SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G

UNDER THE SECURITIES EXCHANGE ACT OF 1934

Xilio Therapeutics, Inc.

(Name of Issuer)

Common Stock

(Title of Class of Securities)

(CUSIP Number)

06/05/2025

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

- ☑ Rule 13d-1(b)
- ☑ Rule 13d-1(c)
- ☐ Rule 13d-1(d)

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons Logos Global Management LP	
2	Check the appropriate box if a member of a Group (see instructions)	☐ (a) ☑ (b)
3	Sec Use Only	
4	Citizenship or Place of Organization DELAWARE	
Number of Shares Beneficially Owned by Each Reporting Person With:	5 Sole Voting Power	0.00
	6 Shared Voting Power	730,315.00
	7 Sole Dispositive Power	0.00
	8 Shared Dispositive Power	730,315.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person	

730,315.00

Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)

10 ☐

Percent of class represented by amount in row (9)

11 9.99 %

Type of Reporting Person (See Instructions)

12 IA, PN

Comment for Type of Reporting Person: The securities reported herein consist of pre-funded warrants to acquire 476,250 shares of Common Stock and Series A Warrants to acquire 476,250 shares of Common Stock, which warrants are subject to a 9.99% beneficial ownership limitation. Percentage calculated based on 6,580,153 shares of Common Stock outstanding on August 10, 2026, as reported in the Form 10-Q filed by the Issuer for the quarter ended June 30, 2026.

SCHEDULE 13G

CUSIP No.

Names of Reporting Persons

1 Logos Global Management GP LLC

Check the appropriate box if a member of a Group (see instructions)

2 ☐ (a) ☑ (b)

3 Sec Use Only

Citizenship or Place of Organization

4 DELAWARE

Number of Shares Beneficially Owned by Each Reporting Person With:

5 Sole Voting Power: 0.00

6 Shared Voting Power: 730,315.00

7 Sole Dispositive Power: 0.00

8 Shared Dispositive Power: 730,315.00

Aggregate Amount Beneficially Owned by Each Reporting Person

9 730,315.00

Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)

10 ☐

Percent of class represented by amount in row (9)

11 9.99 %

Type of Reporting Person (See Instructions)

12 OO, HC

Comment for Type of Reporting Person: The securities reported herein consist of pre-funded warrants to acquire 476,250 shares of Common Stock and Series A Warrants to acquire 476,250 shares of Common Stock, which warrants are subject to a 9.99% beneficial ownership limitation. Percentage calculated based on 6,580,153 shares of Common Stock outstanding on August 10, 2026, as reported in the Form 10-Q filed by the Issuer for the quarter ended June 30, 2026.

SCHEDULE 13G

CUSIP No.

1 Names of Reporting Persons

1	Names of Reporting Persons Logos Opportunities Fund IV LP	
2	Check the appropriate box if a member of a Group (see instructions) ☐ (a) ☑ (b)	
3	Sec Use Only	
4	Citizenship or Place of Organization DELAWARE	
Number of Shares Beneficially Owned by Each Reporting Person With:	5 Sole Voting Power 0.00	
	6 Shared Voting Power 730,315.00	
	7 Sole Dispositive Power 0.00	
	8 Shared Dispositive Power 730,315.00	
9	Aggregate Amount Beneficially Owned by Each Reporting Person 730,315.00	
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions) ☐	
11	Percent of class represented by amount in row (9) 9.99 %	
12	Type of Reporting Person (See Instructions) PN	

Comment for Type of Reporting Person: The securities reported herein consist of pre-funded warrants to acquire 476,250 shares of Common Stock and Series A Warrants to acquire 476,250 shares of Common Stock, which warrants are subject to a 9.99% beneficial ownership limitation. Percentage calculated based on 6,580,153 shares of Common Stock outstanding on August 10, 2026, as reported in the Form 10-Q filed by the Issuer for the quarter ended June 30, 2026.

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons Logos Opportunities IV GP LLC	
2	Check the appropriate box if a member of a Group (see instructions) ☐ (a) ☑ (b)	
3	Sec Use Only	
4	Citizenship or Place of Organization DELAWARE	
Number of Shares Beneficially Owned by Each Reporting Person With:	5 Sole Voting Power 0.00	
	6 Shared Voting Power 730,315.00	
	7 Sole Dispositive Power 0.00	
	8 Shared Dispositive Power 730,315.00	
9	Aggregate Amount Beneficially Owned by Each Reporting Person 730,315.00	

10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions) ☐
11	Percent of class represented by amount in row (9) 9.99 %
12	Type of Reporting Person (See Instructions) OO, HC

Comment for Type of Reporting Person: The securities reported herein consist of pre-funded warrants to acquire 476,250 shares of Common Stock and Series A Warrants to acquire 476,250 shares of Common Stock, which warrants are subject to a 9.99% beneficial ownership limitation. Percentage calculated based on 6,580,153 shares of Common Stock outstanding on August 10, 2026, as reported in the Form 10-Q filed by the Issuer for the quarter ended June 30, 2026.

