

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

**FORM S-3
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)

**201 Lomas Santa Fe Dr., Suite 300
Solana Beach, California 92075
(858) 925-7000**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Evert Schimmelpennink
President and Chief Executive Officer
201 Lomas Santa Fe Dr., Suite 300
Solana Beach, California 92075
(858) 925-7000**

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

***Copies to:*
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Approximate date of commencement of proposed sale to the public: From time to time after the effective date of the registration statement.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box: ☐

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box: ☒

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. ☐

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. ☐

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



Accelerated filer



Non-accelerated filer



Smaller reporting company



Emerging growth company



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 Securities Act. ☐

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

EXPLANATORY NOTE

This registration statement contains two prospectuses:

- a base prospectus, which covers the offering, issuance and sale by us of up to a maximum aggregate offering price of \$500,000,000 of our common stock (“Common Stock”), preferred stock, debt securities, depositary shares, warrants, subscription rights, purchase contracts and/or units representing two or more of the foregoing securities; and
- a prospectus supplement covering the offering, issuance and sale by us of up to a maximum aggregate offering price of \$150,000,000 of our Common Stock that may be issued and sold under a sales agreement (“Sales Agreement”) dated April 4, 2025 with TD Securities (USA) LLC (“TD Cowen”).

The base prospectus immediately follows this explanatory note. The Sales Agreement prospectus supplement immediately follows the base prospectus. The \$150,000,000 of Common Stock that may be offered, issued and sold under the Sales Agreement prospectus supplement is included in the \$500,000,000 of securities that may be offered, issued and sold by us under the base prospectus. Any portion of the \$150,000,000 included in the Sales Agreement prospectus supplement that is not sold pursuant to the Sales Agreement will be available for sale in other offerings pursuant to the base prospectus and a corresponding prospectus supplement, and if no shares are sold under the Sales Agreement, the full \$150,000,000 of securities may be sold in other offerings pursuant to the base prospectus and a corresponding prospectus supplement.

The information in this prospectus is not complete and may be changed. The securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Subject to Completion, dated April 4, 2025

PROSPECTUS



LENZ Therapeutics, Inc.

\$500,000,000

Common Stock
Preferred Stock
Debt Securities
Depositary Shares
Warrants
Subscription Rights
Purchase Contracts
Units

We may issue securities from time to time in one or more offerings, in amounts, at prices and on terms determined at the time of offering. This prospectus describes the general terms of these securities and the general manner in which these securities will be offered. We will provide the specific terms of these securities in supplements to this prospectus, which will also describe the specific manner in which these securities will be offered and may also supplement, update or amend information contained in this prospectus. You should read this prospectus and any applicable prospectus supplement before you invest. The aggregate offering price of the securities we sell pursuant to this prospectus will not exceed \$500,000,000.

The securities may be sold directly to you, through agents or through underwriters and dealers. If agents, underwriters or dealers are used to sell the securities, we will name them and describe their compensation in a prospectus supplement. The price to the public of those securities and the net proceeds we expect to receive from that sale will also be set forth in a prospectus supplement.

Our Common Stock is listed on the Nasdaq Global Select Market under the symbol “LENZ.” Each prospectus supplement will indicate whether the securities offered thereby will be listed on any securities exchange.

We are an “emerging growth company” and a “smaller reporting company” as defined under the federal securities laws, and, as such, may elect to comply with certain reduced public company reporting requirements for this and future filings. We will provide information in any applicable prospectus supplement regarding any listing of securities other than shares of our common stock on any securities exchange.

Investing in our securities involves risks. Please carefully read the information under the headings “[Risk Factors](#)” beginning on page 4 of this prospectus and “Item 1A – Risk Factors” of our most recent report on Form 10-K or 10-Q that is incorporated by reference in this prospectus before you invest in our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is , 2025.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, using a “shelf” registration process. Under this shelf registration process, we may from time to time sell any combination of the securities described in this prospectus in one or more offerings for an aggregate offering price up to \$500,000,000.

This prospectus provides you with a general description of the securities that may be offered. Each time we sell securities, we will provide one or more prospectus supplements that will contain specific information about the terms of the offering. The prospectus supplement may also add, update or change information contained in this prospectus. Before you invest in our securities, you should read both this prospectus and any applicable prospectus supplement together with the additional information described in the sections titled “Where You Can Find More Information” and “Incorporation by Reference.”

We have not authorized anyone to provide you with information that is different from that contained, or incorporated by reference, in this prospectus, any applicable prospectus supplement or in any related free writing prospectus. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. This prospectus and any applicable prospectus supplement or any related free writing prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in the applicable prospectus supplement or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful. You should assume that the information appearing in this prospectus, any prospectus supplement, the documents incorporated by reference and any related free writing prospectus is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

PROSPECTUS SUMMARY

This summary highlights selected information that is presented in greater detail elsewhere, or incorporated by reference, in this prospectus. It does not contain all of the information that may be important to you and your investment decision. Before investing in our securities, you should carefully read this entire prospectus, including the matters set forth in the section titled “Risk Factors” and the financial statements and related notes and other information that we incorporate by reference herein, including our Annual Report on Form 10-K and our Quarterly Reports on Form 10-Q. Unless the context indicates otherwise, references in this prospectus to “LENZ Therapeutics, Inc.,” “we,” “our” and “us” refer, collectively, to LENZ Therapeutics, Inc., a Delaware corporation and its subsidiaries taken as a whole.

Company Overview

We are a pre-commercial biopharmaceutical company focused on the development and commercialization of innovative therapies to improve vision. Our initial focus is the treatment of presbyopia, the inevitable loss of near vision that impacts the daily lives of nearly all people over 45. In the United States, the estimated addressable population who suffer from this condition, known as presbyopes, is 128 million, almost four times the number of individuals suffering from dry eye disease and three times the number of individuals suffering from childhood myopia, macular degeneration, diabetic retinopathy and glaucoma combined. We believe that a once-daily pharmacological eye drop that can effectively and safely improve near vision throughout the full workday, without the need for reading glasses, could be a highly attractive commercial product with an estimated U.S. market opportunity in excess of \$3 billion. It is our goal to develop and commercialize such a product, and we have assembled an executive team with extensive clinical and commercial experience to execute this goal and become the category leader.

Our lead product candidate LNZ100 is a preservative-free, single-use, once-daily eye drop containing aceclidine. We believe our product candidate is differentiated based on rapid onset, degree and duration of near vision improvement, its ability to be used across the full age range of presbyopes, from their mid-40s to well into their mid-70s, as well as a broad refractive range. Aceclidine’s pupil-selective mechanism of action was demonstrated in our clinical trials where near vision improved while avoiding blurry distance vision. Our product candidate was well-tolerated in clinical trials, and its active ingredient aceclidine has a favorable tolerability profile that has been well-established empirically. LNZ100 has patent protection until 2039 in the United States, at a minimum, due to a robust intellectual property portfolio underpinned by issued patents.

We submitted a New Drug Application for LNZ100 to the U.S. Food and Drug Administration (“FDA”) in August 2024. In October 2024, the FDA assigned a Prescription Drug User Fee Act target action date of August 8, 2025, which, if approved, will be immediately followed by a commercial launch in the United States, with the product anticipated to be available in the market in the fourth quarter of 2025. Given our goal to develop and commercialize the leading, once-daily eye drop for presbyopia that can effectively and safely improve near vision throughout the full workday, we continue to build a robust commercial strategy in the United States and plan to be launch-ready upon potential FDA approval.

Corporate Information

We were incorporated in Ontario, Canada on June 1, 2017, as Longbow Therapeutics Inc. and were reincorporated in the State of Delaware in October 2019. In February 2020, we changed our name to Integral Medicines, Inc. and in August 2020, we changed our name to Graphite Bio, Inc. On March 21, 2024 (the “Closing Date”), we consummated a merger (the “Merger”) pursuant to the terms of that certain Agreement and Plan of Merger, dated as of November 14, 2023 (the “Merger Agreement”), by and among us, Generate Merger Sub, Inc., a Delaware corporation and our wholly-owned subsidiary and LENZ Therapeutics Operations, Inc. (previously named Lenz Therapeutics, Inc.), a Delaware corporation. Pursuant to the terms of the Merger Agreement, on the Closing Date, we changed our name to LENZ Therapeutics, Inc.

Our principal executive offices are located at 201 Lomas Santa Fe Dr., Suite 300, Solana Beach, California 92075, and our telephone number is (858) 925-7000. Our investor relations website is located at <https://ir.lenz-tx.com/>.

Information contained on the website is not incorporated by reference into this prospectus or any other filings we make with the SEC.

We use our investor relations website to post important information for investors, including news releases, analyst presentations, and supplemental financial information, and as a means of disclosing material non-public information and for complying with our disclosure obligations under Regulation FD. Accordingly, investors should monitor our investor relations website, in addition to following press releases, SEC filings and public conference calls and webcasts. We also make available, free of charge, on our investor relations website under “SEC Filings,” our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to these reports as soon as reasonably practicable after electronically filing or furnishing those reports to the SEC.

The Securities That May Be Offered

We may offer or sell common stock, preferred stock, depositary shares, debt securities, warrants, subscription rights, purchase contracts and units in one or more offerings and in any combination. The aggregate offering price of the securities we sell pursuant to this prospectus will not exceed \$500,000,000. Each time securities are offered with this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and terms of the securities being offered and the net proceeds we expect to receive from that sale.

The securities may be sold to or through underwriters, dealers or agents or directly to purchasers or as otherwise set forth in the section titled “Plan of Distribution.” Each prospectus supplement will set forth the names of any underwriters, dealers, agents or other entities involved in the sale of securities described in that prospectus supplement and any applicable fee, commission or discount arrangements with them.

Common Stock

We may offer shares of our Common Stock, par value \$0.00001 per share, either alone or underlying other registered securities convertible into our Common Stock. Holders of our Common Stock are entitled to receive dividends declared by our board of directors out of funds legally available for the payment of dividends, subject to rights, if any, of preferred stockholders. Other than a special cash dividend paid to our stockholders in connection with the Merger, we have not paid dividends in the past and have no current plans to pay dividends. Each holder of Common Stock is entitled to one vote per share. The holders of Common Stock have no preemptive rights.

Preferred Stock

Our board of directors has the authority, subject to limitations prescribed by Delaware law, to issue preferred stock in one or more series, to establish from time to time the number of shares to be included in each series, and to fix the designation, powers, preferences and rights of the shares of each series and any of its qualifications, limitations or restrictions, in each case without further vote or action by our stockholders. Each series of preferred stock offered by us will be more fully described in the particular prospectus supplement that will accompany this prospectus, including redemption provisions, rights in the event of our liquidation, dissolution or winding up, voting rights and rights to convert into Common Stock.

Depositary Shares

We may offer depositary shares evidenced by depositary receipts, with each depositary share representing a fractional interest in a share of a particular series of preferred stock issued and deposited with a depositary to be designated by us. Each series of depositary shares or depositary receipts offered by us will be more fully described in the particular prospectus supplement that will accompany this prospectus, including redemption provisions, rights in the event of our liquidation, dissolution or winding up, voting rights and rights to convert into Common Stock.

Debt Securities

We may offer secured or unsecured obligations in the form of one or more series of senior or subordinated debt. The senior debt securities and the subordinated debt securities are together referred to in this prospectus as the “debt securities.” The subordinated debt securities generally will be entitled to payment only after payment of our senior debt. Senior debt generally includes all debt for money borrowed by us, except debt that is stated in the instrument

governing the terms of that debt to be not senior to, or to have the same rank in right of payment as, or to be expressly junior to, the subordinated debt securities. We may offer debt securities that are convertible into shares of our Common Stock or other securities.

The debt securities will be issued under an indenture between us and a trustee to be identified in an accompanying prospectus supplement. We have summarized the general features of the debt securities to be governed by the indenture in this prospectus and the form of indenture has been filed as an exhibit to the registration statement of which this prospectus forms a part. We encourage you to read the indenture.

Warrants

We may offer warrants for the purchase of Common Stock, preferred stock, debt securities or depositary shares. We may offer warrants independently or together with other securities.

Subscription Rights

We may offer subscription rights to purchase our Common Stock, preferred stock, debt securities, depositary shares, warrants or units consisting of some or all of these securities. These subscription rights may be offered independently or together with any other security offered hereby and may or may not be transferable by the stockholder receiving the subscription rights in such offering.

Purchase Contracts

We may offer purchase contracts, including contracts obligating holders or us to purchase from the other a specific or variable number of securities at a future date or dates.

Units

We may offer units comprised of one or more of the other classes of securities described in this prospectus in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit.

RISK FACTORS

An investment in our securities involves a high degree of risk. The prospectus supplement applicable to each offering of our securities will contain a discussion of the risks applicable to an investment in our securities. Prior to making a decision about investing in our securities, you should carefully consider the specific risk factors discussed in the section of the applicable prospectus supplement titled “Risk Factors,” together with all of the other information contained or incorporated by reference in the prospectus supplement or appearing or incorporated by reference in this prospectus. You should also consider the risks, uncertainties and assumptions discussed under “Part I—Item 1A—Risk Factors” of our most recent Annual Report on Form 10-K and in “Part II—Item 1A—Risk Factors” in our most recent Quarterly Report on Form 10-Q filed subsequent to such Form 10-K that are incorporated herein by reference, as may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our operations.

FORWARD-LOOKING STATEMENTS

This prospectus, each prospectus supplement and the information incorporated by reference in this prospectus and each prospectus supplement contain certain statements that constitute “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. The words “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “expect,” “could,” “would,” “project,” “plan,” “potentially,” “likely,” “target” or the negative of these terms and other similar expressions and variations thereof are intended to identify forward-looking statements, but are not the exclusive means of identifying such statements. Those statements appear in this prospectus, any accompanying prospectus supplement and the documents incorporated herein and therein by reference, particularly in the sections titled “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and include statements regarding the intent, belief or current expectations of our management that are subject to known and unknown risks, uncertainties and assumptions. You are cautioned that any such forward-looking statements are not guarantees of future performance and involve risks and uncertainties, and that actual results may differ materially from those projected in the forward-looking statements as a result of various factors.

Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, you should not rely upon forward-looking statements as predictions of future events. The events and circumstances reflected in the forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Except as required by applicable law, including the securities laws of the United States and the rules and regulations of the SEC, we do not plan to publicly update or revise any forward-looking statements contained herein after we distribute this prospectus, whether as a result of any new information, future events or otherwise.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this prospectus, and although we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted a thorough inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

This prospectus and the documents incorporated by reference in this prospectus may contain market data that we obtain from industry sources. These sources do not guarantee the accuracy or completeness of the information. Although we believe that our industry sources are reliable, we do not independently verify the information. The market data may include projections that are based on a number of other projections. While we believe these assumptions to be reasonable and sound as of the date of this prospectus, actual results may differ from the projections.

USE OF PROCEEDS

We will set forth in the prospectus supplement our intended use for the net proceeds received from the sale of any securities. We will retain broad discretion over the use of the net proceeds to us from the sale of our securities under this prospectus.

DESCRIPTION OF CAPITAL STOCK

The description of our capital stock is incorporated by reference to Exhibit 4.4 to our Annual Report on Form 10-K for the fiscal year ended December 31, 2024, filed with the SEC on March 19, 2025.

DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplement, summarizes certain general terms and provisions of the debt securities that we may offer under this prospectus. When we offer to sell a particular series of debt securities, we will describe the specific terms of the series in a supplement to this prospectus. We will also indicate in the supplement to what extent the general terms and provisions described in this prospectus apply to a particular series of debt securities.

We may offer debt securities either separately or together with, or upon the conversion or exercise of or in exchange for, other securities described in this prospectus. Debt securities may be our senior, senior subordinated or subordinated obligations and, unless otherwise specified in a supplement to this prospectus, the debt securities will be our direct, unsecured obligations and may be issued in one or more series.

The debt securities will be issued under an indenture between us and a trustee to be identified in an accompanying prospectus supplement. We have summarized material provisions of the debt securities and select portions of the indenture below. The indenture will be qualified under the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act. The summary is not complete and is subject to, and qualified in its entirety by reference to, all of the provisions of the indenture applicable to a particular series of debt securities. The form of the indenture has been filed as an exhibit to the registration statement of which this prospectus forms a part and you should read the indenture for provisions that may be important to you. Supplemental indentures and forms of debt securities containing the terms of the debt securities being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC, as applicable. Capitalized terms used in the summary and not defined herein have the meanings specified in the indenture. Unless the context requires otherwise, whenever we refer to an indenture, we also are referring to any supplemental indentures or forms of debt securities that specify the terms of a particular series of debt securities.

General

The terms of each series of debt securities will be established by or pursuant to a resolution of our board of directors and set forth or determined in the manner provided in a resolution of our board of directors, in an officer's certificate or by a supplemental indenture. The particular terms of each series of debt securities will be described in a prospectus supplement relating to such series (including any pricing supplement or term sheet).

We can issue an unlimited amount of debt securities under the indenture that may be in one or more series with the same or various maturities, at par, at a premium, or at a discount. We will set forth in a prospectus supplement (including any pricing supplement or term sheet) relating to any series of debt securities being offered the aggregate principal amount and the terms of the debt securities, including, if applicable:

- the title and ranking of the debt securities (including the terms of any subordination provisions);
- the price or prices (expressed as a percentage of the principal amount) at which we will sell the debt securities, which may be sold at a discount below their stated principal amount;
- any limit upon the aggregate principal amount of the debt securities;
- the date or dates on which the principal of the securities of the series is payable;
- the rate or rates (which may be fixed or variable) per annum or the method used to determine the rate or rates (including any commodity, commodity index, stock exchange index or financial index) at which the debt securities will bear interest, the date or dates from which interest will accrue, the date or dates on which interest will commence and be payable and any regular record date for the interest payable on any interest payment date;
- the right, if any, to defer payment of interest and the maximum length of any such deferral period;

- the place or places where principal of, and interest, if any, on the debt securities will be payable (and the method of such payment), where the securities of such series may be surrendered for registration of transfer or exchange, and where notices and demands to us in respect of the debt securities may be delivered;
- the period or periods within which, the price or prices at which, and the terms and conditions upon which, we may redeem the debt securities;
- any obligation we have to repurchase the debt securities pursuant to any sinking fund or analogous provisions or at the option of a holder of debt securities and the period or periods within which, the price or prices at which and the terms and conditions upon which securities of the series shall be repurchased, in whole or in part, pursuant to such obligation;
- the provisions relating to conversion or exchange of any debt securities of the series into our common stock or other securities and the terms and conditions upon which such debt securities will be so convertible or exchangeable, including the conversion or exchange price, as applicable, or how it will be calculated and may be adjusted, any mandatory or optional (at our option or the holders' option) conversion or exchange features, the applicable conversion or exchange period and the manner of settlement for any conversion or exchange;
- the denominations in which the debt securities will be issued, if other than denominations of \$1,000, and any integral multiple thereof;
- the form of the debt securities and whether the debt securities will be issued in the form of certificated debt securities or global debt securities;
- the portion of principal amount of the debt securities payable upon declaration of acceleration of the maturity date, if other than the principal amount;
- the designation of the currency, currencies or currency units in which payment of principal of, premium and interest on the debt securities will be made and, if other than that or those in which the debt securities are denominated, the manner in which the exchange rate with respect to these payments will be determined;
- the manner in which the amounts of payment of principal or premium or interest, if any, on the debt securities will be determined, if these amounts may be determined by reference to an index based on a currency or currencies or by reference to a commodity, commodity index, stock exchange index or financial index;
- any provisions relating to any security provided for the debt securities;
- any addition to, deletion of, or change in the covenants or Events of Default described in this prospectus or in the indenture with respect to the debt securities and any change in the acceleration provisions described in this prospectus or in the indenture with respect to the debt securities;
- any depositaries, interest rate calculation agents, exchange rate calculation agents or other agents with respect to the debt securities;
- if there is more than one trustee or a different trustee, the identity of the trustee and, if not the trustee, the identity of each security registrar, paying agent or authenticating agent with respect to such debt securities;
- any other terms of the debt securities, which may supplement, modify or delete any provision of the indenture as it applies to that series, including any terms that may be required under applicable law or regulations or advisable in connection with the marketing of the securities; and
- whether any of our direct or indirect subsidiaries will guarantee the debt securities of that series, including the terms of subordination, if any, of such guarantees.

We may offer debt securities that provide for an amount less than their stated principal amount to be due and payable upon declaration of acceleration of their maturity pursuant to the terms of the indenture. We will provide you with information on the federal income tax considerations and other special considerations applicable to any of these debt securities in the applicable prospectus supplement.

If we denominate the purchase price of any of the debt securities in a foreign currency or currencies or a foreign currency unit or units, or if the principal of and any premium and interest on any series of debt securities is payable in a foreign currency or currencies or a foreign currency unit or units, we will provide you with information on the restrictions, elections, general tax considerations, specific terms and other information with respect to that issue of debt securities and such foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

Transfer and Exchange

Each debt security will be represented by either one or more global securities registered in the name of a clearing agency registered under the Exchange Act, which we refer to as the depositary, or a nominee of the depositary (we will refer to any debt security represented by a global debt security as a “book-entry debt security”), or a certificate issued in definitive registered form (we will refer to any debt security represented by a certificated security as a “certificated debt security”) as set forth in the applicable prospectus supplement. Except as set forth under the heading titled “—Global Debt Securities and Book-Entry System,” below, book-entry debt securities will not be issuable in certificated form.

Certificated Debt Securities

You may transfer or exchange certificated debt securities at any office we maintain for this purpose in accordance with the terms of the indenture. No service charge will be made for any transfer or exchange of certificated debt securities, but we may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection with a transfer or exchange.

You may effect the transfer of certificated debt securities and the right to receive the principal of, premium and interest on certificated debt securities only by surrendering the certificate representing those certificated debt securities and either reissuance by us or the trustee of the certificate to the new holder or the issuance by us or the trustee of a new certificate to the new holder.

Global Debt Securities and Book-Entry System

Each global debt security representing book-entry debt securities will be deposited with, or on behalf of, the depositary, and registered in the name of the depositary or a nominee of the depositary.

Covenants

We will set forth in the applicable prospectus supplement any restrictive covenants applicable to any issue or series of debt securities.

No Protection in the Event of a Change of Control

Unless we state otherwise in the applicable prospectus supplement, the debt securities will not contain any provisions which may provide holders of the debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control) which could adversely affect holders of debt securities.

Consolidation, Merger and Sale of Assets

We may not consolidate with or merge with or into, or convey, transfer or lease all or substantially all of our properties and assets to any person, which we refer to as a successor person, unless:

- we are the surviving corporation or the successor person (if other than us) is a corporation organized and validly existing under the laws of any U.S. domestic jurisdiction and expressly assumes our obligations on the debt securities and under the indenture; and
- immediately after giving effect to the transaction, no Default or Event of Default (as defined below), shall have occurred and be continuing.

Notwithstanding the above, any of our subsidiaries may consolidate with, merge into or transfer all or part of its properties to us.

Events of Default

“Event of Default” means with respect to any series of debt securities, any of the following:

- default in the payment of any interest upon any debt security of that series when it becomes due and payable, and continuance of such default for a period of 30 days (unless the entire amount of the payment is deposited by us with the trustee or with a paying agent prior to the expiration of the 30-day period);
- default in the payment of principal of any security of that series at its maturity;
- default in the performance or breach of any other covenant or warranty by us in the indenture (other than a covenant or warranty that has been included in the indenture solely for the benefit of a series of debt securities other than that series), which default continues uncured for a period of 60 days after we receive written notice from the trustee, or we and the trustee receive written notice from the holders of not less than 25% in principal amount of the outstanding debt securities of that series as provided in the indenture;
- certain voluntary or involuntary events of bankruptcy, insolvency or reorganization of us; and
- any other Event of Default provided with respect to debt securities of that series that is described in the applicable prospectus supplement.

No Event of Default with respect to a particular series of debt securities (except as to certain events of bankruptcy, insolvency or reorganization) necessarily constitutes an Event of Default with respect to any other series of debt securities. The occurrence of certain Events of Default or an acceleration under the indenture may constitute an event of default under certain indebtedness of ours or our subsidiaries outstanding from time to time.

We will provide the trustee written notice of any Default or Event of Default within 30 days of becoming aware of the occurrence of such Default or Event of Default, which notice will describe in reasonable detail the status of such Default or Event of Default and what action we are taking or propose to take in respect thereof.

If an Event of Default with respect to debt securities of any series at the time outstanding occurs and is continuing (except an Event of Default resulting from certain events of bankruptcy, insolvency, or reorganization as described below), then the trustee or the holders of not less than 25% in principal amount of the outstanding debt securities of that series may, by a notice in writing to us (and to the trustee if given by the holders), declare to be due and payable immediately the principal of (or, if the debt securities of that series are discount securities, that portion of the principal amount as may be specified in the terms of that series) and accrued and unpaid interest, if any, on all debt securities of that series. In the case of an Event of Default resulting from certain events of bankruptcy, insolvency or reorganization, the principal (or such specified amount) of and accrued and unpaid interest, if any, on all outstanding debt securities will become and be immediately due and payable without any declaration or other act on the part of the trustee or any holder of outstanding debt securities. At any time after a declaration of acceleration with respect to debt securities of any series has been made, but before a judgment or decree for payment of the money due has been obtained by the trustee, the holders of a majority in principal amount of the outstanding debt securities of that series

may rescind and annul the acceleration if all Events of Default, other than the non-payment of accelerated principal and interest, if any, with respect to debt securities of that series, have been cured or waived as provided in the indenture. We refer you to the prospectus supplement relating to any series of debt securities that are discount securities for the particular provisions relating to acceleration of a portion of the principal amount of such discount securities upon the occurrence of an Event of Default.

The indenture will provide that the trustee may refuse to perform any duty or exercise any of its rights or powers under the indenture unless the trustee receives indemnity satisfactory to it against any cost, liability or expense which might be incurred by it in performing such duty or exercising such right or power. Subject to certain rights of the trustee, the holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to the debt securities of that series.

No holder of any debt security of any series will have any right to institute any proceeding, judicial or otherwise, with respect to the indenture or for the appointment of a receiver or trustee, or for any remedy under the indenture, unless:

- that holder has previously given to the trustee written notice of a continuing Event of Default with respect to debt securities of that series; and
- the holders of not less than 25% in principal amount of the outstanding debt securities of that series have made written request, and offered indemnity or security satisfactory to the trustee, to the trustee to institute the proceeding as trustee, and the trustee has not received from the holders of not less than a majority in principal amount of the outstanding debt securities of that series a direction inconsistent with that request and has failed to institute the proceeding within 60 days.

Notwithstanding any other provision in the indenture, the holder of any debt security will have an absolute and unconditional right to receive payment of the principal of, premium and any interest on that debt security on or after the due dates expressed in that debt security and to institute suit for the enforcement of payment.

The indenture requires us, within 120 days after the end of our fiscal year, to furnish to the trustee a statement as to compliance with the indenture. If a Default or Event of Default occurs and is continuing with respect to the securities of any series and if it is known to a responsible officer of the trustee, the trustee shall send to each securityholder of the securities of that series notice of a Default or Event of Default within 90 days after it occurs or, if later, after a responsible officer of the trustee has knowledge of such Default or Event of Default. The indenture will provide that the trustee may withhold notice to the holders of debt securities of any series of any Default or Event of Default (except in payment on any debt securities of that series) with respect to debt securities of that series if the trustee determines in good faith that withholding notice is in the interest of the holders of those debt securities.

Modification and Waiver

We and the trustee may modify, amend or supplement the indenture or the debt securities of any series without the consent of any holder of any debt security:

- to cure any ambiguity, defect or inconsistency;
- to comply with covenants in the indenture described above under the heading “—Consolidation, Merger and Sale of Assets”;
- to provide for uncertificated securities in addition to or in place of certificated securities;
- to add guarantees with respect to debt securities of any series or secure debt securities of any series;
- to surrender any of our rights or powers under the indenture;
- to add covenants or events of default for the benefit of the holders of debt securities of any series;

- to comply with the applicable procedures of the applicable depositary;
- to make any change that does not adversely affect the rights of any holder of debt securities;
- to provide for the issuance of, and establish the form and terms and conditions of debt securities of, any series as permitted by the indenture;
- to effect the appointment of a successor trustee with respect to the debt securities of any series and to add to or change any of the provisions of the indenture to provide for or facilitate administration by more than one trustee; or
- to comply with requirements of the SEC in order to effect or maintain the qualification of the indenture under the Trust Indenture Act.

We may also modify and amend the indenture with the consent of the holders of at least a majority in principal amount of the outstanding debt securities of each series affected by the modifications or amendments. We may not make any modification or amendment without the consent of the holders of each affected debt security then outstanding if that amendment will:

- reduce the amount of debt securities whose holders must consent to an amendment, supplement or waiver;
- reduce the rate of or extend the time for payment of interest (including default interest) on any debt security;
- reduce the principal of, or premium on, or change the fixed maturity of any debt security, or reduce the amount of, or postpone the date fixed for, the payment of any sinking fund or analogous obligation with respect to any series of debt securities;
- reduce the principal amount of discount securities payable upon acceleration of maturity;
- waive a default in the payment of the principal of, premium or interest on any debt security (except a rescission of acceleration of the debt securities of any series by the holders of at least a majority in aggregate principal amount of the then outstanding debt securities of that series and a waiver of the payment default that resulted from such acceleration);
- make the principal of or premium or interest on any debt security payable in currency other than that stated in the debt security;
- make any change to certain provisions of the indenture relating to, among other things, the right of holders of debt securities to receive payment of the principal of, premium and interest on those debt securities and to institute suit for the enforcement of any such payment and to waivers or amendments; or
- waive a redemption payment with respect to any debt security.

Except for certain specified provisions, the holders of at least a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all debt securities of that series waive our compliance with provisions of the indenture. The holders of a majority in principal amount of the outstanding debt securities of any series may on behalf of the holders of all the debt securities of such series waive any past default under the indenture with respect to that series and its consequences, except a default in the payment of the principal of, premium or any interest on any debt security of that series; provided, however, that the holders of a majority in principal amount of the outstanding debt securities of any series may rescind an acceleration and its consequences, including any related payment default that resulted from the acceleration.

Defeasance of Debt Securities and Certain Covenants in Certain Circumstances

Legal Defeasance

The indenture will provide that, unless otherwise provided by the terms of the applicable series of debt securities, we may be discharged from any and all obligations in respect of the debt securities of any series (subject to certain exceptions). We will be so discharged upon the irrevocable deposit with the trustee, in trust, of money and/or U.S. government obligations or, in the case of debt securities denominated in a single currency other than U.S. dollars, government obligations of the government that issued or caused to be issued such currency, that, through the payment of interest and principal in accordance with their terms, will provide money or U.S. government obligations in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants or investment bank to pay and discharge each installment of principal, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities.

This discharge may occur only if, among other things, we have delivered to the trustee an opinion of counsel stating that we have received from, or there has been published by, the United States Internal Revenue Service a ruling or, since the date of execution of the indenture, there has been a change in the applicable United States federal income tax law, in either case to the effect that, and based thereon such opinion shall confirm that, the holders of the debt securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit, defeasance and discharge and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit, defeasance and discharge had not occurred.

Defeasance of Certain Covenants

The indenture will provide that, unless otherwise provided by the terms of the applicable series of debt securities, upon compliance with certain conditions:

- we may omit to comply with the covenant described under the heading “—Consolidation, Merger and Sale of Assets” and certain other covenants set forth in the indenture, as well as any additional covenants which may be set forth in the applicable prospectus supplement; and
- any omission to comply with those covenants will not constitute a Default or an Event of Default with respect to the debt securities of that series.

We refer to this as covenant defeasance. The conditions include:

- depositing with the trustee money and/or U.S. government obligations or, in the case of debt securities denominated in a single currency other than U.S. dollars, government obligations of the government that issued or caused to be issued such currency, that, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants or investment bank to pay and discharge each installment of principal of, premium and interest on and any mandatory sinking fund payments in respect of the debt securities of that series on the stated maturity of those payments in accordance with the terms of the indenture and those debt securities;
- such deposit will not result in a breach or violation of, or constitute a default under the indenture or any other agreement to which we are a party;
- no Default or Event of Default with respect to the applicable series of debt securities shall have occurred or is continuing on the date of such deposit; and
- delivering to the trustee an opinion of counsel to the effect that we have received from, or there has been published by, the United States Internal Revenue Service a ruling or, since the date of execution of the indenture, there has been a change in the applicable United States federal income tax law, in either case to the effect that, and based thereon such opinion shall confirm that, the holders of the debt securities of that

series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred.

No Personal Liability of Directors, Officers, Employees or Stockholders

None of our past, present or future directors, officers, employees or stockholders, as such, will have any liability for any of our obligations under the debt securities or the indenture or for any claim based on, or in respect or by reason of, such obligations or their creation. By accepting a debt security, each holder waives and releases all such liability. This waiver and release is part of the consideration for the issue of the debt securities. However, this waiver and release may not be effective to waive liabilities under U.S. federal securities laws, and it is the view of the SEC that such a waiver is against public policy.

Governing Law

The indenture and the debt securities, including any claim or controversy arising out of or relating to the indenture or the securities, will be governed by the laws of the State of New York.

The indenture will provide that we, the trustee and the holders of the debt securities (by their acceptance of the debt securities) irrevocably waive, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to the indenture, the debt securities or the transactions contemplated thereby.

The indenture will provide that any legal suit, action or proceeding arising out of or based upon the indenture or the transactions contemplated thereby may be instituted in the federal courts of the United States of America located in the City of New York or the courts of the State of New York in each case located in the City of New York, and we, the trustee and the holder of the debt securities (by their acceptance of the debt securities) irrevocably submit to the non-exclusive jurisdiction of such courts in any such suit, action or proceeding. The indenture will further provide that service of any process, summons, notice or document by mail (to the extent allowed under any applicable statute or rule of court) to such party's address set forth in the indenture will be effective service of process for any suit, action or other proceeding brought in any such court. The indenture will further provide that we, the trustee and the holders of the debt securities (by their acceptance of the debt securities) irrevocably and unconditionally waive any objection to the laying of venue of any suit, action or other proceeding in the courts specified above and irrevocably and unconditionally waive and agree not to plead or claim any such suit, action or other proceeding has been brought in an inconvenient forum.

