



DIVISION OF
CORPORATION FINANCE

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

September 23, 2021

René Russo, Pharm.D.
President and Chief Executive Officer
Xilio Therapeutics, Inc.
828 Winter Street
Waltham, Massachusetts 02451

Re: Xilio Therapeutics, Inc.
Amendment No. 1 to Draft Registration Statement on Form S-1
Submitted September 14, 2021
CIK No. 0001840233

Dear Dr. Russo:

We have reviewed your amended draft registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

Amendment No. 1 to Draft Registration Statement on Form S-1

Prospectus Summary

Our Pipeline, page 4

1. Please revise your pipeline table to remove your targeted cytokine program. Given the early stage of development of this program, it does not appear to be sufficiently material to your business to warrant inclusion in your pipeline table.

Our History and Team, page 8

2. We note your response to prior comment 4. The identification of past life science investors appears to suggest that potential investors may consider investments made by these investors as a factor in making their investment decisions without knowing the

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amount of their investment in total or on a per share basis, their investment strategies or whether these investors continue to hold their shares. Additionally, as these shareholders are not subject to the reporting requirements of Section 16, investors will not know when they decide to sell their shares. Therefore, we continue to believe the disclosure is inappropriate for the registration statement and ask that it be removed.

Our Strategy, page 8

3. We note your disclosure that your strategy is to enable a rapid transition to randomized registration-enabling trials in a range of solid tumor indications for XTX101. Please revise this statement and any similar disclosure to remove any implication that you will be successful in advancing your product candidates in a rapid or accelerated manner as such statements are speculative.

You may contact Michael Fay at 202-551-3812 or Vanessa Robertson at 202-551-3649 if you have questions regarding comments on the financial statements and related matters. Please contact Ada D. Sarmiento at 202-551-3798 or Tim Buchmiller at 202-551-3635 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Life Sciences

cc: Cynthia T. Mazareas, Esq.