

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

FORM S-8
REGISTRATION STATEMENT
Under
The Securities Act of 1933

LENZ THERAPEUTICS, INC.
(Exact name of Registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

84-4867570

(I.R.S. Employer
Identification Number)

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

(Address of Principal Executive Offices, including zip code)

**LENZ Therapeutics, Inc. 2024 Equity Incentive Plan
LENZ Therapeutics, Inc. 2024 Employee Stock Purchase Plan
LENZ Therapeutics Operations, Inc. 2020 Equity Incentive Plan**
(Full title of the plan)

**Evert Schimmelpennink
Chief Executive Officer
445 Marine View Ave, Ste. #320
Del Mar, California 92014
(858) 925-7000**

(Name, address and telephone number, including area code, of agent for service)

Copies to:

**Dan Koeppen
Jennifer Fang
Robert L. Wernli, Jr.
Ben Capps
Wilson Sonsini Goodrich & Rosati, P.C.
12235 El Camino Real
San Diego, California 92130
(858) 350-2300**

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input checked="" type="checkbox"/>

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 7(a)(2)(B) of the Securities Act.

EXPLANATORY NOTE

This Registration Statement on Form S-8 (the “Registration Statement”) is filed by LENZ Therapeutics, Inc. (the “Registrant”) for the purpose of registering an aggregate of 5,201,072 shares of the Registrant’s common stock, par value \$0.00001 per share (“Common Stock”), consisting of (i) 1,997,559 shares issuable under the Company’s 2024 Equity Incentive Plan (the “2024 Plan”), representing 1,649,448 shares of Common Stock reserved for issuance under the 2024 Plan as of the date of this Registration Statement, and up to an additional 348,111 shares of Common Stock that may become issuable under the 2024 Plan pursuant to its terms as a result of forfeited or terminated awards under the prior Graphite Bio, Inc. 2020 Stock Option and Grant Plan and/or the prior Graphite Bio, Inc. 2021 Stock Option and Incentive Plan, (ii) 1,362,500 shares of Common Stock which are subject to currently outstanding stock options under the 2024 Plan, (iii) 250,995 shares of Common Stock reserved for issuance under the Company’s 2024 Employee Stock Purchase Plan, and (iv) 1,590,018 shares of Common Stock which are subject to currently outstanding stock options under the LENZ Therapeutics Operations, Inc. 2020 Equity Incentive Plan.

PART I

INFORMATION REQUIRED IN THE PROSPECTUS

The information specified in Item 1 and Item 2 of Part I of Form S-8 is omitted from this Registration Statement on Form S-8 (the “Registration Statement”) in accordance with the provisions of Rule 428 under the Securities Act of 1933, as amended (the “Securities Act”) and the introductory note to Part I of Form S-8. The documents containing the information specified in Part I of Form S-8 will be delivered to the participants in the equity benefit plans covered by this Registration Statement as specified by Rule 428(b)(1) under the Securities Act.

PART II

INFORMATION REQUIRED IN REGISTRATION STATEMENT

Item 3. Incorporation of Documents by Reference.

The Registrant hereby incorporates by reference into this Registration Statement the following documents previously filed with the Securities and Exchange Commission (the “SEC”):

- (1) [The Registrant’s Annual Report on Form 10-K \(File No. 001-40532\) for the fiscal year ended December 31, 2023 filed with the SEC on February 27, 2024;](#)
- (2) [The Registrant’s Quarterly Report on Form 10-Q \(File No. 001-40532\) for the quarterly period ended March 31, 2024 filed with the SEC on May 8, 2024;](#)
- (3) [The Registrant’s Final Prospectus filed with the SEC on April 11, 2024 pursuant to Rule 424\(b\) under the Securities Act relating to the Registration Statement on Form S-1 \(File No. 333-278393\), which contains the Registrant’s audited financial statements for the latest fiscal year for which such statements have been filed;](#)
- (4) The Registrant’s Current Reports on Form 8-K filed on [March 5, 2024](#), [March 14, 2024](#), [March 22, 2024](#), and [April 3, 2024](#) (other than information furnished rather than filed);
- (5) All other reports filed with the SEC pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), since the end of the fiscal year covered by the Registrant’s Annual Report referred to in (1) above, only to the extent that the items therein are specifically stated to be “filed” rather than “furnished” for the purposes of the Exchange Act; and
- (6) The description of the Registrant’s Common Stock contained in the Registrant’s Registration Statement on Form 8-A filed with the SEC on [June 22, 2021](#) pursuant to Section 12(b) of the Exchange Act, and as set forth in the description of the Registrant’s securities set forth in the Registrant’s Final Prospectus filed with the SEC on [April 11, 2024](#), including any amendment or report filed for the purpose of updating such description.