DESCRIPTION OF DEPOSITARY SHARES

General

We may offer depositary shares representing a fractional interest in a share of a particular series of preferred stock. Unless otherwise provided in the prospectus supplement, each owner of a depositary share will be entitled, in proportion to the applicable fractional interest in a share of preferred stock represented by the depositary share, to all the rights and preferences of the preferred stock represented by the depositary share. Those rights include dividend, voting, redemption, conversion and liquidation rights.

The shares of preferred stock underlying the depositary shares will be deposited with a bank or trust company selected by us to act as depositary under a deposit agreement between us, the depositary and the holders of the depositary receipts. The depositary will be the transfer agent, registrar and dividend disbursing agent for the depositary shares.

The depositary shares will be evidenced by depositary receipts issued pursuant to the deposit agreement. Holders of depositary receipts agree to be bound by the deposit agreement, which requires holders to take certain actions such as filing proof of residence and paying certain charges.

The summary of terms of the depositary shares contained in this prospectus is not complete. You should refer to the form of the deposit agreement, our certificate of incorporation and the certificate of designation for the applicable series of preferred stock that are, or will be, filed with the SEC.

Dividends and Other Distributions

The depositary will distribute all cash dividends or other cash distributions, if any, received in respect of the preferred stock underlying the depositary shares to the record holders of depositary shares in proportion to the numbers of depositary shares owned by those holders on the relevant record date. The relevant record date for depositary shares will be the same date as the record date for the underlying preferred stock.

If there is a distribution other than in cash, the depositary will distribute property (including securities) received by it to the record holders of depositary shares, unless the depositary determines that it is not feasible to make the distribution. If this occurs, the depositary may, with our approval, adopt another method for the distribution, including selling the property and distributing the net proceeds from the sale to the holders.

Liquidation Preference

If a series of preferred stock underlying the depositary shares has a liquidation preference, in the event of the voluntary or involuntary liquidation, dissolution or winding up of us, holders of depositary shares will be entitled to receive the fraction of the liquidation preference accorded each share of the applicable series of preferred stock, as set forth in the applicable prospectus supplement.

Withdrawal of Stock

Unless the related depositary shares have been previously called for redemption, upon surrender of the depositary receipts at the office of the depositary, the holder of the depositary shares will be entitled to delivery, at the office of the depositary to or upon his or her order, of the number of whole shares of the preferred stock and any money or other property represented by the depositary shares. If the depositary receipts delivered by the holder evidence a number of depositary shares in excess of the number of depositary shares representing the number of whole shares of preferred stock to be withdrawn, the depositary will deliver to the holder at the same time a new depositary receipt evidencing the excess number of depositary shares. In no event will the depositary deliver fractional shares of preferred stock upon surrender of depositary receipts. Holders of preferred stock thus withdrawn may not thereafter deposit those shares under the deposit agreement or receive depositary receipts evidencing depositary shares therefor.

Redemption of Depositary Shares

Whenever we redeem shares of preferred stock held by the depositary, the depositary will redeem as of the same redemption date the number of depositary shares representing shares of the preferred stock so redeemed, so long as we have paid in full to the depositary the redemption price of the preferred stock to be redeemed plus an amount equal to any accumulated and unpaid dividends on the preferred stock to the date fixed for redemption. The redemption price per depositary share will be equal to the redemption price and any other amounts per share payable on the preferred stock multiplied by the fraction of a share of preferred stock represented by one depositary share. If less than all the depositary shares are to be redeemed, the depositary shares to be redeemed will be selected by lot or pro rata or by any other equitable method as may be determined by the depositary.

After the date fixed for redemption, depositary shares called for redemption will no longer be deemed to be outstanding and all rights of the holders of depositary shares will cease, except the right to receive the monies payable upon redemption and any money or other property to which the holders of the depositary shares were entitled upon redemption upon surrender to the depositary of the depositary receipts evidencing the depositary shares.

Voting the Preferred Stock

Upon receipt of notice of any meeting at which the holders of the preferred stock are entitled to vote, the depositary will mail the information contained in the notice of meeting to the record holders of the depositary receipts relating to that preferred stock. The record date for the depositary receipts relating to the preferred stock will be the same date as the record date for the preferred stock. Each record holder of the depositary shares on the record date will be entitled to instruct the depositary as to the exercise of the voting rights pertaining to the number of shares of preferred stock represented by that holder's depositary shares. The depositary will endeavor, insofar as practicable, to vote the number of shares of preferred stock represented by the depositary shares in accordance with those instructions, and we will agree to take all action that may be deemed necessary by the depositary in order to enable the depositary to do so. The depositary will not vote any shares of preferred stock except to the extent that it receives specific instructions from the holders of depositary shares representing that number of shares of preferred stock.

Charges of the Depositary

We will pay all transfer and other taxes and governmental charges arising solely from the existence of the depositary arrangements. We will pay charges of the depositary in connection with the initial deposit of the preferred stock and any redemption of the preferred stock. Holders of depositary receipts will pay transfer, income and other taxes and governmental charges and such other charges (including those in connection with the receipt and distribution of dividends, the sale or exercise of rights, the withdrawal of the preferred stock and the transferring, splitting or grouping of depositary receipts) as are expressly provided in the deposit agreement to be for their accounts. If these charges have not been paid by the holders of depositary receipts, the depositary may refuse to transfer depositary shares, withhold dividends and distributions and sell the depositary shares evidenced by the depositary receipt.

Amendment and Termination of the Deposit Agreement

The form of depositary receipt evidencing the depositary shares and any provision of the deposit agreement may be amended by agreement between us and the depositary. However, any amendment that materially and adversely alters the rights of the holders of depositary shares, other than fee changes, will not be effective unless the amendment has been approved by the holders of a majority of the outstanding depositary shares. The deposit agreement may be terminated by the depositary or us only if:

- all outstanding depositary shares have been redeemed; or
- there has been a final distribution of the preferred stock in connection with our dissolution and such distribution has been made to all the holders of depositary shares.

Resignation and Removal of Depositary

The depositary may resign at any time by delivering to us notice of its election to do so, and we may remove the depositary at any time. Any resignation or removal of the depositary will take effect upon our appointment of a successor depositary and its acceptance of such appointment. The successor depositary must be appointed within 60 days after delivery of the notice of resignation or removal and must be a bank or trust company having its principal office in the United States and having the requisite combined capital and surplus as set forth in the applicable agreement.

Notices

The depositary will forward to holders of depositary receipts all notices, reports and other communications, including proxy solicitation materials received from us, that are delivered to the depositary and that we are required to furnish to the holders of the preferred stock. In addition, the depositary will make available for inspection by holders of depositary receipts at the principal office of the depositary, and at such other places as it may from time to time deem advisable, any reports and communications we deliver to the depositary as the holder of preferred stock.

Limitation of Liability

Neither we nor the depositary will be liable if either is prevented or delayed by law or any circumstance beyond its control in performing its obligations. Our obligations and those of the depositary will be limited to performance in good faith of our and its duties thereunder. We and the depositary will not be obligated to prosecute or defend any legal proceeding in respect of any depositary shares or preferred stock unless satisfactory indemnity is furnished. We and the depositary may rely upon written advice of counsel or accountants, on information provided by persons presenting preferred stock for deposit, holders of depositary receipts or other persons believed to be competent to give such information and on documents believed to be genuine and to have been signed or presented by the proper party or parties.

DESCRIPTION OF WARRANTS

We may offer warrants to purchase debt securities, preferred stock, depositary shares or Common Stock. We may offer warrants separately or together with one or more additional warrants, debt securities, preferred stock, depositary shares or Common Stock, or any combination of those securities in the form of units, as described in the applicable prospectus supplement. If we issue warrants as part of a unit, the applicable prospectus supplement will specify whether those warrants may be separated from the other securities in the unit prior to the expiration date of the warrants. The applicable prospectus supplement will also describe the following terms of any warrants:

- the specific designation and aggregate number of, and the offering price at which we will issue, the warrants;
- the currency or currency units in which the offering price, if any, and the exercise price are payable;
- the date on which the right to exercise the warrants will begin and the date on which that right will expire or, if you may not continuously exercise the warrants throughout that period, the specific date or dates on which you may exercise the warrants;
- whether the warrants are to be sold separately or with other securities as parts of units;
- whether the warrants will be issued in definitive or global form or in any combination of these forms, although, in any case, the form of a warrant included in a unit will correspond to the form of the unit and of any security included in that unit;
- any applicable material U.S. federal income tax consequences;
- the identity of the warrant agent for the warrants and of any other depositaries, execution or paying agents, transfer agents, registrars or other agents;
- the proposed listing, if any, of the warrants or any securities purchasable upon exercise of the warrants on any securities exchange;
- the designation and terms of any equity securities purchasable upon exercise of the warrants;
- the designation, aggregate principal amount, currency and terms of any debt securities that may be purchased upon exercise of the warrants;
- if applicable, the designation and terms of the debt securities, preferred stock, depositary shares or Common Stock with which the warrants are issued and the number of warrants issued with each security;
- if applicable, the date from and after which any warrants issued as part of a unit and the related debt securities, preferred stock, depositary shares or Common Stock will be separately transferable;
- the number of shares of preferred stock, the number of depositary shares or the number of shares of Common Stock purchasable upon exercise of a warrant and the price at which those shares may be purchased;
- if applicable, the minimum or maximum amount of the warrants that may be exercised at any one time;
- information with respect to book-entry procedures, if any;
- the antidilution provisions, and other provisions for changes to or adjustment in the exercise price, of the warrants, if any;
- any redemption or call provisions; and
- any additional terms of the warrants, including terms, procedures and limitations relating to the exchange or exercise of the warrants.

DESCRIPTION OF SUBSCRIPTION RIGHTS

We may offer subscription rights to purchase our Common Stock, preferred stock, debt securities, depositary shares, warrants or units consisting of some or all of these securities. These subscription rights may be offered independently or together with any other security offered hereby and may or may not be transferable by the stockholder receiving the subscription rights in such offering. In connection with any offering of subscription rights, we may enter into a standby arrangement with one or more underwriters or other purchasers pursuant to which the underwriters or other purchasers may be required to purchase any securities remaining unsubscribed for after such offering.

The prospectus supplement relating to any subscription rights we offer, if any, will, to the extent applicable, include specific terms relating to the offering, including some or all of the following:

- the price, if any, for the subscription rights;
- the exercise price payable for our Common Stock, preferred stock, debt securities, depositary shares, warrants or units consisting of some or all of these securities upon the exercise of the subscription rights;
- the number of subscription rights to be issued to each stockholder;
- the number and terms of our Common Stock, preferred stock, debt securities, depositary shares, warrants or units consisting of some or all of these securities which may be purchased per each subscription right;
- the extent to which the subscription rights are transferable;
- any other terms of the subscription rights, including the terms, procedures and limitations relating to the exchange and exercise of the subscription rights;
- the date on which the right to exercise the subscription rights shall commence, and the date on which the subscription rights shall expire;
- the extent to which the subscription rights may include an over-subscription privilege with respect to unsubscribed securities or an over-allotment privilege to the extent the securities are fully subscribed; and
- if applicable, the material terms of any standby underwriting or purchase arrangement which may be entered into by us in connection with the offering of subscription rights.

The descriptions of the subscription rights in this prospectus and in any prospectus supplement are summaries of the material provisions of the applicable subscription right agreements. These descriptions do not restate those subscription right agreements in their entirety and may not contain all the information that you may find useful. We urge you to read the applicable subscription right agreements because they, and not the summaries, define your rights as holders of the subscription rights. For more information, please review the forms of the relevant subscription right agreements, which will be filed with the SEC promptly after the offering of subscription rights and will be available as described in the section titled “Where You Can Find More Information.”

DESCRIPTION OF PURCHASE CONTRACTS

The following description summarizes the general features of the purchase contracts that we may offer under this prospectus. Although the features we have summarized below will generally apply to any future purchase contracts we may offer under this prospectus, we will describe the particular terms of any purchase contracts that we may offer in more detail in the applicable prospectus supplement. The specific terms of any purchase contracts may differ from the description provided below as a result of negotiations with third parties in connection with the issuance of those purchase contracts, as well as for other reasons. Because the terms of any purchase contracts we offer under a prospectus supplement may differ from the terms we describe below, you should rely solely on information in the applicable prospectus supplement if that summary is different from the summary in this prospectus.

We will incorporate by reference into the registration statement of which this prospectus is a part the form of any purchase contract that we may offer under this prospectus before the sale of the related purchase contract. We urge you to read any applicable prospectus supplement related to specific purchase contracts being offered, as well as the complete instruments that contain the terms of the securities that are subject to those purchase contracts. Certain of those instruments, or forms of those instruments, have been filed as exhibits to the registration statement of which this prospectus is a part, and supplements to those instruments or forms may be incorporated by reference into the registration statement of which this prospectus is a part from reports we file with the SEC.

We may offer purchase contracts, including contracts obligating holders to purchase from us, and for us to sell to holders, a specific or variable number of our securities at a future date or dates. Alternatively, the purchase contracts may obligate us to purchase from holders, and obligate holders to sell to us, a specific or varying number of our securities.

If we offer any purchase contracts, certain terms of that series of purchase contracts will be described in the applicable prospectus supplement, including, without limitation, the following:

- the price of the securities or other property subject to the purchase contracts (which may be determined by reference to a specific formula described in the purchase contracts);
- whether the purchase contracts are issued separately, or as a part of units each consisting of a purchase contract and one or more of our other securities, including U.S. Treasury securities, securing the holder's obligations under the purchase contract;
- any requirement for us to make periodic payments to holders or vice versa, and whether the payments are unsecured or pre-funded;
- any provisions relating to any security provided for the purchase contracts;
- whether the purchase contracts obligate the holder or us to purchase or sell, or both purchase and sell, the securities subject to purchase under the purchase contract, and the nature and amount of each of those securities, or the method of determining those amounts;
- whether the purchase contracts are to be prepaid or not;
- whether the purchase contracts are to be settled by delivery, or by reference or linkage to the value, performance or level of the securities subject to purchase under the purchase contract;
- any acceleration, cancellation, termination or other provisions relating to the settlement of the purchase contracts;
- a discussion of certain U.S. federal income tax considerations applicable to the purchase contracts;
- whether the purchase contracts will be issued in fully registered or global form; and
- any other terms of the purchase contracts and any securities subject to such purchase contracts.

DESCRIPTION OF UNITS

We may offer units comprising two or more securities described in this prospectus in any combination. For example, we might issue units consisting of a combination of debt securities and warrants to purchase Common Stock. The following description sets forth certain general terms and provisions of the units that we may offer pursuant to this prospectus. The particular terms of the units and the extent, if any, to which the general terms and provisions may apply to the units so offered will be described in the applicable prospectus supplement.

Each unit will be issued so that the holder of the unit also is the holder of each security included in the unit. Thus, the unit will have the rights and obligations of a holder of each included security. Units will be issued pursuant to the terms of a unit agreement, which may provide that the securities included in the unit may not be held or transferred separately at any time or at any time before a specified date. A copy of the forms of the unit agreement and the unit certificate relating to any particular issue of units will be filed with the SEC each time we issue units, and you should read those documents for provisions that may be important to you. For more information on how you can obtain copies of the forms of the unit agreement and the related unit certificate, see the section titled “Where You Can Find More Information.”

The prospectus supplement relating to any particular issuance of units will describe the terms of those units, including, to the extent applicable, the following:

- the designation and terms of the units and the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provision for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and
- whether the units will be issued in fully registered or global form.

PLAN OF DISTRIBUTION

We may sell securities:

- through underwriters;
- through dealers;
- through agents;
- directly to purchasers; or
- through a combination of any of these methods of sale.

In addition, we may issue the securities as a dividend or distribution or in a subscription rights offering to our existing securityholders.

We may directly solicit offers to purchase securities or agents may be designated to solicit such offers. We will, in the prospectus supplement relating to such offering, name any agent that could be viewed as an underwriter under the Securities Act and describe any commissions that we must pay. Any such agent will be acting on a best efforts basis for the period of its appointment or, if indicated in the applicable prospectus supplement, on a firm commitment basis. This prospectus may be used in connection with any offering of our securities through any of these methods or other methods described in the applicable prospectus supplement.

The distribution of the securities may be effected from time to time in one or more transactions:

- at a fixed price or prices that may be changed from time to time;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

Each prospectus supplement will describe the method of distribution of the securities and any applicable restrictions.

The prospectus supplement with respect to the securities of a particular series will describe the terms of the offering of the securities, including the following:

- the name of the agent or any underwriters;
- the public offering or purchase price;
- any discounts and commissions to be allowed or paid to the agent or underwriters;
- all other items constituting underwriting compensation;
- any discounts and commissions to be allowed or paid to dealers; and
- any exchanges on which the securities will be listed.

If any underwriters or agents are utilized in the sale of the securities in respect of which this prospectus is delivered, we will enter into an underwriting agreement or other agreement with them at the time of sale to them, and we will set forth in the prospectus supplement relating to such offering the names of the underwriters or agents and the terms of the related agreement with them.

If a dealer is utilized in the sale of the securities in respect of which the prospectus is delivered, we will sell such securities to the dealer, as principal. The dealer may then resell such securities to the public at varying prices to be determined by such dealer at the time of resale.

If we offer securities in a subscription rights offering to our existing securityholders, we may enter into a standby underwriting agreement with dealers, acting as standby underwriters. We may pay the standby underwriters a commitment fee for the securities they commit to purchase on a standby basis. If we do not enter into a standby underwriting arrangement, we may retain a dealer-manager to manage a subscription rights offering for us.

Agents, underwriters, dealers and other persons may be entitled under agreements that they may enter into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act.

If so indicated in the applicable prospectus supplement, we will authorize underwriters or other persons acting as our agents to solicit offers by certain institutions to purchase securities from us pursuant to delayed delivery contracts providing for payment and delivery on the date stated in the prospectus supplement. Each contract will be for an amount not less than, and the aggregate amount of securities sold pursuant to such contracts shall not be less nor more than, the respective amounts stated in the prospectus supplement. Institutions with whom the contracts, when authorized, may be made include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and other institutions, but shall in all cases be subject to our approval. Delayed delivery contracts will not be subject to any conditions except that:

- the purchase by an institution of the securities covered under that contract shall not at the time of delivery be prohibited under the laws of the jurisdiction to which that institution is subject; and
- if the securities are also being sold to underwriters acting as principals for their own account, the underwriters shall have purchased such securities not sold for delayed delivery.

The underwriters and other persons acting as agents will not have any responsibility in respect of the validity or performance of delayed delivery contracts.

Certain agents, underwriters and dealers, and their associates and affiliates may be customers of, have borrowing relationships with, engage in other transactions with, and/or perform services, including investment banking services, for us or one or more of our respective affiliates in the ordinary course of business.

In order to facilitate the offering of the securities, any underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the securities or any other securities the prices of which may be used to determine payments on such securities. Specifically, any underwriters may over-allot in connection with the offering, creating a short position for their own accounts. In addition, to cover over-allotments or to stabilize the price of the securities or of any such other securities, the underwriters may bid for, and purchase, the securities or any such other securities in the open market. Finally, in any offering of the securities through a syndicate of underwriters, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the securities in the offering if the syndicate repurchases previously distributed securities in transactions to cover syndicate short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the securities above independent market levels. Any such underwriters are not required to engage in these activities and may end any of these activities at any time.

Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in one business day, unless the parties to any such trade expressly agree otherwise. The applicable prospectus supplement may provide that the original issue date for your securities may be more than one scheduled business day after the trade date for your securities. Accordingly, in such a case, if you wish to trade securities on any date prior to the second business day before the original issue date for your securities, you will be required, by virtue of the fact that your securities initially are expected to settle in more than two scheduled business days after the trade date for your securities, to make alternative settlement arrangements to prevent a failed settlement.

The securities may be new issues of securities and may have no established trading market. The securities may or may not be listed on a national securities exchange. We can make no assurance as to the liquidity of or the existence of trading markets for any of the securities.

LEGAL MATTERS

The validity of the securities offered hereby will be passed upon for us by Wilson Sonsini Goodrich & Rosati, Professional Corporation, San Diego, California. Additional legal matters may be passed on for us, or any underwriters, dealers or agents, by counsel that we will name in the applicable prospectus supplement. Certain members of, and investment partnerships comprised of members of, and persons associated with, Wilson Sonsini Goodrich & Rosati, P.C. own less than 0.1% of our Common Stock.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2024, as set forth in their report, which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at www.sec.gov. Copies of certain information filed by us with the SEC are also available on our website at <https://lenz-tx.com/>. Information accessible on or through our website is not a part of this prospectus.

This prospectus and any prospectus supplement is part of a registration statement that we filed with the SEC and do not contain all of the information in the registration statement. You should review the information and exhibits in the registration statement for further information on us and our consolidated subsidiaries and the securities that we are offering. Forms of any indenture or other documents establishing the terms of the offered securities are filed as exhibits to the registration statement of which this prospectus forms a part or under cover of a Current Report on Form 8-K and incorporated in this prospectus by reference. Statements in this prospectus or any prospectus supplement about these documents are summaries and each statement is qualified in all respects by reference to the document to which it refers. You should read the actual documents for a more complete description of the relevant matters.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference much of the information that we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus is considered to be part of this prospectus. Because we are incorporating by reference future filings with the SEC, this prospectus is continually updated and those future filings may modify or supersede some of the information included or incorporated by reference in this prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded. This prospectus incorporates by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (in each case, other than those documents or the portions of those documents furnished pursuant to Items 2.02 or 7.01 of any Current Report on Form 8-K and, except as may be noted in any such Form 8-K, exhibits filed on such form that are related to such information) after the date of the initial registration statement of which this prospectus forms a part and prior to the effectiveness of the registration statement, as well as subsequent to the effectiveness of the registration statement, until the offering of the securities under the registration statement of which this prospectus forms a part is terminated or completed:

- our Annual Report on Form 10-K for the year ended December 31, 2024, filed with the SEC on [March 19, 2025](#); and
- the description of our Common Stock contained in the Annual Report on Form 10-K filed on [March 19, 2025](#).

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address and telephone number:

LENZ Therapeutics, Inc.
201 Lomas Santa Fe Dr., Suite 300
Solana Beach, California 92075
Attn: Investor Relations
(858) 925-7000

The information in this prospectus supplement is not complete and may be changed. The securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus supplement is not an offer to sell these securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED April 4, 2025

PROSPECTUS SUPPLEMENT



**Up to \$150,000,000
Common Stock**

We have entered into a sales agreement (the “sales agreement”) with TD Securities (USA) LLC (“TD Cowen”), dated April 4, 2025, relating to shares of our common stock, par value \$0.00001 per share (“common stock”), offered by this prospectus supplement and the accompanying prospectus. In accordance with the terms of the sales agreement, we may offer and sell shares of our common stock having an aggregate offering price of up to \$150,000,000 from time to time through TD Cowen acting as our agent or principal.

Our common stock is listed on the Nasdaq Global Select Market (“Nasdaq”) under the symbol “LENZ.” On April 3, 2025, the last reported sale price of our common stock on Nasdaq was \$23.00 per share.

Sales of our common stock, if any, under this prospectus supplement and the accompanying prospectus will be made in negotiated transactions, including block trades, in sales deemed to be an “at the market offering” as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended (the “Securities Act”), or by any other method permitted by law. TD Cowen is not required to sell any specific number of dollar amount of securities, but will act as our sales agent using commercially reasonable efforts consistent with its normal trading and sales practices, on mutually agreed terms between TD Cowen and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

The compensation to TD Cowen for sales of common stock sold pursuant to the sales agreement will be an amount up to 3.0% of the gross proceeds of any shares of common stock sold under the sales agreement. In connection with the sale of the common stock on our behalf, TD Cowen will be deemed to be an “underwriter” within the meaning of the Securities Act and the compensation of TD Cowen will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to TD Cowen with respect to certain liabilities, including liabilities under the Securities Act or the Securities Exchange Act of 1934, as amended (the “Exchange Act”). See “[Plan of Distribution](#)” beginning on page [S-15](#) for additional information regarding the compensation to be paid to TD Cowen.

We are an “emerging growth company” and a “smaller reporting company” under federal securities laws and as such, have elected to comply with reduced public company reporting requirements for this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and may elect to comply with reduced public company reporting requirements in future filings. See “Prospectus Supplement Summary—Implications of Being an Emerging Growth Company and Smaller Reporting Company.”

Our business and an investment in our common stock involve significant risks. Before making an investment decision, you should review carefully and consider all of the information set forth in this prospectus supplement and the documents incorporated by reference. These risks are described under the caption “[Risk Factors](#)” beginning on page [S-7](#) of this prospectus supplement and in the documents incorporated by reference into this prospectus supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

TD Cowen

The date of this prospectus supplement is , 2025.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement is part of a shelf registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the “SEC”). Under this shelf registration process, we may sell any combination of the securities described in our base prospectus included in the shelf registration statement in one or more offerings up to a total aggregate offering price of \$500,000,000. The \$150,000,000 of common stock that may be offered, issued and sold under this prospectus is included in the \$500,000,000 of securities that may be offered, issued and sold by us pursuant to our shelf registration statement.

You should rely only on the information contained in, or incorporated by reference into, this prospectus supplement, the accompanying prospectus and in any free writing prospectus that we may authorize for use in connection with this offering. We have not, and TD Cowen has not, authorized any other person to provide you with different or additional information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and TD Cowen is not, making an offer to sell or soliciting an offer to buy our securities in any jurisdiction in which an offer or solicitation is not authorized or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation. You should assume that the information appearing in this prospectus supplement, the accompanying prospectus, the documents incorporated by reference into this prospectus, and in any free writing prospectus that we may authorize for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus supplement, the accompanying prospectus, the documents incorporated by reference into this prospectus, and any free writing prospectus that we may authorize for use in connection with this offering, in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the section of this prospectus supplement entitled “Incorporation of Certain Documents by Reference” and in the section of the accompanying base prospectus entitled “Where You Can Find More Information.”

We are offering to sell, and seeking offers to buy, shares of common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the offering of our common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement must inform themselves about, and observe any restrictions relating to, the offering of our common stock and the distribution of this prospectus supplement outside the United States. This prospectus supplement does not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

In this prospectus supplement, unless the context otherwise requires, the terms “LENZ Therapeutics, Inc.,” “LENZ,” “Company,” “we,” “us,” “our” and similar terms refer to LENZ Therapeutics, Inc., a Delaware corporation, and where appropriate, our wholly-owned subsidiaries.

This prospectus supplement and the information incorporated herein or therein by reference include trademarks, service marks and trade names owned by us or other companies. Solely for convenience, trademarks, service marks, and trade names, including logos, artwork, and other visual displays, may appear without the ® or ™ symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensor to these trademarks, service marks, and trade names. We do not intend our use or display of other companies’ trade names, service marks, or trademarks to imply a relationship with, or endorsement or sponsorship of us by, any other companies. All trademarks, service marks and trade names included or incorporated by reference in this prospectus supplement are the property of their respective owners.

MARKET, INDUSTRY AND OTHER DATA

We obtained the industry and market data used throughout this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein from our own internal estimates and research, as well as from independent market research, industry and general publications and surveys, governmental agencies, publicly available information and research, surveys and studies conducted by third parties. Internal estimates are derived from publicly available information released by industry analysts and third-party sources, our internal research and our industry experience, and are based on assumptions made by us based on such data and our knowledge of our industry and market, which we believe to be reasonable. In some cases, we do not expressly refer to the sources from which this data is derived. In addition, while we believe the industry and market data included in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein is reliable and based on reasonable assumptions, such data involve material risks and other uncertainties and are subject to change based on various factors, including those discussed in the section entitled “*Risk Factors*.” These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties or by us.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained elsewhere in this prospectus supplement or incorporated by reference in this prospectus supplement, and does not contain all of the information that you need to consider in making your investment decision. You should carefully read this entire prospectus supplement, the accompanying prospectus and any related free writing prospectus, including the risks of investing in our securities discussed under the heading “Risk Factors” contained in this prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated by reference into this prospectus supplement and the accompanying base prospectus. You should also carefully read the information incorporated by reference into this prospectus supplement, including our financial statements, and the exhibits to the registration statement of which this prospectus supplement is a part.

Overview

We are a pre-commercial biopharmaceutical company focused on the development and commercialization of innovative therapies to improve vision. Our initial focus is the treatment of presbyopia, the inevitable loss of near vision that impacts the daily lives of nearly all people over 45. In the United States, the estimated addressable population who suffer from this condition, known as presbyopes, is 128 million, almost four times the number of individuals suffering from dry eye disease and three times the number of individuals suffering from childhood myopia, macular degeneration, diabetic retinopathy and glaucoma combined. We believe that a once-daily pharmacological eye drop that can effectively and safely improve near vision throughout the full workday, without the need for reading glasses, could be a highly attractive commercial product with an estimated U.S. market opportunity in excess of \$3 billion. It is our goal to develop and commercialize such a product, and we have assembled an executive team with extensive clinical and commercial experience to execute this goal and become the category leader.

Our lead product candidate LNZ100 is a preservative-free, single-use, once-daily eye drop containing aceclidine. We believe our product candidate is differentiated based on rapid onset, degree and duration of near vision improvement, its ability to be used across the full age range of presbyopes, from their mid-40s to well into their mid-70s, as well as a broad refractive range. Aceclidine’s pupil-selective mechanism of action was demonstrated in our clinical trials where near vision improved while avoiding blurry distance vision. Our product candidate was well-tolerated in clinical trials, and its active ingredient aceclidine has a favorable tolerability profile that has been well-established empirically. LNZ100 has patent protection until 2039 in the United States, at a minimum, due to a robust intellectual property portfolio underpinned by issued patents.

We submitted a New Drug Application for LNZ100 to the U.S. Food and Drug Administration (“FDA”) in August 2024. In October 2024, the FDA assigned a Prescription Drug User Fee Act target action date of August 8, 2025, which, if approved, will be immediately followed by a commercial launch in the United States, with the product anticipated to be available in the market in the fourth quarter of 2025. Given our goal to develop and commercialize the leading, once-daily eye drop for presbyopia that can effectively and safely improve near vision throughout the full workday, we continue to build a robust commercial strategy in the United States and plan to be launch-ready upon potential FDA approval.

Implications of Being an Emerging Growth Company and Smaller Reporting Company

We are an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. We may take advantage of certain exemptions from various public company reporting requirements, including not being required to have our internal control over financial reporting audited by our independent registered public accounting firm under Section 404 of the Sarbanes-Oxley Act of 2002, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and any golden parachute payments. We may take advantage of these exemptions until December 31, 2026 or until we otherwise no longer qualify as an “emerging growth company,” whichever is earlier. We will cease to be an emerging growth company prior to the end of such period if certain earlier events occur, including if we become a “large accelerated filer” as defined in Rule 12b-2.

under the Securities Exchange Act of 1934, as amended, or Exchange Act, our annual gross revenues exceed \$1.235 billion or we issue more than \$1.0 billion of non-convertible debt in any three-year period.

Section 107 of the JOBS Act provides that an emerging growth company can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act of 1933, as amended (the “Securities Act”), for complying with new or revised accounting standards. In other words, an emerging growth company can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected not to opt out of such extended transition period, which means that when a standard is issued or revised and it has different application dates for public or private companies, we, as an emerging growth company, can adopt the new or revised standard at the time private companies adopt the new or revised standard. This may make comparison of our financial statements with certain other public companies difficult or impossible because of the potential differences in accounting standards used.

We are also a “smaller reporting company” as defined in the Exchange Act. We may continue to be a smaller reporting company even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as our voting and non-voting common stock held by non-affiliates is less than \$250.0 million measured on the last business day of our second fiscal quarter, or our annual revenue is less than \$100.0 million during the most recently completed fiscal year and our voting and non-voting common stock held by non-affiliates is less than \$700.0 million measured on the last business day of our second fiscal quarter.

Corporate Information

We were incorporated in Ontario, Canada on June 1, 2017, as Longbow Therapeutics Inc. and were reincorporated in the State of Delaware in October 2019. In February 2020, we changed our name to Integral Medicines, Inc. and in August 2020, we changed our name to Graphite Bio, Inc. On March 21, 2024 (the “Closing Date”), we consummated a merger (the “Merger”) pursuant to the terms of that certain Agreement and Plan of Merger, dated as of November 14, 2023 (the “Merger Agreement”), by and among us, Generate Merger Sub, Inc., a Delaware corporation and our wholly-owned subsidiary and LENZ Therapeutics Operations, Inc. (previously named Lenz Therapeutics, Inc.), a Delaware corporation. Pursuant to the terms of the Merger Agreement, on the Closing Date, we changed our name to LENZ Therapeutics, Inc.

Our principal executive offices are located at 201 Lomas Santa Fe Dr., Suite 300, Solana Beach, California 92075, and our telephone number is (858) 925-7000. Our investor relations website is located at <https://ir.lenz-tx.com/>. Information contained on the website is not incorporated by reference into this prospectus supplement or any other filings we make with the SEC.

We use our investor relations website to post important information for investors, including news releases, analyst presentations, and supplemental financial information, and as a means of disclosing material non-public information and for complying with our disclosure obligations under Regulation FD. Accordingly, investors should monitor our investor relations website, in addition to following press releases, SEC filings and public conference calls and webcasts. We also make available, free of charge, on our investor relations website under “SEC Filings,” our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to these reports as soon as reasonably practicable after electronically filing or furnishing those reports to the SEC.

