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

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**FORM 8-A**

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FOR REGISTRATION OF CERTAIN CLASSES OF SECURITIES  
PURSUANT TO SECTION 12(b) OR (g) OF  
THE SECURITIES EXCHANGE ACT OF 1934

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**Xilio Therapeutics, Inc.**

(Exact name of registrant as specified in its charter)

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**Delaware**  
(State of incorporation or organization)

**85-1623397**  
(I.R.S. Employer Identification No.)

**828 Winter Street, Suite 300**  
**Waltham, MA**  
(Address of principal executive offices)

**02451**  
(Zip Code)

Securities to be registered pursuant to Section 12(b) of the Act:

Title of each class  
to be so registered

Name of each exchange on which  
each class is to be registered

Common Stock, \$0.0001 par value per share

The Nasdaq Stock Market LLC

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If this form relates to the registration of a class of securities pursuant to Section 12(b) of the Exchange Act and is effective pursuant to General Instruction A.(c) or (e), check the following box.

If this form relates to the registration of a class of securities pursuant to Section 12(g) of the Exchange Act and is effective pursuant to General Instruction A.(d) or (e), check the following box.

If this form relates to the registration of a class of securities concurrently with a Regulation A offering, check the following box.

Securities Act registration statement or Regulation A offering statement file number to which this form relates:  
333-259973

Securities to be registered pursuant to Section 12(g) of the Act:  
None.

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**Item 1. Description of Registrant's Securities to be Registered.**

The description under the heading "Description of Capital Stock" relating to the common stock, \$0.0001 par value per share, of Xilio Therapeutics, Inc., a Delaware corporation (the "Registrant"), in the prospectus included in the Registrant's Registration Statement on [Form S-1 \(File No. 333-259973\)](#), [initially filed on October 1, 2021](#), as amended, including exhibits, and as may be subsequently amended (the "Registration Statement"), filed under the Securities Act of 1933, as amended (the "Securities Act"), with the Securities and Exchange Commission (the "Commission") is incorporated herein by reference. Any form of prospectus subsequently filed by the Registrant with the Commission pursuant to Rule 424(b) under the Securities Act that constitutes part of the Registration Statement shall be deemed to be incorporated herein by reference.

**Item 2. Exhibits.**

Pursuant to the Instructions as to Exhibits for Form 8-A, no exhibits are required to be filed because no other securities of the Registrant are registered on The Nasdaq Stock Market LLC and the securities registered hereby are not being registered pursuant to Section 12(g) of the Securities Exchange Act of 1934, as amended.

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**SIGNATURE**

Pursuant to the requirements of Section 12 of the Securities Exchange Act of 1934, the Registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereto duly authorized.

Xilio Therapeutics, Inc.

By: /s/ René Russo

René Russo, Pharm.D.

President and Chief Executive Officer

Dated: October 18, 2021

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