All documents filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act on or after the date of this Registration Statement and prior to the filing of a post-effective amendment to this Registration Statement that indicates that all securities offered have been sold or that deregisters all securities then remaining unsold shall be deemed to be incorporated by reference in this Registration Statement and to be part hereof from the

date of filing of such documents; *provided, however*, that documents or information deemed to have been furnished and not filed in accordance with the rules of the SEC shall not be deemed incorporated by reference into this Registration Statement. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any subsequently filed document which also is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

Item 4. Description of Securities.

Not applicable.

Item 5. Interests of Named Experts and Counsel.

Certain members of, and investment partnerships comprised of members of, and persons associated with, Wilson Sonsini Goodrich & Rosati, Professional Corporation, directly or indirectly own less than 0.1% of the outstanding shares of the Registrant's Common Stock.

Item 6. Indemnification of Directors and Officers.

Section 145 of the Delaware General Corporation Law (the "DGCL") authorizes a corporation to indemnify its directors and officers against liabilities arising out of actions, suits and proceedings to which they are made or threatened to be made a party by reason of the fact that they have served or are currently serving as a director or officer to a corporation. The indemnity may cover expenses (including attorneys' fees) judgments, fines and amounts paid in settlement actually and reasonably incurred by the director or officer in connection with any such action, suit or proceeding. Section 145 permits corporations to pay expenses (including attorneys' fees) incurred by directors and officers in advance of the final disposition of such action, suit or proceeding. In addition, Section 145 provides that a corporation has the power to purchase and maintain insurance on behalf of its directors and officers against any liability asserted against them and incurred by them in their capacity as a director or officer, or arising out of their status as such, whether or not the corporation would have the power to indemnify the director or officer against such liability under Section 145.

We have adopted provisions in our charter that eliminate or limit the personal liability of our directors to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended. Consequently, a director will not be personally liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director, except for liability for:

- any breach of the director's duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- any unlawful payments related to dividends or unlawful stock purchases, redemptions or other distributions; or
- any transaction from which the director derived an improper personal benefit.

These limitations of liability do not alter director liability under the federal securities laws and do not affect the availability of equitable remedies such as an injunction or rescission.

In addition, our bylaws provide that:

- We will indemnify our directors, officers, and in the discretion of our board of directors, certain employees to the fullest extent permitted by the DGCL, as it now exists or may in the future be amended; and
-

- We will advance expenses, including attorneys' fees, to our directors and, in the discretion of our board of directors, to our officers and certain employees, in connection with legal proceedings relating to their service for or on behalf of us, subject to limited exceptions.

We have entered into separate indemnification agreements with our directors and officers that may be broader than the specific indemnification provisions contained in the DGCL. We have entered into agreements with our officers and directors to provide contractual indemnification in addition to the indemnification provided for in our certificate of incorporation. Our bylaws also permit us to maintain insurance on behalf of any officer, director or employee for any liability arising out of his or her actions, regardless of whether Delaware law would permit such indemnification. We have obtained a policy of director's and officer's liability insurance that insures our officers and directors against the cost of defense, settlement or payment of a judgment in some circumstances and insures us against our obligations to indemnify our officers and directors. These indemnification provisions and the indemnification agreements may be sufficiently broad to permit indemnification of directors and officers for liabilities, including reimbursement of expenses incurred, arising under the Securities Act.

Item 7. Exemption from Registration Claimed.

Not applicable.

Item 8. Exhibits.

The Registrant has filed the exhibits listed on the accompanying Exhibit Index of this Registration Statement.