The Offering

Common Stock Offered by Us	Shares of common stock having an aggregate offering price of up to \$150,000,000.
Common Stock Outstanding After this Offering	Up to 6,521,739 shares, assuming sales at a price of \$23.00 per share, which was the closing price of our common stock on Nasdaq on April 3, 2025. The actual number of shares issued will vary depending on the sales price under this offering.
Manner of Offering	“At the market” offering that may be made from time to time through our sales agent, TD Cowen. See “ Plan of Distribution ” on page S-15 of this prospectus supplement.
Use of Proceeds	Our management will retain broad discretion regarding the allocation and use of the net proceeds from this offering. We currently intend to use the net proceeds from this offering, if any, for general corporate purposes and working capital, including for continued development and commercialization of LNZ100, subject to FDA approval. See “ Use of Proceeds ” on page S-11 of this prospectus supplement.
Risk Factors	Investing in our common stock involves a high degree of risk. See “ Risk Factors ” beginning on page S-7 of this prospectus supplement and the other information included in, or incorporated by reference into, this prospectus supplement for a discussion of certain factors that you should carefully consider before deciding to invest in shares of our common stock.
Nasdaq Global Select Market symbol	“LENZ”

The number of shares of common stock to be outstanding after this offering is based on 27,531,490 shares of common stock outstanding as of December 31, 2024 and excludes, in each case as of December 31, 2024:

- 164,676 shares of our common stock issuable upon the exercise of warrants to purchase shares of our common stock outstanding as of December 31, 2024, with an exercise price of \$10.64 per share;
- 1,458,939 shares of our common stock issuable upon the exercise of outstanding options under the LENZ Therapeutics Operations, Inc. 2020 Equity Incentive Plan (the “2020 Plan”), which were assumed by the Company in connection with the Merger, with a weighted average exercise price of \$4.28 per share;
- 8,438 shares of our common stock issuable upon the exercise of outstanding options under the LENZ Therapeutics, Inc. (f/k/a Graphite Bio, Inc.) 2021 Stock Option and Incentive Plan (the “2021 Plan”), with a weighted average exercise price of \$11.94 per share;
- 1,522,550 shares of our common stock issuable upon the exercise of outstanding options under the LENZ Therapeutics, Inc. 2024 Equity Incentive Plan (the “2024 Plan”), with a weighted average exercise price of \$16.45 per share;
- 790,139 shares of common stock issuable upon the exercise of stock options granted pursuant to the 2024 Plan subsequent to December 31, 2024, with a weighted average exercise price of \$26.00 per share;
- 30,500 shares of common stock issuable upon the vesting of restricted stock units granted pursuant to the 2024 Plan subsequent to December 31, 2024;

- 1,544,122 shares of our common stock reserved for future issuance under our 2024 Plan, as well as any automatic increases in the number of shares of common stock reserved for future issuance under this plan; and
- 250,995 shares of our common stock reserved for future issuance under our 2024 Employee Stock Purchase Plan (the “2024 ESPP”), as well as any automatic increases in the number of shares of common stock reserved for future issuance under this plan.

Unless otherwise indicated, all information in this prospectus supplement assumes no exercise of outstanding options after December 31, 2024.

The share numbers set forth above also exclude the automatic increases in the shares reserved under the 2024 Plan and the 2024 ESPP that were effective January 1, 2025.

RISK FACTORS

Investing in our common stock involves risk. You should carefully consider the specific risks discussed below, together with all the other information contained in the prospectus supplement, accompanying prospectus or incorporated by reference into this prospectus supplement. You should also consider the risks, uncertainties and assumptions discussed under the caption “Risk Factors” included in our Annual Report on Form 10-K for the year ended December 31, 2024, and in subsequent filings, which are incorporated by reference into this prospectus supplement. These risk factors may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. These risks and uncertainties are not the only risks and uncertainties we face. Additional risks and uncertainties not presently known to us, or that we currently view as immaterial, may also impair our business. If any of the risks or uncertainties described in our SEC filings or any additional risks and uncertainties actually occur, our business, financial condition and results of operations could be materially and adversely affected. In that case, the trading price of our securities could decline and you might lose all or part of your investment.

Risks Related to This Offering

We have broad discretion in the use of the net proceeds from this offering.

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways with which you may not agree. Accordingly, you will be relying on the judgment of our management with regard to the use of the net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. It is possible that the net proceeds will be invested or otherwise used in a way that does not yield a favorable, or any, return for the Company.

Investors in this offering may experience immediate and substantial dilution in the net tangible book value per share of the common stock they purchase.

The shares sold in this offering, if any, will be sold from time to time at various prices. The price per share of our common stock being offered may be higher than the net tangible book value per share of our common stock, and as such, you may suffer substantial dilution in the net tangible book value of the common stock you purchase in this offering. In addition, we have a number of options outstanding. If the holders of these options exercise such options, you may incur further dilution.

Our stockholders may experience significant dilution as a result of future equity offerings and exercise of outstanding options.

In order to raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock. We cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock or other securities convertible into or exchangeable for our common stock in future transactions may be higher or lower than the price per share in this offering.

In addition, we have a number of securities outstanding allowing the purchase of our common stock. As of December 31, 2024, 1,544,122 shares of our common stock were reserved for future issuance under our 2024 Plan and 250,995 shares of our common stock were reserved for future issuance under our 2024 ESPP. As of December 31, 2024, there were also options to purchase 2,989,927 shares of our common stock outstanding. The exercise of outstanding options having an exercise price per share that is less than the offering price per share in this offering will result in dilution to investors in this offering.

It is not possible to predict the actual number of shares we will sell under the sales agreement or aggregate proceeds resulting from sales made under the sales agreement.

Subject to certain limitations in the sales agreement and compliance with applicable law, we have the discretion to deliver a placement notice to TD Cowen at any time throughout the term of the sales agreement. The number of shares that are sold through or to TD Cowen after delivering a placement notice will fluctuate based on a number of factors, including the market price of our common stock during the sales period, any limits we may set with TD Cowen in any applicable placement notice and the demand for our common stock. Because the price per share of each share sold pursuant to the sales agreement will fluctuate over time, it is not currently possible to predict the actual number of shares that will be sold or the aggregate proceeds to be raised in connection with sales under the sales agreement.

The common stock offered hereby will be sold in “at-the-market offerings” and investors who buy shares at different times will likely pay different prices.

Investors who purchase shares in this offering at different times will likely pay different prices, and accordingly may experience different levels of dilution and different outcomes in their investment results. We will have discretion, subject to market demand, to vary the timing, prices and number of shares sold in this offering. In addition, subject to the final determination by our board of directors or any restrictions we may place in any applicable placement notice, there is no minimum or maximum sales price for shares to be sold in this offering. Investors may experience a decline in the value of the shares they purchase in this offering as a result of sales made at prices lower than the prices they paid.

We do not intend to pay dividends on our common stock, so any returns will be limited to the value of our stock.

Other than a special cash dividend paid to our stockholders in connection with the Merger, we have never declared or paid cash dividends on shares of our common stock. We currently anticipate that we will retain future earnings for the development, operation and expansion of our business and do not anticipate declaring or paying any cash dividends for the foreseeable future. Any return to stockholders will therefore be limited to the appreciation of their stock.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement includes and incorporates by reference “forward-looking statements” within the meaning of the U.S. Private Securities Litigation Reform Act of 1995 and releases issued by the SEC and within the meaning of Section 27A of the Securities Act, and Section 21E of the Exchange Act. Any statements contained herein that are not statements of historical facts may be deemed to be forward-looking statements.

In some cases, you can identify forward-looking statements by terminology such as “anticipate,” “believe,” “contemplate,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “target,” “will,” or “would” or the negative of these words or other similar terms or expressions. These forward-looking statements include, but are not limited to, statements about the following:

- the likelihood of our clinical trials demonstrating safety and efficacy of our product candidates to the satisfaction of the Food and Drug Administration (“FDA”), and other positive results;
- the timing, scope and likelihood of regulatory approval for LNZ100;
- our ability to obtain and maintain regulatory approval of LNZ100;
- our plans relating to commercializing LNZ100, if approved, including the anticipated timing and geographic areas of focus and sales strategy;
- our plans relating to the development of LNZ100;
- the size of the market opportunity for LNZ100, including our estimates of the size of the affected population and potential adoption rate;
- our competitive position and the success of competing therapies that are or may become available;
- the beneficial characteristics, and the potential safety, efficacy and therapeutic effects of LNZ100;
- the need to hire additional personnel and our ability to attract and retain such personnel;
- our plans relating to the further development and manufacturing of LNZ100 and any future product candidates;
- the expected potential benefits of strategic collaborations with third parties and our ability to attract collaborators with development, regulatory and commercialization expertise;
- the rate and degree of market acceptance and clinical utility of LNZ100 and any other product candidates we may develop;
- the impact of existing laws and regulations and regulatory developments in the United States and other jurisdictions;
- our intellectual property position, including the scope of protection we are able to establish and maintain for intellectual property rights covering LNZ100, including the extensions of existing patent terms where available, the validity of intellectual property rights held by third parties, and our ability not to infringe, misappropriate or otherwise violate any third-party intellectual property rights;
- our continued reliance on third parties to conduct any additional clinical trials of LNZ100 or any future product candidates, and for the manufacture of our product candidates for any such trials;
- the accuracy of our estimates regarding expenses, future revenue, capital requirements and needs for additional financing;
- our financial performance;
- costs related to the Merger;

- our expectation that our existing cash, cash equivalents, and marketable securities will be sufficient to fund the Company to positive operating cash flow subsequent to commercial launch, if LNZ100 is approved;
- our expectations regarding the period during which we will remain an emerging growth company under the Jumpstart Our Business Startups Act (the “JOBS Act”); and
- our anticipated use of our existing resources, the proceeds from the Merger and the concurrent March 2024 PIPE Financing and the July 2024 PIPE Financing (each defined in Annual Report on Form 10-K filed with the SEC on March 19, 2025).

These statements are based on management’s current expectations, estimates, forecasts and projections about our business and industry, are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors that are in some cases beyond our control, and that may cause our actual results, levels of activity, performance or achievements to be materially different from those anticipated by the forward-looking statements. We discuss many of these risks in greater detail in the section entitled “Risk Factors” and elsewhere in this prospectus supplement. You should read these factors and the other cautionary statements made in this prospectus supplement as being applicable to all related forward-looking statements wherever they appear herein or therein. If one or more of these factors materialize, or if any underlying assumptions prove incorrect, our actual results, levels of activity, performance, or achievements may vary materially from any future results, activity, performance, or achievements expressed or implied by these forward-looking statements. We caution readers not to place undue reliance on any forward-looking statements made by us, which speak only as of the date they were made. We undertake no obligation to publicly update any forward-looking statements after the date of this prospectus supplement, whether as a result of new information, future events or otherwise, except as required by law.

You should read this prospectus supplement, the accompanying prospectus and documents we have filed with the SEC that are incorporated by reference and any free writing prospectus that we may authorize for use in connection with this offering completely and with the understanding that our actual future results may be materially different from what we expect. We qualify all of the forward-looking statements in the foregoing documents by these cautionary statements.

USE OF PROCEEDS

We may issue and sell shares of our common stock having an aggregate sales proceeds of up to \$150,000,000 from time to time under this prospectus supplement. The amount of proceeds from this offering will depend upon the number of shares of our common stock sold and the market price at which they are sold. There can be no assurance that we will be able to sell any shares under, or fully utilize, the sales agreement with TD Cowen as a source of financing.

As of the date of this prospectus supplement, we cannot predict with certainty all of the particular uses for the net proceeds to be received. We currently intend to use the net proceeds from this offering, if any, for general corporate purposes and working capital, including for continued development and commercialization of LNZ100, subject to FDA approval. The amounts and timing of our actual expenditures and the extent of our research and development activities may vary significantly depending on numerous factors, including the actual net proceeds from this offering (which will depend on the market price of our common stock during the sales period, any limits we may set with TD Cowen in any applicable placement notice and the demand for our common stock), the progress of our development efforts, the timing and costs associated with the manufacture and supply of any of our product candidates and any unforeseen cash needs, including the factors described under “Risk Factors” in this prospectus supplement and in the documents incorporated by reference herein. As a result, our management will have broad discretion over the use of the net proceeds from this offering.

Pending the uses described above, we intend to invest the net proceeds from this offering in interest-bearing, investment-grade securities, certificates of deposit or government securities.

DIVIDEND POLICY

Other than a special cash dividend paid to our stockholders in connection with the Merger, we have never declared or paid any cash dividends on shares of our common stock. We anticipate that we will retain all of our future earnings to advance the development of expansion of our business, and do not anticipate paying any cash dividends on shares of our common stock in the foreseeable future. Any future determination to declare cash dividends on shares of our common stock will be made at the discretion of our board of directors, subject to applicable law and contractual restrictions and will depend on its financial condition, results of operations, capital requirements, general business conditions and other factors that our board of directors may deem relevant.

DILUTION

Our net tangible book value as of December 31, 2024, was approximately \$204.1 million, or \$7.41 per share. Net tangible book value per share is determined by dividing our total tangible assets, less total liabilities, by the number of shares of our common stock outstanding as of December 31, 2024. Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the as adjusted net tangible book value per share of our common stock immediately after giving effect to this offering.

After giving effect to the sale of our common stock in the aggregate amount of \$150.0 million in this offering at an assumed offering price of \$23.00, the last reported sale price of our common stock on Nasdaq on April 3, 2025, and after deducting commissions and estimated aggregate offering expenses payable by us, our as adjusted net tangible book value as of December 31, 2024, would have been approximately \$349.1 million, or \$10.25 per share. This represents an immediate increase in net tangible book value of \$2.84 per share to existing stockholders and immediate dilution in net tangible book value of \$12.75 per share to new investors purchasing our common stock in this offering. The following table illustrates this dilution on a per share basis:

Assumed public offering price per share		\$ 23.00
Net tangible book value per share as of December 31, 2024	\$ 7.41	
Increase in net tangible book value per share attributable to new investors purchasing shares of common stock in this offering	\$ 2.84	
As adjusted net tangible book value per share as of December 31, 2024, after giving effect to this offering		\$ 10.25
Dilution per share to investors purchasing our common stock in this offering		\$ 12.75

The dilution per share in the table above is illustrative only and will adjust based on the actual price to the public, the actual number of shares sold and other terms of the offering determined at the time shares of our common stock are sold pursuant to this prospectus supplement. The shares sold in this offering, if any, will be sold from time to time at various prices. An increase of \$1.00 per share in the price at which the shares are sold from the assumed offering price of \$23.00 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$150.0 million is sold at that price, would cause our as adjusted net tangible book value per share after the offering to be \$10.34 per share and would increase the dilution in net tangible book value per share to new investors to \$13.66 per share, after deducting commissions and estimated aggregate offering expenses payable by us. A decrease of \$1.00 per share in the price at which the shares are sold from the assumed offering price of \$23.00 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$150.0 million is sold at that price, would cause our as adjusted net tangible book value per share after the offering to be \$10.16 per share and would decrease the dilution in net tangible book value per share to new investors to \$11.84 per share, after deducting commissions and estimated aggregate offering expenses payable by us.

To the extent that outstanding options are exercised, investors purchasing our common stock in this offering will experience further dilution. In addition, to the extent that we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

The above table and discussion of shares of our common stock that will be outstanding after this offering is based on 27,531,490 shares of our common stock outstanding as of December 31, 2024, and excludes, in each case as of December 31, 2024:

- 164,676 shares of our common stock issuable upon the exercise of warrants to purchase shares of our common stock outstanding as of December 31, 2024, with an exercise price of \$10.64 per share;
- 1,458,939 shares of our common stock issuable upon the exercise of outstanding options under 2020 Plan, which were assumed by the Company in connection with the Merger, with a weighted average exercise price of \$4.28 per share;

- 8,438 shares of our common stock issuable upon the exercise of outstanding options under the 2021 Plan, with a weighted average exercise price of \$11.94 per share;
- 1,522,550 shares of our common stock issuable upon the exercise of outstanding options under the 2024 Plan, with an exercise price of \$16.45 per share;
- 790,139 shares of common stock issuable upon the exercise of stock options granted pursuant to the 2024 Plan subsequent to December 31, 2024, with a weighted average exercise price of \$26.00 per share;
- 30,500 shares of common stock issuable upon the vesting of restricted stock units granted pursuant to the 2024 Plan subsequent to December 31, 2024;
- 1,544,122 shares of our common stock reserved for future issuance under our 2024 Plan, as well as any automatic increases in the number of shares of common stock reserved for future issuance under this plan; and
- 250,995 shares of our common stock reserved for future issuance under our 2024 ESPP, as well as any automatic increases in the number of shares of common stock reserved for future issuance under this plan.

Unless otherwise indicated, all information in this prospectus supplement assumes no exercise of outstanding options after December 31, 2024.

The share numbers set forth above also exclude the automatic increases in the shares reserved under the 2024 Plan and the 2024 ESPP that were effective January 1, 2025.

PLAN OF DISTRIBUTION

We have entered into a sales agreement with TD Cowen, under which we may issue and sell from time to time up to \$150,000,000 of our common stock through or to TD Cowen as our sales agent and/or principal. Sales of our common stock, if any, will be made in negotiated transactions, including block trades, at market prices by any method that is deemed to be an “at the market offering” as defined in Rule 415(a)(4) under the Securities Act or by any other method permitted by law. Sales pursuant to the sales agreement may be made through an affiliate of TD Cowen.

TD Cowen will offer our common stock subject to the terms and conditions of the sales agreement on a daily basis or as otherwise agreed upon by us and TD Cowen. We will designate the maximum amount of common stock to be sold through TD Cowen on a daily basis or otherwise determine such maximum amount together with TD Cowen. Subject to the terms and conditions of the sales agreement, TD Cowen will use its commercially reasonable efforts to sell on our behalf all of the shares of common stock requested to be sold by us. We may instruct TD Cowen not to sell common stock if the sales cannot be effected at or above the price designated by us in any such instruction. TD Cowen or we may suspend the offering of our common stock being made through TD Cowen under the sales agreement upon proper notice to the other party. TD Cowen and we each have the right, by giving written notice as specified in the sales agreement, to terminate the sales agreement in each party’s sole discretion at any time.

The aggregate compensation payable to TD Cowen as sales agent equals up to 3.0% of the gross sales price of the shares sold through it pursuant to the sales agreement. We have also agreed to reimburse TD Cowen up to \$75,000 for certain of its expenses upon the execution of the sales agreement and up to \$25,000 for certain of its expenses in connection with each diligence bring-down thereafter. We estimate that the total expenses of the offering payable by us, excluding commissions payable to TD Cowen under the sales agreement, will be approximately \$370,000.

The remaining sales proceeds, after deducting any expenses payable by us and any transaction fees imposed by any governmental, regulatory, or self-regulatory organization in connection with the sales, will equal our net proceeds for the sale of such common stock.

TD Cowen will provide written confirmation to us following the close of trading on Nasdaq on each day in which common stock is sold through it as sales agent under the sales agreement. Each confirmation will include the number of shares of common stock sold through it as sales agent on that day, the volume weighted average price of the shares sold, the percentage of the daily trading volume and the net proceeds to us.

We will report at least quarterly the number of shares of common stock sold through TD Cowen under the sales agreement, the price of the common stock sold and the gross proceeds to us in connection with the sales of common stock.

Settlement for sales of common stock will occur, unless the parties agree otherwise, on the first business day that is also a trading day following the date on which any sales were made in return for payment of the net proceeds to us. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

In connection with the sales of our common stock on our behalf, TD Cowen will be deemed to be an “underwriter” within the meaning of the Securities Act, and the compensation paid to TD Cowen will be deemed to be underwriting commissions or discounts. We have agreed in the sales agreement to provide indemnification and contribution to TD Cowen against certain liabilities, including liabilities under the Securities Act. As sales agent, TD Cowen will not engage in any transactions that stabilizes our common stock.

Our common stock is listed on The Nasdaq Global Select Market and trades under the symbol “LENZ.” The transfer agent of our common stock is Equiniti Trust Company, LLC.

TD Cowen and/or its affiliates have provided, and may in the future provide, various investment banking and other financial services for us for which services they have received and, may in the future receive, customary fees.

LEGAL MATTERS

Certain legal matters in connection with the shares of common stock offered hereby will be passed upon for us by Wilson Sonsini Goodrich & Rosati, Professional Corporation, San Diego, California. 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 our common stock. Certain legal matters in connection with this offering will be passed upon for TD Cowen by Latham & Watkins LLP, New York, New York.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2024, as set forth in their report, which is incorporated by reference in this prospectus supplement and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at www.sec.gov. Copies of certain information filed by us with the SEC are also available on our website at <https://lenz-tx.com/>. Information accessible on or through our website is not a part of this prospectus supplement.

This prospectus supplement is part of a registration statement that we filed with the SEC and does not contain all of the information in the registration statement. You should review the information and exhibits in the registration statement for further information on us and our consolidated subsidiaries and the securities that we are offering. Forms of any indenture or other documents establishing the terms of the offered securities are filed as exhibits to the registration statement of which this prospectus supplement forms a part or under cover of a Current Report on Form 8-K and incorporated in this prospectus supplement by reference. Statements in this prospectus supplement about these documents are summaries and each statement is qualified in all respects by reference to the document to which it refers. You should read the actual documents for a more complete description of the relevant matters.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference much of the information that we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus supplement is considered to be part of this prospectus. Because we are incorporating by reference future filings with the SEC, this prospectus supplement is continually updated and those future filings may modify or supersede some of the information included or incorporated by reference in this prospectus supplement. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus supplement or in any document previously incorporated by reference have been modified or superseded. This prospectus supplement incorporates by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (in each case, other than those documents or the portions of those documents furnished pursuant to Items 2.02 or 7.01 of any Current Report on Form 8-K and, except as may be noted in any such Form 8-K, exhibits filed on such form that are related to such information) after the date of the initial registration statement of which this prospectus forms a part and prior to the effectiveness of the registration statement, as well as subsequent to the effectiveness of the registration statement, until the offering of the securities under the registration statement of which this prospectus supplement forms a part is terminated or completed:

- our Annual Report on Form 10-K for the year ended December 31, 2024, filed with the SEC on [March 19, 2025](#); and
- the description of our Common Stock contained in the Annual Report on Form 10-K filed on [March 19, 2025](#).

You may request a copy of these filings, at no cost, by writing or telephoning us at the following address and telephone number:

LENZ Therapeutics, Inc.
201 Lomas Santa Fe Dr., Suite 300
Solana Beach, California 92075
Attn: Investor Relations
(858) 925-7000



Up to \$150,000,000

Common Stock

PROSPECTUS SUPPLEMENT

TD Cowen

, 2025

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following table sets forth fees and expenses to be paid by us in connection with the issuance and distribution of the securities being registered, other than discounts and commissions to be paid to agents or underwriters. All amounts shown are estimates except for the Securities and Exchange Commission, or the SEC, registration fee.

	Amount to be Paid
SEC registration fee	\$ 76,550
Stock exchange listing fee	*
Printing and engraving expenses	*
Accounting fees and expenses	*
Legal fees and expenses	*
Transfer agent and registrar fees and expenses	*
Trustee's fees and expenses	*
Miscellaneous expenses	*
Total	\$ *

* These fees and expenses are calculated based on the securities offered and the number of issuances and accordingly cannot be estimated at this time.

Item 15. Indemnification of Directors and Officers

Section 145 of the Delaware General Corporation Law ("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 certificate of incorporation 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 the company, 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 of 1933, as amended, or the Securities Act.

The underwriting agreement to be filed as Exhibit 1.1 to this registration statement may provide for indemnification by the underwriters of us and our directors and officers for certain liabilities arising under the Securities Act of 1933, as amended, or the Securities Act, the Securities Exchange Act of 1934, as amended, or the Exchange Act, or otherwise.

Item 16. Exhibits

Exhibit Number	Exhibit Description	Incorporation by Reference				Filed Herewith
		Form	File Number	Exhibit Number	Filing Date	
1.1*	Form of Underwriting Agreement					
1.2	Sales Agreement, dated April 4, 2025, by and between the Registrant and TD Securities (USA) LLC					X
3.1	Amended and Restated Certificate of Incorporation, as amended	8-K	001-40532	3.1	3/22/2024	
3.2	Amended and Restated Bylaws	8-K	001-40532	3.2	6/30/2021	
4.1	Specimen Common Stock Certificate	S-1/A	333-256838	4.1	6/11/2021	
4.2*	Form of Preferred Stock Certificate					
4.3	Form of Indenture					X
4.4*	Form of Debt Security					
4.5*	Form of Deposit Agreement					
4.6*	Form of Warrant Agreement					
4.7*	Form of Warrant to Purchase Shares of Series A Preferred Stock	S-4	333-275919	4.5	12/6/2023	
4.8*	Form of Subscription Agreement					
4.9*	Form of Purchase Contract Agreement					
4.10*	Form of Unit Agreement					
4.11*	Form of Unit					
4.12	Description of Securities	10-K	001-40532	4.4	3/19/2025	
4.13	Registration Rights Agreement, dated March 21, 2024, by and among LENZ Therapeutics, Inc. and certain parties thereto.	8-K	001-40532	10.21	3/22/2024	
5.1	Opinion of Wilson Sonsini Goodrich & Rosati, Professional Corporation					X
23.1	Consent of Independent Registered Public Accounting Firm					X
23.2	Consent of Wilson Sonsini Goodrich & Rosati, Professional Corporation (included in the opinion filed as Exhibit 5.1 to this Registration Statement)					X
24.1	Power of Attorney (included on the signature page to this Registration Statement)					X
25.1**	Form T-1 Statement of Eligibility of Trustee for Indenture under the Trust Indenture Act of 1939					
107	Filing Fee Table					X

* To be filed, if applicable, by amendment or as an exhibit to a Form 8-K and incorporated by reference herein.

** To be filed pursuant to Section 305(b)(2) of the Trust Indenture Act of 1939, as amended.

Item 17. 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;
- (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 a 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; and
- (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), (a)(1)(ii) and (a)(1)(iii) 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 Exchange Act that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (2) that, for the purpose of determining any liability under the Securities Act, 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.
- (4) that, for the purpose of determining liability under the Securities Act to any purchaser:
 - (i) each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (ii) each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii) or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by

reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

- (5) that, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
- (i) any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - (ii) any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
 - (iii) the portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (6) that, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) 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.
- (7) to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act, in accordance with the rules and regulations prescribed by the Commission under Section 305(b)(2) of the Trust Indenture Act.
- (b) Insofar as indemnification for liabilities arising under the Securities Act 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 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, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Solana Beach, State of California, on April 4, 2025.

LENZ THERAPEUTICS, INC.

By: /s/ Evert Schimmelpennink
Evert Schimmelpennink
President and 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 him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this registration statement, including post-effective amendments, and registration statements filed pursuant to Rule 462 under the Securities Act, and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith and about the premises, as fully for all intents and purposes as they, he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent or any of them, or their, his or her substitute or substitutes, 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:

Signature	Title	Date
<u>/s/ Evert Schimmelpennink</u> Evert Schimmelpennink	President and Chief Executive Officer and Director (Principal Executive Officer)	April 4, 2025
<u>/s/ Daniel Chevallard</u> Daniel Chevallard	Chief Financial Officer (Principal Financial and Accounting Officer)	April 4, 2025
<u>/s/ Jeff George</u> Jeff George	Chair of the Board of Directors	April 4, 2025
<u>/s/ Kimberlee C. Drapkin</u> Kimberlee C. Drapkin	Director	April 4, 2025
<u>/s/ Frederic Guerard</u> Frederic Guerard	Director	April 4, 2025
<u>/s/ James McCollum</u> James McCollum	Director	April 4, 2025
<u>/s/ Zach Scheiner</u> Zach Scheiner	Director	April 4, 2025
<u>/s/ Shelley Thunen</u> Shelley Thunen	Director	April 4, 2025

CALCULATION OF FILING FEE TABLES

Form S-3
(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	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Newly Registered Securities								
Fees to Be Paid	Equity	Common Stock, par value \$0.00001 per share	Rule 457(o)	(1)	(1)	(1) (2)	-	-
Fees to Be Paid	Equity	Preferred Stock, par value \$0.00001 per share	Rule 457(o)	(1)	(1)	(1) (2)	-	-
Fees to Be Paid	Debt	Debt Securities	Rule 457(o)	(1)	(1)	(1) (2)	-	-
Fees to Be Paid	Equity	Depository Shares	Rule 457(o)	(1)	(1)	(1) (2)	-	-
Fees to Be Paid	Equity	Warrants	Rule 457(o)	(1)	(1)	(1) (2)	-	-
Fees to Be Paid	Other	Subscription Rights	Rule 457(o)	(1)	(1)	(1) (2)	-	-
Fees to Be Paid	Other	Purchase Contracts	Rule 457(o)	(1)	(1)	(1) (2)	-	-
Fees to Be Paid	Other	Units	Rule 457(o)	(1)	(1)	(1) (2)	-	-
Fees to Be Paid	Unallocated (Universal) Shelf	Unallocated (Universal) Shelf	Rule 457(o)	(1)	(1)	\$500,000,000	\$0.00015310	\$76,550
	Total Offering Amounts					\$500,000,000		\$76,550
	Total Fees Previously Paid							-
	Total Fee Offsets							-
	Net Fee Due							\$76,550

- (1) An indeterminate aggregate initial offering price and number of securities of each identified class is being registered as may from time to time be offered, issued or sold at indeterminate prices. In addition, an indeterminate number of securities that may be issued upon exercise, settlement, conversion or exchange of any offered securities, or pursuant to anti-dilution adjustments, is being registered. Separate consideration may or may not be received for securities that are issuable on exercise, conversion or exchange of other securities.
- (2) The proposed maximum offering price per security and proposed maximum aggregate offering price per class of security will be determined from time to time by the registrant in connection with the issuance by the registrant of the securities registered hereunder and is not specified as to each class of security pursuant to General Instruction II.D. of Form S-3 under the Securities Act. Separate consideration may or may not be received for securities that are issuable on exercise, conversion or exchange of other securities, or that are issued in units.

LENZ THERAPEUTICS, INC.

**\$150,000,000
COMMON STOCK****SALES AGREEMENT**

April 4, 2025

TD Securities (USA) LLC
1 Vanderbilt Avenue
New York, New York 10017

Ladies and Gentlemen:

LENZ Therapeutics, Inc., a Delaware corporation (the “**Company**”), confirms its agreement (this “**Agreement**”) with TD Securities (USA) LLC (“**TD Cowen**”), as follows:

1. **Issuance and Sale of Shares.** The Company agrees that, from time to time during the term of this Agreement, on the terms and subject to the conditions set forth herein, it may issue and sell through TD Cowen, acting as agent and/or principal, shares (the “**Placement Shares**”) of the Company’s common stock, par value \$0.00001 per share (the “**Common Stock**”), having an aggregate offering price of up to \$150,000,000 (the “**Maximum Amount**”). Notwithstanding anything to the contrary contained herein, the parties hereto agree that compliance with the limitation set forth in this **Section 1** on the number of shares of Common Stock issued and sold under this Agreement shall be the sole responsibility of the Company, and TD Cowen shall have no obligation in connection with such compliance. The issuance and sale of Common Stock through TD Cowen will be effected pursuant to the Registration Statement (as defined below) filed by the Company and after such Registration Statement has been declared effective by the Securities and Exchange Commission (the “**Commission**”), although nothing in this Agreement shall be construed as requiring the Company to use the Registration Statement (as defined below) to issue the Placement Shares. The Company acknowledges and agrees that sales of the Placement Shares under this Agreement may be made through affiliates of TD Cowen, and that TD Cowen may otherwise fulfill its obligations pursuant to this Agreement to or through an affiliated broker-dealer.

The Company has filed or will file, in accordance with the provisions of the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder (collectively, the “**Securities Act**”), with the Commission a registration statement on Form S-3, including (a) a base prospectus, relating to certain securities, including the Common Stock, to be issued from time to time by the Company, and (b) a prospectus supplement specifically relating to the Placement Shares (the “**ATM Prospectus Supplement**”) to the base prospectus included as part of such registration statement, each of which incorporates by reference documents that the Company has filed or will file in accordance with the provisions of the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder (collectively, the

“Exchange Act”). As soon as practicable following the date that such registration statement is declared effective, the Company shall furnish to TD Cowen, for use by TD Cowen, copies of the prospectus included as part of such registration statement, as supplemented by the ATM Prospectus Supplement relating to the Placement Shares. Except where the context otherwise requires, such registration statement, and any post-effective amendment thereto, as amended when it becomes effective, including all documents filed as part thereof or incorporated by reference therein, and including any information contained in a Prospectus (as defined below) subsequently filed with the Commission pursuant to Rule 424(b) under the Securities Act or deemed to be a part of such registration statement pursuant to Rule 430B or 462(b) of the Securities Act, or any subsequent registration statement on Form S-3 filed pursuant to Rule 415(a)(6) under the Securities Act by the Company with respect to the Placement Shares, is herein called the **“Registration Statement.”** Any registration statement and amendments thereto filed pursuant to Rule 462(b) of the Securities Act and relating to the offering covered by the Registration Statement is herein called a **“Rule 462(b) Registration Statement”** and, after such filing, the “Registration Statement” shall include any Rule 462(b) Registration Statement. The base prospectus, including all documents incorporated therein by reference, included in the Registration Statement, as it may be supplemented by the ATM Prospectus Supplement or any additional prospectus supplement, in the form in which such base prospectus and ATM Prospectus Supplement and/or additional prospectus supplement have most recently been filed by the Company with the Commission pursuant to Rule 424(b) under the Securities Act, together with any “issuer free writing prospectus,” as defined in Rule 433 under the Securities Act (**“Rule 433”**), relating to the Placement Shares that (i) is consented to by TD Cowen and filed only after the Company ceases to be an “ineligible issuer,” as defined in Rule 405 under the Securities Act, hereinafter referred to as a **“Permitted Free Writing Prospectus,”** (ii) is required to be filed with the Commission by the Company or (iii) is exempt from filing pursuant to Rule 433(d)(5)(i), in each case in the form filed or required to be filed with the Commission or, if not required to be filed, in the form retained in the Company’s records pursuant to Rule 433(g), is herein called the **“Prospectus.”** Any reference herein to the Registration Statement, the Prospectus or any amendment or supplement thereto shall be deemed to refer to and include the documents incorporated by reference therein, and any reference herein to the terms “amend,” “amendment” or “supplement” with respect to the Registration Statement or the Prospectus shall be deemed to refer to and include the filing after the execution hereof of any document with the Commission deemed to be incorporated by reference therein. For purposes of this Agreement, all references to the Registration Statement, the Prospectus or to any amendment or supplement thereto shall be deemed to include any copy filed with the Commission pursuant to the Electronic Data Gathering Analysis and Retrieval System or any successor thereto (**“EDGAR”**). The Company’s obligations under this Agreement to furnish, provide, deliver or make available (and all other similar references or obligations) copies of any document or other information shall be deemed satisfied if the same is filed with the Commission through EDGAR.

