
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934

(Amendment No. 1)*

LENZ THERAPEUTICS, INC.

(Name of Issuer)

Common Stock, \$0.00001 par value per share

(Title of Class of Securities)

52635N103

(CUSIP Number)

Peter Kolchinsky
RA Capital Management, L.P., 200 Berkeley Street, 18th Floor
Boston, MA, 02116
617.778.2500

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

05/07/2025

(Date of Event Which Requires Filing of This Statement)

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 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).

SCHEDULE 13D

CUSIP No. 52635N103

1	Name of reporting person RA Capital Management, L.P.
2	Check the appropriate box if a member of a Group (See Instructions) <input type="checkbox"/> (a) <input type="checkbox"/> (b)
3	SEC use only

4	Source of funds (See Instructions) 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	
Number of Shares Beneficially Owned by Each Reporting Person With:	7	Sole Voting Power 0.00
	8	Shared Voting Power 4,260,606.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 4,260,606.00
11	Aggregate amount beneficially owned by each reporting person 4,260,606.00	
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) <input type="checkbox"/>	
13	Percent of class represented by amount in Row (11) 15.1 %	
14	Type of Reporting Person (See Instructions) IA, PN	

SCHEDULE 13D

CUSIP No.	52635N103
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1	Name of reporting person Peter Kolchinsky
2	Check the appropriate box if a member of a Group (See Instructions) <input type="checkbox"/> (a) <input type="checkbox"/> (b)
3	SEC use only
4	Source of funds (See Instructions) 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 UNITED STATES

Number of Shares Beneficially Owned by Each Reporting Person With:	7	Sole Voting Power 0.00
	8	Shared Voting Power 4,260,606.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 4,260,606.00
11	Aggregate amount beneficially owned by each reporting person 4,260,606.00	
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) <input type="checkbox"/>	
13	Percent of class represented by amount in Row (11) 15.1 %	
14	Type of Reporting Person (See Instructions) HC, IN	

SCHEDULE 13D

CUSIP No.	52635N103
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1	Name of reporting person Rajeev Shah
2	Check the appropriate box if a member of a Group (See Instructions) <input type="checkbox"/> (a) <input type="checkbox"/> (b)
3	SEC use only
4	Source of funds (See Instructions) 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 UNITED STATES

Number of Shares Beneficially Owned by Each Reporting Person With:	7	Sole Voting Power 0.00
	8	Shared Voting Power 4,260,606.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 4,260,606.00
11	Aggregate amount beneficially owned by each reporting person 4,260,606.00	
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) <input type="checkbox"/>	
13	Percent of class represented by amount in Row (11) 15.1 %	
14	Type of Reporting Person (See Instructions) HC, IN	

SCHEDULE 13D

CUSIP No.	52635N103
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1	Name of reporting person RA Capital Healthcare Fund, L.P.
2	Check the appropriate box if a member of a Group (See Instructions) <input type="checkbox"/> (a) <input type="checkbox"/> (b)
3	SEC use only
4	Source of funds (See Instructions) 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

Number of Shares Beneficially Owned by Each Reporting Person With:	7	Sole Voting Power 0.00
	8	Shared Voting Power 3,373,921.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 3,373,921.00
11	Aggregate amount beneficially owned by each reporting person 3,373,921.00	
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) <input type="checkbox"/>	
13	Percent of class represented by amount in Row (11) 12.0 %	
14	Type of Reporting Person (See Instructions) PN	

SCHEDULE 13D

Item 1. Security and Issuer

(a) Title of Class of Securities:

Common Stock, \$0.00001 par value per share

(b) Name of Issuer:

LENZ THERAPEUTICS, INC.

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

445 Marine View Ave., Ste. #320, Del Mar, CALIFORNIA , 92014.

Item 1 Comment: Item 1 of the Statement is amended and supplemented as follows:

This Amendment No. 1 (this "Amendment No. 1" or this "13D/A") amends and supplements the statement on Schedule 13D originally filed with the Securities and Exchange Commission (the "SEC") on March 28, 2024 (the "Statement") by the Reporting Persons. Unless otherwise defined herein, capitalized terms used in this Amendment No. 1 shall have the meanings ascribed to them in the Statement. Unless amended or supplemented below, the information in the Statement remains unchanged.