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons Arsani William	
2	Check the appropriate box if a member of a Group (see instructions) ☐ (a) ☑ (b)	
3	Sec Use Only	
4	Citizenship or Place of Organization UNITED STATES	
Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power 0.00
	6	Shared Voting Power 730,315.00
	7	Sole Dispositive Power 0.00
	8	Shared Dispositive Power 730,315.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person 730,315.00	
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions) ☐	
11	Percent of class represented by amount in row (9) 9.99 %	
12	Type of Reporting Person (See Instructions) HC, IN	

Comment for Type of Reporting Person: The securities reported herein consist of pre-funded warrants to acquire 476,250 shares of Common Stock and Series A Warrants to acquire 476,250 shares of Common Stock, which warrants are subject to a 9.99% beneficial ownership limitation. Percentage calculated based on 6,580,153 shares of Common Stock outstanding on August 10, 2026, as reported in the Form 10-Q filed by the Issuer for the quarter ended June 30, 2026.

SCHEDULE 13G

CUSIP No.

1	Names of Reporting Persons Graham Walmsley
2	Check the appropriate box if a member of a Group (see instructions)

	☐ (a) ☑ (b)	
3	Sec Use Only	
4	Citizenship or Place of Organization	
	UNITED STATES	
Number of Shares Beneficially Owned by Each Reporting Person With:	5	Sole Voting Power 0.00
	6	Shared Voting Power 730,315.00
	7	Sole Dispositive Power 0.00
	8	Shared Dispositive Power 730,315.00
9	Aggregate Amount Beneficially Owned by Each Reporting Person	
	730,315.00	
10	Check box if the aggregate amount in row (9) excludes certain shares (See Instructions)	
	☐	
11	Percent of class represented by amount in row (9)	
	9.99 %	
12	Type of Reporting Person (See Instructions)	
	IN, HC	

Comment for Type of Reporting Person: The securities reported herein consist of pre-funded warrants to acquire 476,250 shares of Common Stock and Series A Warrants to acquire 476,250 shares of Common Stock, which warrants are subject to a 9.99% beneficial ownership limitation. Percentage calculated based on 6,580,153 shares of Common Stock outstanding on August 10, 2026, as reported in the Form 10-Q filed by the Issuer for the quarter ended June 30, 2026.

SCHEDULE 13G

Item 1.		
(a)	Name of issuer:	
	Xilio Therapeutics, Inc.	
(b)	Address of issuer's principal executive offices:	
	828 Winter Street, Suite 300, Waltham, MA 02451	
Item 2.		
(a)	Name of person filing:	
	Logos Global Management LP ("Logos Global") Logos Global Management GP LLC ("Logos Global GP") Logos Opportunities Fund IV LP ("Opportunities Fund") Logos Opportunities IV GP LLC ("Logos GP") Arsani William Graham Walmsley Logos Global is the investment adviser to investment funds, including Opportunities Fund. Logos Global GP is the general partner of Logos Global. Logos GP is the general partner of Opportunities Fund. Dr. William is the control person of Logos Global and Logos Global GP. Dr. William and Dr. Walmsley are control persons of Logos GP and the portfolio managers of Opportunities Fund. The reporting persons are filing this statement jointly but not as members of a group, and they expressly disclaim membership in a group. Each reporting person disclaims beneficial ownership of Common Stock except to the extent of that person's pecuniary interest therein. In addition, the filing of this Schedule 13G on behalf of the Opportunities Fund should not be construed as an admission that it is, and it disclaims that it is, a beneficial owner, as defined in Rule 13d-3 under the Act, of any Common Stock covered by this Schedule 13G.	
(b)	Address or principal business office or, if none, residence:	
	One Letterman Drive, Building C, Suite C3-350, San Francisco, California 94129	
(c)	Citizenship:	
	See Item 4 of the cover sheet for each reporting person.	
(d)	Title of class of securities:	
	Common Stock	
(e)	CUSIP No.:	
Item 3.	If this statement is filed pursuant to §§ 240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:	
(a)	☐ Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o);	

(b) ☐ Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c);

(c) ☐ Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c);

(d) ☐ Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8);

(e) ☑ An investment adviser in accordance with § 240.13d-1(b)(1)(ii)(E);

(f) ☐ An employee benefit plan or endowment fund in accordance with § 240.13d-1(b)(1)(ii)(F);

(g) ☑ A parent holding company or control person in accordance with § 240.13d-1(b)(1)(ii)(G);

(h) ☐ A savings associations as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);

(i) ☐ A church plan that is excluded from the definition of an investment company under section 3(c)(14) of the Investment Company Act of 1940 (15 U.S.C. 80a-3);

(j) ☐ A non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J). If filing as a non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J), please specify the type of institution:

(k) ☐ Group, in accordance with Rule 240.13d-1(b)(1)(ii)(K).