EXHIBIT INDEX

Exhibit Number	Exhibit Description	Incorporated by Reference			
		Form	File No.	Exhibit	Filing Date
4.1	Amended and Restated Certificate of Incorporation, as amended, of LENZ Therapeutics, Inc.	8-K	001-40532	3.1	March 22, 2024
4.2	Amended and Restated Bylaws of LENZ Therapeutics, Inc.	8-K	001-40532	3.2	June 30, 2021
4.3	Specimen Common Stock Certificate.	S-1	333-256838	4.1	June 11, 2021
4.4	LENZ Therapeutics Operations, Inc. 2020 Equity Incentive Plan and related form agreements.	S-4	333-275919	10.31	February 9, 2024
4.5	2024 Equity Incentive Plan and related form agreements.	8-K	001-40532	10.9	March 22, 2024
4.6	2024 Employee Stock Purchase Plan	8-K	001-40532	10.10	March 22, 2024
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, P.C.				
23.1	Consent of Independent Registered Accounting Firm				
23.2	Consent of Deloitte & Touche LLP				
23.3	Consent of Wilson Sonsini Goodrich & Rosati, P.C. (included in Exhibit 5.1 hereto).				
24.1	Power of Attorney (included on the signature page hereto).				
107	Filing Fee Table				

Item 9. Undertakings.

A. The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this Registration Statement:

(i) To include any prospectus required by section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the Registration Statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the Registration Statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20% change in the maximum aggregate offering price set forth in the "Calculation of Filing Fee Tables" or "Calculation of Registration Fee" table, as applicable, in the effective Registration Statement;

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the Registration Statement or any material change to such information in the Registration Statement; *provided, however*, that paragraphs (A)(1)(i) and (A)(1)(ii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in this Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

B. The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the Registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the Registration Statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

C. Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-8 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of San Diego, State of California, on May 21, 2024.

LENZ THERAPEUTICS, INC.

By: /s/ Evert Schimmelpennink
Evert Schimmelpennink
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Evert Schimmelpennink and Daniel Chevallard, and each of them, as his or her true and lawful attorney-in-fact and agent with full power of substitution and resubstitution, for such person in any and all capacities, to sign any and all amendments to this Registration Statement (including post-effective amendments) on Form S-8, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact, proxy, and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that any said attorney-in-fact, proxy and agent, or any substitute of any of them, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated:

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Evert Schimmelpennink</u> Evert Schimmelpennink	Chief Executive Officer, President and Director (Principal Executive Officer)	May 21, 2024
<u>/s/ Daniel Chevallard</u> Daniel Chevallard	Chief Financial Officer (Principal Financial and Accounting Officer)	May 21, 2024
<u>/s/ Jeff George</u> Jeff George	Director	May 21, 2024
<u>/s/ Frederic Guerard</u> Frederic Guerard	Director	May 21, 2024
<u>/s/ James McCollum</u> James McCollum	Director	May 21, 2024
<u>/s/ Zach Scheiner</u> Zach Scheiner	Director	May 21, 2024
<u>/s/ Shelley Thunen</u> Shelley Thunen	Director	May 21, 2024
<u>/s/ Kimberlee C. Drapkin</u> Kimberlee C. Drapkin	Director	May 21, 2024

Calculation of Filing Fee Tables

Form S-8

(Form Type)

LENZ Therapeutics, Inc.

(Exact name of registrant as specified in its charter)

Table 1 – Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered ⁽¹⁾	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Common Stock, par value \$0.00001 per share, reserved for issuance under the Registrant's 2024 Equity Incentive Plan	Rule 457(c) and Rule 457(h)	1,997,559 ⁽²⁾	\$15.97 ⁽⁶⁾	\$31,901,018	\$147.60 per \$1,000,000	\$4,709.00
Equity	Common Stock, par value \$0.00001 per share, that may be issued pursuant to the exercise of outstanding stock options under the Registrant's 2024 Equity Incentive Plan	Rule 457(h)	1,362,500 ⁽³⁾	\$15.07 ⁽⁷⁾	\$20,532,875	\$147.60 per \$1,000,000	\$3,031.00
Equity	Common Stock, par value \$0.00001 per share, reserved for issuance under the Registrant's 2024 Employee Stock Purchase Plan	Rule 457(c) and Rule 457(h)	250,995 ⁽⁴⁾	\$13.58 ⁽⁸⁾	\$3,408,513	\$147.60 per \$1,000,000	\$504.00
Equity	Common Stock, par value \$0.00001 per share, that may be issued pursuant to the exercise of outstanding stock options under the LENZ Therapeutics Operations, Inc. 2020 Equity Incentive Plan	Rule 457(h)	1,590,018 ⁽⁵⁾	\$4.24 ⁽⁹⁾	\$6,741,677.00	\$147.60 per \$1,000,000	\$996.00
Total Offering Amounts			5,201,072		\$62,584,083		\$9,240.00
Total Fee Offsets⁽¹⁰⁾							–
Net Fee Due							\$9,240.00

