

SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G

Under the Securities Exchange Act of 1934

(Amendment No. 2)*

Lexeo Therapeutics, Inc.

(Name of Issuer – as specified in its charter)

Common Stock, \$0.0001 par value per share

(Title of Class of Securities)

52886X107

(CUSIP Number)

September 30, 2024

(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)

*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 in 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).

| | | |
|--|--|-------------------------------------|
| 1 | NAME OF REPORTING PERSON Eventide Asset Management, LLC | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP <input type="checkbox"/> (a) <input type="checkbox"/> (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 1,855,986 |
| | 6 | SHARED VOTING POWER 0 |
| | 7 | SOLE DISPOSITIVE POWER 1,855,986 |
| | 8 | SHARED DISPOSITIVE POWER 0 |
| 9 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,855,986 | |
| 10 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/> | |
| 11 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 5.61% | |
| 12 | TYPE OF REPORTING PERSON IA | |

| | | |
|--|--|---------------------------------------|
| 1 | NAME OF REPORTING PERSON Finny Kuruvilla, M.D. Ph. D. | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP <input type="checkbox"/> (a) <input type="checkbox"/> (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 |
| | 6 | SHARED VOTING POWER 1,855,986 |
| | 7 | SOLE DISPOSITIVE POWER 0 |
| | 8 | SHARED DISPOSITIVE POWER 1,855,986 |
| 9 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,855,986 | |
| 10 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/> | |
| 11 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 5.61% | |
| 12 | TYPE OF REPORTING PERSON IN;HC | |

| | | |
|--|--|---------------------------------------|
| 1 | NAME OF REPORTING PERSON Robin C. John | |
| 2 | CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP <input type="checkbox"/> (a) <input type="checkbox"/> (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 |
| | 6 | SHARED VOTING POWER 1,855,986 |
| | 7 | SOLE DISPOSITIVE POWER 0 |
| | 8 | SHARED DISPOSITIVE POWER 1,855,986 |
| 9 | AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 1,855,986 | |
| 10 | CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (9) EXCLUDES CERTAIN SHARES <input type="checkbox"/> | |
| 11 | PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (9) 5.61% | |
| 12 | TYPE OF REPORTING PERSON IN;HC | |

Item 1. (a) Name of Issuer:

Lexeo Therapeutics, Inc. (the "Issuer")

(b) Address of Issuer's Principal Executive Offices:

345 Park Avenue South, Floor 6, New York, NY, 10010

Item 2. (a) Name of Persons Filing:

(i) Eventide Asset Management, LLC ("Eventide")

(ii) Finny Kuruvilla, M.D., Ph.D. ("Kuruvilla")

(iii) Robin C. John ("John")

(b). Address of Principal Business Office or, if none, Residence:

Eventide, Kuruvilla and John:
One International Place, Suite 4210
Boston, Massachusetts 02110

(c). Citizenship or Place of Organization:

Eventide: Delaware
Kuruvilla: United States
John: United States

(d). Title of Class of Securities:

Common Stock, \$0.0001 par value per share

(e). CUSIP Number:

52886X107

Item 3. If this statement is filed pursuant to sections 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 section 240.13d-1(b)(1)(ii)(E);
 - (f) An employee benefit plan or endowment fund in accordance with section 240.13d-1(b)(1)(ii)(F);
 - (g) A parent holding company or control person in accordance with section 240.13d-1(b)(1)(ii)(G);
 - (h) A savings association 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 section 240.13d-1(b)(1)(ii)(J);

(k) A group, in accordance with section 240.13d-1(b)(1) (ii)(K).

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

Item 4. Ownership:

Provide the following information regarding the aggregate number and percentage of the class of securities of the Issuer identified in Item 1.

(a). Amount beneficially owned:

(i) Eventide: 1,855,986

(ii) Kuruvilla: 1,855,986

(iii) John: 1,855,986

(b). Percent of class:

(i) Eventide: 5.61%

(ii) Kuruvilla: 5.61%

(iii) John: 5.61%

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

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

(1) Eventide: 1,855,986

(2) Kuruvilla: 0

(3) John: 0

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

(1) Eventide: 0

(2) Kuruvilla: 1,855,986

(3) John: 1,855,986

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

(1) Eventide: 1,855,986

(2) Kuruvilla: 0

(3) John: 0

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

(1) Eventide: 0

(2) Kuruvilla: 1,855,986

(3) John: 1,855,986

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

Not Applicable

Item 6. Ownership of More Than Five Percent on Behalf of Another Person:

As of September 30, 2024, Eventide Asset Management, LLC, a Delaware limited liability company located at One International Place, Suite 4210, Boston, Massachusetts 02110, is the beneficial owner of 1,855,986 shares of the Issuer's Common Stock by virtue of being the investment adviser to the Eventide Healthcare & Life Sciences Fund, which is a registered investment company (the "Fund").

As of September 30, 2024, the Fund held 1,855,986 shares of the Issuer's Common Stock, representing 5.61% of the Issuer's outstanding Common Stock.

Item 7. Identification and Classification of the Subsidiary which Acquired the Security Being Reported on by the Parent Holding Company:

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. Certification:

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.

In accordance with Rule 13d-4 of the Securities Exchange Act of 1934, each of the persons filing this statement expressly disclaim the beneficial ownership of the securities covered by this statement and the filing of this report shall not be construed as an admission by such persons that they are the beneficial owners of such securities.

SIGNATURES

The undersigned certify, after reasonable inquiry and to the best knowledge and belief of the undersigned, that the information set forth in this Statement is true, complete and correct. The undersigned agree to the filing of this single Statement on Schedule 13G.

Eventide Asset Management, LLC

Date: November 11, 2024

By: /s/ Peter J. Luiso

Name: Peter J. Luiso
Title: General Counsel

Finny Kuruvilla, M.D., Ph. D.

Date: November 11, 2024

By: /s/ Finny Kuruvilla, M.D., Ph. D.

Name: Finny Kuruvilla, M.D., Ph. D.

Robin C. John

Date: November 11, 2024

By: /s/ Robin C. John

Name: Robin C. John

EXHIBIT 1

WHEREAS, in accordance with Rule 13d-1(k)(1) under the Securities and Exchange Act of 1934 (the "Act"), only one joint Statement and any amendments thereto need to be filed whenever one or more persons are required to file such a Statement or any amendments thereto pursuant to Section 13(d) of the Act with respect to the same securities, provided that said persons agree in writing that such Statement or amendments thereto is filed on behalf of each of them;

NOW, THEREFORE, the parties hereto agree as follows:

Eventide Asset Management, LLC, Finny Kuruvilla, M.D., Ph. D. and Robin C. John do hereby agree, in accordance with Rule 13d-1(k)(1) under the Act, to file a Statement on Schedule 13G relating to their ownership of the Common Stock of the Issuer, and do hereby further agree that said Statement on Schedule 13G shall be filed on behalf of each of them.

Eventide Asset Management, LLC

Date: November 11, 2024

By: /s/ Peter J. Luiso
Name: Peter J. Luiso
Title: General Counsel

Finny Kuruvilla, M.D., Ph. D.

Date: November 11, 2024

By: /s/ Finny Kuruvilla, M.D., Ph. D.
Name: Finny Kuruvilla, M.D., Ph. D.

Robin C. John

Date: November 11, 2024

By: /s/ Robin C. John
Name: Robin C. John