2. **Placements.** Each time that the Company wishes, in its sole discretion, to issue and sell the Placement Shares hereunder (each, a **“Placement”**), it will notify TD Cowen by email notice (or other method mutually agreed to in writing by the parties) (a **“Placement Notice”**) containing the parameters in accordance with which it desires the Placement Shares to be sold, which shall at a minimum include the number or dollar amount of Placement Shares to

be issued, the time period during which sales are requested to be made, any limitation on the number or dollar amount of Placement Shares that may be sold in any one Trading Day (as defined in Section 3) and any minimum price below which sales may not be made, a form of which containing such minimum sales parameters necessary is attached hereto as Schedule 1. The Placement Notice shall originate from any of the individuals from the Company set forth on Schedule 2 (with a copy to each of the other individuals from the Company listed on such schedule), and shall be addressed to each of the individuals from TD Cowen set forth on Schedule 2, as such Schedule 2 may be amended from time to time. The Placement Notice shall be effective upon receipt by TD Cowen unless and until (i) in accordance with the notice requirements set forth in Section 4, TD Cowen declines to accept the terms contained therein for any reason, in its sole discretion, provided that any such declination must occur within two (2) Business Days of the receipt of the Placement Notice, (ii) the entire amount of the Placement Shares thereunder have been sold, (iii) in accordance with the notice requirements set forth in Section 4, the Company suspends or terminates the Placement Notice, (iv) the Company issues a subsequent Placement Notice with parameters superseding or amending those on the earlier dated Placement Notice for any reason in its sole discretion, or (v) this Agreement has been terminated under the provisions of Section 11. The amount of any discount, commission or other compensation to be paid by the Company to TD Cowen in connection with the sale of the Placement Shares shall be calculated in accordance with the terms set forth in Schedule 3. It is expressly acknowledged and agreed that neither the Company nor TD Cowen will have any obligation whatsoever with respect to a Placement or any Placement Shares unless and until the Company delivers a Placement Notice to TD Cowen and TD Cowen does not decline such Placement Notice pursuant to the terms set forth above, and then only upon the terms specified therein and herein. In the event of a conflict between the terms of this Agreement and the terms of a Placement Notice, the terms of the Placement Notice will control.

3. Sale of Placement Shares by TD Cowen. Subject to the terms and conditions herein set forth, upon the Company's delivery of a Placement Notice, and unless the sale of the Placement Shares described therein has been declined, suspended, or otherwise terminated in accordance with the terms of this Agreement, TD Cowen, for the period specified in the Placement Notice, will use its commercially reasonable efforts consistent with its normal trading and sales practices and applicable state and federal laws, rules and regulations and the rules of the Nasdaq Stock Market, Inc. ("Nasdaq") to sell such Placement Shares up to the amount specified in such Placement Notice, and otherwise in accordance with the terms of such Placement Notice. TD Cowen will provide written confirmation to the Company (including by email correspondence to each of the individuals of the Company set forth on Schedule 2, if receipt of such correspondence is actually acknowledged by any of the individuals to whom the notice is sent, other than via auto-reply) no later than the opening of the Trading Day (as defined below) immediately following the Trading Day on which it has made sales of Placement Shares hereunder setting forth the number of Placement Shares sold on such day, the volume-weighted average price of the Placement Shares sold, and the Net Proceeds (as defined below) payable to the Company. In the event the Company engages TD Cowen for a sale of Placement Shares that would constitute a "block" within the meaning of Rule 10b-18(a)(5) under the Exchange Act (a "Block Sale"), the Company will provide TD Cowen, at TD Cowen's request and upon reasonable advance notice to the Company, on or prior to the Settlement Date (as defined below),

the opinions of counsel, accountant's letter and officers' certificates set forth in Section 8 hereof, each dated the Settlement Date, and such other documents and information as TD Cowen shall reasonably request. Subject to the terms and conditions of the applicable Placement Notice, TD Cowen may sell Placement Shares in negotiated transactions, including block trades or Block Sales, or by any method permitted by law deemed to be an "at the market" offering as defined in Rule 415 of the Securities Act, including without limitation sales made through Nasdaq or on any other existing trading market for the Common Stock, or by any other method permitted by law. TD Cowen shall not purchase Placement Shares for its own account as principal unless expressly authorized to do so by the Company in a Placement Notice. The Company acknowledges and agrees that (i) there can be no assurance that TD Cowen will be successful in selling Placement Shares, and (ii) TD Cowen will incur no liability or obligation to the Company or any other person or entity if it does not sell Placement Shares for any reason other than a failure by TD Cowen to use its commercially reasonable efforts consistent with its normal trading and sales practices to sell such Placement Shares as required under this Section 3. For the purposes hereof, "**Trading Day**" means any day on which the Company's Common Stock is purchased and sold on the principal market on which the Common Stock is listed or quoted.

Notwithstanding any other provision of this Agreement, the Company shall not offer, sell or deliver, or request the offer or sale, of any Placement Shares pursuant to this Agreement and, by notice to TD Cowen given by telephone (confirmed promptly by email), shall cancel any instructions for the offer or sale of any Placement Shares, and TD Cowen shall not be obligated to offer or sell any Placement Shares, (i) during any period in which the Company is, or would reasonably be deemed to be, in possession of material non-public information, or (ii) without TD Cowen's consent, at any time from and including the date on which the Company shall issue a press release containing, or shall otherwise publicly announce, its earnings, revenues or other results of operations (an "**Earnings Announcement**") through and including the time that the Company files a Quarterly Report on Form 10-Q or an Annual Report on Form 10-K that includes consolidated financial statements as of and for the same period or periods, as the case may be, covered by such Earnings Announcement.

4. Suspension of Sales.

(a) The Company or TD Cowen may, upon notice to the other party in writing (including by email correspondence to each of the individuals of the other party set forth on Schedule 2, if receipt of such correspondence is actually acknowledged by any of the individuals to whom the notice is sent, other than via auto-reply) or by telephone (confirmed immediately by verifiable facsimile transmission or email correspondence to each of the individuals of the other party set forth on Schedule 2), suspend any sale of Placement Shares; *provided, however*, that such suspension shall not affect or impair either party's obligations with respect to any Placement Shares sold hereunder prior to the receipt of such notice. While a suspension is in effect, any obligation under Sections 7(m), 7(n), 7(o), and 7(p) with respect to the delivery of certificates, opinions, or comfort letters to TD Cowen, shall be waived. Each of the parties agrees that no such notice under this Section 4 shall be effective against the other unless it is made to one of the individuals named on Schedule 2 hereto, as such schedule may be amended in writing from time to time.

(b) If either TD Cowen or the Company has reason to believe that the exemptive provisions set forth in Rule 101(c)(1) of Regulation M under the Exchange Act are not satisfied with respect to the Common Stock, it shall promptly notify the other party, and TD Cowen may, at its sole discretion, suspend sales of the Placement Shares under this Agreement.

(c) Notwithstanding any other provision of this Agreement, during any period in which the Registration Statement is no longer effective under the Securities Act, the Company shall promptly notify TD Cowen, the Company shall not request the sale of any Placement Shares, and TD Cowen shall not be obligated to sell or offer to sell any Placement Shares.

5. Settlement.

(a) Settlement of Placement Shares. Unless otherwise specified in the applicable Placement Notice, settlement for sales of Placement Shares will occur on the first (1st) Trading Day following the trade date on which such sales are made (each, a “**Settlement Date**” and the first such Settlement Date, the “**First Delivery Date**”). The amount of proceeds to be delivered to the Company on a Settlement Date against receipt of the Placement Shares sold (the “**Net Proceeds**”) will be equal to the aggregate sales price received by TD Cowen at which such Placement Shares were sold, after deduction for (i) TD Cowen’s commission, discount or other compensation for such sales payable by the Company pursuant to Section 2 hereof, (ii) any other amounts due and payable by the Company to TD Cowen hereunder pursuant to Section 7(g) (Expenses) hereof, and (iii) any transaction fees imposed by any governmental or self-regulatory organization in respect of such sales.

(b) Delivery of Placement Shares. On or before each Settlement Date, the Company will, or will cause its transfer agent to, electronically transfer the Placement Shares being sold by crediting TD Cowen’s or its designee’s account (provided TD Cowen shall have given the Company written notice of such designee at least one Trading Day prior to the Settlement Date) at The Depository Trust Company through its Deposit and Withdrawal at Custodian System or by such other means of delivery as may be mutually agreed upon by the parties hereto which in all cases shall be freely tradeable, transferable, registered shares in good deliverable form. On each Settlement Date, TD Cowen will deliver the related Net Proceeds in same day funds to an account designated by the Company on, or prior to, the Settlement Date. TD Cowen will be responsible for providing DWAC instructions or instructions for delivery by other means with regard to the transfer of the Placement Shares being sold. The Company agrees that if the Company, or its transfer agent (if applicable), defaults in its obligation to deliver duly authorized Placement Shares on a Settlement Date through no fault of TD Cowen, the Company agrees that in addition to and in no way limiting the rights and obligations set forth in Section 9(a) (Indemnification and Contribution) hereto, it will (i) hold TD Cowen harmless against any loss, claim, damage, or reasonable and documented expense (including reasonable and documented legal fees and expenses), as incurred, arising out of or in connection with such default by the Company and (ii) pay to TD Cowen (without duplication) any commission, discount, or other compensation to which it would otherwise have been entitled absent such default.

6. Representations and Warranties of the Company. Except as disclosed in the Registration Statement or the Prospectus, the Company represents and warrants to, and agrees

with, TD Cowen that, unless such representation, warranty or agreement specifies a different time, as of (i) the date of this Agreement, (ii) each Time of Sale (as defined below), (iii) each Settlement Date, and (iv) each Bring-Down Date (as defined below) (each date included in (i) through (iv), a “**Representation Date**”):

(a) Compliance with Registration Requirements. Prior to the issuance of any Placement Notice by the Company, the Registration Statement and any Rule 462(b) Registration Statement with respect to the Registration Statement will have been filed and declared effective by the Commission under the Securities Act. The Company has complied, or will comply, to the Commission’s satisfaction, with all requests of the Commission for additional or supplemental information related to the Registration Statement. No stop order suspending the effectiveness of the Registration Statement or any Rule 462(b) Registration Statement is in effect and no proceedings for such purpose have been instituted or are pending or, to the best knowledge of the Company, contemplated or threatened by the Commission. The Company meets the requirements for use of Form S-3 under the Securities Act. The sale of the Placement Shares hereunder meets the requirements of General Instruction I.B.1 of Form S-3.

(b) No Misstatement or Omission. The Prospectus, when filed will comply and, as amended or supplemented, if applicable, will comply in all material respects with the Securities Act. Each of the Registration Statement, any Rule 462(b) Registration Statement, the Prospectus and any post-effective amendments or supplements thereto, at the time it becomes effective or its date, as applicable, will comply and as of each Representation Date, the date on which a Placement Notice is given and any date on which Placement Shares are sold hereunder (each, an “**Applicable Time**”), will comply in all material respects with the Securities Act and, as of each Applicable Time, will not contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. The Prospectus, as amended or supplemented, as of its date, and, as of each Applicable Time, will not contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The representations and warranties set forth in the two immediately preceding sentences do not apply to statements in or omissions from the Registration Statement, any Rule 462(b) Registration Statement, or any post-effective amendment thereto, or the Prospectus, or any amendments or supplements thereto, made in reliance upon and in conformity with information relating to Agent’s Information (as defined below). There are no contracts or other documents required to be described in the Prospectus or to be filed as exhibits to the Registration Statement which have not been described or filed as required. As used herein, “**Time of Sale**” means with respect to each offering of Placement Shares pursuant to this Agreement, the time of TD Cowen’s initial entry into contracts with purchasers for the sale of such Placement Shares.

(c) Offering Materials Furnished to TD Cowen. The Company has delivered to TD Cowen one complete copy of the Registration Statement and a copy of each consent and certificate of experts filed as a part thereof, and conformed copies of the Registration Statement (without exhibits) and the Prospectus, as amended or supplemented, in such quantities and at such places as TD Cowen has reasonably requested. The Registration Statement, the Prospectus

and, when the Company is no longer an ineligible issuer, any Permitted Free Writing Prospectus (to the extent any such Permitted Free Writing Prospectus was required to be filed with the Commission) delivered to TD Cowen for use in connection with the public offering of the Placement Shares contemplated herein have been and will be identical to the versions of such documents transmitted to the Commission for filing via EDGAR, except to the extent permitted by Regulation S-T.

(d) Emerging Growth Company. As of the date hereof, the Company is an “emerging growth company,” as defined in Section 2(a) of the Securities Act. The Company agrees to notify TD Cowen promptly upon the Company ceasing to be an emerging growth company; *provided*, that the Company shall not be required to notify TD Cowen when it ceases to be an emerging growth company on December 31, 2026 (i.e., the last day of the fiscal year of the Company following the fifth anniversary of the date of the first sale of common equity securities of the Company pursuant to an effective registration statement under the Securities Act).

(e) Ineligible Issuer. The Company has not prepared, used or referred to, and for so long as the Company is an “ineligible issuer” as defined in Rule 405 of the Securities Act, the Company will not use or refer to, any free writing prospectus as defined in Rule 405 of the Securities Act.

(f) Distribution of Offering Material By the Company. The Company has not distributed and will not distribute, prior to the completion of TD Cowen’s distribution of the Placement Shares, any offering material in connection with the offering and sale of the Placement Shares other than the Prospectus or the Registration Statement.

(g) The Sales Agreement. This Agreement has been duly authorized, executed and delivered by, and is a valid and binding agreement of, the Company, enforceable in accordance with its terms, except as rights to indemnification hereunder may be limited by applicable law and except as the enforcement hereof may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar laws relating to or affecting the rights and remedies of creditors or by general equitable principles.

(h) Authorization of the Common Stock. The Placement Shares, when issued and delivered, will be duly authorized for issuance and sale pursuant to this Agreement and, when issued and delivered by the Company against payment therefor pursuant to this Agreement, will be duly authorized, validly issued, fully paid and nonassessable, free and clear of any pledge, lien, encumbrance, security interest or other claim, and the issuance and sale of the Placement Shares by the Company is not subject to preemptive or other similar rights arising by operation of law, under the organizational documents of the Company or under any agreement to which the Company or any Subsidiary is a party or otherwise.

(i) No Applicable Registration or Other Similar Rights. There are no persons with registration or other similar rights to have any equity or debt securities registered for sale under the Registration Statement or included in the offering contemplated by this Agreement, except for such rights as have been duly waived or otherwise complied with.

(j) No Material Adverse Change. (i) There has been no material adverse change, or any development that could reasonably be expected to result in a material adverse change, in the condition, financial or otherwise, or in the earnings, business, operations or prospects, whether or not arising from transactions in the ordinary course of business, of the Company and its Subsidiaries, considered as one entity (any such change is called a “**Material Adverse Change**”); (ii) the Company and its Subsidiaries, considered as one entity, have not incurred any material liability or obligation, indirect, direct or contingent, not in the ordinary course of business nor entered into any material transaction or agreement not in the ordinary course of business; and (iii) there has been no dividend or distribution of any kind declared, paid or made by the Company or, except for regular quarterly dividends publicly announced by the Company or dividends paid to the Company or other Subsidiaries, by any of its Subsidiaries on any class of capital stock or repurchase or redemption by the Company or any of its Subsidiaries of any class of capital stock.

(k) Independent Accountants. Ernst & Young LLP, who has expressed its opinion with respect to the financial statements (which term as used in this Agreement includes the related notes thereto) and supporting schedules filed with the Commission or incorporated by reference as a part of the Registration Statement and included in the Prospectus, is an independent registered public accounting firm as required by the Securities Act and the Exchange Act.

(l) Preparation of the Financial Statements. The financial statements filed with the Commission as a part of or incorporated by reference in the Registration Statement and included in the Prospectus present fairly in all material respects the consolidated financial position of the Company and its Subsidiaries as of and at the dates indicated and the results of their operations and cash flows for the periods specified. The supporting schedules included in or incorporated in the Registration Statement present fairly the information required to be stated therein. Such financial statements and supporting schedules have been prepared in conformity with generally accepted accounting principles as applied in the United States applied on a consistent basis throughout the periods involved, except as may be expressly stated in the related notes thereto. No other financial statements or supporting schedules are required to be included in or incorporated in the Registration Statement.

(m) XBRL. The interactive data in eXtensible Business Reporting Language included or incorporated by reference in each Registration Statement fairly presents the information called for in all material respects and has been prepared in accordance with the Commission’s rules and guidelines applicable thereto.

(n) Incorporation and Good Standing of the Company and its Subsidiaries. The Company has been duly incorporated and is validly existing as a corporation in good standing under the laws of the jurisdiction of its incorporation and has corporate power and authority to own, lease and operate its properties and to conduct its business as described in the Prospectus and to enter into and perform its obligations under this Agreement and to consummate the transactions contemplated herein and therein, except where the failure to be in good standing or have such power or authority would not, individually or in the aggregate, result in a Material Adverse

Change. Each subsidiary of the Company (each a “**Subsidiary**” and collectively the “**Subsidiaries**”) has been duly organized and is validly existing as a corporation or limited liability company in good standing under the laws of the jurisdiction of its organization and has the requisite power and authority to own, lease and operate its properties and to conduct its business as described in the Prospectus, except where the failure to be in good standing or have such power or authority would not, individually or in the aggregate, result in a Material Adverse Change. Each of the Company and its Subsidiaries is duly qualified as a foreign corporation or foreign partnership to transact business and is in good standing under the laws of the jurisdiction of its incorporation or formation and each other jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except for such jurisdictions where the failure to so qualify or to be in good standing would not, individually or in the aggregate, result in a Material Adverse Change. All of the issued and outstanding equity interests of the Subsidiaries have been duly authorized and validly issued, are fully paid and nonassessable and are owned by the Company free and clear of any security interest, mortgage, pledge, lien, encumbrance or claim. The Company does not own or control, directly or indirectly, any corporation, association or other entity other than the subsidiaries listed in Exhibit 21.1 to the Company’s Annual Report on Form 10-K for the most recently ended fiscal year and other than (i) those subsidiaries not required to be listed on Exhibit 21.1 by Item 601 of Regulation S-K under the Exchange Act and (ii) those subsidiaries formed since the last day of the most recently ended fiscal year.

(o) Capital Stock Matters. The Common Stock conforms in all material respects to the description thereof contained in the Prospectus. All of the issued and outstanding shares of Common Stock have been duly authorized and validly issued, are fully paid and nonassessable and have been issued in compliance with federal and state securities laws. None of the outstanding shares of Common Stock were issued in violation of any preemptive rights, rights of first refusal or other similar rights to subscribe for or purchase securities of the Company. There are no authorized or outstanding options, warrants, preemptive rights, rights of first refusal or other rights to purchase, or equity or debt securities convertible into or exchangeable or exercisable for, any capital stock of the Company or any of its Subsidiaries other than those accurately described in all material respects in the Prospectus. The description of the Company’s stock option, stock bonus and other stock plans or arrangements, and the options or other rights granted thereunder, set forth in the Prospectus accurately and fairly presents in all material respects the information required to be shown with respect to such plans, arrangements, options and rights.

(p) Non-Contravention of Existing Instruments; No Further Authorizations or Approvals Required. Neither the Company nor any of its Subsidiaries is in violation of its charter or bylaws or is in default (or, with the giving of notice or lapse of time, would be in default) (“**Default**”) under any indenture, mortgage, loan or credit agreement, note, contract, franchise, lease or other instrument to which the Company or any of its Subsidiaries is a party or by which it or any of them may be bound, or to which any of the property or assets of the Company or any of its Subsidiaries is subject (each, an “**Existing Instrument**”), except for such Defaults as would not, individually or in the aggregate, result in a Material Adverse Change. The Company’s execution, delivery and performance of this Agreement and consummation of

the transactions contemplated hereby and by the Prospectus (i) have been duly authorized by all necessary corporate action and will not result in any violation of the provisions of the charter or bylaws of the Company or any Subsidiary, (ii) will not conflict with or constitute a breach of, or Default under, or result in the creation or imposition of any lien, charge or encumbrance upon any property or assets of the Company or any of its Subsidiaries pursuant to, or require the consent of any other party to, any Existing Instrument, except for such conflicts, breaches, Defaults, liens, charges or encumbrances as would not, individually or in the aggregate, result in a Material Adverse Change and (iii) will not result in any violation of any law, administrative regulation or administrative or court decree applicable to the Company or any Subsidiary, except for such violations as would not, individually or in the aggregate, result in a Material Adverse Change. No consent, approval, authorization or other order of, or registration or filing with, any court or other governmental or regulatory authority or agency, is required for the Company's execution, delivery and performance of this Agreement and consummation of the transactions contemplated hereby and by the Prospectus, except such as have been obtained or made by the Company and are in full force and effect under the Securities Act, applicable state securities or blue sky laws and from the Financial Industry Regulatory Authority ("**FINRA**").

(q) No Material Actions or Proceedings. There are no legal or governmental actions, suits or proceedings pending or, to the best of the Company's knowledge, threatened (i) against or affecting the Company or any of its Subsidiaries, (ii) which has as the subject thereof any officer or director of, or property owned or leased by, the Company or any of its Subsidiaries or (iii) relating to environmental or discrimination matters, where in any such case (A) there is a reasonable possibility that such action, suit or proceeding might be determined adversely to the Company or such Subsidiary and (B) any such action, suit or proceeding, if so determined adversely, would reasonably be expected to result in a Material Adverse Change or adversely affect the consummation of the transactions contemplated by this Agreement. No material labor dispute with the employees of the Company or any of its Subsidiaries exists or, to the Company's knowledge, is threatened or imminent.

(r) All Necessary Permits, etc. The Company and each Subsidiary possess such valid and current certificates, authorizations or permits issued by the appropriate state, federal or foreign regulatory agencies or bodies necessary to conduct their respective businesses and as required by applicable law, other than those the failure to possess or own would not result in a Material Adverse Change, and neither the Company nor any Subsidiary has received any notice of proceedings relating to the revocation or modification of, or non-compliance with, any such certificate, authorization or permit which, singly or in the aggregate, if the subject of an unfavorable decision, ruling or finding, could result in a Material Adverse Change.

(s) Tax Law Compliance. The Company and its consolidated Subsidiaries have filed all necessary federal, state and foreign income, property and franchise tax returns other than those the failure to file would not result in a Material Adverse Change, and have paid all taxes required to be paid by any of them and, if due and payable, any related or similar assessment, fine or penalty levied against any of them except as may be being contested in good faith and by appropriate proceedings or such amounts the failure to pay would not result in a Material Adverse Change. The Company has made charges, accruals and reserves in accordance with

GAAP in the applicable financial statements referred to in Section 1(l) above in respect of all material federal, state and foreign income, property and franchise taxes for all periods as to which the tax liability of the Company or any of its consolidated Subsidiaries has not been finally determined.

(t) Company Not an “Investment Company”. The Company has been advised of the rules and requirements under the Investment Company Act of 1940, as amended (the “**Investment Company Act**”). The Company is not, and after receipt of payment for the Common Stock will not be, an “investment company” within the meaning of Investment Company Act.

(u) Insurance. Each of the Company and its Subsidiaries are insured by insurers of recognized financial responsibility with policies in such amounts and with such deductibles and covering such risks as the Company or such Subsidiary reasonably believe to be prudent and customary for the business for which it is engaged including, but not limited to, policies covering real and personal property owned or leased by the Company and its Subsidiaries against theft, damage, destruction, acts of vandalism and earthquakes. The Company has no reason to believe that it or any Subsidiary will not be able (i) to renew its existing insurance coverage as and when such policies expire or (ii) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as now conducted and at a cost that would not result in a Material Adverse Change.

(v) No Price Stabilization or Manipulation. The Company has not taken and will not take, directly or indirectly, any action designed to or that might be reasonably expected to cause or result in stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Placement Shares.

(w) Related Party Transactions. There are no business relationships or related-party transactions involving the Company or any Subsidiary or any other person required to be described in the Prospectus which have not been described as required.

(x) Exchange Act Compliance. The documents incorporated or deemed to be incorporated by reference in the Prospectus, at the time they were or hereafter are filed with the Commission, complied and will comply in all material respects with the requirements of the Exchange Act, and, when read together with the other information in the Prospectus, at the Settlement Dates, will not contain an untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(y) No Unlawful Contributions or Other Payments. Neither the Company nor any of its Subsidiaries nor, to the Company’s knowledge, any director, officer, employee, agent, affiliate or other person acting on behalf of the Company or any Subsidiary has (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expense relating to political activity; (ii) made any direct or indirect unlawful payment to any foreign or domestic government officials or employees, political parties or campaigns, political party

officials, or candidates for political office from corporate funds; (iii) violated or is in violation of any provision of the U.S. Foreign Corrupt Practices Act of 1977, as amended, or any applicable anti-corruption laws, rules, or regulations of any other jurisdiction in which the Company or any Subsidiary conducts business; or (iv) made any other unlawful bribe, rebate, payoff, influence payment, kickback or other unlawful payment to any person.

(z) Compliance with Money Laundering Laws. The operations of the Company and its Subsidiaries are and have been conducted at all times in material compliance with all applicable financial recordkeeping and reporting requirements, including those of the U.S. Bank Secrecy Act, as amended by Title III of the Uniting and Strengthening America by Providing Appropriate Tools Required to Intercept and Obstruct Terrorism Act of 2001 (USA PATRIOT Act), and the applicable anti-money laundering statutes of jurisdictions where the Company and its Subsidiaries conduct business, the rules and regulations thereunder and any related or similar rules, regulations or guidelines, issued, administered or enforced by any governmental agency that are applicable to the Company and its Subsidiaries (collectively, the “**Anti-Money Laundering Laws**”). No action, suit or proceeding by or before any court or governmental agency, authority, body or any arbitrator involving the Company or any of its Subsidiaries with respect to Anti-Money Laundering Laws is pending, or to the knowledge of the Company, threatened.

(aa) Compliance with OFAC.

(A) Neither the Company nor any of its Subsidiaries, nor any director, officer or employee thereof, nor to the Company’s knowledge, any agent, affiliate, representative, or other person acting on behalf of the Company or any of its Subsidiaries, is an individual or entity (“**Person**”) that is, or is owned or controlled, as defined in the applicable laws and regulations, by a Person that is: (i) the subject of any applicable economic, financial or trade sanctions administered or enforced by the U.S. Department of Treasury’s Office of Foreign Assets Control (“**OFAC**”), the United Nations Security Council, the European Union (“**EU**”), His Majesty’s Treasury, the Swiss Secretariat of Economic Affairs, or other applicable sanctions authority (collectively, “**Sanctions**”), nor (ii) located, organized, or resident in a country or territory that is the subject of a comprehensive U.S. government embargo (including, at the time of this agreement, Cuba, Iran, North Korea, Syria, the Crimea Region of Ukraine, the so-called Donetsk People’s Republic and the so-called Luhansk People’s Republic regions of Ukraine, or any other Covered Region of Ukraine identified pursuant to Executive Order 14065) (“**Sanctioned Territory**”).

(B) The Company will not, directly or indirectly, use the Net Proceeds, or lend, contribute or otherwise make available such Net Proceeds to any Subsidiary, joint venture partner or other Person: (i) to fund or

facilitate any activities or business of or with any Person that, at the time of such funding or facilitation, is the subject of Sanctions, or in any Sanctioned Territory; or (ii) in any other manner that will result in a violation of Sanctions by any Person (including TD Cowen)

- (C) Since April 24, 2019, the Company and its Subsidiaries have not knowingly engaged in, are not now knowingly engaged in, and will not engage in, any direct or indirect dealings or transactions with any Person that at the time of the dealing or transaction is or was the subject of Sanctions or in any Sanctioned Territory.

(bb) Company's Accounting System. The Company maintains a system of "internal control over financial reporting" (as such term is defined in Rule 13a-15(f) of the General Rules and Regulations under the Exchange Act (the "**Exchange Act Rules**")) that complies with the requirements of the Exchange Act and has been designed by their respective principal executive and principal financial officers, or under their supervision, to provide reasonable assurances that (i) transactions are executed in accordance with management's general or specific authorizations; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with U.S. GAAP and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management's general or specific authorization; and (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences. The Company's internal control over financial reporting is effective. Since the end of the Company's most recent audited fiscal year, there has been (A) no material weakness in the Company's internal control over financial reporting (whether or not remediated) and (B) no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

(cc) Disclosure Controls. The Company maintains disclosure controls and procedures (as such is defined in Rule 13a-15(e) of the Exchange Act Rules) that comply with the requirements of the Exchange Act; such disclosure controls and procedures have been designed to ensure that information required to be disclosed by the Company in reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Commission's rules and forms, including controls and procedures designed to ensure that such information is accumulated and communicated to the Company's management to allow timely decisions regarding disclosures. The Company has conducted evaluations of the effectiveness of its disclosure controls as required by Rule 13a-15 of the Exchange Act.

(dd) Compliance with Environmental Laws. Except as would not, individually or in the aggregate, result in a Material Adverse Change (i) neither the Company nor any of its Subsidiaries is in violation of any federal, state, local or foreign law or regulation relating to pollution or protection of human health or the environment (including, without limitation, ambient air, surface water, groundwater, land surface or subsurface strata) or wildlife, including without limitation, laws and regulations relating to emissions, discharges, releases or threatened

releases of chemicals, pollutants, contaminants, wastes, toxic substances, hazardous substances, petroleum and petroleum products (collectively, “**Materials of Environmental Concern**”), or otherwise relating to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Materials of Environmental Concern (collectively, “**Environmental Laws**”), which violation includes, but is not limited to, noncompliance with any permits or other governmental authorizations required for the operation of the business of the Company or its Subsidiaries under applicable Environmental Laws, or noncompliance with the terms and conditions thereof, nor has the Company or any of its Subsidiaries received any written communication, whether from a governmental authority, citizens group, employee or otherwise, that alleges that the Company or any of its Subsidiaries is in violation of any Environmental Law; (ii) there is no claim, action or cause of action filed with a court or governmental authority, no investigation with respect to which the Company has received written notice, and no written notice by any person or entity alleging potential liability for investigatory costs, cleanup costs, governmental responses costs, natural resources damages, property damages, personal injuries, attorneys’ fees or penalties arising out of, based on or resulting from the presence, or release into the environment, of any Material of Environmental Concern at any location owned, leased or operated by the Company or any of its Subsidiaries, now or in the past (collectively, “**Environmental Claims**”), pending or, to the Company’s knowledge, threatened against the Company or any of its Subsidiaries or any person or entity whose liability for any Environmental Claim the Company or any of its Subsidiaries has retained or assumed either contractually or by operation of law which it is reasonably believed would impose monetary sanctions of \$100,000 or more; and (iii) to the best of the Company’s knowledge, there are no past or present actions, activities, circumstances, conditions, events or incidents, including, without limitation, the release, emission, discharge, presence or disposal of any Material of Environmental Concern, that reasonably could result in a violation of any Environmental Law or form the basis of a potential Environmental Claim against the Company or any of its Subsidiaries or against any person or entity whose liability for any Environmental Claim the Company or any of its Subsidiaries has retained or assumed either contractually or by operation of law, except in the case of clause (i) or (ii) where such noncompliance, violation, liability or other obligation would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Change.

(ee) **Intellectual Property.** The Company and its Subsidiaries own or possess, or can acquire on reasonable terms, adequate patents, patent rights, licenses, inventions, copyrights, know-how (including trade secrets and other unpatented and/or unpatentable proprietary or confidential information, systems or procedures), trademarks, service marks, trade names or other intellectual property (collectively, “**Intellectual Property**”) necessary to carry on the business that is currently operated as described in the Prospectus, or as presently proposed in the future upon the development, manufacturing, commercialization or other exploitation of any product or service described in the Prospectus as under development and Registration Statement (“**Disclosure Documents**”). To the Company’s knowledge, the Company (i) is not infringing, misappropriating, diluting or otherwise violating, and has not infringed, misappropriated, diluted or otherwise violated, any valid and enforceable Intellectual Property rights of third parties; and (ii) has not received any notice in writing or is otherwise aware of any facts which would form a reasonable basis for any material claim or assertion that the Company, currently, or as presently proposed in the future upon the manufacturing or commercialization of any product or service

described in the Disclosure Documents, infringes, misappropriates, dilutes or otherwise violates any valid and enforceable Intellectual Property rights of others. To the Company's knowledge, there is no pending threatened in writing, material action, suit, proceeding or claim by others: (A) challenging the Company's rights in or to any Intellectual Property owned or licensed by the Company or any of its Subsidiaries (the "**Company Intellectual Property**") and the Company is unaware of any facts which would form a reasonable basis for any such action, suit, proceeding or claim; or (B) challenging the validity, enforceability or scope of any Company Intellectual Property. The Company Intellectual Property owned or purported to be owned by the Company, including the patents, trademarks and copyrights owned by the Company are subsisting and, to the knowledge of Company, valid and enforceable. To the Company's knowledge, there are no material defects of form in the preparation, filing, or maintenance of any of the patents or patent applications included in the Company Intellectual Property. The Company Intellectual Property has not been adjudged by a court of competent jurisdiction to be invalid or unenforceable, in whole or in part. To the Company's knowledge, (i) there are no third parties who have rights to any Company Intellectual Property, except for customary reversionary rights of third-party licensors with respect to Company Intellectual Property that is disclosed in the Disclosure Documents as exclusively licensed to the Company or its Subsidiaries as owned by or licensed to the Company; and (ii) there is no infringement, misappropriation, dilution, or other violation by third parties of any Company Intellectual Property. To the Company's knowledge, the Company has taken all reasonable steps to obtain executed nondisclosure, confidentiality agreements, invention assignment agreements, and intellectual property assignment agreements with its employees, consultants and contractors, except as would not, individually or in the aggregate, reasonably be expected to have a Material Adverse Change. To the Company's knowledge, no employee of the Company or its Subsidiaries is in or has been in violation of any term of, such agreements or any restrictive covenant to or with a former employer where the basis of such violation relates to such employee's employment with the Company or its Subsidiaries. To the Company's knowledge, the Company and the parties prosecuting such applications have complied or are in the process of complying with their duty of candor and disclosure to the U.S. Patent and Trademark Office (the "**USPTO**"), and all such requirements in the relevant foreign patent authority having similar requirements as the case may be, in connection with such patents and patent applications for which it has filing, prosecution and/or maintenance responsibilities. The Company expects the product candidates described in the Prospectus as under development by the Company to fall within the scope of the claims of one or more patents or patent applications owned by the Company, as described in the Prospectus.