Item 2. Identity and Background

- (a) This Amendment No. 1 is being filed on behalf of RA Capital Management, L.P. ("RA Capital"), Peter Kolchinsky, Rajeev Shah, and RA Capital Healthcare Fund, L.P. (the "Fund"), who are collectively referred to herein as the "Reporting Persons." The agreement among the Reporting Persons to file this 13D/A jointly in accordance with Rule 13d-1(k) of the Securities Exchange Act of 1934, as amended (the "Act"), is attached hereto as Exhibit 99.1.

The Reporting Persons' beneficial ownership of the Issuer's Common Stock consists of (i) 3,319,339 shares of Common Stock and 5,582 shares of common stock issuable upon the exercise of immediately exercisable warrants ("Warrants") directly held by the Fund; (ii) 694,755 shares of common stock and 10,580 shares of common stock issuable upon the exercise of immediately exercisable Warrants directly held by the RA Capital Nexus Fund II, L.P. (the "Nexus Fund II"); (iii) 164,729 shares of common stock and 5,371 shares of common stock issuable upon the exercise of immediately exercisable Warrants directly held by a separately managed account (the "Account"); (iv) 9,750 vested stock options (right to buy) and 1,500 stock options (right to buy) scheduled to vest within 60 days of this filing held by Dr. Zach Scheiner for the benefit of RA Capital.

RA Capital Healthcare Fund GP, LLC is the general partner of the Fund and RA Capital Nexus Fund II GP, LLC is the general partner of the Nexus Fund II. The general partner of RA Capital is RA Capital Management GP, LLC, of which Dr. Kolchinsky and Mr. Shah are the controlling persons. RA Capital serves as investment adviser for each of the Fund, the Nexus Fund II and the Account and may be deemed a beneficial owner, for purposes of Section 13(d) of the Securities Exchange Act of 1934 (the "Act"), of any securities of the Issuer held by the Fund, the Nexus Fund II or the Account. Each of the Fund and the Nexus Fund II has delegated to RA Capital the sole power to vote and the sole power to dispose of all securities held in its portfolio, including the shares of the Issuer's Common Stock reported herein. Because each of the Fund and the Nexus Fund II has divested itself of voting and investment power over the reported securities it holds and may not revoke that delegation on less than 61 days' notice, each of the Fund and the Nexus Fund II

disclaims beneficial ownership of the securities it holds for purposes of Section 13(d) of the Act and therefore disclaims any obligation to report ownership of the reported securities under Section 13(d) of the Act. As managers of RA Capital, Dr. Kolchinsky and Mr. Shah may be deemed beneficial owners, for purposes of Section 13(d) of the Act, of any securities of the Issuer beneficially owned by RA Capital. RA Capital, Dr. Kolchinsky, and Mr. Shah disclaim beneficial ownership of the securities reported in this 13D/A other than for the purpose of determining their obligations under Section 13(d) of the Act, and the filing of this 13D/A shall not be deemed an admission that either RA Capital, Dr. Kolchinsky, or Mr. Shah is the beneficial owner of such securities for any other purpose.

- (b) The address of the principal business office of each of the Reporting Persons is 200 Berkeley Street, 18th Floor, Boston, MA 02116.
- (c) The Fund is a private investment vehicle. RA Capital provides investment management services to the Fund, the Nexus Fund II and the Account. The principal occupation of each of Dr. Kolchinsky and Mr. Shah is investment management.
- (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 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 of 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) See Item 6 of the cover pages.