Item 4. Ownership

Amount beneficially owned:

(a) Logos Global: 730,315 Logos Global GP: 730,315 Opportunities Fund: 730,315 Logos GP: 730,315 Arsani William: 730,315 Graham Walmsley: 730,315

Percent of class:

(b) Logos Global: 9.99% Logos Global GP: 9.99% Opportunities Fund: 9.99% Logos GP: 9.99% Arsani William: 9.99% Graham Walmsley: 9.99% %

(c) Number of shares as to which the person has:

(i) Sole power to vote or to direct the vote:

Logos Global: 0 Logos Global GP: 0 Opportunities Fund: 0 Logos GP: 0 Arsani William: 0 Graham Walmsley: 0

(ii) Shared power to vote or to direct the vote:

Logos Global: 730,315 Logos Global GP: 730,315 Opportunities Fund: 730,315 Logos GP: 730,315 Arsani William: 730,315 Graham Walmsley: 730,315

(iii) Sole power to dispose or to direct the disposition of:

Logos Global: 0 Logos Global GP: 0 Opportunities Fund: 0 Logos GP: 0 Arsani William: 0 Graham Walmsley: 0

(iv) Shared power to dispose or to direct the disposition of:

Logos Global: 730,315 Logos Global GP: 730,315 Opportunities Fund: 730,315 Logos GP: 730,315 Arsani William: 730,315 Graham Walmsley: 730,315

Item 5. Ownership of 5 Percent or Less of a Class.

Item 6. Ownership of more than 5 Percent on Behalf of Another Person.

If any other person is known to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, such securities, a statement to that effect should be included in response to this item and, if such interest relates to more than 5 percent of the class, such person should be identified. A listing of the shareholders of an investment company registered under the Investment Company Act of 1940 or the beneficiaries of employee benefit plan, pension fund or endowment fund is not required.

Opportunities Fund holds the Common Stock for the benefit of its investors and has the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the Common Stock.

Item 7. Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on by the Parent Holding Company or Control Person.

Not Applicable

Item 8. Identification and Classification of Members of the Group.

Not Applicable

Item 9. Notice of Dissolution of Group.

Not Applicable

Item 10. Certifications:

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect, other than activities solely in connection with a nomination under § 240.14a-11. By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect, other than activities solely in connection with a nomination under § 240.14a-11.

SIGNATURE

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true,

complete and correct.

Logos Global Management LP

Signature: /s/ Arsani William
Name/Title: Managing Partner
Date: 11/16/2026

Logos Global Management GP LLC

Signature: /s/ Arsani William
Name/Title: Managing Member
Date: 11/16/2026

Logos Opportunities Fund IV LP

Signature: /s/ Arsani William
Name/Title: Managing Member
Date: 11/16/2026

Logos Opportunities IV GP LLC

Signature: /s/ Arsani William
Name/Title: Managing Member
Date: 11/16/2026

Arsani William

Signature: /s/ Arsani William
Name/Title: Reporting person
Date: 11/16/2026

Graham Walmsley

Signature: /s/ Graham Walmsley
Name/Title: Reporting person
Date: 11/16/2026

Exhibit Information

Exhibit 99.1 Agreement Regarding Joint Filing of Statement on Schedule 13D or 13G

EXHIBIT 99.1

AGREEMENT REGARDING JOINT FILING
OF STATEMENT ON SCHEDULE 13D OR 13G

The undersigned agree to file jointly with the Securities and Exchange Commission (the "SEC") any and all statements on Schedule 13D, Schedule 13G or forms 3, 4 or 5 (and any amendments or supplements thereto) required under section 13(d) or 16(a) of the Securities Exchange Act of 1934, as amended, in connection with purchases by the undersigned of the securities of any issuer. For that purpose, the undersigned hereby constitute and appoint Logos Global Management LP, a Delaware limited partnership, as their true and lawful agent and attorney-in-fact, with full power and authority for and on behalf of the undersigned to prepare or cause to be prepared, sign, file with the SEC and furnish to any other person all certificates, instruments, agreements and documents necessary to comply with section 13(d) and section 16(a) of the Act, in connection with said purchases, and to do and perform every act necessary and proper to be done incident to the exercise of the foregoing power, as fully as the undersigned might or could do if personally present.

Dated: November 11, 2026

/s/ *Arsani William*
Arsani William

/s/ *Graham Walmsley*
Graham Walmsley

Logos Global Management LP

By: */s/ Arsani William*
Name: Arsani William
Title: Managing Partner

Logos Opportunities Fund IV LP
By Logos Opportunities IV GP LLC, its Manager

By:/s/ *Arsani William*
Name: Arsani William
Title: Managing Member

Logos Global Management GP LLC

By: /s/ *Arsani William*
Name: Arsani William
Title: Managing Member

Logos Opportunities IV GP LLC

By: */s/ Arsani William*
Name: Arsani William
Title: Managing Member