(ff) **Listing.** The Company is subject to and in compliance in all material respects with the reporting requirements of Section 13 or Section 15(d) of the Exchange Act. The Common Stock is registered pursuant to Section 12(b) or Section 12(g) of the Exchange Act and is listed on the Nasdaq, and the Company has taken no action designed to, or reasonably likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act or delisting the Common Stock from Nasdaq, nor has the Company received any notification that the Commission or Nasdaq is contemplating terminating such registration or listing. All of the Placement Shares that have been or may be sold under this Agreement have been approved for listing on the Nasdaq, subject to official notice of issuance; the Company has taken all necessary actions to ensure that, upon and at all times after the Nasdaq shall have approved the Placement

Shares for listing, it will be in compliance with all applicable corporate governance requirements set forth in the Nasdaq's listing rules that are then in effect.

(gg) Brokers. Except for TD Cowen, there is no broker, finder or other party that is entitled to receive from the Company any brokerage or finder's fee or other fee or commission as a result of any transactions contemplated by this Agreement.

(hh) No Outstanding Loans or Other Indebtedness. There are no outstanding loans, advances (except normal advances for business expenses in the ordinary course of business) or guarantees or indebtedness by the Company to or for the benefit of any of the officers or directors of the Company or any of the members of any of them.

(ii) No Reliance. The Company has not relied upon TD Cowen or legal counsel for TD Cowen for any legal, tax or accounting advice in connection with the offering and sale of the Placement Shares.

(jj) Lending Relationship. The Company does not intend to use any of the proceeds from the sale of the Placement Shares to repay any outstanding debt owed to TD Cowen or any affiliate of TD Cowen.

(kk) Compliance with Laws. The Company has not been advised, and has no reason to believe, that it and each of its Subsidiaries are not conducting business in compliance with all applicable laws, rules and regulations of the jurisdictions in which it is conducting business, except where failure to be so in compliance would not result in a Material Adverse Change.

(ll) Privacy Laws. Except as would not, individually or in the aggregate, result in a Material Adverse Change, the Company and each of its Subsidiaries (i) are, and at all prior times were, in compliance with all applicable data privacy and security laws and regulations, including, without limitation, as applicable, the Health Insurance Portability and Accountability Act ("HIPAA"), as amended by the Health Information Technology for Economic and Clinical Health Act (42 U.S.C. Section 17921 et seq.), and the European Union General Data Protection Regulation ("GDPR") (EU 2016/679) (collectively, "Privacy Laws"); (ii) maintain, and take appropriate steps reasonably designed to ensure compliance in all material respects by applicable persons, as required by Privacy Laws, with their policies and procedures relating to data privacy and security and the collection, storage, use, disclosure, handling and analysis of Personal Data (the "Policies"); and (iii) where required by Privacy Laws, the Company provides accurate notice of its Policies to its customers, employees, third-party vendors and representatives, and such Policies provide accurate and sufficient notice of the Company's then-current privacy practices relating to its subject matter and such Policies do not contain any material omissions of the Company's then-current privacy practices. "Personal Data" means (i) a natural persons' name, street address, telephone number, email address, photograph, social security number, individually identifiable bank information, or customer or account number; (ii) any information which would qualify as "personally identifying information" under the Federal Trade Commission Act, as amended; (iii) Protected Health Information as defined by HIPAA; (iv) "personal data" as defined by GDPR; and (v) any other piece of information that allows the identification of such natural person, or his or her family, or permits the collection or analysis of

any data related to an identified person's health or sexual orientation. Except as would not, individually or in the aggregate, result in a Material Adverse Change, (i) none of such disclosures made or contained in any of the Policies have been in violation of any Privacy Laws; (ii) the execution, delivery and performance of this Agreement will not result in a breach of any Privacy Laws or Policies; and (iii) neither the Company nor any of its Subsidiaries (A) has received written notice of any of their actual or potential liability under or relating to, or their actual or potential violation of, any of the Privacy Laws or has knowledge of any event or condition that would reasonably be expected to result in any such notice; (B) is currently conducting or paying for, in whole or in part, any investigation, remediation or other corrective action pursuant to any governmental or regulatory demand, judgment, or order under any Privacy Law; or (C) is a party to any order, decree, or agreement by, with, or under the authority of any governmental or regulatory authority that imposed any obligation or liability upon the Company or any of its Subsidiaries under any Privacy Law.

(mm) IT Systems. Except as would not, individually or in the aggregate, result in a Material Adverse Change, (i)(x) there has been no security breach or other compromise of any of the Company's and its Subsidiaries' information technology and computer systems, networks, hardware, software, Personal Data, or other confidential, regulated, or sensitive data (including any such data of their respective customers, employees, suppliers, or vendors and any third party data maintained by or on behalf of them), equipment or technology ("**IT Systems and Data**"), and (y) the Company and its Subsidiaries have not been notified of and have no knowledge of any event or condition that would reasonably be expected to result in any security breach, attack or compromise of their IT Systems and Data, (ii) the Company and each of its Subsidiaries have complied, and are presently in compliance with, all applicable laws and statutes or any applicable binding judgment, order, rule or regulation of any court or arbitrator or governmental or regulatory authority, and all binding industry guidelines, standards, internal policies and contractual obligations, relating to the privacy and security of IT Systems and Data and to the protection of such IT Systems and Data from unauthorized use, access, misappropriation or modification and (iii) the Company and each of its Subsidiaries have implemented backup and disaster recovery technology consistent with industry standards and practice.

(nn) Export and Import Laws. Each of the Company and the Subsidiaries, and, to the Company's knowledge, each of their affiliates and any director, officer, agent or employee of, or other person acting on behalf of, the Company has acted at all times in the past five years in compliance with applicable Export and Import Laws (as defined below) and there are no claims, complaints, charges, investigations or proceedings pending or expected or, to the knowledge of the Company, threatened between the Company or any of the Subsidiaries and any governmental authority under any Export or Import Laws. The term "**Export and Import Laws**" means, as applicable to the Company, the Arms Export Control Act, the International Traffic in Arms Regulations, the Export Administration Act of 1979, as amended, the Export Administration Regulations, and all other import-, export-, and sanctions-related laws and regulations of the United States government and all similar laws and regulations of any foreign government.

(oo) Other At The Market Sales Agreements. The Company is not a party to any agreement with an agent or underwriter for any other "at the market" offering.

(pp) Outbound Investment Security Program. The Company and its Subsidiaries either are (i) not a “person of a country of concern”; or (ii) not engaged in any “covered activity,” as these terms are defined in 31 C.F.R. Part 850, as implemented or revised from time to time (the “**Outbound Investment Rules**”). The Company and its Subsidiaries have no intention of becoming a “person of a country of concern” that engages in any “covered activity.” The Company is not a person that directly or indirectly holds a board seat on, a voting or equity interest in, or any contractual power to direct or cause the direction of the management of policies of any “covered foreign person” (as defined in the Outbound Investment Rules).

(qq) Compliance with Health Care Laws. The Company and its Subsidiaries are, and for the past three (3) years have been, in material compliance with all applicable Health Care Laws. “**Health Care Laws**” shall mean any health care laws and regulations applicable to the ownership, testing, research, development, manufacture, quality, safety, accreditation, packaging, storage, use, distribution, labeling, promotion, sale, offer for sale, marketing, import, export or disposal of pharmaceutical products or medical devices, including, without limitation, the Federal Food, Drug, and Cosmetic Act (21 U.S.C. §§ 301 et seq.), the Public Health Service Act (42 U.S.C. §§ 201 et seq.), the federal Anti-Kickback Statute (42 U.S.C. § 1320a-7b(b)), the Physician Payments Sunshine Act (42 U.S.C. § 1320a-7h), the civil False Claims Act (31 U.S.C. §§ 3729 et seq.), the criminal False Claims Act (42 U.S.C. § 1320a-7b(a)), all criminal laws relating to health care fraud and abuse, including but not limited to 18 U.S.C. §§ 286, 287, 1035, 1347, 1349 and the health care fraud criminal provisions under the Health Insurance Portability and Accountability Act of 1996 (42 U.S.C. §§ 1320d et seq.) (“HIPAA”), the exclusions law (42 U.S.C. § 1320a-7), the civil monetary penalties law (42 U.S.C. § 1320a-7a), HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act (42 U.S.C. §§ 17921 et seq.), Medicare (Title XVIII of the Social Security Act), and Medicaid (Title XIX of the Social Security Act), any other law governing or pertaining to a government health care program, any comparable applicable state laws and laws outside the U.S., each as amended, and the regulations promulgated thereunder. Neither the Company nor any of its Subsidiaries has received any written notice or other written communication from any governmental authority alleging any material violation of any applicable Health Care Law. There are no investigations, suits, claims, actions or proceedings pending or, to the Knowledge of the Company, threatened against the Company or any of its Subsidiaries alleging any material violation any applicable Health Care Law. None of the Company, its Subsidiaries or any of its respective directors, officers, and employees or, to the knowledge of the Company, agents, are a party to or has any ongoing reporting obligations pursuant to any corporate integrity agreement, deferred or non-prosecution agreement, monitoring agreement, consent decree, settlement order, plan of correction or similar agreement imposed by any governmental authority.

(rr) Clinical Studies. The clinical, pre-clinical and other studies and tests conducted by or on behalf of or sponsored by the Company and/or its Subsidiaries or in which the Company and/or its Subsidiaries or their products or product candidates have participated were and, if still pending, are being conducted in all material respects in accordance with all applicable Health Care Laws, including, but not limited to, the Federal Food, Drug and Cosmetic Act and its applicable implementing regulations at 21 C.F.R. Parts 50, 54, 56, 58, 312 and 812. No investigational new drug application filed by or on behalf of the Company or its Subsidiaries

with the U.S. Food and Drug Administration (the “**FDA**”) has been terminated or suspended by the FDA, and neither the FDA nor any other governmental authority has commenced, or, to the knowledge of the Company, threatened to initiate, any action to place a clinical hold order on, or otherwise terminate, suspend, any proposed or ongoing clinical investigation conducted or proposed to be conducted by or on behalf of the Company and/or its Subsidiaries. None of the Company or, to the knowledge of the Company, any person acting on behalf of the Company or any of its Subsidiaries has during the past three (3) years, with respect to any Company product: (i) been subject to a shutdown or import or export prohibition imposed by any governmental authority; or (ii) received any FDA Form 483, or other written notice of inspectional observations, “warning letters,” “untitled letters” or any similar written correspondence from any governmental authority in respect of such entity or its business operations, alleging or asserting material noncompliance with any applicable Health Care Law or Permit, and, to the Knowledge of the Company, no governmental authority has threatened such action.

(ss) Fraudulent Statements, Debarments and Exclusions. None of the Company or any of its Subsidiaries has (i) made an untrue statement of a material fact or fraudulent statement to any governmental authority, (ii) failed to disclose a material fact required to be disclosed to any governmental authority or (iii) committed an act, made a disclosure of material fact, or failed to commit an act or make a disclosure required by applicable Health Care Law, including with respect to any scientific data or information, that, at the time of such action, failure to act, disclosure or failure to disclose (as applicable), would reasonably be expected to provide a basis for the FDA to invoke its policy respecting “Fraud, Untrue Statements of Material Facts, Bribery, and Illegal Gratuities,” set forth in 56 Fed. Reg. 46191 (September 10, 1991), and any amendments thereto, or for the FDA or any other governmental authority to invoke any similar policy. None of Company, any of its Subsidiaries, or any of its respective directors, officers, employees or, to the knowledge of the Company, agents, is or has been (i) excluded, suspended or debarred from participation in any U.S. federal health care program or (ii) subject to a governmental inquiry, investigation, proceeding, or other similar action, or convicted of any crime or engaged in any conduct that has resulted in, or would reasonably be expected to result in, debarment from participation in any program related to pharmaceutical products pursuant to 21 U.S.C. Section 335a (a) or (b) or debarment, suspension or exclusion from participation in any federal health care program.

Any certificate signed by an officer of the Company and delivered to TD Cowen or to counsel for TD Cowen pursuant to or in connection with this Agreement shall be deemed to be a representation and warranty by the Company to TD Cowen as to the matters set forth therein.

The Company acknowledges that TD Cowen and, for purposes of the opinions to be delivered pursuant to Section 7 hereof, counsel to the Company and counsel to TD Cowen, will rely upon the accuracy and truthfulness of the foregoing representations and hereby consents to such reliance.

7. Covenants of the Company. The Company covenants and agrees with TD Cowen that:

(a) Registration Statement Amendments. After the date of this Agreement and during any period in which a Prospectus relating to any Placement Shares is required to be delivered by TD Cowen under the Securities Act (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act), (i) the Company will notify TD Cowen promptly of the time when any subsequent amendment to the Registration Statement, other than documents incorporated by reference, has been filed with the Commission and/or has become effective or any subsequent supplement to the Prospectus has been filed and of any request by the Commission for any amendment or supplement to the Registration Statement or Prospectus or for additional information (insofar as it relates to the Placement Shares or the transactions contemplated hereby), (ii) the Company will prepare and file with the Commission, promptly upon TD Cowen's request, any amendments or supplements to the Registration Statement or Prospectus that, in TD Cowen's reasonable opinion, may be necessary or advisable in connection with the distribution of the Placement Shares by TD Cowen (*provided, however*, that the failure of TD Cowen to make such request shall not relieve the Company of any obligation or liability hereunder, or affect TD Cowen's right to rely on the representations and warranties made by the Company in this Agreement); (iii) the Company will not file any amendment or supplement to the Registration Statement or Prospectus, other than documents incorporated by reference, relating to the Placement Shares or a security convertible into the Placement Shares unless a copy thereof has been submitted to TD Cowen within a reasonable period of time before the filing and TD Cowen has not reasonably objected thereto (*provided, however*, that the failure of TD Cowen to make such objection shall not relieve the Company of any obligation or liability hereunder, or affect TD Cowen's right to rely on the representations and warranties made by the Company in this Agreement) and the Company will furnish to TD Cowen at the time of filing thereof a copy of any document that upon filing is deemed to be incorporated by reference into the Registration Statement or Prospectus, except for those documents available via EDGAR; (iv) the Company will cause each amendment or supplement to the Prospectus, other than documents incorporated by reference, to be filed with the Commission as required pursuant to the applicable paragraph of Rule 424(b) of the Securities Act, and (v) prior to the termination of this Agreement, the Company will notify TD Cowen if at any time the Registration Statement shall no longer be effective as a result of the passage of time pursuant to Rule 415 under the Securities Act or otherwise. Prior to the initial sale of any Placement Shares, the Company shall file a final Prospectus Supplement pursuant to Rule 424(b) relating to the Placement Shares

(b) Notice of Commission Stop Orders. The Company will advise TD Cowen, promptly after it receives notice or obtains knowledge thereof, of the issuance or threatened issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement, of the suspension of the qualification of the Placement Shares for offering or sale in any jurisdiction, or of the initiation or threatening of any proceeding for any such purpose; and it will promptly use its commercially reasonable efforts to prevent the issuance of any stop order or to obtain its withdrawal if such a stop order should be issued.

(c) Delivery of Prospectus; Subsequent Changes. During any period in which a Prospectus relating to the Placement Shares is required to be delivered by TD Cowen under the Securities Act with respect to a pending sale of the Placement Shares, (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act), the Company will comply with all requirements imposed upon it by the Securities Act, as from time to time in force, and to file on or before their respective due dates (taking into account any extensions available under the Exchange Act) all reports and any definitive proxy or information statements required to be filed by the Company with the Commission pursuant to Sections 13(a), 13(c), 14, 15(d) or any other provision of or under the Exchange Act. If during such period any event occurs as a result of which the Prospectus as then amended or supplemented would include an untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances then existing, not misleading, or if during such period it is necessary to amend or supplement the Registration Statement or Prospectus to comply with the Securities Act, the Company will promptly notify TD Cowen to suspend the offering of Placement Shares during such period and the Company will promptly amend or supplement the Registration Statement or Prospectus (at the expense of the Company) so as to correct such statement or omission or effect such compliance; *provided, that*, the Company may delay the filing of any amendment or supplement, if in the judgment of the Company, it is in the best interest of the Company, during which time of delay TD Cowen shall be under no obligation to make any sales of Placement Shares hereunder.

(d) Listing of Placement Shares. During any period in which the Prospectus relating to the Placement Shares is required to be delivered by TD Cowen under the Securities Act with respect to a pending sale of the Placement Shares (including in circumstances where such requirement may be satisfied pursuant to Rule 172 under the Securities Act), the Company will use its commercially reasonable efforts to cause the Placement Shares to be listed on Nasdaq and to qualify the Placement Shares for sale under the securities laws of such jurisdictions as TD Cowen reasonably designates and to continue such qualifications in effect so long as required for the distribution of the Placement Shares; *provided, however*, that the Company shall not be required in connection therewith to qualify as a foreign corporation or dealer in securities or file a general consent to service of process in any jurisdiction.

(e) Delivery of Registration Statement and Prospectus. The Company will furnish to TD Cowen and its counsel (at the expense of the Company) copies of the Registration Statement, the Prospectus (including all documents incorporated by reference therein) and all amendments and supplements to the Registration Statement or Prospectus that are filed with the Commission during any period in which a Prospectus relating to the Placement Shares is required to be delivered under the Securities Act (including all documents filed with the Commission during such period that are deemed to be incorporated by reference therein), in each case as soon as reasonably practicable and in such quantities as TD Cowen may from time to time reasonably request and, at TD Cowen's request, will also furnish copies of the Prospectus to each exchange or market on which sales of the Placement Shares may be made; *provided, however*, that the Company shall not be required to furnish any document (other than the Prospectus) to TD Cowen to the extent such document is available on EDGAR.

(f) Earnings Statement. The Company will make generally available to its security holders as soon as practicable, but in any event not later than 15 months after the end of the Company's current fiscal quarter, an earnings statement covering a 12-month period that satisfies the provisions of Section 11(a) and Rule 158 of the Securities Act.

(g) Expenses. The Company, whether or not the transactions contemplated hereunder are consummated or this Agreement is terminated, in accordance with the provisions of Section 11 hereunder, will pay the following expenses all incident to the performance of its obligations hereunder, including, but not limited to, expenses relating to (i) the preparation, printing and filing of the Registration Statement and each amendment and supplement thereto, of each Prospectus and of each amendment and supplement thereto, (ii) the preparation, issuance and delivery of the Placement Shares, (iii) the qualification of the Placement Shares under securities laws in accordance with the provisions of Section 7(d) of this Agreement, including filing fees (provided, however, that any fees or disbursements of counsel for TD Cowen in connection therewith shall be paid by TD Cowen except as set forth in (vii) below), (iv) the printing and delivery to TD Cowen of copies of the Prospectus and any amendments or supplements thereto, and of this Agreement, (v) the fees and expenses incurred in connection with the listing or qualification of the Placement Shares for trading on Nasdaq, (vi) the filing fees and expenses, if any, of the Commission, (vii) the filing fees and associated legal expenses of TD Cowen's outside counsel for filings with the FINRA Corporate Financing Department, such legal expense reimbursement not to exceed \$15,000 and, (viii) the reasonable fees and disbursements of TD Cowen's counsel in an amount not to exceed \$75,000 in connection with the entry into this Agreement and \$25,000 in connection with each Bring-Down Date (as defined below).

(h) Use of Proceeds. The Company will use the Net Proceeds as described in the Prospectus in the section entitled "Use of Proceeds."

(i) Notice of Other Sales. During the pendency of any Placement Notice given hereunder, and for three (3) trading days following the termination of any Placement Notice given hereunder, the Company shall provide TD Cowen notice as promptly as reasonably possible before it offers to sell, contracts to sell, sells, grants any option to sell or otherwise disposes of any shares of Common Stock (other than Placement Shares offered pursuant to the provisions of this Agreement) or securities convertible into or exchangeable for Common Stock, warrants or any rights to purchase or acquire Common Stock; *provided*, that such notice shall not be required in connection with the (i) issuance, grant or sale of Common Stock, options to purchase shares of Common Stock, restricted stock units, stock awards or other equity awards or Common Stock issuable upon the exercise or vesting of options or other equity awards pursuant to any stock option, stock bonus or other equity incentive plan or arrangement described in the Prospectus, (ii) the issuance of securities in connection with an acquisition, merger or sale or purchase of assets, (iii) the issuance or sale of Common Stock pursuant to any dividend reinvestment plan that the Company may adopt from time to time provided the implementation of such is disclosed to TD Cowen in advance, (iv) the issuance of any shares of Common Stock, or securities convertible into or exercisable for Common Stock, offered and sold in a privately negotiated transaction to vendors, customers or strategic partners, and otherwise conducted in a manner so as not to be integrated with the offering of the Placement Shares, or (v) the issuance of

any shares of Common Stock issuable upon the exchange, conversion or redemption of securities or the exercise of warrants, options or other rights in effect or outstanding.

(j) Change of Circumstances. The Company will, at any time during a fiscal quarter in which the Company intends to tender a Placement Notice or sell Placement Shares, advise TD Cowen promptly after it shall have received notice or obtained knowledge thereof, of any information or fact that would alter or affect in any material respect any opinion, certificate, letter or other document provided to TD Cowen pursuant to this Agreement.

(k) Due Diligence Cooperation. During the term of this Agreement, the Company will cooperate with any reasonable due diligence review conducted by TD Cowen or its agents in connection with the transactions contemplated hereby, including, without limitation, providing information and making available documents and senior corporate officers, during regular business hours and at the Company's principal offices or virtually, as TD Cowen may reasonably request.

(l) Required Filings Relating to Placement of Placement Shares. The Company agrees that on such dates as the Securities Act shall require, the Company will (i) file a prospectus supplement with the Commission under the applicable paragraph of Rule 424(b) under the Securities Act (each and every filing under Rule 424(b), a "**Filing Date**"), and (ii) deliver such number of copies of each such prospectus supplement to each exchange or market on which such sales were effected as may be required by the rules or regulations of such exchange or market. The Company shall disclose in its quarterly reports on Form 10-Q and in its annual report on Form 10-K, the number of the Placement Shares sold through TD Cowen under this Agreement, the volume-weighted average price of the Placement Shares sold, and the gross proceeds to the Company from the sale of the Placement Shares pursuant to this Agreement during the relevant quarter or, in the case of an Annual Report on Form 10-K, during the fiscal year covered by such Annual Report and the fourth quarter of such fiscal year.

(m) Bring-Down Dates; Certificate. On or prior to the First Delivery Date and, following the First Delivery Date, each time during the term of this Agreement (i) the Company files the Prospectus relating to the Placement Shares or amends or supplements the Registration Statement or the Prospectus relating to the Placement Shares (other than a prospectus supplement filed in accordance with Section 7(l) of this Agreement) by means of a post-effective amendment, sticker, or supplement but not by means of incorporation of document(s) by reference to the Registration Statement or the Prospectus relating to the Placement Shares; (ii) the Company files an annual report on Form 10-K under the Exchange Act; (iii) the Company files its quarterly reports on Form 10-Q under the Exchange Act; or (iv) the Company files a report on Form 8-K containing amended financial information (other than information "furnished" pursuant to Item 2.02 or 7.01 of Form 8-K) under the Exchange Act (each date of filing of one or more of the documents referred to in clauses (i) through (iv) shall be a "**Bring-Down Date**"); the Company shall furnish TD Cowen with a certificate, in the form attached hereto as Exhibit 7(m), within one (1) Trading Day of any Bring-Down Date if requested by TD Cowen. The requirement to provide a certificate under this Section 7(m) shall be waived for any Bring-Down Date occurring at a time at which no Placement Notice is pending, which waiver

shall continue until the earlier to occur of the date the Company delivers a Placement Notice hereunder (which for such calendar quarter shall be considered a Bring-Down Date) and the next occurring Bring-Down Date; *provided, however*, that such waiver shall not apply for any Bring-Down Date on which the Company files its annual report on Form 10-K. Notwithstanding the foregoing, if the Company subsequently decides to sell Placement Shares following a Bring-Down Date when the Company relied on such waiver and did not provide TD Cowen with a certificate under this Section 7(m), then before the Company delivers the Placement Notice or TD Cowen sells any Placement Shares, the Company shall provide TD Cowen with a certificate, in the form attached hereto as Exhibit 7(m), dated the date of the Placement Notice.

(n) Legal Opinions. On or prior to the First Delivery Date and within one (1) Trading Day of each Bring-Down Date with respect to which the Company is obligated to deliver a certificate in the form attached hereto as Exhibit 7(m) for which no waiver is applicable, the Company shall cause to be furnished to TD Cowen a written opinion and negative assurance letter of Wilson Sonsini Goodrich & Rosati, P.C. (“Company Counsel”) and written opinion of Wilson Sonsini Goodrich & Rosati, P.C., intellectual property counsel to the Company (“Company IP Counsel”), or other counsel satisfactory to TD Cowen, each in form and substance satisfactory to TD Cowen and its counsel, dated the date that the opinion is required to be delivered, respectively, modified, as necessary, to relate to the Registration Statement and the Prospectus as then amended or supplemented; *provided, however*, that in lieu of such opinions for subsequent Bring-Down Dates, Company Counsel and Company IP Counsel, as applicable, may furnish TD Cowen with a letter (a “Reliance Letter”) to the effect that TD Cowen may rely on a prior opinion delivered under this Section 7(n) to the same extent as if it were dated the date of such letter (except that statements in such prior opinion shall be deemed to relate to the Registration Statement and the Prospectus as amended or supplemented at such Bring-Down Date).

(o) Comfort Letter. On or prior to the First Delivery Date and within one (1) Trading Day of each Bring-Down Date with respect to which the Company is obligated to deliver a certificate in the form attached hereto as Exhibit 7(m) for which no waiver is applicable, the Company shall cause its independent accountants to furnish TD Cowen letters (the “Comfort Letters”), dated the date the Comfort Letter is delivered, in form and substance satisfactory to TD Cowen, (i) confirming that they are an independent registered public accounting firm within the meaning of the Securities Act and the Public Company Accounting Oversight Board, (ii) stating, as of such date, the conclusions and findings of such firm with respect to the financial information and other matters ordinarily covered by accountants’ “comfort letters” to TD Cowen in connection with registered public offerings (the first such letter, the “Initial Comfort Letter”) and (iii) updating the Initial Comfort Letter with any information that would have been included in the Initial Comfort Letter had it been given on such date and modified as necessary to relate to the Registration Statement and the Prospectus, as amended and supplemented to the date of such letter.

(p) [Reserved.]

(q) Market Activities. The Company will not, directly or indirectly, (i) take any action designed to cause or result in, or that constitutes or might reasonably be expected to constitute, the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of the Placement Shares or (ii) sell, bid for, or purchase the Common Stock to be issued and sold pursuant to this Agreement, or pay anyone any compensation for soliciting purchases of the Placement Shares other than TD Cowen; provided, however, that the Company may bid for and purchase shares of its common stock in accordance with Rule 10b-18 under the Exchange Act.

(r) Insurance. The Company and its Subsidiaries shall maintain, or cause to be maintained, insurance in such amounts and covering such risks as is reasonable and customary for the business for which it is engaged.

(s) Compliance with Laws. The Company and each of its Subsidiaries shall maintain, or cause to be maintained, all material environmental permits, licenses and other authorizations required by federal, state and local law in order to conduct their businesses as described in the Prospectus, and the Company and each of its Subsidiaries shall conduct their businesses, or cause their businesses to be conducted, in substantial compliance with such permits, licenses and authorizations and with applicable environmental laws, except where the failure to maintain or be in compliance with such permits, licenses and authorizations could not reasonably be expected to result in a Material Adverse Change.

(t) Investment Company Act. The Company will conduct its affairs in such a manner so as to reasonably ensure that neither it nor its Subsidiaries will be or become, at any time prior to the termination of this Agreement, an “investment company,” as such term is defined in the Investment Company Act, assuming no change in the Commission’s current interpretation as to entities that are not considered an investment company.

(u) Securities Act and Exchange Act. The Company will use its best efforts to comply with all requirements imposed upon it by the Securities Act and the Exchange Act as from time to time in force, so far as necessary to permit the continuance of sales of, or dealings in, the Placement Shares as contemplated by the provisions hereof and the Prospectus.

(v) No Offer to Sell. Other than the Prospectus and a Permitted Free Writing Prospectus, neither TD Cowen nor the Company (including its agents and representatives, other than TD Cowen in its capacity as such) will make, use, prepare, authorize, approve or refer to any written communication (as defined in Rule 405 under the Securities Act), required to be filed with the Commission, that constitutes an offer to sell or solicitation of an offer to buy Common Stock hereunder.

(w) Sarbanes-Oxley Act. The Company and its Subsidiaries will use their best efforts to comply with all effective applicable provisions of the Sarbanes-Oxley Act.

(x) Affirmation. Each Placement Notice delivered by the Company to TD Cowen shall be deemed to be (i) an affirmation that the representations, warranties and agreements of the Company herein contained and contained in any certificate delivered to TD Cowen pursuant

hereto are true and correct at the time of delivery of such Placement Notice, and (ii) an undertaking that such representations, warranties and agreements will be true and correct on any applicable Time of Sale and Settlement Date, as though made at and as of each such time (it being understood that such representations, warranties and agreements shall relate to the Registration Statement and the Prospectus as amended and supplemented to the time of such Placement Notice acceptance).

(y) Renewal. If immediately prior to the third anniversary (the “Renewal Deadline”) of the initial effective date of the Registration Statement, the aggregate gross sales price of Placement Shares sold by the Company is less than the Maximum Amount and this Agreement has not expired or been terminated, the Company will, prior to the Renewal Deadline, file, if it has not already done so and is eligible to do so, a new shelf registration statement relating to the Placement Shares, in a form satisfactory to TD Cowen, and, if not automatically effective, will use its best efforts to cause such registration statement to be declared effective within 60 days after the Renewal Deadline. The Company will take all other action necessary or appropriate to permit the issuance and sale of the Placement Shares to continue as contemplated in the expired registration statement relating to the Placement Shares. References herein to the Registration Statement shall include such new shelf registration statement.

8. Conditions to TD Cowen’s Obligations. The obligations of TD Cowen hereunder with respect to a Placement Notice will be subject to the continuing accuracy and completeness of the representations and warranties made by the Company herein, to the due performance by the Company of its obligations hereunder, to the completion by TD Cowen of a customary due diligence review satisfactory to TD Cowen in its reasonable judgment, and to the continuing satisfaction (or waiver by TD Cowen in its sole discretion) of the following additional conditions:

(a) Registration Statement Effective. The Registration Statement shall be effective and shall be available for (i) all sales of Placement Shares issued pursuant to all prior Placement Notices and (ii) the sale of all Placement Shares contemplated to be issued pursuant to any Placement Notice.

(b) No Material Notices. None of the following events shall have occurred and be continuing: (i) receipt by the Company or any of its subsidiaries of any request for additional information from the Commission during the period of effectiveness of the Registration Statement, the response to which would require any post-effective amendments or supplements to the Registration Statement or the Prospectus; (ii) the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or the initiation of any proceedings for that purpose; (iii) receipt by the Company of any notification with respect to the suspension of the qualification or exemption from qualification of any of the Placement Shares for sale in any jurisdiction or the initiation or threatening of any proceeding for such purpose; or (iv) the occurrence of any event that makes any material statement made in the Registration Statement or the Prospectus or any material document incorporated or deemed to be incorporated therein by reference untrue in any material respect or that requires the making of any changes in the Registration Statement, related Prospectus or such documents so that, in the case of the

Registration Statement, it will not contain any materially untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein not misleading and, that in the case of the Prospectus, it will not contain any materially untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(c) No Misstatement or Material Omission. Neither the Registration Statement or Prospectus, nor any amendment or supplement thereto, shall contain an untrue statement of material fact, or omit to state a fact that is material and is required to be stated therein or is necessary to make the statements therein not misleading.

(d) Material Changes. Except as contemplated in the Prospectus, or disclosed in the Company's reports filed with the Commission, there shall not have been any material adverse change, on a consolidated basis, in the authorized capital stock of the Company or any Material Adverse Change or any development that could reasonably be expected to result in a Material Adverse Change, or any downgrading in or withdrawal of the rating assigned to any of the Company's securities (other than asset backed securities) by any rating organization or a public announcement by any rating organization that it has under surveillance or review its rating of any of the Company's securities (other than asset backed securities), the effect of which, in the case of any such action by a rating organization described above, in the reasonable judgment of TD Cowen (without relieving the Company of any obligation or liability it may otherwise have), is so material as to make it impracticable or inadvisable to proceed with the offering of the Placement Shares on the terms and in the manner contemplated in the Prospectus.