⁽¹⁾ Pursuant to Rule 416(a) of the Securities Act of 1933, as amended (the "Securities Act"), this registration statement (the "Registration Statement") shall also cover any additional shares of the Registrant's Common Stock that become issuable under the LENZ Therapeutics Operations, Inc. 2020 Equity Incentive Plan (the "2020 Plan"), the Registrant's 2024 Equity Incentive Plan (the "2024 Plan") and the Registrant's 2024 Employee Stock Purchase Plan (the "2024 ESPP") by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without receipt of consideration or conversion of the Registrant's Common Stock that increases the number of outstanding shares of Common Stock.

⁽²⁾ Represents 1,649,448 shares of Common Stock reserved for issuance under the 2024 Plan as of the date of this Registration Statement, plus up to an additional 348,111 shares of Common Stock that may become issuable under the 2024 Plan pursuant to its terms as a result of forfeited or terminated awards under the prior Graphite Bio,

Inc. 2020 Stock Option and Grant Plan (the “GRPH 2020 Plan”) and/or the prior Graphite Bio, Inc. 2021 Stock Option and Incentive Plan (the “GRPH 2021 Plan”). As of the date hereof, 1,362,500 shares of Common Stock are subject to options outstanding under the 2024 Plan. Pursuant to the terms of the 2024 Plan, the shares reserved for issuance under the 2024 Plan include any shares subject to awards granted under the 2020 Plan (including, but not limited to, awards granted under the 2020 Plan that were assumed by the Registrant in the merger between Generate Merger Sub, Inc., a wholly-owned subsidiary of the Registrant, and LENZ Therapeutics Operations, Inc. (f/k/a Lenz Therapeutics, Inc.) (the “Merger”), the GRPH 2020 Plan and the GRPH 2021 Plan, each as amended, that, on or after the effective date of the Merger, expire or terminate without having been exercised in full, are tendered to or withheld for payment of an exercise price or for tax withholding obligations, are forfeited or repurchased due to failure to vest. The maximum aggregate total number of shares that can be added to the 2024 Plan pursuant to such assumed awards granted under the 2020 Plan, the GRPH 2020 Plan and the GRPH 2021 Plan is 1,607,930. See footnote 5 below.

- (3) Represents shares of Common Stock issuable upon the exercise of stock options granted under the 2024 Plan that are outstanding as of the date of this Registration Statement.
- (4) Represents 250,995 shares of Common Stock reserved for issuance under the 2024 ESPP.
- (5) Represents 1,590,018 shares of Common Stock issuable upon the exercise of stock options granted under the 2020 Plan that were assumed by the Registrant and are outstanding as of the date of this Registration Statement. No additional awards will be made under the 2020 Plan. To the extent that outstanding awards under the 2020 Plan (or the GRPH 2020 Plan or the GRPH 2021 Plan) which were assumed in the Merger are cancelled, expire or otherwise terminate without having been exercised in full, are tendered to or withheld by the Registrant for payment of an exercise price or for tax withholding obligations, or are forfeited to or repurchased by the Registrant due to failure to vest, those shares will become available for issuance under the 2024 Plan. The maximum aggregate total number of shares that can be added to the 2024 Plan pursuant to such assumed awards granted under the 2020 Plan, the GRPH 2020 Plan and the GRPH 2021 Plan is 1,607,930.
- (6) Pursuant to Rule 457(c) and 457(h) under the Securities Act, and solely for the purpose of calculating the registration fee, the proposed maximum offering price per share is \$15.97, which is the average of the high and low prices of shares of Common Stock on The Nasdaq Global Select Market (“Nasdaq”) on May 15, 2024 (such date being within five business days of the date that this Registration Statement was filed with the U.S. Securities and Exchange Commission (the “SEC”).
- (7) Estimated in accordance with Rule 457(h) solely for the purpose of calculating the registration fee on the basis of \$15.07 per share, the weighted-average exercise price of stock option awards outstanding under the 2024 Plan as of the date of this Registration Statement.
- (8) Pursuant to Rule 457(c) and 457(h) under the Securities Act, and solely for the purpose of calculating the registration fee, the proposed maximum offering price per share is \$13.58, which is 85% of the average of the high and low prices of shares of Common Stock on Nasdaq on May 15, 2024 (such date being within five business days of the date that this Registration Statement was filed with the SEC). Pursuant to the 2024 ESPP, the purchase price of the shares of Common Stock reserved for issuance thereunder will be 85% of the lower of the fair market value of the Common Stock on (i) the first trading day of the offering period or (ii) the exercise date.
- (9) Estimated in accordance with Rule 457(h) solely for the purpose of calculating the registration fee on the basis of \$4.24 per share, the weighted-average exercise price of stock option awards outstanding under the 2020 Plan as of the date of this Registration Statement.
- (10) The Registrant does not have any fee offsets.



