PROSPECTUS SUPPLEMENT (to Prospectus dated April 10, 2024)

1,297,411 Shares of Common Stock



This prospectus supplement updates and amends the prospectus dated April 10, 2024 (as supplemented to date, the "Prospectus"), which forms a part of our Registration Statement on Form S-1 (Registration Statement No. 333-278393) originally filed with the Securities and Exchange Commission (the "SEC") on March 29, 2024 and declared effective by the SEC on April 10, 2024.

This prospectus relates to the resale by certain of the selling securityholders named in this prospectus (each a "selling securityholder" and, collectively, the "selling securityholders") of 1,297,411 shares of common stock, par value \$0.00001 per share (the "Common Stock") issued in the PIPE Financing (as defined in the Prospectus). The Prospectus also covers any additional securities that may become issuable by reason of stock splits, stock dividends or other similar transactions.

This prospectus supplement should be read in conjunction with the Prospectus, which is to be delivered with this prospectus supplement. This prospectus supplement updates, amends and supplements the information included or incorporated by reference in the Prospectus. If there is any inconsistency between the information in the Prospectus and this prospectus supplement, you should rely on the information in this prospectus supplement.

This prospectus supplement is not complete without, and may not be delivered or utilized except in connection with, the Prospectus, including any amendments or supplements to it.

Current Report on Form 8-K

On August 12, 2024, we filed a Current Report on Form 8-K with the SEC. The Current Report on Form 8-K is attached hereto.

We are an "emerging growth company," as defined under the federal securities laws, and, as such, may elect to comply with certain reduced public company reporting requirements for future filings.

Investing in our securities involves a high degree of risk. Before buying any securities, you should carefully read the discussion of the risks of investing in our securities in the section titled "<u>Risk Factors</u>" beginning on page <u>6</u> of the Prospectus.

You should rely only on the information contained in the Prospectus, this prospectus supplement, or any further prospectus supplement or amendment hereto. We have not authorized anyone to provide you with different information.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement is August 12, 2024.

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

FORM 8-K

CURRENT REPORT

Pursuant to Section 13 or 15(d) of The Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): August 12, 2024

LENZ THERAPEUTICS, INC.

(Exact name of registrant as specified in its charter)

001-40532

(Commission File Number)

84-4867570 (I.R.S. Employer Identification No.)

of incorporation) 201 Lomas Santa Fe Dr., Suite 300

Delaware

(State or other jurisdiction

Solana Beach, California

(Address of principal executive offices)

(858) 925-7000

(Registrant's telephone number, including area code)

445 Marine View Ave., Ste. #320 Del Mar, California 92014 (Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

□ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

□ Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

□ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.00001 per share	LENZ	The Nasdaq Stock Market LLC

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§ 230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company \boxtimes

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. \Box

92075 (Zip code)

Item 8.01 Other Events.

On August 12, 2024, LENZ Therapeutics, Inc. issued a press release announcing its submission of a New Drug Application to the U.S. Food and Drug Administration for LNZ100. The press release is attached hereto as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated herein by reference.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits

Exhibit Number	Description
99.1	Press Release, dated August 12, 2024.
104	Cover Page Interactive Data File (the cover page XBRL tags are embedded within the inline XBRL document).

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

LENZ THERAPEUTICS, INC.

Dated: August 12, 2024

	By:	/s/ Evert Schimmelpennink
	Name:	Evert Schimmelpennink
	Title:	Chief Executive Officer
		(Principal Executive Officer)
Dated: August 12, 2024		
	By:	/s/ Daniel Chevallard
	Name:	Daniel Chevallard
	Title:	Chief Financial Officer
		(Principal Financial and Accounting Officer)