**

By: RiverVest Venture Partners IV, LLC,  
its sole general partner

By: /s/ Jay Schmelter  
Name: Jay Schmelter  
Title: Member

/s/ Niall O'Donnell, Ph.D  
Niall O'Donnell, Ph.D

/s/ John P. McKearn, Ph.D  
John P. McKearn, Ph.D

/s/ Jay Schmelter  
Jay Schmelter

JOINT FILING AGREEMENT  
PURSUANT TO RULE 13d-1(k)

In accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended, the undersigned persons agree and consent to the joint filing on their behalf of the Statement on Schedule 13D, including any amendments thereto, in connection with shares of common stock of Xilio Therapeutics, Inc., and that this agreement shall be included as an Exhibit to Schedule 13D. Each of the undersigned agrees to be responsible for the timely filing of the Schedule 13D and any amendments thereto, and for the completeness and accuracy of the information concerning itself contained in the Schedule 13D and any amendments thereto.

IN WITNESS WHEREOF, the parties have executed this Joint Filing Agreement on November 5, 2021.

**RiverVest Venture Fund IV, L.P.**

By: RiverVest Venture Partners IV, L.P.,  
its general partner

By: RiverVest Venture Partners IV, LLC,  
its sole general partner

By: /s/ Jay Schmelter

Name: Jay Schmelter

Title: Member

**RiverVest Venture Partners IV, L.P.**

By: RiverVest Venture Partners IV, LLC,  
its sole general partner

By: /s/ Jay Schmelter

Name: Jay Schmelter

Title: Member

**RiverVest Venture Partners IV, LLC**

By: /s/ Jay Schmelter

Name: Jay Schmelter

Title: Member

/s/ Niall O'Donnell, Ph.D

Niall O'Donnell, Ph.D

/s/ John P. McKearn, Ph.D

John P. McKearn, Ph.D

/s/ Jay Schmelter

Jay Schmelter

[Signature Page to Joint Filing Agreement]