Wilson Sonsini Goodrich & Rosati
Professional Corporation
650 Page Mill Road
Palo Alto, California 94304-1050
o: 650.493.9300
f: 650.493.6811

May 21, 2024

LENZ Therapeutics, Inc.
445 Marine View Ave., Ste. #320
Del Mar, California 92014

Re: Registration Statement on Form S-8

Ladies and Gentlemen:

We have examined the Registration Statement on Form S-8 (the "Registration Statement") to be filed by LENZ Therapeutics, Inc., a Delaware corporation (the "Company"), with the Securities and Exchange Commission on or about the date hereof, in connection with the registration under the Securities Act of 1933, as amended, of an aggregate of 5,201,072 shares (the "Shares") of the Company's common stock, par value \$0.00001 per share ("Common Stock"), consisting of (i) 1,997,559 shares issuable under the Company's 2024 Equity Incentive Plan (the "2024 Plan"), representing 1,649,448 shares of Common Stock reserved for issuance under the 2024 Plan as of the date of the Registration Statement, and up to an additional 348,111 shares of Common Stock that may become issuable under the 2024 Plan pursuant to its terms as a result of forfeited or terminated awards under the prior Graphite Bio, Inc. 2020 Stock Option and Grant Plan and/or the prior Graphite Bio, Inc. 2021 Stock Option and Incentive Plan, (ii) 1,362,500 shares of Common Stock which are subject to currently outstanding stock options under the 2024 Plan, (iii) 250,995 shares of Common Stock reserved for issuance under the Company's 2024 Employee Stock Purchase Plan, and (iv) 1,590,018 shares of Common Stock which are subject to currently outstanding stock options under the LENZ Therapeutics Operations, Inc. 2020 Equity Incentive Plan. As the Company's legal counsel, we have reviewed the actions proposed to be taken by the Company in connection with the issuance and sale of the Shares to be issued under such plans (which plans are referred to herein as the "Plans").

It is our opinion that the Shares, when issued and sold in the manner referred to in the Plans and pursuant to the agreements that accompany the Plans, will be legally and validly issued, fully paid and nonassessable.

We consent to the use of this opinion as an exhibit to the Registration Statement, and further consent to the use of our name wherever appearing in the Registration Statement and any amendments thereto. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Act or the rules and regulations of the U.S. Securities and Exchange Commission thereunder.

AUSTIN BEIJING BOSTON BRUSSELS HONG KONG LONDON LOS ANGELES NEW YORK PALO ALTO
SAN DIEGO SAN FRANCISCO SEATTLE SHANGHAI WASHINGTON, DC WILMINGTON, DE



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Very truly yours,

WILSON SONSINI GOODRICH & ROSATI,
Professional Corporation

/s/ Wilson Sonsini Goodrich & Rosati, P.C.

AUSTIN BEIJING BOSTON BRUSSELS HONG KONG LONDON LOS ANGELES NEW YORK PALO ALTO
SAN DIEGO SAN FRANCISCO SEATTLE SHANGHAI WASHINGTON, DC WILMINGTON, DE

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the LENZ Therapeutics Operations, Inc. 2020 Equity Incentive Plan, the LENZ Therapeutics, Inc. 2024 Equity Incentive Plan and the LENZ Therapeutics, Inc. 2024 Employee Stock Purchase Plan of our report dated March 21, 2024, with respect to the financial statements of Lenz Therapeutics, Inc. included in its Current Report (Form 8-K) dated March 21, 2024, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

San Diego, California

May 21, 2024

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-8 of our report dated February 27, 2024, relating to the financial statements of Graphite Bio, Inc., appearing in the Annual Report on Form 10-K of Graphite Bio, Inc. for the year ended December 31, 2023.

/s/ Deloitte & Touche LLP

San Francisco, California

May 21, 2024