(e) Company Counsel Legal Opinion and Negative Assurance Letter. TD Cowen shall have received the opinion and negative assurance letter of Company Counsel and the opinion of Company IP Counsel required to be delivered pursuant to Section 7(n) on or before the date on which such delivery of such opinion is required pursuant to Section 7(n).

(f) TD Cowen Counsel Legal Opinion and Negative Assurance Letter. TD Cowen shall have received from Latham & Watkins LLP, counsel for TD Cowen, such opinion or opinions and negative assurance letter, on or before the date on which the delivery of the Company Counsel legal opinion is required pursuant to Section 7(n), with respect to such matters as TD Cowen may reasonably require, and the Company shall have furnished to such counsel such documents as they request for enabling them to pass upon such matters.

(g) Comfort Letter. TD Cowen shall have received the Comfort Letter required to be delivered pursuant to Section 7(o) on or before the date on which such delivery of such Comfort Letter is required pursuant to Section 7(o).

(h) Representation Certificate. TD Cowen shall have received the certificate required to be delivered pursuant to Section 7(m) on or before the date on which delivery of such certificate is required pursuant to Section 7(m).

(i) Secretary's Certificate. On or prior to the First Delivery Date, TD Cowen shall have received a certificate, signed on behalf of the Company by its corporate secretary, in form and substance reasonably satisfactory to TD Cowen and its counsel.

(j) [Reserved]

(k) No Suspension. Trading in the Common Stock shall not have been suspended on Nasdaq.

(l) Other Materials. On each date on which the Company is required to deliver a certificate pursuant to Section 7(m), the Company shall have furnished to TD Cowen such appropriate further information, certificates and documents as TD Cowen may have reasonably requested and which are customarily furnished by an issuer of securities in connection with a securities offering. All such opinions, certificates, letters and other documents shall have been in compliance with the provisions hereof. The Company will furnish TD Cowen with such conformed copies of such opinions, certificates, letters and other documents as TD Cowen shall have reasonably requested.

(m) Securities Act Filings Made. All filings with the Commission required by Rule 424 under the Securities Act to have been filed prior to the issuance of any Placement Notice hereunder shall have been made within the applicable time period prescribed for such filing by Rule 424.

(n) Approval for Listing. The Placement Shares shall either have been (i) approved for listing on Nasdaq, subject only to notice of issuance, or (ii) the Company shall have filed an application for listing of the Placement Shares on Nasdaq at, or prior to, the issuance of any Placement Notice.

(o) No Termination Event. There shall not have occurred any event that would permit TD Cowen to terminate this Agreement pursuant to Section 11(a).

9. Indemnification and Contribution.

(a) Company Indemnification. The Company agrees to indemnify and hold harmless TD Cowen, its affiliates and each of their respective directors, officers, partners, employees and agents of TD Cowen and each person, if any, who (i) controls TD Cowen within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act, or (ii) is controlled by or is under common control with TD Cowen from and against any and all losses, claims, liabilities, expenses and damages (including, but not limited to, any and all reasonable documented investigative, legal and other expenses incurred in connection with, and any and all amounts paid in settlement (in accordance with Section 9(c)) of, any action, suit or proceeding between any of the indemnified parties and any indemnifying parties or between any indemnified party and any third party, or otherwise, or any claim asserted), as and when incurred, to which TD Cowen, or any such person, may become subject under the Securities Act, the Exchange Act or other federal or state statutory law or regulation, at common law or otherwise, insofar as such losses, claims, liabilities, expenses or damages arise out of or are based, directly or indirectly, on

(x) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement or the Prospectus or any amendment or supplement to the Registration Statement or the Prospectus or in any free writing prospectus or in any application or other document executed by or on behalf of the Company or based on written information furnished by or on behalf of the Company filed in any jurisdiction in order to qualify the Common Stock under the securities laws thereof or filed with the Commission, (y) the omission or alleged omission to state in any such document a material fact required to be stated in it or necessary to make the statements in it, in the light of (other than in the case of the Registration Statement) the circumstances under which they were made, not misleading or (z) any breach by any of the indemnifying parties of any of their respective representations, warranties and agreements contained in this Agreement; *provided, however*, that this indemnity agreement shall not apply to the extent that such loss, claim, liability, expense or damage arises from the sale of the Placement Shares pursuant to this Agreement and is caused directly or indirectly by an untrue statement or omission made in reliance upon and in conformity with solely Agent's Information. "Agent's Information" means, solely, the following information in the Prospectus: the third sentence of the eighth paragraph and the tenth paragraph under the caption "Plan of Distribution" in the Prospectus. This indemnity agreement will be in addition to any liability that the Company might otherwise have.

(b) TD Cowen Indemnification. TD Cowen agrees to indemnify and hold harmless the Company and its directors and each officer of the Company that signed the Registration Statement, and each person, if any, who (i) controls the Company within the meaning of Section 15 of the Securities Act or Section 20 of the Exchange Act or (ii) is controlled by or is under common control with the Company against any and all loss, liability, claim, damage and expense described in the indemnity contained in Section 9(a), as incurred, but only with respect to untrue statements or omissions, or alleged untrue statements or omissions, made in the Registration Statement (or any amendments thereto) or the Prospectus (or any amendment or supplement thereto) in reliance upon and in conformity with the Agent's Information.

(c) Procedure. Any party that proposes to assert the right to be indemnified under this Section 9 will, promptly after receipt of notice of commencement of any action against such party in respect of which a claim is to be made against an indemnifying party or parties under this Section 9, notify each such indemnifying party of the commencement of such action, enclosing a copy of all papers served, but the omission so to notify such indemnifying party will not relieve the indemnifying party from (i) any liability that it might have to any indemnified party otherwise than under this Section 9 and (ii) any liability that it may have to any indemnified party under the foregoing provision of this Section 9 unless, and only to the extent that, such omission results in the forfeiture of substantive rights or defenses by the indemnifying party. If any such action is brought against any indemnified party and it notifies the indemnifying party of its commencement, the indemnifying party will be entitled to participate in and, to the extent that it elects by delivering written notice to the indemnified party promptly after receiving notice of the commencement of the action from the indemnified party, jointly with any other indemnifying party similarly notified, to assume the defense of the action, with counsel reasonably satisfactory to the indemnified party, and after notice from the indemnifying party to the indemnified party of its election to assume the defense, the indemnifying party will not be

liable to the indemnified party for any legal or other expenses except as provided below and except for the reasonable costs of investigation subsequently incurred by the indemnified party in connection with the defense. The indemnified party will have the right to employ its own counsel in any such action, but the fees, expenses and other charges of such counsel will be at the expense of such indemnified party unless (1) the employment of counsel by the indemnified party has been authorized in writing by the indemnifying party, (2) the indemnified party has reasonably concluded (based on advice of counsel) that there may be legal defenses available to it or other indemnified parties that are different from or in addition to those available to the indemnifying party, (3) a conflict or potential conflict exists (based on advice of counsel to the indemnified party) between the indemnified party and the indemnifying party (in which case the indemnifying party will not have the right to direct the defense of such action on behalf of the indemnified party) or (4) the indemnifying party has not in fact employed counsel to assume the defense of such action within a reasonable time after receiving notice of the commencement of the action, in each of which cases the reasonable fees, disbursements and other charges of counsel will be at the expense of the indemnifying party or parties. It is understood that the indemnifying party or parties shall not, in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the reasonable fees, disbursements and other charges of more than one separate firm admitted to practice in such jurisdiction at any one time for all such indemnified party or parties. All such fees, disbursements and other charges will be reimbursed by the indemnifying party promptly as they are incurred after the indemnifying party receives a written invoice relating to fees, disbursements and other charges in reasonable detail. An indemnifying party will not, in any event, be liable for any settlement of any action or claim effected without its written consent. No indemnifying party shall, without the prior written consent of each indemnified party, settle or compromise or consent to the entry of any judgment in any pending or threatened claim, action or proceeding relating to the matters contemplated by this Section 9 (whether or not any indemnified party is a party thereto), unless such settlement, compromise or consent includes an unconditional release of each indemnified party from all liability arising or that may arise out of such claim, action or proceeding.

(d) Contribution. In order to provide for just and equitable contribution in circumstances in which the indemnification provided for in the foregoing paragraphs of this Section 9 is applicable in accordance with its terms but for any reason is held to be unavailable from the Company or TD Cowen, the Company and TD Cowen will contribute to the total losses, claims, liabilities, expenses and damages (including any documented investigative, legal and other expenses reasonably incurred in connection with, and any amount paid in settlement of, any action, suit or proceeding or any claim asserted, but after deducting any contribution received by the Company from persons other than TD Cowen, such as persons who control the Company within the meaning of the Securities Act, officers of the Company who signed the Registration Statement and directors of the Company, who also may be liable for contribution) to which the Company and TD Cowen may be subject in such proportion as shall be appropriate to reflect the relative benefits received by the Company on the one hand and TD Cowen on the other. The relative benefits received by the Company on the one hand and TD Cowen on the other hand shall be deemed to be in the same proportion as the total Net Proceeds from the sale of the Placement Shares (before deducting expenses) received by the Company bear to the total compensation received by TD Cowen from the sale of Placement Shares on behalf of the

Company. If, but only if, the allocation provided by the foregoing sentence is not permitted by applicable law, the allocation of contribution shall be made in such proportion as is appropriate to reflect not only the relative benefits referred to in the foregoing sentence but also the relative fault of the Company, on the one hand, and TD Cowen, on the other, with respect to the statements or omission that resulted in such loss, claim, liability, expense or damage, or action in respect thereof, as well as any other relevant equitable considerations with respect to such offering. Such relative fault shall be determined by reference to, among other things, whether the untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company or TD Cowen, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such statement or omission. The Company and TD Cowen agree that it would not be just and equitable if contributions pursuant to this Section 9(d) were to be determined by pro rata allocation or by any other method of allocation that does not take into account the equitable considerations referred to herein. The amount paid or payable by an indemnified party as a result of the loss, claim, liability, expense, or damage, or action in respect thereof, referred to above in this Section 9(d) shall be deemed to include, for the purpose of this Section 9(d), any legal or other expenses reasonably incurred by such indemnified party in connection with investigating or defending any such action or claim to the extent consistent with Section 9(c) hereof. Notwithstanding the foregoing provisions of this Section 9(d), TD Cowen shall not be required to contribute any amount in excess of the commissions received by it under this Agreement and no person found guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) will be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. For purposes of this Section 9(d), any person who controls a party to this Agreement within the meaning of the Securities Act, and any officers, directors, partners, employees or agents of TD Cowen, will have the same rights to contribution as that party, and each officer of the Company who signed the Registration Statement, and each director of the Company, will have the same rights to contribution as the Company, subject in each case to the provisions hereof. Any party entitled to contribution, promptly after receipt of notice of commencement of any action against such party in respect of which a claim for contribution may be made under this Section 9(d), will notify any such party or parties from whom contribution may be sought, but the omission to so notify will not relieve that party or parties from whom contribution may be sought from any other obligation it or they may have under this Section 9(d), except to the extent that the failure to so notify such other party materially prejudiced the substantive rights or defenses of the party from whom contribution is sought. Except for a settlement entered into pursuant to the last sentence of Section 9(c) hereof, no party will be liable for contribution with respect to any action or claim settled without its written consent if such consent is required pursuant to Section 9(c) hereof.

10. Representations and Agreements to Survive Delivery. The indemnity and contribution agreements contained in Section 9 of this Agreement and all representations and warranties of the Company herein or in certificates delivered pursuant hereto shall survive, as of their respective dates, regardless of (i) any investigation made by or on behalf of TD Cowen, any controlling persons, or the Company (or any of their respective officers, directors or controlling persons), (ii) delivery and acceptance of the Placement Shares and payment therefor or (iii) any termination of this Agreement.

11. Termination.

(a) TD Cowen shall have the right by giving notice as hereinafter specified at any time to terminate this Agreement if (i) any Material Adverse Change, or any development that could reasonably be expected to result in a Material Adverse Change has occurred that, in the reasonable judgment of TD Cowen, materially impairs the ability of TD Cowen to sell the Placement Shares hereunder, (ii) the Company shall have failed, refused or been unable to perform any agreement on its part to be performed hereunder, or (iii) any other condition of TD Cowen's obligations hereunder is not fulfilled, or (iv), any suspension or limitation of trading in the Placement Shares or in securities generally on Nasdaq shall have occurred. Any such termination shall be without liability of any party to any other party except that the provisions of Section 7(g) (Expenses), Section 9 (Indemnification and Contribution), Section 10 (Representations and Agreements to Survive Delivery), Section 16 (Applicable Law; Consent to Jurisdiction) and Section 17 (Waiver of Jury Trial) hereof shall remain in full force and effect notwithstanding such termination. If TD Cowen elects to terminate this Agreement as provided in this Section 11(a), TD Cowen shall provide the required notice as specified in Section 12 (Notices).

(b) The Company shall have the right, by giving ten (10) days' notice as hereinafter specified to terminate this Agreement in its sole discretion at any time after the date of this Agreement. Any such termination shall be without liability of any party to any other party except that the provisions of Section 7(g), Section 9, Section 10, Section 16 and Section 17 hereof shall remain in full force and effect notwithstanding such termination.

(c) TD Cowen shall have the right, by giving ten (10) days' notice as hereinafter specified to terminate this Agreement in its sole discretion at any time after the date of this Agreement. Any such termination shall be without liability of any party to any other party except that the provisions of Section 7(g), Section 9, Section 10, Section 16 and Section 17 hereof shall remain in full force and effect notwithstanding such termination.

(d) Unless earlier terminated pursuant to this Section 11, this Agreement shall automatically terminate upon the issuance and sale of all of the Placement Shares through TD Cowen on the terms and subject to the conditions set forth herein; *provided* that the provisions of Section 7(g), Section 9, Section 10, Section 16 and Section 17 hereof shall remain in full force and effect notwithstanding such termination.

(e) This Agreement shall remain in full force and effect unless terminated pursuant to Sections 11(a), (b), (c), or (d) above or otherwise by mutual agreement of the parties; *provided, however*; that any such termination by mutual agreement shall in all cases be deemed to provide that Section 7(g), Section 9, Section 10, Section 16 and Section 17 shall remain in full force and effect.

(f) Any termination of this Agreement shall be effective on the date specified in such notice of termination; *provided, however*; that such termination shall not be effective until the close of business on the date of receipt of such notice by TD Cowen or the Company, as the case

may be. If such termination shall occur prior to the Settlement Date for any sale of Placement Shares, such Placement Shares shall settle in accordance with the provisions of this Agreement.

12. Notices. All notices or other communications required or permitted to be given by any party to any other party pursuant to the terms of this Agreement shall be in writing, unless otherwise specified in this Agreement, and if sent to TD Cowen, shall be delivered to TD Cowen at TD Securities (USA) LLC, 1 Vanderbilt Avenue, New York, NY 10017, fax no. 646-562-1130, Attention: Head of Equity Capital Markets, email: CIBLegal@tdsecurities.com; or if sent to the Company, shall be delivered to LENZ Therapeutics, Inc., 201 Lomas Santa Fe Dr., Suite 300, Solana Beach, California 92075, attention: Chief Financial Officer, email: dan@lenz-tx.com, with a copy to Wilson Sonsini Goodrich & Rosati, P.C., attention: Dan Koeppen, email: dkoeppen@wsgr.com. Each party to this Agreement may change such address for notices by sending to the parties to this Agreement written notice of a new address for such purpose. Each such notice or other communication shall be deemed given (i) when delivered personally or by verifiable facsimile transmission (with an original to follow) on or before 4:30 p.m., New York City time, on a Business Day (as defined below), or, if such day is not a Business Day on the next succeeding Business Day, (ii) on the next Business Day after timely delivery to a nationally-recognized overnight courier, (iii) on the Business Day actually received if deposited in the U.S. mail (certified or registered mail, return receipt requested, postage prepaid) and (iv) when delivered by electronic communication ("**Electronic Notice**"), at the time the party sending the Electronic Notice receives verification of receipt by the receiving party other than via auto reply. For purposes of this Agreement, "**Business Day**" shall mean any day on which the Nasdaq and commercial banks in the City of New York are open for business.

13. Successors and Assigns. This Agreement shall inure to the benefit of and be binding upon the Company and TD Cowen and their respective successors and the affiliates, controlling persons, officers and directors referred to in Section 9 hereof. References to any of the parties contained in this Agreement shall be deemed to include the successors and permitted assigns of such party. Nothing in this Agreement, express or implied, is intended to confer upon any party other than the parties hereto or their respective successors and permitted assigns any rights, remedies, obligations or liabilities under or by reason of this Agreement, except as expressly provided in this Agreement. Neither party may assign its rights or obligations under this Agreement without the prior written consent of the other party; *provided, however*, that TD Cowen may assign its rights and obligations hereunder to an affiliate of TD Cowen without obtaining the Company's consent.

14. Adjustments for Share Splits. The parties acknowledge and agree that all share-related numbers contained in this Agreement shall be adjusted to take into account any share split, share dividend or similar event effected with respect to the Common Stock.

15. Entire Agreement; Amendment; Severability. This Agreement (including all schedules and exhibits attached hereto and Placement Notices issued pursuant hereto) constitutes the entire agreement and supersedes all other prior and contemporaneous agreements and undertakings, both written and oral, among the parties hereto with regard to the subject matter hereof. Except as provided in Section 12, neither this Agreement nor any term hereof may be

amended except pursuant to a written instrument executed by the Company and TD Cowen; *provided*, that each party hereto may amend the list of individuals appearing under such party's name on Schedule 2 by giving notice to the other party hereto. In the event that any one or more of the provisions contained herein, or the application thereof in any circumstance, is held invalid, illegal or unenforceable as written by a court of competent jurisdiction, then such provision shall be given full force and effect to the fullest possible extent that it is valid, legal and enforceable, and the remainder of the terms and provisions herein shall be construed as if such invalid, illegal or unenforceable term or provision was not contained herein, but only to the extent that giving effect to such provision and the remainder of the terms and provisions hereof shall be in accordance with the intent of the parties as reflected in this Agreement.

16. Applicable Law; Consent to Jurisdiction. This Agreement shall be governed by, and construed in accordance with, the internal laws of the State of New York without regard to the principles of conflicts of laws. Each party hereby irrevocably submits to the non-exclusive jurisdiction of the state and federal courts sitting in the City of New York, borough of Manhattan, for the adjudication of any dispute hereunder or in connection with any transaction contemplated hereby, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof (certified or registered mail, return receipt requested) to such party at the address in effect for notices to it under this Agreement and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law.

17. Waiver of Jury Trial. The Company and TD Cowen each hereby irrevocably waives any right it may have to a trial by jury in respect of any claim based upon or arising out of this Agreement or any transaction contemplated hereby.

18. Absence of Fiduciary Relationship. The Company acknowledges and agrees that:

(a) TD Cowen has been retained solely to act as an arm's length contractual counterparty to the Company in connection with the sale of the Placement Shares contemplated hereby and that no fiduciary, advisory or agency relationship between the Company and TD Cowen has been created in respect of any of the transactions contemplated by this Agreement, irrespective of whether TD Cowen has advised or is advising the Company on other matters;

(b) the Company is capable of evaluating and understanding and understands and accepts the terms, risks and conditions of the transactions contemplated by this Agreement;

(c) the Company has been advised that TD Cowen and its affiliates are engaged in a broad range of transactions which may involve interests that differ from those of the Company and that TD Cowen has no obligation to disclose such interests and transactions to the Company by virtue of any fiduciary, advisory or agency relationship; and

(d) the Company waives, to the fullest extent permitted by law, any claims it may have against TD Cowen, for breach of fiduciary duty or alleged breach of fiduciary duty and agrees that TD Cowen shall have no liability (whether direct or indirect) to the Company in respect of such a fiduciary claim or to any person asserting a fiduciary duty claim on behalf of or in right of the Company, including stockholders, partners, employees or creditors of the Company.

19. Counterparts. This Agreement may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Delivery of an executed Agreement by one party to the other may be made by facsimile or other electronic transmission (including pdf or any electronic signature complying with the U.S. federal ESIGN Act of 2000, (including, but not limited to, www.docuSign.com or www.echosign.com)) or other transmission method and any counterpart so delivered shall be deemed to have been duly and validly delivered and be valid and effective for all purposes.

20. Recognition of the U.S. Special Resolution Regimes.

(a) In the event that TD Cowen is a Covered Entity and becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer from TD Cowen of this Agreement, and any interest and obligation in or under this Agreement, will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if this Agreement, and any such interest and obligation, were governed by the laws of the United States or a state of the United States.

(b) In the event that TD Cowen is a Covered Entity and TD Cowen or a BHC Act Affiliate of TD Cowen becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under this Agreement that may be exercised against TD Cowen are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if this Agreement were governed by the laws of the United States or a state of the United States.

(c) For purposes of this Section 20; (a) “**BHC Act Affiliate**” has the meaning assigned to the term “affiliate” in, and shall be interpreted in accordance with, 12 U.S.C. § 1841(k), (b) “**Covered Entity**” means any of the following: (i) a “covered entity” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b); (ii) a “covered bank” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or (iii) a “covered FSI” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b), (c) “**Default Right**” has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable, and (d) “**U.S. Special Resolution Regime**” means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder.

[Remainder of Page Intentionally Blank]

If the foregoing correctly sets forth the understanding between the Company and TD Cowen, please so indicate in the space provided below for that purpose, whereupon this letter shall constitute a binding agreement between the Company and TD Cowen.

Very truly yours,

TD SECURITIES (USA) LLC

By: /s/ Michael Murphy
Name: Michael Murphy
Title: Managing Director

**ACCEPTED as of the date
first-above written:**

LENZ Therapeutics, Inc.

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

FORM OF PLACEMENT NOTICE

From: []
Cc: []
To: []
Subject: TD Cowen At the Market Offering—Placement Notice

Ladies and Gentlemen:

Pursuant to the terms and subject to the conditions contained in the Sales Agreement between LENZ Therapeutics, Inc. (the “Company”), and TD Securities (USA) LLC (“TD Cowen”) dated April 4, 2025 (the “Agreement”), I hereby request on behalf of the Company that TD Cowen sell up to [] shares of the Company’s common stock, par value \$0.00001 per share, at a minimum market price of \$[] per share. Sales should begin on the date of this Notice and shall continue until [DATE] [all shares are sold].

Notice Parties

Company

Eef Schimmelpennink	President & Chief Executive Officer
Dan Chevallard	Chief Financial Officer

TD Cowen

Michael J. Murphy	Managing Director
William Follis	Managing Director
Adriano Pierroz	Director
Megan Sanford	Analyst

SCHEDULE 3

Compensation

TD Cowen shall be paid compensation up to 3.0% of the gross proceeds from the sales of Common Stock pursuant to the terms of this Agreement.

OFFICER CERTIFICATE

The undersigned, the duly qualified and elected [], of **LENZ Therapeutics, Inc.**, a Delaware corporation ("**Company**"), does hereby certify in such capacity and on behalf of the Company (and not in the undersigned's individual capacity), pursuant to Section 7(m) of the Sales Agreement, dated April 4, 2025 (the "**Sales Agreement**") by and between the Company and TD Securities (USA) LLC, that to the best of the knowledge of the undersigned:

(i) The representations and warranties of the Company in Section 6 of the Sales Agreement (A) to the extent such representations and warranties are subject to qualifications and exceptions contained therein relating to materiality or Material Adverse Change, are true and correct on and as of the date hereof with the same force and effect as if expressly made on and as of the date hereof, except for those representations and warranties that speak solely as of a specific date and which were true and correct as of such date, and (B) to the extent such representations and warranties are not subject to any qualifications or exceptions, are true and correct in all material respects as of the date hereof as if made on and as of the date hereof with the same force and effect as if expressly made on and as of the date hereof except for those representations and warranties that speak solely as of a specific date and which were true and correct as of such date; and

(ii) The Company has complied with all agreements and satisfied all conditions on its part to be performed or satisfied pursuant to the Sales Agreement at or prior to the date hereof.

Wilson Sonsini Goodrich & Rosati, P.C. and Latham and Watkins LLP are entitled to rely upon this certificate in connection with the respective opinions given by such firms pursuant to the Sales Agreement.

Capitalized terms used but not defined herein shall have the respective meanings set forth in the Sales Agreement.

IN WITNESS WHEREOF, the undersigned has executed this certificate on behalf of the Company as of the date first written above.

By: _____
Name:
Title:

Date: _____

LENZ THERAPEUTICS, INC.

INDENTURE

Dated as of _____, 20

[_____]

Trustee

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LENZ THERAPEUTICS, INC.

Reconciliation and tie between Trust Indenture Act of 1939 and Indenture, dated as of , 20

§ 310(a)(1)	7.10
(a)(2)	7.10
(a)(3)	Not Applicable
(a)(4)	Not Applicable
(a)(5)	7.10
(b)	7.10
§ 311(a)	7.11
(b)	7.11
(c)	Not Applicable
§ 312(a)	2.6
(b)	10.3
(c)	10.3
§ 313(a)	7.6
(b)(1)	7.6
(b)(2)	7.6
(c)(1)	7.6
(d)	7.6
§ 314(a)	4.2, 10.5
(b)	Not Applicable
(c)(1)	10.4
(c)(2)	10.4
(c)(3)	Not Applicable
(d)	Not Applicable
(e)	10.5
(f)	Not Applicable
§ 315(a)	7.1
(b)	7.5
(c)	7.1
(d)	7.1
(e)	6.14
§ 316(a)	2.10
(a)(1)(A)	6.12
(a)(1)(B)	6.13
(b)	6.8
§ 317(a)(1)	6.3
(a)(2)	6.4
(b)	2.5
§ 318(a)	10.1

Note: This reconciliation and tie shall not, for any purpose, be deemed to be part of the Indenture.

Indenture dated as of _____, 20____ between LENZ Therapeutics, Inc., a company incorporated under the laws of Delaware (the “*Company*”), and [_____] , a national banking association organized under the laws of the United States, as trustee (the “*Trustee*”).

Each party agrees as follows for the benefit of the other party and for the equal and ratable benefit of the Holders of the Securities issued under this Indenture.

ARTICLE I DEFINITIONS AND INCORPORATION BY REFERENCE

Section 1.1 Definitions.

“*Additional Amounts*” means any additional amounts which are required hereby or by any Security, under circumstances specified herein or therein, to be paid by the Company in respect of certain taxes imposed on Holders specified herein or therein and which are owing to such Holders.

“*Affiliate*” of any specified person means any other person directly or indirectly controlling or controlled by or under common control with such specified person. For the purposes of this definition, “control” (including, with correlative meanings, the terms “controlled by” and “under common control with”), as used with respect to any person, shall mean the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of such person, whether through the ownership of voting securities or by agreement or otherwise.

“*Agent*” means any Registrar, Paying Agent or Notice Agent.

“*Board of Directors*” means the board of directors of the Company or any duly authorized committee thereof.

“*Board Resolution*” means a copy of a resolution certified by the Secretary or an Assistant Secretary of the Company to have been adopted by the Board of Directors or pursuant to authorization by the Board of Directors and to be in full force and effect on the date of the certificate and delivered to the Trustee.

“*Business Day*” means, any day except a Saturday, Sunday or a Legal Holiday in The City of New York, New York (or in connection with any payment, the place of payment) on which banking institutions are authorized or required by law, regulation or executive order to close.

“*Capital Stock*” means any and all shares, interests, participations, rights or other equivalents (however designated) of corporate stock.

“*Common Stock*” means the Common Stock, par value \$0.00001 per share, of the Company.

“*Company*” means the party named as such above until a successor replaces it and thereafter means the successor.

“*Company Order*” means a written order signed in the name of the Company by an Officer.

“*Corporate Trust Office*” means the principal office of the Trustee at which at any time this Indenture shall be administered, which office as of the date hereof is located at the address specified in Section 10.2. With respect to presentation for transfer or exchange, conversions or principal payment,

such address shall be at the address specified in Section 10.2, or such other address as the Trustee may designate from time to time by written notice to the Holders and the Company, or the principal corporate trust office of any successor Trustee (or such other address as such successor Trustee may designate from time to time by written notice to the Holders and the Company).

“*Default*” means any event which is, or after notice or passage of time or both would be, an Event of Default.

“*Depository*” means, with respect to the Securities of any Series issuable or issued in whole or in part in the form of one or more Global Securities, the person designated as Depository for such Series by the Company, which Depository shall be a clearing agency registered under the Exchange Act; and if at any time there is more than one such person, “*Depository*” as used with respect to the Securities of any Series shall mean the Depository with respect to the Securities of such Series.

“*Discount Security*” means any Security that provides for an amount less than the stated principal amount thereof to be due and payable upon declaration of acceleration of the maturity thereof pursuant to Section 6.2.

“*Dollars*” and “\$” means the currency of The United States of America.

“*Exchange Act*” means the Securities Exchange Act of 1934, as amended.

“*Foreign Currency*” means any currency or currency unit issued by a government other than the government of The United States of America.

“*Foreign Government Obligations*” means, with respect to Securities of any Series that are denominated in a Foreign Currency, direct obligations of, or obligations guaranteed by, the government that issued or caused to be issued such currency for the payment of which obligations its full faith and credit is pledged and which are not callable or redeemable at the option of the issuer thereof.

“*GAAP*” means accounting principles generally accepted in the United States of America set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other entity as have been approved by a significant segment of the accounting profession, which are in effect as of the date of determination.

“*Global Security*” or “*Global Securities*” means a Security or Securities, as the case may be, in the form established pursuant to Section 2.2 evidencing all or part of a Series of Securities, issued to the Depository for such Series or its nominee, and registered in the name of such Depository or nominee.

“*Holder*” or “*Securityholder*” means a person in whose name a Security is registered on the books of the Registrar.

“*Indenture*” means this Indenture as amended or supplemented from time to time and shall include the form and terms of particular Series of Securities established as contemplated hereunder.

“*interest*” with respect to any Discount Security which by its terms bears interest only after Maturity, means interest payable after Maturity.

“*Maturity*,” when used with respect to any Security, means the date on which the principal of such Security becomes due and payable as therein or herein provided, whether at the Stated Maturity or by declaration of acceleration, call for redemption or otherwise.

“*Officer*” means the Chief Executive Officer, President, the Chief Financial Officer, the Treasurer or any Assistant Treasurer, the Secretary or any Assistant Secretary, and any Vice President of the Company.

“*Officer’s Certificate*” means a certificate signed by any Officer that meets the requirements of Section 10.5.

“*Opinion of Counsel*” means a written opinion of legal counsel who is acceptable to the Trustee. The opinion may contain customary limitations, qualifications, conditions and exceptions. The counsel may be an employee of or counsel to the Company.

“*person*” means any individual, corporation, partnership, joint venture, association, limited liability company, joint-stock company, trust, unincorporated organization or government or any agency or political subdivision thereof.

“*principal*” of a Security means the principal of the Security plus, when appropriate, the premium, if any, on, and any Additional Amounts in respect of, the Security.

“*Responsible Officer*” means any officer of the Trustee in its Corporate Trust Office having direct responsibility for the administration of this Indenture and also means, with respect to a particular corporate trust matter, any other officer to whom any corporate trust matter is referred because of his or her knowledge of and familiarity with a particular subject.

“*SEC*” means the Securities and Exchange Commission.

“*Securities*” means the debentures, notes or other debt instruments of the Company of any Series authenticated and delivered under this Indenture.

“*Series*” or “*Series of Securities*” means each series of debentures, notes or other debt instruments of the Company created pursuant to Sections 2.1 and 2.2 hereof.

“*Stated Maturity*” when used with respect to any Security, means the date specified in such Security as the fixed date on which the principal of such Security or interest is due and payable.

“*Subsidiary*” of any specified person means any corporation, association or other business entity of which more than 50% of the total voting power of shares of Capital Stock entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers or trustees thereof is at the time owned or controlled, directly or indirectly, by such person or one or more of the other Subsidiaries of that person or a combination thereof.

“*TIA*” means the Trust Indenture Act of 1939 (15 U.S. Code §§ 77aaa-77bbbb) as in effect on the date of this Indenture; provided, however, that in the event the Trust Indenture Act of 1939 is amended after such date, “*TIA*” means, to the extent required by any such amendment, the Trust Indenture Act as so amended.

“*Trustee*” means the person named as the “Trustee” in the first paragraph of this instrument until a successor Trustee shall have become such pursuant to the applicable provisions of this Indenture, and thereafter “Trustee” shall mean or include each person who is then a Trustee hereunder, and if at any time there is more than one such person, “Trustee” as used with respect to the Securities of any Series shall mean the Trustee with respect to Securities of that Series.

“*U.S. Government Obligations*” means securities which are direct obligations of, or guaranteed by, The United States of America for the payment of which its full faith and credit is pledged and which are not callable or redeemable at the option of the issuer thereof, and shall also include a depositary receipt issued by a bank or trust company as custodian with respect to any such U.S. Government Obligation or a specific payment of interest on or principal of any such U.S. Government Obligation held by such custodian for the account of the holder of a depositary receipt, *provided* that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depositary receipt from any amount received by the custodian in respect of the U.S. Government Obligation evidenced by such depositary receipt.

Section 1.2 Other Definitions.

TERM	DEFINED IN SECTION
“ <i>Bankruptcy Law</i> ”	6.1
“ <i>Custodian</i> ”	6.1
“ <i>Event of Default</i> ”	6.1
“ <i>Judgment Currency</i> ”	10.16
“ <i>Legal Holiday</i> ”	10.7
“ <i>mandatory sinking fund payment</i> ”	11.1
“ <i>New York Banking Day</i> ”	10.16
“ <i>Notice Agent</i> ”	2.4
“ <i>optional sinking fund payment</i> ”	11.1
“ <i>Paying Agent</i> ”	2.4
“ <i>Registrar</i> ”	2.4
“ <i>Required Currency</i> ”	10.16
“ <i>Specified Courts</i> ”	10.10
“ <i>successor person</i> ”	5.1

Section 1.3 Incorporation by Reference of Trust Indenture Act.