Item 5. Interest in Securities of the Issuer

- (a) Rows 11 and 13 of each Reporting Person's cover page to this 13D/A set forth the aggregate number of shares of common stock and percentages of the shares of common stock beneficially owned by such Reporting Person and are incorporated by reference. The percentage set forth in each row 13 is based upon 28,146,154 shares of common stock outstanding as of May 1, 2025, as reported in the Issuer's quarterly Report on Form 10-Q filed with the SEC on May 7, 2025, and giving effect to stock options and Warrants, to the extent exercisable within 60 days hereof, as referenced herein.
- (b) Rows 7 through 10 of each Reporting Person's cover page to this 13D/A set forth the number of shares of common stock as to which such Reporting Person has the sole or shared power to vote or direct the vote and sole or shared power to dispose or to direct the disposition and are incorporated by reference.
- (c) Except as set forth below, none of the Reporting Persons has effected any transactions with respect to the securities of the Issuer during the past sixty days:

Transaction	Purchaser	Date	No. Shares	Price Per Share
Vest Stock Option (Right to Buy)	RA Capital	03/21/2025	750	(1)
Vest Stock Option (Right to Buy)	RA Capital	04/21/2025	750	(1)
Vest Stock Option (Right to Buy)	RA Capital	05/21/2025	750	(1)(2)
Vest Stock Option (Right to Buy)	RA Capital	06/21/2025	750	(1)(2)

(1) This option represents a right to purchase a total of 27,000 shares of the Issuer's Common Stock, which vests from March 21, 2024 in 36 equal monthly installments over three years, subject to Dr. Scheiner's continued service to the Issuer through each vesting date. These options have an exercise price of \$15.05 per share.

(2) Represents future vesting options within 60 days from the filing date of this Amendment No. 1.

- (d) Except as set forth below, none of the Reporting Persons has effected any transactions with respect to the securities of the Issuer since the most recent amendment to this 13D/A.
- (e) Not applicable.

Item 7. Material to be Filed as Exhibits.

Exhibit 99.1 Joint Filing Agreement

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.

RA Capital Management, L.P.

Signature: /s/ Peter Kolchinsky
Name/Title: By Peter Kolchinsky, Authorized Signatory
Date: 05/09/2025

Peter Kolchinsky

Signature: /s/ Peter Kolchinsky
Name/Title: Peter Kolchinsky
Date: 05/09/2025

Rajeev Shah

Signature: /s/ Rajeev Shah

Name/Title: Rajeev Shah

Date: 05/09/2025

RA Capital Healthcare Fund, L.P.

Signature: /s/ Peter Kolchinsky

Name/Title: By RA Capital Healthcare Fund GP, LLC, its General Partner, By Peter Kolchinsky, Manager

Date: 05/09/2025

JOINT FILING AGREEMENT

This Joint Filing Agreement, dated as of May 9, 2025, is by and among RA Capital Management, L.P., Peter Kolchinsky, Rajeev Shah and RA Capital Healthcare Fund, L.P. (the foregoing are collectively referred to herein as the “Filers”).

Each of the Filers may be required to file with the United States Securities and Exchange Commission a statement on Schedule 13G and/or 13D with respect to the common stock, par value \$0.00001 per share of LENZ Therapeutics, Inc. beneficially owned by them from time to time.

Pursuant to and in accordance with Rule 13(d)(1)(k) promulgated under the Securities Exchange Act of 1934, as amended, the Filers hereby agree to file a single statement on Schedule 13G and/or 13D (and any amendments thereto) on behalf of each of such parties, and hereby further agree to file this Joint Filing Agreement as an exhibit to such statement, as required by such rule.

This Joint Filing Agreement may be terminated by any of the Filers upon one week’s prior written notice or such lesser period of notice as the Filers may mutually agree.

Executed and delivered as of the date first above written.

RA CAPITAL MANAGEMENT, L.P.

By: /s/ Peter Kolchinsky
Name: Peter Kolchinsky
Title: Authorized Signatory

PETER KOLCHINSKY

/s/ Peter Kolchinsky

RAJEEV SHAH

/s/ Rajeev Shah

RA CAPITAL HEALTHCARE FUND, L.P.

By: RA Capital Healthcare Fund GP, LLC
Its: General Partner

By: /s/ Peter Kolchinsky
Name: Peter Kolchinsky
Title: Manager