Whenever this Indenture refers to a provision of the TIA, the provision is incorporated by reference in and made a part of this Indenture. The following TIA terms used in this Indenture have the following meanings:

“*Commission*” means the SEC.

“*indenture securities*” means the Securities.

“*indenture security holder*” means a Securityholder.

“*indenture to be qualified*” means this Indenture.

“*indenture trustee*” or “*institutional trustee*” means the Trustee.

“*obligor*” on the indenture securities means the Company and any successor obligor upon the Securities.

All other terms used in this Indenture that are defined by the TIA, defined by TIA reference to another statute or defined by SEC rule under the TIA and not otherwise defined herein are used herein as so defined.

Section 1.4 Rules of Construction.

Unless the context otherwise requires:

- (a) a term has the meaning assigned to it;
- (b) an accounting term not otherwise defined has the meaning assigned to it in accordance with GAAP;
- (c) “*or*” is not exclusive;
- (d) words in the singular include the plural, and in the plural include the singular; and
- (e) provisions apply to successive events and transactions.

ARTICLE II THE SECURITIES

Section 2.1 Issuable in Series.

The aggregate principal amount of Securities that may be authenticated and delivered under this Indenture is unlimited. The Securities may be issued in one or more Series. All Securities of a Series shall be identical except as may be set forth or determined in the manner provided in a Board Resolution, a supplemental indenture or an Officer’s Certificate detailing the adoption of the terms thereof pursuant to authority granted under a Board Resolution. In the case of Securities of a Series to be issued from time to time, the Board Resolution, Officer’s Certificate or supplemental indenture detailing the adoption of the terms thereof pursuant to authority granted under a Board Resolution may provide for the method by which specified terms (such as interest rate, maturity date, record date or date from which interest shall accrue) are to be determined. Securities may differ between Series in respect of any matters, provided that all Series of Securities shall be equally and ratably entitled to the benefits of the Indenture.

Section 2.2 Establishment of Terms of Series of Securities.

At or prior to the issuance of any Securities within a Series, the following shall be established (as to the Series generally, in the case of Subsection 2.2.1 and either as to such Securities within the Series or as to the Series generally in the case of Subsections 2.2.2 through 2.2.21) by or pursuant to a

Board Resolution, and set forth or determined in the manner provided in a Board Resolution, supplemental indenture hereto or Officer's Certificate:

- 2.2.1. the title (which shall distinguish the Securities of that particular Series from the Securities of any other Series) and ranking (including the terms of any subordination provisions) of the Series;
- 2.2.2. the price or prices (expressed as a percentage of the principal amount thereof) at which the Securities of the Series will be issued;
- 2.2.3. any limit upon the aggregate principal amount of the Securities of the Series which may be authenticated and delivered under this Indenture (except for Securities authenticated and delivered upon registration of transfer of, or in exchange for, or in lieu of, other Securities of the Series pursuant to Section 2.7, 2.8, 2.11, 3.6 or 9.6);
- 2.2.4. the date or dates on which the principal of the Securities of the Series is payable;
- 2.2.5. the rate or rates (which may be fixed or variable) per annum or, if applicable, the method used to determine such rate or rates (including, but not limited to, any commodity, commodity index, stock exchange index or financial index) at which the Securities of the Series shall bear interest, if any, the date or dates from which such interest, if any, shall accrue, the date or dates on which such interest, if any, shall commence and be payable and any regular record date for the interest payable on any interest payment date;
- 2.2.6. the right, if any, to defer payment of interest and the maximum length of any such deferral period;
- 2.2.7. the place or places where the principal of and interest, if any, on the Securities of the Series shall be payable, where the Securities of such Series may be surrendered for registration of transfer or exchange and where notices and demands to or upon the Company in respect of the Securities of such Series and this Indenture may be delivered, and the method of such payment, if by wire transfer, mail or other means;
- 2.2.8. if applicable, the period or periods within which, the price or prices at which and the terms and conditions upon which the Securities of the Series may be redeemed, in whole or in part, at the option of the Company;
- 2.2.9. the obligation, if any, of the Company to repurchase the Securities of the Series pursuant to any sinking fund or analogous provisions or at the option of a Holder thereof and the period or periods within which, the price or prices at which and the terms and conditions upon which Securities of the Series shall be redeemed or purchased, in whole or in part, pursuant to such obligation;
- 2.2.10. if other than denominations of \$1,000 and any integral multiple thereof, the denominations in which the Securities of the Series shall be issuable;
- 2.2.11. the provisions relating to conversion or exchange of any Securities of the Series into the Company's Common Stock or other securities and the terms and conditions upon which such Securities will be so convertible or exchangeable, including the conversion or exchange price, as applicable, or such conversion or exchange price will be calculated and any adjustments thereto, any mandatory or optional (at the option of the Company or the Holders of the Securities of a Series)

conversion or exchange provisions, the applicable conversion or exchange period and the manner of settlement for any such conversion or exchange;

2.2.12. the forms of the Securities of the Series and whether the Securities will be issuable as certificated Securities or Global Securities;

2.2.13. if other than the principal amount thereof, the portion of the principal amount of the Securities of the Series that shall be payable upon declaration of acceleration of the maturity thereof pursuant to Section 6.2;

2.2.14. the designation of the currency, currencies or currency units in which payment of the principal of and interest, if any, on the Securities of the Series will be made and if other than that or those in which such Securities are denominated, the manner in which the exchange rate with respect to such payments will be determined;

2.2.15. the manner in which the amounts of payment of principal of or any premium or interest, if any, on the Securities of the Series will be determined, if such amounts may be determined by reference to an index based on a currency or currencies or by reference to a commodity, commodity index, stock exchange index or financial index;

2.2.16. the provisions, if any, relating to any security provided for the Securities of the Series;

2.2.17. any addition to, deletion of or change in the covenants set forth in Articles IV or V or the Events of Default that applies to any Securities of the Series and any change in the right of the Trustee or the requisite Holders of such Securities to declare the principal amount thereof due and payable pursuant to Section 6.2;

2.2.18. any Depositaries, interest rate calculation agents, exchange rate calculation agents, conversion agents or other agents with respect to Securities of such Series if other than those appointed herein;

2.2.19. if there is more than one Trustee or a different Trustee, the identity of the Trustee and, if not the Trustee, the identity of each Agent with respect to such Securities;

2.2.20. any other terms of the Series (which may supplement, modify or delete any provision of this Indenture insofar as it applies to such Series), including any terms that may be required under applicable law or regulations or advisable in connection with the marketing of Securities of that Series; and

2.2.21. whether any of the Company's direct or indirect Subsidiaries will guarantee the Securities of that Series, including the terms of subordination, if any, of such guarantees.

All Securities of any one Series need not be issued at the same time and may be issued from time to time, consistent with the terms of this Indenture, if so provided by or pursuant to the Board Resolution, supplemental indenture hereto or Officer's Certificate referred to above. No Board Resolution, supplemental indenture hereto or Officer's Certificate may affect the Trustee's own rights, duties or immunities under this Indenture or otherwise with respect to any Series of Securities except as the Trustee may agree in writing.

Section 2.3 Execution and Authentication.

An Officer shall sign the Securities for the Company by manual or facsimile signature.

If an Officer whose signature is on a Security no longer holds that office at the time the Security is authenticated, the Security shall nevertheless be valid.

A Security shall not be valid until authenticated by the manual signature of the Trustee or an authenticating agent. The signature shall be conclusive evidence that the Security has been authenticated under this Indenture.

The Trustee shall at any time, and from time to time, authenticate Securities for original issue in the principal amount provided in the Board Resolution, supplemental indenture hereto or Officer's Certificate, upon receipt by the Trustee of a Company Order. Each Security shall be dated the date of its authentication.

The aggregate principal amount of Securities of any Series outstanding at any time may not exceed any limit upon the maximum principal amount for such Series set forth in the Board Resolution, supplemental indenture hereto or Officer's Certificate delivered pursuant to Section 2.2, except as provided in Section 2.8.

Prior to the issuance of Securities of any Series, the Trustee shall have received and (subject to Section 7.2) shall be fully protected in relying on: (a) the Board Resolution, supplemental indenture hereto or Officer's Certificate establishing the form of the Securities of that Series or of Securities within that Series and the terms of the Securities of that Series or of Securities within that Series, (b) an Officer's Certificate complying with Section 10.4, (c) an Opinion of Counsel complying with Section 10.4 and (d) an Opinion of Counsel (which may be the same Opinion of Counsel referred to in the preceding clause (c)) that such Securities, when they have been duly executed, issued, and authenticated in accordance with the terms of the Indenture and delivered against payment therefor in the circumstances described in such Opinion of Counsel, will be legally valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

The Trustee shall have the right to decline to authenticate and deliver any Securities of such Series: (a) if the Trustee, being advised by counsel, determines that such action may not be taken lawfully; or (b) if the Trustee in good faith shall determine that such action would expose the Trustee to personal liability to Holders of any then-outstanding Series of Securities.

The Trustee may appoint an authenticating agent acceptable to the Company to authenticate Securities. An authenticating agent may authenticate Securities whenever the Trustee may do so. Each reference in this Indenture to authentication by the Trustee includes authentication by such agent. An authenticating agent has the same rights as an Agent to deal with the Company or an Affiliate of the Company.

Section 2.4 Registrar and Paying Agent.

The Company shall maintain, with respect to each Series of Securities, at the place or places specified with respect to such Series pursuant to Section 2.2, an office or agency where Securities of such Series may be presented or surrendered for payment ("*Paying Agent*"), where Securities of such Series may be surrendered for registration of transfer or exchange ("*Registrar*") and where notices and demands to or upon the Company in respect of the Securities of such Series and this Indenture may be delivered

("Notice Agent"). The Registrar shall keep a register with respect to each Series of Securities and to their transfer and exchange. The Company will give prompt written notice to the Trustee of the name and address, and any change in the name or address, of each Registrar, Paying Agent or Notice Agent. If at any time the Company shall fail to maintain any such required Registrar, Paying Agent or Notice Agent or shall fail to furnish the Trustee with the name and address thereof, such presentations, surrenders, notices and demands may be made or served at the Corporate Trust Office of the Trustee, and the Company hereby appoints the Trustee as its agent to receive all such presentations, surrenders, notices and demands; provided, however, that any appointment of the Trustee as the Notice Agent shall exclude the appointment of the Trustee or any office of the Trustee as an agent to receive the service of legal process on the Company.

The Company may also from time to time designate one or more co-registrars, additional paying agents or additional notice agents and may from time to time rescind such designations; provided, however, that no such designation or rescission shall in any manner relieve the Company of its obligations to maintain a Registrar, Paying Agent and Notice Agent in each place so specified pursuant to Section 2.2 for Securities of any Series for such purposes. The Company will give prompt written notice to the Trustee of any such designation or rescission and of any change in the name or address of any such co-registrar, additional paying agent or additional notice agent. The term "*Registrar*" includes any co-registrar; the term "*Paying Agent*" includes any additional paying agent; and the term "*Notice Agent*" includes any additional notice agent. The Company or any of its Affiliates may serve as Registrar or Paying Agent.

The Company hereby appoints the Trustee the initial Registrar, Paying Agent and Notice Agent for each Series unless another Registrar, Paying Agent or Notice Agent, as the case may be, is appointed prior to the time Securities of that Series are first issued.

Section 2.5 Paying Agent to Hold Money in Trust.

The Company shall require each Paying Agent other than the Trustee to agree in writing that the Paying Agent will hold in trust, for the benefit of Securityholders of any Series of Securities, or the Trustee, all money held by the Paying Agent for the payment of principal of or interest on the Series of Securities, and will notify the Trustee in writing of any default by the Company in making any such payment. While any such default continues, the Trustee may require a Paying Agent to pay all money held by it to the Trustee. The Company at any time may require a Paying Agent to pay all money held by it to the Trustee. Upon payment over to the Trustee, the Paying Agent (if other than the Company or a Subsidiary of the Company) shall have no further liability for the money. If the Company or a Subsidiary of the Company acts as Paying Agent, it shall segregate and hold in a separate trust fund for the benefit of Securityholders of any Series of Securities all money held by it as Paying Agent. Upon any bankruptcy, reorganization or similar proceeding with respect to the Company, the Trustee shall serve as Paying Agent for the Securities.

Section 2.6 Securityholder Lists.

The Trustee shall preserve in as current a form as is reasonably practicable the most recent list available to it of the names and addresses of Securityholders of each Series of Securities and shall otherwise comply with TIA § 312(a). If the Trustee is not the Registrar, the Company shall furnish to the Trustee at least ten days before each interest payment date and at such other times as the Trustee may request in writing a list, in such form and as of such date as the Trustee may reasonably require, of the names and addresses of Securityholders of each Series of Securities.

Section 2.7 Transfer and Exchange.

Where Securities of a Series are presented to the Registrar or a co-registrar with a request to register a transfer or to exchange them for an equal principal amount of Securities of the same Series, the Registrar shall register the transfer or make the exchange if its requirements for such transactions are met. To permit registrations of transfers and exchanges, the Trustee shall authenticate Securities at the Registrar's request. No service charge shall be made for any registration of transfer or exchange (except as otherwise expressly permitted herein), but the Company may require payment of a sum sufficient to cover any transfer tax or similar governmental charge payable in connection therewith (other than any such transfer tax or similar governmental charge payable upon exchanges pursuant to Sections 2.11, 3.6 or 9.6).

Neither the Company nor the Registrar shall be required (a) to issue, register the transfer of, or exchange Securities of any Series for the period beginning at the opening of business fifteen days immediately preceding the sending of a notice of redemption of Securities of that Series selected for redemption and ending at the close of business on the day such notice is sent, or (b) to register the transfer of or exchange Securities of any Series selected, called or being called for redemption as a whole or the portion being redeemed of any such Securities selected, called or being called for redemption in part.

Section 2.8 Mutilated, Destroyed, Lost and Stolen Securities.

If any mutilated Security is surrendered to the Trustee, the Company shall execute and the Trustee shall authenticate and deliver in exchange therefor a new Security of the same Series and of like tenor and principal amount and bearing a number not contemporaneously outstanding.

If there shall be delivered to the Company and the Trustee (i) evidence to their satisfaction of the destruction, loss or theft of any Security and (ii) such security or indemnity bond as may be required by each of them to hold itself and any of its agents harmless, then, in the absence of notice to the Company or the Trustee that such Security has been acquired by a bona fide purchaser, the Company shall execute and upon receipt of a Company Order the Trustee shall authenticate and make available for delivery, in lieu of any such destroyed, lost or stolen Security, a new Security of the same Series and of like tenor and principal amount and bearing a number not contemporaneously outstanding.

In case any such mutilated, destroyed, lost or stolen Security has become or is about to become due and payable, the Company in its discretion may, instead of issuing a new Security, pay such Security.

Upon the issuance of any new Security under this Section, the Company may require the payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto and any other expenses (including the fees and expenses of the Trustee) connected therewith.

Every new Security of any Series issued pursuant to this Section in lieu of any destroyed, lost or stolen Security shall constitute an original additional contractual obligation of the Company, whether or not the destroyed, lost or stolen Security shall be at any time enforceable by anyone, and shall be entitled to all the benefits of this Indenture equally and proportionately with any and all other Securities of that Series duly issued hereunder.

The provisions of this Section are exclusive and shall preclude (to the extent lawful) all other rights and remedies with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities.

Section 2.9 Outstanding Securities.

The Securities outstanding at any time are all the Securities authenticated by the Trustee except for those canceled by it, those delivered to it for cancellation, those reductions in the interest on a Global Security effected by the Trustee in accordance with the provisions hereof and those described in this Section as not outstanding.

If a Security is replaced pursuant to Section 2.8, it ceases to be outstanding until the Trustee receives proof satisfactory to it that the replaced Security is held by a bona fide purchaser.

If the Paying Agent (other than the Company, a Subsidiary of the Company or an Affiliate of the Company) holds on the Maturity of Securities of a Series money sufficient to pay such Securities payable on that date, then on and after that date such Securities of the Series cease to be outstanding and interest on them ceases to accrue.

The Company may purchase or otherwise acquire the Securities, whether by open market purchases, negotiated transactions or otherwise. A Security does not cease to be outstanding because the Company or an Affiliate of the Company holds the Security (but see Section 2.10 below).

In determining whether the Holders of the requisite principal amount of outstanding Securities have given any request, demand, authorization, direction, notice, consent or waiver hereunder, the principal amount of a Discount Security that shall be deemed to be outstanding for such purposes shall be the amount of the principal thereof that would be due and payable as of the date of such determination upon a declaration of acceleration of the Maturity thereof pursuant to Section 6.2.

Section 2.10 Treasury Securities.

In determining whether the Holders of the required principal amount of Securities of a Series have concurred in any request, demand, authorization, direction, notice, consent or waiver, Securities of a Series owned by the Company or any Affiliate of the Company shall be disregarded, except that for the purposes of determining whether the Trustee shall be protected in relying on any such request, demand, authorization, direction, notice, consent or waiver only Securities of a Series that a Responsible Officer of the Trustee actually knows are so owned shall be so disregarded.

Section 2.11 Temporary Securities.

Until definitive Securities are ready for delivery, the Company may prepare and the Trustee shall authenticate temporary Securities upon a Company Order. Temporary Securities shall be substantially in the form of definitive Securities but may have variations that the Company considers appropriate for temporary Securities. Without unreasonable delay, the Company shall prepare and the Trustee upon receipt of a Company Order shall authenticate definitive Securities of the same Series and date of maturity in exchange for temporary Securities. Until so exchanged, temporary securities shall have the same rights under this Indenture as the definitive Securities.

Section 2.12 Cancellation.

The Company at any time may deliver Securities to the Trustee for cancellation. The Registrar and the Paying Agent shall forward to the Trustee any Securities surrendered to them for registration of transfer, exchange or payment. The Trustee shall cancel all Securities surrendered for transfer, exchange, payment, replacement or cancellation in accordance with its customary procedures (subject to the record

retention requirement of the Exchange Act and the Trustee) and deliver a certificate of such cancellation to the Company upon written request of the Company. The Company may not issue new Securities to replace Securities that it has paid or delivered to the Trustee for cancellation.

Section 2.13 Defaulted Interest.

If the Company defaults in a payment of interest on a Series of Securities, it shall pay the defaulted interest, plus, to the extent permitted by law, any interest payable on the defaulted interest, to the persons who are Securityholders of the Series on a subsequent special record date. The Company shall fix the record date and payment date. At least 10 days before the special record date, the Company shall send to the Trustee and to each Securityholder of the Series a notice that states the special record date, the payment date and the amount of interest to be paid. The Company may pay defaulted interest in any other lawful manner.

Section 2.14 Global Securities.

2.14.1. Terms of Securities. A Board Resolution, a supplemental indenture hereto or an Officer's Certificate shall establish whether the Securities of a Series shall be issued in whole or in part in the form of one or more Global Securities and the Depositary for such Global Security or Securities.

2.14.2. Transfer and Exchange. Notwithstanding any provisions to the contrary contained in Section 2.7 of the Indenture and in addition thereto, any Global Security shall be exchangeable pursuant to Section 2.7 of the Indenture for Securities registered in the names of Holders other than the Depositary for such Security or its nominee only if (i) such Depositary notifies the Company that it is unwilling or unable to continue as Depositary for such Global Security or if at any time such Depositary ceases to be a clearing agency registered under the Exchange Act, and, in either case, the Company fails to appoint a successor Depositary registered as a clearing agency under the Exchange Act within 90 days of such event or (ii) the Company executes and delivers to the Trustee an Officer's Certificate to the effect that such Global Security shall be so exchangeable. Any Global Security that is exchangeable pursuant to the preceding sentence shall be exchangeable for Securities registered in such names as the Depositary shall direct in writing in an aggregate principal amount equal to the principal amount of the Global Security with like tenor and terms.

Except as provided in this Section 2.14.2, a Global Security may not be transferred except as a whole by the Depositary with respect to such Global Security to a nominee of such Depositary, by a nominee of such Depositary to such Depositary or another nominee of such Depositary or by the Depositary or any such nominee to a successor Depositary or a nominee of such a successor Depositary.

Neither the Trustee nor any Agent shall have any responsibility for any actions taken or not taken by the Depositary.

2.14.3. Legends. Any Global Security issued hereunder shall bear a legend in substantially the following form:

"THIS SECURITY IS A GLOBAL SECURITY WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF THE DEPOSITARY OR A NOMINEE OF THE DEPOSITARY. THIS SECURITY IS EXCHANGEABLE FOR SECURITIES REGISTERED IN THE NAME OF A PERSON OTHER THAN THE DEPOSITARY OR ITS NOMINEE ONLY IN THE LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE, AND MAY NOT BE TRANSFERRED EXCEPT AS A WHOLE BY THE

DEPOSITARY TO A NOMINEE OF THE DEPOSITARY, BY A NOMINEE OF THE DEPOSITARY TO THE DEPOSITARY OR ANOTHER NOMINEE OF THE DEPOSITARY OR BY THE DEPOSITARY OR ANY SUCH NOMINEE TO A SUCCESSOR DEPOSITARY OR A NOMINEE OF SUCH A SUCCESSOR DEPOSITARY.”

In addition, so long as the Depository Trust Company (“DTC”) is the Depositary, each Global Note registered in the name of DTC or its nominee shall bear a legend in substantially the following form:

“UNLESS THIS GLOBAL NOTE IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION (“DTC”), TO THE COMPANY OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY GLOBAL NOTE ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR IN SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF DTC), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL INASMUCH THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.”

2.14.4. Acts of Holders. The Depositary, as a Holder, may appoint agents and otherwise authorize participants to give or take any request, demand, authorization, direction, notice, consent, waiver or other action which a Holder is entitled to give or take under the Indenture.

(a) Any request, demand, authorization, direction, notice, consent, waiver or other action provided by this Indenture to be given or taken by Holders may be embodied in and evidenced by one or more instruments of substantially similar tenor signed by such Holders in person or by agent duly appointed in writing; and, except as herein otherwise expressly provided, such action shall become effective when such instrument or instruments are delivered to the Trustee and, where it is hereby expressly required, to the Company. Such instrument or instruments (and the action embodied therein and evidenced thereby) are herein sometimes referred to as the “Act” of Holders signing such instrument or instruments. Proof of execution of any such instrument or of a writing appointing any such agent shall be sufficient for any purpose of this Indenture and conclusive in favor of the Trustee and the Company, if made in the manner provided in this Section.

(b) The fact and date of the execution by any Person of any such instrument or writing may be proved by the affidavit of a witness of such execution or by a certificate of a notary public or other officer authorized by law to take acknowledgments of deeds, certifying that the individual signing such instrument or writing acknowledged to such officer the execution thereof. Where such execution is by a signer acting in a capacity other than such signer’s individual capacity, such certificate or affidavit shall also constitute sufficient proof of such signer’s authority. The fact and date of the execution of any such instrument or writing, or the authority of the Person executing the same, may also be proved in any other manner which the Trustee deems sufficient.

(c) The ownership of Global Securities or any Securities issued in certificated form shall be proved by the Registrar.

(d) Any request, demand, authorization, direction, notice, consent, waiver or other Act of the Holder of any Security shall bind every future Holder of the same Security and the holder of every Security issued upon the registration of transfer thereof or in exchange therefor or in lieu thereof in

respect of anything done, omitted or suffered to be done by the Trustee or the Company in reliance thereon, whether or not notation of such action is made upon such Security.

(e) If the Company shall solicit from the Holders any request, demand, authorization, direction, notice, consent, waiver or other Act, the Company may, at its option, by or pursuant to a Board Resolution, fix in advance a record date for the determination of Holders entitled to give such request, demand, authorization, direction, notice, consent, waiver or other Act, but the Company shall have no obligation to do so. If such a record date is fixed, such request, demand, authorization, direction, notice, consent, waiver or other Act may be given before or after such record date, but only the Holders of record at the close of business on such record date shall be deemed to be Holders for the purposes of determining whether Holders of the requisite proportion of Outstanding Securities have authorized or agreed or consented to such request, demand, authorization, direction, notice, consent, waiver or other Act, and for that purpose the Outstanding Securities shall be computed as of such record date; provided that no such authorization, agreement or consent by the Holders on such record date shall be deemed effective unless it shall become effective pursuant to the provisions of this Indenture not later than six months after the record date.

2.14.5. Payments. Notwithstanding the other provisions of this Indenture, unless otherwise specified as contemplated by Section 2.2, payment of the principal of and interest, if any, on any Global Security shall be made to the Holder thereof.

2.14.6. Consents, Declaration and Directions. The Company, the Trustee and any Agent shall treat a person as the Holder of such principal amount of outstanding Securities of such Series represented by a Global Security as shall be specified in a written statement of the Depositary or by the applicable procedures of such Depositary with respect to such Global Security, for purposes of obtaining any consents, declarations, waivers or directions required to be given by the Holders pursuant to this Indenture.

Section 2.15 CUSIP Numbers.

The Company in issuing the Securities may use “CUSIP” numbers (if then generally in use), and, if so, the Trustee shall use “CUSIP” numbers in notices of redemption as a convenience to Holders; provided that any such notice may state that no representation is made as to the correctness of such numbers either as printed on the Securities or as contained in any notice of a redemption and that reliance may be placed only on the other elements of identification printed on the Securities, and any such redemption shall not be affected by any defect in or omission of such numbers. The Company shall promptly notify the Trustee of any change that the Company is aware of in the CUSIP numbers.

ARTICLE III REDEMPTION

Section 3.1 Notice to Trustee.

The Company may, with respect to any Series of Securities, reserve the right to redeem and pay the Series of Securities or may covenant to redeem and pay the Series of Securities or any part thereof prior to the Stated Maturity thereof at such time and on such terms as provided for in such Securities. If a Series of Securities is redeemable and the Company wants or is obligated to redeem prior to the Stated Maturity thereof all or part of the Series of Securities pursuant to the terms of such Securities, it shall notify the Trustee in writing of the redemption date and the principal amount of Series of Securities to be

redeemed. The Company shall give the notice at least 5 days before the notice is delivered to the Holders, unless a shorter period is satisfactory to the Trustee.

Section 3.2 Selection of Securities to be Redeemed.

Unless otherwise indicated for a particular Series by a Board Resolution, a supplemental indenture hereto or an Officer's Certificate, if less than all the Securities of a Series are to be redeemed, the Securities of the Series to be redeemed will be selected as follows: (a) if the Securities are in the form of Global Securities, in accordance with the procedures of the Depositary, (b) if the Securities are listed on any national securities exchange, in compliance with the requirements of the principal national securities exchange, if any, on which the Securities are listed, or (c) if not otherwise provided for under clause (a) or (b) in the manner that the Trustee deems fair and appropriate, including *pro rata*, by lot or other method, unless otherwise required by law or applicable stock exchange requirements, subject, in the case of Global Securities, to the applicable rules and procedures of the Depositary. The Securities to be redeemed shall be selected from Securities of the Series outstanding not previously called for redemption. Portions of the principal of Securities of the Series that have denominations larger than \$1,000 may be selected for redemption. Securities of the Series and portions of them it selected for redemption shall be in amounts of \$1,000 or whole multiples of \$1,000 or, with respect to Securities of any Series issuable in other denominations pursuant to Section 2.2.10, the minimum principal denomination for each Series and the authorized integral multiples thereof. Provisions of this Indenture that apply to Securities of a Series called for redemption also apply to portions of Securities of that Series called for redemption.

Section 3.3 Notice of Redemption.

Unless otherwise indicated for a particular Series by Board Resolution, a supplemental indenture hereto or an Officer's Certificate, at least 15 days but not more than 60 days before a redemption date, the Company shall send or cause to be sent by first-class mail or electronically, in accordance with the procedures of the Depositary, a notice of redemption to each Holder whose Securities are to be redeemed.

The notice shall identify the Securities of the Series to be redeemed and shall state:

- (a) the redemption date;
- (b) the redemption price (or manner of calculation if not then known);
- (c) the name and address of the Paying Agent;
- (d) if any Securities are being redeemed in part, the portion of the principal amount of such Securities to be redeemed and that, after the redemption date and upon surrender of such Security, a new Security or Securities in principal amount equal to the unredeemed portion of the original Security shall be issued in the name of the Holder thereof upon cancellation of the original Security;
- (e) that Securities of the Series called for redemption must be surrendered to the Paying Agent to collect the redemption price;
- (f) that interest on Securities of the Series called for redemption ceases to accrue on and after the redemption date unless the Company defaults in the deposit of the redemption price;
- (g) the CUSIP number, if any; and

(h) any other information as may be required by the terms of the particular Series or the Securities of a Series being redeemed.

At the Company's request, the Trustee shall give the notice of redemption in the Company's name and at its expense, provided, however, that the Company has delivered to the Trustee, at least 5 days (unless a shorter time shall be acceptable to the Trustee) prior to the notice date, an Officer's Certificate requesting that the Trustee give such notice and setting forth the information to be stated in such notice.

Section 3.4 Effect of Notice of Redemption.

Once notice of redemption is sent as provided in Section 3.3, Securities of a Series called for redemption become due and payable on the redemption date and at the redemption price. Except as otherwise provided in the supplemental indenture, Board Resolution or Officer's Certificate for a Series, a notice of redemption may not be conditional. Upon surrender to the Paying Agent, such Securities shall be paid at the redemption price plus accrued interest to the redemption date.

Section 3.5 Deposit of Redemption Price.

On or before 11:00 a.m., New York City time, on the redemption date, the Company shall irrevocably deposit with the Paying Agent money sufficient (as determined by the Company) to pay the redemption price of and accrued interest, if any, on all Securities to be redeemed on that date.

Section 3.6 Securities Redeemed in Part.

Upon surrender of a Security that is redeemed in part, the Trustee shall authenticate for the Holder a new Security of the same Series and the same maturity equal in principal amount to the unredeemed portion of the Security surrendered.

**ARTICLE IV
COVENANTS**

Section 4.1 Payment of Principal and Interest.

The Company covenants and agrees for the benefit of the Holders of each Series of Securities that it will duly and punctually pay the principal of and interest, if any, on the Securities of that Series in accordance with the terms of such Securities and this Indenture. On or before 11:00 a.m., New York City time, on the applicable payment date, the Company shall deposit with the Paying Agent money sufficient to pay the principal of and interest, if any, on the Securities of each Series in accordance with the terms of such Securities and this Indenture.

Section 4.2 SEC Reports.

To the extent any Securities of a Series are outstanding, the Company shall deliver to the Trustee within 15 days after it files them with the SEC copies of the annual reports and of the information, documents, and other reports (or copies of such portions of any of the foregoing as the SEC may by rules and regulations prescribe) which the Company is required to file with the SEC pursuant to Section 13 or 15(d) of the Exchange Act. The Company also shall comply with the other provisions of TIA § 314(a). Reports, information and documents filed with the SEC via the EDGAR system (or any successor system thereto) will be deemed to be delivered to the Trustee as of the time of such filing via EDGAR for purposes of this Section 4.2, it being understood that the Trustee shall have no responsibility

whatsoever to determine if such filings have been made, and that the Trustee shall not be deemed to have knowledge of the information contained therein.

Delivery of reports, information and documents to the Trustee under this Section 4.2 are for informational purposes only and the Trustee's receipt of the foregoing shall not constitute constructive or actual notice of any information contained therein or determinable from information contained therein, including the Company's compliance with any of their covenants hereunder (as to which the Trustee is entitled to rely exclusively on Officer's Certificates).

Section 4.3 Compliance Certificate.

To the extent any Securities of a Series are outstanding, the Company shall deliver to the Trustee, within 120 days after the end of each fiscal year of the Company, an Officer's Certificate stating that a review of the activities of the Company and its Subsidiaries during the preceding fiscal year has been made under the supervision of the signing Officers with a view to determining whether the Company has kept, observed, performed and fulfilled its obligations under this Indenture, and further stating, as to each such Officer signing such certificate, that to the best of his/her knowledge the Company has kept, observed, performed and fulfilled each and every covenant contained in this Indenture and is not in default in the performance or observance of any of the terms, provisions and conditions hereof (or, if a Default or Event of Default shall have occurred, describing all such Defaults or Events of Default of which the Officer may have knowledge).

Section 4.4 Stay, Extension and Usury Laws.

The Company covenants (to the extent that it may lawfully do so) that it will not at any time insist upon, plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay, extension or usury law wherever enacted, now or at any time hereafter in force, which may affect the covenants or the performance of this Indenture or the Securities; and the Company (to the extent it may lawfully do so) hereby expressly waives all benefit or advantage of any such law and covenants that it will not, by resort to any such law, hinder, delay or impede the execution of any power herein granted to the Trustee, but will suffer and permit the execution of every such power as though no such law has been enacted.

ARTICLE V SUCCESSORS

Section 5.1 When Company May Merge, Etc.

The Company shall not consolidate with or merge with or into, or convey, transfer or lease all or substantially all of its properties and assets to, any person (a "*successor person*") unless:

(a) the Company is the surviving corporation or the successor person (if other than the Company) is a corporation organized and validly existing under the laws of any U.S. domestic jurisdiction and expressly assumes, by a supplemental indenture, executed and delivered to the Trustee, the Company's obligations on the Securities and under this Indenture; and

(b) immediately after giving effect to the transaction, no Default or Event of Default, shall have occurred and be continuing.

Where the Company is not the surviving corporation, the Company shall deliver to the Trustee prior to the consummation of the proposed transaction an Officer's Certificate to the foregoing effect and an Opinion of Counsel stating that the proposed transaction and any supplemental indenture comply with this Indenture.

Notwithstanding the above, any Subsidiary of the Company may consolidate with, merge into or transfer all or part of its properties to the Company. Neither an Officer's Certificate nor an Opinion of Counsel shall be required to be delivered in connection therewith.

Section 5.2 Successor Corporation Substituted.

Upon any consolidation or merger, or any sale, lease, conveyance or other disposition of all or substantially all of the assets of the Company in accordance with Section 5.1, the successor corporation formed by such consolidation or into or with which the Company is merged or to which such sale, lease, conveyance or other disposition is made shall succeed to, and be substituted for, and may exercise every right and power of, the Company under this Indenture with the same effect as if such successor person has been named as the Company herein; provided, however, that the predecessor Company in the case of a sale, conveyance or other disposition (other than a lease) shall be released from all obligations and covenants under this Indenture and the Securities.

**ARTICLE VI
DEFAULTS AND REMEDIES**

Section 6.1 Events of Default.

"*Event of Default*," wherever used herein with respect to Securities of any Series, means any one of the following events, unless in the establishing Board Resolution, supplemental indenture or Officer's Certificate, it is provided that such Series shall not have the benefit of said Event of Default:

(a) default in the payment of any interest on any Security of that Series when it becomes due and payable, and continuance of such default for a period of 30 days (unless the entire amount of such payment is deposited by the Company with the Trustee or with a Paying Agent prior to 11:00 a.m., New York City time, on the 30th day of such period); or

(b) default in the payment of principal of any Security of that Series at its Maturity; or

(c) default in the performance or breach of any covenant or warranty of the Company in this Indenture (other than defaults pursuant to paragraphs (a) or (b) above or pursuant to a covenant or warranty that has been included in this Indenture solely for the benefit of Series of Securities other than that Series), which default continues uncured for a period of 60 days after there has been given, by registered or certified mail, to the Company by the Trustee or to the Company and the Trustee by the Holders of at least 25% in principal amount of the outstanding Securities of that Series a written notice specifying such default or breach and requiring it to be remedied and stating that such notice is a "Notice of Default" hereunder; or

(d) the Company pursuant to or within the meaning of any Bankruptcy Law:

(i) commences a voluntary case,

- (ii) consents to the entry of an order for relief against it in an involuntary case,
 - (iii) consents to the appointment of a Custodian of it or for all or substantially all of its property,
 - (iv) makes a general assignment for the benefit of its creditors, or
 - (v) generally is unable to pay its debts as the same become due; or
- (e) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law that:
- (i) is for relief against the Company in an involuntary case,
 - (ii) appoints a Custodian of the Company or for all or substantially all of its property, or
 - (iii) orders the liquidation of the Company,

and the order or decree remains unstayed and in effect for 60 days; or

(f) any other Event of Default provided with respect to Securities of that Series, which is specified in a Board Resolution, a supplemental indenture hereto or an Officer's Certificate, in accordance with Section 2.2.18.

The term "*Bankruptcy Law*" means title 11, U.S. Code or any similar U.S. Federal or State law for the relief of debtors. The term "*Custodian*" means any receiver, trustee, assignee, liquidator or similar official under any Bankruptcy Law.

The Company will provide the Trustee written notice of any Default or Event of Default within 30 days of becoming aware of the occurrence of such Default or Event of Default, which notice will describe in reasonable detail the status of such Default or Event of Default and what action the Company is taking or proposes to take in respect thereof.

Section 6.2 Acceleration of Maturity; Rescission and Annulment.

If an Event of Default with respect to Securities of any Series at the time outstanding occurs and is continuing (other than an Event of Default referred to in Section 6.1(d) or (e)) then in every such case the Trustee or the Holders of not less than 25% in principal amount of the outstanding Securities of that Series may declare the principal amount (or, if any Securities of that Series are Discount Securities, such portion of the principal amount as may be specified in the terms of such Securities) of and accrued and unpaid interest, if any, on all of the Securities of that Series to be due and payable immediately, by a notice in writing to the Company (and to the Trustee if given by Holders), and upon any such declaration such principal amount (or specified amount) and accrued and unpaid interest, if any, shall become immediately due and payable. If an Event of Default specified in Section 6.1(d) or (e) shall occur, the principal amount (or specified amount) of and accrued and unpaid interest, if any, on all outstanding Securities shall *ipso facto* become and be immediately due and payable without any declaration or other act on the part of the Trustee or any Holder.

At any time after such a declaration of acceleration with respect to any Series has been made and before a judgment or decree for payment of the money due has been obtained by the Trustee as hereinafter in this Article provided, the Holders of a majority in principal amount of the outstanding Securities of that Series, by written notice to the Company and the Trustee, may rescind and annul such declaration and its consequences if all Events of Default with respect to Securities of that Series, other than the non-payment of the principal and interest, if any, of Securities of that Series which have become due solely by such declaration of acceleration, have been cured or waived as provided in Section 6.13.

No such rescission shall affect any subsequent Default or impair any right consequent thereon.

Section 6.3 Collection of Indebtedness and Suits for Enforcement by Trustee.

The Company covenants that if

- (a) default is made in the payment of any interest on any Security when such interest becomes due and payable and such default continues for a period of 30 days, or
- (b) default is made in the payment of principal of any Security at the Maturity thereof, or
- (c) default is made in the deposit of any sinking fund payment, if any, when and as due by the terms of a Security,

then, the Company will, upon demand of the Trustee, pay to it, for the benefit of the Holders of such Securities, the whole amount then due and payable on such Securities for principal and interest and, to the extent that payment of such interest shall be legally enforceable, interest on any overdue principal and any overdue interest at the rate or rates prescribed therefor in such Securities, and, in addition thereto, such further amount as shall be sufficient to cover the costs and expenses of collection, including the compensation, reasonable expenses, disbursements and advances of the Trustee, its agents and counsel.

If the Company fails to pay such amounts forthwith upon such demand, the Trustee, in its own name and as trustee of an express trust, may institute a judicial proceeding for the collection of the sums so due and unpaid, may prosecute such proceeding to judgment or final decree and may enforce the same against the Company or any other obligor upon such Securities and collect the moneys adjudged or deemed to be payable in the manner provided by law out of the property of the Company or any other obligor upon such Securities, wherever situated.

If an Event of Default with respect to any Securities of any Series occurs and is continuing, the Trustee may in its discretion proceed to protect and enforce its rights and the rights of the Holders of Securities of such Series by such appropriate judicial proceedings as the Trustee shall deem most effectual to protect and enforce any such rights, whether for the specific enforcement of any covenant or agreement in this Indenture or in aid of the exercise of any power granted herein, or to enforce any other proper remedy.

Section 6.4 Trustee May File Proofs of Claim.

In case of the pendency of any receivership, insolvency, liquidation, bankruptcy, reorganization, arrangement, adjustment, composition or other judicial proceeding relative to the Company or any other obligor upon the Securities or the property of the Company or of such other obligor or their creditors, the Trustee (irrespective of whether the principal of the Securities shall then be

due and payable as therein expressed or by declaration or otherwise and irrespective of whether the Trustee shall have made any demand on the Company for the payment of overdue principal or interest) shall be entitled and empowered, by intervention in such proceeding or otherwise,

(a) to file and prove a claim for the whole amount of principal and interest owing and unpaid in respect of the Securities and to file such other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for the compensation, reasonable expenses, disbursements and advances of the Trustee, its agents and counsel) and of the Holders allowed in such judicial proceeding, and

(b) to collect and receive any moneys or other property payable or deliverable on any such claims and to distribute the same, and any custodian, receiver, assignee, trustee, liquidator, sequestrator or other similar official in any such judicial proceeding is hereby authorized by each Holder to make such payments to the Trustee and, in the event that the Trustee shall consent to the making of such payments directly to the Holders, to pay to the Trustee any amount due it for the compensation, reasonable expenses, disbursements and advances of the Trustee, its agents and counsel, and any other amounts due the Trustee under Section 7.7.

Nothing herein contained shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Holder any plan of reorganization, arrangement, adjustment or composition affecting the Securities or the rights of any Holder thereof or to authorize the Trustee to vote in respect of the claim of any Holder in any such proceeding.

Section 6.5 Trustee May Enforce Claims Without Possession of Securities.

All rights of action and claims under this Indenture or the Securities may be prosecuted and enforced by the Trustee without the possession of any of the Securities or the production thereof in any proceeding relating thereto, and any such proceeding instituted by the Trustee shall be brought in its own name as trustee of an express trust, and any recovery of judgment shall, after provision for the payment of the compensation, reasonable expenses, disbursements and advances of the Trustee, its agents and counsel, be for the ratable benefit of the Holders of the Securities in respect of which such judgment has been recovered.

Section 6.6 Application of Money Collected.

Any money or property collected by the Trustee pursuant to this Article shall be applied in the following order, at the date or dates fixed by the Trustee and, in case of the distribution of such money or property on account of principal or interest, upon presentation of the Securities and the notation thereon of the payment if only partially paid and upon surrender thereof if fully paid:

First: To the payment of all amounts due the Trustee under Section 7.7; and

Second: To the payment of the amounts then due and unpaid for principal of and interest on the Securities in respect of which or for the benefit of which such money has been collected, ratably, without preference or priority of any kind, according to the amounts due and payable on such Securities for principal and interest, respectively; and

Third: To the Company.

Section 6.7 Limitation on Suits.

No Holder of any Security of any Series shall have any right to institute any proceeding, judicial or otherwise, with respect to this Indenture, or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless

- (a) such Holder has previously given written notice to the Trustee of a continuing Event of Default with respect to the Securities of that Series;
- (b) the Holders of not less than 25% in principal amount of the outstanding Securities of that Series shall have made written request to the Trustee to institute proceedings in respect of such Event of Default in its own name as Trustee hereunder;
- (c) such Holder or Holders have offered to the Trustee indemnity or security satisfactory to the Trustee against the costs, expenses and liabilities which might be incurred by the Trustee in compliance with such request;
- (d) the Trustee for 60 days after its receipt of such notice, request and offer of indemnity has failed to institute any such proceeding; and
- (e) no direction inconsistent with such written request has been given to the Trustee during such 60-day period by the Holders of a majority in principal amount of the outstanding Securities of that Series;

it being understood, intended and expressly covenanted by the Holder of every Security with every other Holder and the Trustee that no one or more of such Holders shall have any right in any manner whatever by virtue of, or by availing of, any provision of this Indenture to affect, disturb or prejudice the rights of any other of such Holders, or to obtain or to seek to obtain priority or preference over any other of such Holders or to enforce any right under this Indenture, except in the manner herein provided and for the equal and ratable benefit of all such Holders of the applicable Series.

Section 6.8 Unconditional Right of Holders to Receive Principal and Interest.

Notwithstanding any other provision in this Indenture, the Holder of any Security shall have the right, which is absolute and unconditional, to receive payment of the principal of and interest, if any, on such Security on the Maturity of such Security, including the Stated Maturity expressed in such Security (or, in the case of redemption, on the redemption date) and to institute suit for the enforcement of any such payment, and such rights shall not be impaired without the consent of such Holder.

Section 6.9 Restoration of Rights and Remedies.

If the Trustee or any Holder has instituted any proceeding to enforce any right or remedy under this Indenture and such proceeding has been discontinued or abandoned for any reason, or has been determined adversely to the Trustee or to such Holder, then and in every such case, subject to any determination in such proceeding, the Company, the Trustee and the Holders shall be restored severally and respectively to their former positions hereunder and thereafter all rights and remedies of the Trustee and the Holders shall continue as though no such proceeding had been instituted.

Section 6.10 Rights and Remedies Cumulative.

Except as otherwise provided with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities in Section 2.8, no right or remedy herein conferred upon or reserved to the Trustee or to the Holders is intended to be exclusive of any other right or remedy, and every right and remedy shall, to the extent permitted by law, be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not, to the extent permitted by law, prevent the concurrent assertion or employment of any other appropriate right or remedy.

Section 6.11 Delay or Omission Not Waiver.

No delay or omission of the Trustee or of any Holder of any Securities to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of any such Event of Default or an acquiescence therein. Every right and remedy given by this Article or by law to the Trustee or to the Holders may be exercised from time to time, and as often as may be deemed expedient, by the Trustee or by the Holders, as the case may be.

Section 6.12 Control by Holders.

The Holders of a majority in principal amount of the outstanding Securities of any Series shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred on the Trustee, with respect to the Securities of such Series, provided that

- (a) such direction shall not be in conflict with any rule of law or with this Indenture,
- (b) the Trustee may take any other action deemed proper by the Trustee which is not inconsistent with such direction,
- (c) subject to the provisions of Section 7.1, the Trustee shall have the right to decline to follow any such direction if the Trustee in good faith shall, by a Responsible Officer of the Trustee, determine that the proceeding so directed would involve the Trustee in personal liability, and
- (d) prior to taking any action as directed under this Section 6.12, the Trustee shall be entitled to indemnity satisfactory to it against the losses, costs, expenses and liabilities which might be incurred by it in compliance with such request or direction.

Section 6.13 Waiver of Past Defaults.

The Holders of not less than a majority in principal amount of the outstanding Securities of any Series may on behalf of the Holders of all the Securities of such Series, by written notice to the Trustee and the Company, waive any past Default hereunder with respect to such Series and its consequences, except a Default in the payment of the principal of or interest on any Security of such Series (provided, however, that the Holders of a majority in principal amount of the outstanding Securities of any Series may rescind an acceleration and its consequences, including any related payment default that resulted from such acceleration). Upon any such waiver, such Default shall cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured, for every purpose of this Indenture; but no such waiver shall extend to any subsequent or other Default or impair any right consequent thereon.

Section 6.14 Undertaking for Costs.

All parties to this Indenture agree, and each Holder of any Security by his acceptance thereof shall be deemed to have agreed, that any court may in its discretion require, in any suit for the enforcement of any right or remedy under this Indenture, or in any suit against the Trustee for any action taken, suffered or omitted by it as Trustee, the filing by any party litigant in such suit of an undertaking to pay the costs of such suit, and that such court may in its discretion assess reasonable costs, including reasonable attorneys' fees, against any party litigant in such suit, having due regard to the merits and good faith of the claims or defenses made by such party litigant; but the provisions of this Section shall not apply to any suit instituted by the Company, to any suit instituted by the Trustee, to any suit instituted by any Holder, or group of Holders, holding in the aggregate more than 10% in principal amount of the outstanding Securities of any Series, or to any suit instituted by any Holder for the enforcement of the payment of the principal of or interest on any Security on or after the Maturity of such Security, including the Stated Maturity expressed in such Security (or, in the case of redemption, on the redemption date).

ARTICLE VII
TRUSTEE

Section 7.1 Duties of Trustee.

(a) If an Event of Default has occurred and is continuing, the Trustee shall exercise the rights and powers vested in it by this Indenture and use the same degree of care and skill in their exercise as a prudent person would exercise or use under the circumstances in the conduct of such person's own affairs.

(b) Except during the continuance of an Event of Default:

(i) The Trustee need perform only those duties that are specifically set forth in this Indenture and no others, and no implied covenants or obligations shall be read into this Indenture against the Trustee.

(ii) In the absence of bad faith on its part, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon Officer's Certificates or Opinions of Counsel furnished to the Trustee and conforming to the requirements of this Indenture; however, in the case of any such Officer's Certificates or Opinions of Counsel which by any provisions hereof are specifically required to be furnished to the Trustee, the Trustee shall examine such Officer's Certificates and Opinions of Counsel to determine whether or not they conform to the form requirements of this Indenture (but need not confirm or investigate the accuracy of mathematical calculations or other facts stated therein).

(c) The Trustee may not be relieved from liability for its own negligent action, its own negligent failure to act or its own willful misconduct, except that:

(i) This paragraph does not limit the effect of paragraph (b) of this Section.

(ii) The Trustee shall not be liable for any error of judgment made in good faith by a Responsible Officer, unless it is proved in a court of competent jurisdiction that the Trustee was negligent in ascertaining the pertinent facts.

(iii) The Trustee shall not be liable with respect to any action taken, suffered or omitted to be taken by it with respect to Securities of any Series in good faith in accordance with the direction of the Holders of a majority in principal amount of the outstanding Securities of such Series relating to the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred upon the Trustee, under this Indenture with respect to the Securities of such Series in accordance with Section 6.12.

(d) Every provision of this Indenture that in any way relates to the Trustee is subject to paragraph (a), (b) and (c) of this Section.

(e) The Trustee may refuse to perform any duty or exercise any right or power unless it receives indemnity satisfactory to it against the losses, costs, expenses and liabilities which might be incurred by it in performing such duty or exercising such right or power.

(f) The Trustee shall not be liable for interest or investment on any money received by it except as the Trustee may agree in writing with the Company. Money held in trust by the Trustee need not be segregated from other funds except to the extent required by law.

(g) No provision of this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties, or in the exercise of any of its rights or powers.

(h) The Paying Agent, the Registrar and any authenticating agent shall be entitled to the protections and immunities as are set forth in paragraphs (e), (f) and (g) of this Section and in Section 7.2, each with respect to the Trustee.

Section 7.2 Rights of Trustee.

(a) The Trustee may conclusively rely on and shall be protected in acting or refraining from acting upon any document (whether in its original or facsimile form) believed by it to be genuine and to have been signed or presented by the proper person. The Trustee need not investigate any fact or matter stated in the document.

(b) Before the Trustee acts or refrains from acting, it may require an Officer's Certificate or an Opinion of Counsel or both. The Trustee shall not be liable for any action it takes or omits to take in good faith in reliance on such Officer's Certificate or Opinion of Counsel.

(c) The Trustee may act through its attorneys and agents and shall not be responsible for the misconduct or negligence of any attorney or agent appointed with due care. No Depositary shall be deemed an agent of the Trustee and the Trustee shall not be responsible for any act or omission by any Depositary.

(d) The Trustee shall not be liable for any action it takes or omits to take in good faith which it believes to be authorized or within its rights or powers, provided that the Trustee's conduct does not constitute willful misconduct or negligence.

(e) The Trustee may consult with counsel and the advice of such counsel or any Opinion of Counsel shall be full and complete authorization and protection in respect of any action taken, suffered or omitted by it hereunder without willful misconduct or negligence, and in reliance thereon.

(f) The Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request or direction of any of the Holders of Securities unless such Holders shall have offered (and, if requested, provided) to the Trustee security or indemnity satisfactory to it against the losses, costs, expenses and liabilities which might be incurred by it in compliance with such request or direction.

(g) The Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, other evidence of indebtedness or other paper or document, but the Trustee, in its discretion, may make such further inquiry or investigation into such facts or matters as it may see fit.

(h) The Trustee shall not be deemed to have notice of any Default or Event of Default unless a Responsible Officer of the Trustee has actual knowledge thereof or unless written notice of any event which is in fact such a default is received by the Trustee at the Corporate Trust Office of the Trustee, and such notice references the existence of a Default or Event of Default, the Securities generally or the Securities of a particular Series and this Indenture.

(i) In no event shall the Trustee be responsible or liable to any person for special, punitive, indirect, consequential or incidental loss or damage of any kind whatsoever (including but not limited to lost profits), even if the Trustee has been advised of the likelihood of such loss or damage and regardless of the form of action.

(j) The permissive right of the Trustee to take the actions permitted by this Indenture shall not be construed as an obligation or duty to do so.

(k) No bond or surety shall be required with respect to performance of Trustee's duties and powers.

(l) Under no circumstances shall the Trustee be liable in its individual capacity for the obligations evidenced by the Securities.

(m) Any request or direction of the Company mentioned herein shall be sufficiently evidenced by a Company Order and any resolution of the Board of Directors may be sufficiently evidenced by a Board Resolution.

(n) The Trustee may request that the Company deliver a certificate setting forth the names of individuals and/or titles of officers authorized at such time to take specified actions pursuant to this Indenture.

(o) The rights, privileges, protections, immunities and benefits given to the Trustee, including, without limitation, its right to be indemnified, are extended to, and shall be enforceable by, the Trustee in each of its capacities hereunder, and each agent, custodian and other Person employed to act hereunder.

Section 7.3 Individual Rights of Trustee.

The Trustee in its individual or any other capacity may become the owner or pledgee of Securities and may otherwise deal with the Company or an Affiliate of the Company with the same rights

it would have if it were not Trustee. Any Agent may do the same with like rights. The Trustee is also subject to Sections 7.10 and 7.11.

Section 7.4 Trustee's Disclaimer.

The Trustee shall not be responsible for and makes no representation as to the validity or adequacy of this Indenture or the Securities, it shall not be accountable for the Company's use of the proceeds from the Securities, or any money paid to the Company or upon the Company's direction under any provision of this Indenture, it shall not be responsible for the use or application of any money received by any Paying Agent other than the Trustee, and it shall not be responsible for any statement herein or in the Securities or any other document in connection with the sale of the Securities other than its authentication. The recitals contained herein and in the Securities, except the Trustee's certificates of authentication, shall be taken as the statements of the Company, and the Trustee or any Authenticating Agent assumes no responsibility for their correctness.

Section 7.5 Notice of Defaults.

If a Default or Event of Default occurs and is continuing with respect to the Securities of any Series and if it is actually known to a Responsible Officer of the Trustee, the Trustee shall send to each Securityholder of the Securities of that Series notice of a Default or Event of Default within 90 days after it occurs or, if later, after a Responsible Officer of the Trustee has knowledge of such Default or Event of Default. Except in the case of a Default or Event of Default in payment of principal of or interest on any Security of any Series, the Trustee may withhold the notice if and so long as it in good faith determines that withholding the notice is in the interests of Securityholders of that Series.

Section 7.6 Reports by Trustee to Holders.

Within 60 days after each _____, commencing _____, 20 _____, the Trustee shall transmit by mail to all Securityholders, as their names and addresses appear on the register kept by the Registrar, a brief report dated as of such anniversary date, in accordance with, and to the extent required under, TIA § 313.

A copy of each report at the time of its sending to Securityholders of any Series shall be filed with the SEC and each national securities exchange on which the Securities of that Series are listed. The Company shall promptly notify the Trustee in writing when Securities of any Series are listed on any national securities exchange or delisted from any national securities exchange.

Section 7.7 Compensation and Indemnity.

The Company shall pay to the Trustee from time to time compensation for its services as the Company and the Trustee shall from time to time agree upon in writing. The Trustee's compensation shall not be limited by any law on compensation of a trustee of an express trust. The Company shall reimburse the Trustee upon request for all reasonable out of pocket expenses incurred by it. Such expenses shall include the reasonable compensation and expenses of the Trustee's agents and counsel.

The Company shall indemnify each of the Trustee and any predecessor Trustee (including for the cost of defending itself) against any cost, damages, losses, expense or liability, including taxes (other than taxes based upon, measured by or determined by the income of the Trustee) incurred by it except as set forth in the next paragraph in the performance of its duties under this Indenture or in connection with its acceptance of its obligations hereunder, as Trustee or Agent. The Trustee shall notify the Company

promptly of any claim for which it may seek indemnity. Failure by the Trustee to so notify the Company shall not relieve the Company of its obligations hereunder, unless and to the extent that the Company is materially prejudiced thereby. The Company shall defend the claim and the Trustee shall cooperate in the defense. The Trustee may have separate counsel and the Company shall pay the reasonable fees and expenses of such counsel. The Company need not pay for any settlement made without its consent, which consent will not be unreasonably withheld. This indemnification shall apply to officers, directors, employees, shareholders and agents of the Trustee.

The Company need not reimburse any expense or indemnify against any loss or liability incurred by the Trustee or by any officer, director, employee, shareholder or agent of the Trustee through willful misconduct or negligence, as finally adjudicated by a court of competent jurisdiction.

To secure the Company's payment obligations in this Section, the Trustee shall have a lien prior to the Securities of any Series on all money or property held or collected by the Trustee, except that held in trust to pay principal of and interest on particular Securities of that Series.

When the Trustee incurs expenses or renders services after an Event of Default specified in Section 6.1(d) or (e) occurs, the expenses and the compensation for the services are intended to constitute expenses of administration under any Bankruptcy Law.

The provisions of this Section shall survive the termination of this Indenture or the resignation or removal of the Trustee.

Section 7.8 Replacement of Trustee.

A resignation or removal of the Trustee and appointment of a successor Trustee shall become effective only upon the successor Trustee's acceptance of appointment as provided in this Section.

The Trustee may resign with respect to the Securities of one or more Series by so notifying the Company at least 30 days prior to the date of the proposed resignation. The Holders of a majority in principal amount of the Securities of any Series may remove the Trustee with respect to that Series by so notifying the Trustee and the Company in writing at least 30 days prior to such removal. The Company may remove the Trustee with respect to Securities of one or more Series with at least 30 days written notice if:

- (a) the Trustee fails to comply with Section 7.10;
- (b) the Trustee is adjudged a bankrupt or an insolvent or an order for relief is entered with respect to the Trustee under any Bankruptcy Law;
- (c) a Custodian or public officer takes charge of the Trustee or its property; or
- (d) the Trustee becomes incapable of acting.

If the Trustee resigns or is removed or if a vacancy exists in the office of Trustee for any reason, the Company shall promptly appoint a successor Trustee. Within one year after the successor Trustee takes office, the Holders of a majority in principal amount of the then-outstanding Securities may appoint a successor Trustee to replace the successor Trustee appointed by the Company.

If a successor Trustee with respect to the Securities of any one or more Series does not take office within 60 days after the retiring Trustee resigns or is removed, the retiring Trustee, the Company or the Holders of at least a majority in principal amount of the Securities of the applicable Series may petition any court of competent jurisdiction for the appointment of a successor Trustee.

A successor Trustee shall deliver a written acceptance of its appointment to the retiring Trustee and to the Company. Promptly after that, the retiring Trustee shall transfer all property held by it as Trustee to the successor Trustee subject to the lien provided for in Section 7.7, the resignation or removal of the retiring Trustee shall become effective, and the successor Trustee shall have all the rights, powers and duties of the Trustee with respect to each Series of Securities for which it is acting as Trustee under this Indenture. A successor Trustee shall send a notice of its succession to each Securityholder of each such Series. Notwithstanding replacement of the Trustee pursuant to this Section 7.8, the Company's obligations under Section 7.7 hereof shall continue for the benefit of the retiring Trustee with respect to expenses and liabilities incurred by it for actions taken or omitted to be taken in accordance with its rights, powers and duties under this Indenture prior to such replacement.

Section 7.9 Successor Trustee by Merger, Etc.

If the Trustee consolidates with, merges or converts into, or transfers all or substantially all of its corporate trust business to, another corporation, or national banking association, the successor corporation or national banking association without any further act shall be the successor Trustee, subject to Section 7.10.

Section 7.10 Eligibility; Disqualification.

This Indenture shall always have a Trustee who satisfies the requirements of TIA § 310(a)(1), (2) and (5). The Trustee shall always have a combined capital and surplus of at least \$50,000,000 as set forth in its most recent published annual report of condition. The Trustee shall comply with TIA § 310(b).

Section 7.11 Preferential Collection of Claims Against Company.

The Trustee is subject to TIA § 311(a), excluding any creditor relationship listed in TIA § 311(b). A Trustee who has resigned or been removed shall be subject to TIA § 311(a) to the extent indicated.

ARTICLE VIII
SATISFACTION AND DISCHARGE; DEFEASANCE

Section 8.1 Satisfaction and Discharge of Indenture.

This Indenture shall upon Company Order be discharged with respect to the Securities of any Series and cease to be of further effect as to all Securities of such Series (except as hereinafter provided in this Section 8.1), and the Trustee, at the expense of the Company, shall execute instruments acknowledging satisfaction and discharge of this Indenture, when

(a) either

(i) all Securities of such Series theretofore authenticated and delivered (other than Securities that have been destroyed, lost or stolen and that have been replaced or paid) have been delivered to the Trustee for cancellation; or

(ii) all such Securities of such Series not theretofore delivered to the Trustee for cancellation

(1) have become due and payable by reason of sending a notice of redemption or otherwise, or

(2) will become due and payable at their Stated Maturity within one year, or

(3) have been called for redemption or are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of notice of redemption by the Trustee in the name, and at the expense, of the Company, or

(4) are deemed paid and discharged pursuant to Section 8.3, as applicable;

and the Company, in the case of (1), (2) or (3) above, shall have irrevocably deposited or caused to be deposited with the Trustee as trust funds in trust an amount of money or U.S. Government Obligations, which amount shall be sufficient (as determined by the Company) for the purpose of paying and discharging each installment of principal (including mandatory sinking fund or analogous payments) of and interest on all the Securities of such Series on the dates such installments of principal or interest are due;

(b) the Company has paid or caused to be paid all other sums payable hereunder by the Company; and

(c) the Company shall have delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each stating that all conditions precedent provided for relating to the satisfaction and discharge contemplated by this Section have been complied with.

Notwithstanding the satisfaction and discharge of this Indenture, the obligations of the Company to the Trustee under Section 7.7, and, if money shall have been deposited with the Trustee pursuant to clause (a) of this Section, the provisions of Sections 2.4, 2.7, 2.8, 8.2 and 8.5 shall survive.

Section 8.2 Application of Trust Funds; Indemnification.

(a) Subject to the provisions of Section 8.5, all money and U.S. Government Obligations or Foreign Government Obligations deposited with the Trustee pursuant to Section 8.1, 8.3 or 8.4 and all money received by the Trustee in respect of U.S. Government Obligations or Foreign Government Obligations deposited with the Trustee pursuant to Section 8.1, 8.3 or 8.4, shall be held in trust and applied by it, in accordance with the provisions of the Securities and this Indenture, to the payment, either directly or through any Paying Agent (including the Company acting as its own Paying Agent) as the Trustee may determine, to the persons entitled thereto, of the principal and interest for

whose payment such money has been deposited with or received by the Trustee or to make mandatory sinking fund payments or analogous payments as contemplated by Sections 8.1, 8.3 or 8.4.

(b) The Company shall pay and shall indemnify the Trustee against any tax, fee or other charge imposed on or assessed against U.S. Government Obligations or Foreign Government Obligations deposited pursuant to Sections 8.1, 8.3 or 8.4 or the interest and principal received in respect of such obligations other than any payable by or on behalf of Holders.

(c) The Trustee shall deliver or pay to the Company from time to time upon Company Order any U.S. Government Obligations or Foreign Government Obligations or money held by it as provided in Sections 8.3 or 8.4 which, in the opinion of a nationally recognized firm of independent certified public accountants or investment bank expressed in a written certification thereof delivered to the Trustee, are then in excess of the amount thereof which then would have been required to be deposited for the purpose for which such U.S. Government Obligations or Foreign Government Obligations or money were deposited or received. This provision shall not authorize the sale by the Trustee of any U.S. Government Obligations or Foreign Government Obligations held under this Indenture.

Section 8.3 Legal Defeasance of Securities of any Series.

Unless this Section 8.3 is otherwise specified, pursuant to Section 2.2, to be inapplicable to Securities of any Series, the Company shall be deemed to have paid and discharged the entire indebtedness on all the outstanding Securities of any Series on the 91st day after the date of the deposit referred to in subparagraph (d) hereof, and the provisions of this Indenture, as it relates to such outstanding Securities of such Series, shall no longer be in effect (and the Trustee, at the expense of the Company, shall, upon receipt of a Company Order, execute instruments acknowledging the same), except as to:

(a) the rights of Holders of Securities of such Series to receive, from the trust funds described in subparagraph (d) hereof, (i) payment of the principal of and each installment of principal of and interest on the outstanding Securities of such Series on the Maturity of such principal or installment of principal or interest and (ii) the benefit of any mandatory sinking fund payments applicable to the Securities of such Series on the day on which such payments are due and payable in accordance with the terms of this Indenture and the Securities of such Series;

(b) the provisions of Sections 2.4, 2.5, 2.7, 2.8, 7.7, 8.2, 8.3, 8.5 and 8.6; and

(c) the rights, powers, trusts and immunities of the Trustee hereunder and the Company's obligations in connection therewith;

provided that, the following conditions shall have been satisfied:

(d) the Company shall have irrevocably deposited or caused to be deposited (except as provided in Section 8.2(c)) with the Trustee as trust funds specifically pledged as security for and dedicated solely to the benefit of the Holders of such Securities (i) in the case of Securities of such Series denominated in Dollars, cash in Dollars and/or U.S. Government Obligations, or (ii) in the case of Securities of such Series denominated in a Foreign Currency (other than a composite currency), money and/or Foreign Government Obligations, which through the payment of interest and principal in respect thereof in accordance with their terms, will provide (and without reinvestment and assuming no tax liability will be imposed on such Trustee), not later than one day before the due date of any payment of money, an amount in cash, sufficient, in the opinion of a nationally recognized firm of independent public

accountants or investment bank expressed in a written certification thereof delivered to the Trustee, to pay and discharge each installment of principal of and interest, on and any mandatory sinking fund payments in respect of all the Securities of such Series on the dates such installments of principal or interest and such sinking fund payments are due;

(e) such deposit will not result in a breach or violation of, or constitute a default under, this Indenture or any other agreement or instrument to which the Company is a party or by which it is bound;

(f) no Default or Event of Default with respect to the Securities of such Series shall have occurred and be continuing on the date of such deposit or during the period ending on the 91st day after such date;

(g) the Company shall have delivered to the Trustee an Officer's Certificate and an Opinion of Counsel to the effect that (i) the Company has received from, or there has been published by, the Internal Revenue Service a ruling, or (ii) since the date of execution of this Indenture, there has been a change in the applicable Federal income tax law, in either case to the effect that, and based thereon such Opinion of Counsel shall confirm that, the Holders of the Securities of such Series will not recognize income, gain or loss for Federal income tax purposes as a result of such deposit, defeasance and discharge and will be subject to Federal income tax on the same amount and in the same manner and at the same times as would have been the case if such deposit, defeasance and discharge had not occurred;

(h) the Company shall have delivered to the Trustee an Officer's Certificate stating that the deposit was not made by the Company with the intent of defeating, hindering, delaying or defrauding any other creditors of the Company; and

(i) the Company shall have delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each stating that all conditions precedent provided for relating to the defeasance contemplated by this Section have been complied with.

Section 8.4 Covenant Defeasance.

Unless this Section 8.4 is otherwise specified pursuant to Section 2.2 to be inapplicable to Securities of any Series, the Company may omit to comply with respect to the Securities of any Series with any term, provision or condition set forth under Sections 4.2, 4.3, 4.4 and 5.1 and, unless otherwise specified therein, any additional covenants specified in a supplemental indenture for such Series of Securities or a Board Resolution or an Officer's Certificate delivered pursuant to Section 2.2 (and the failure to comply with any such covenants shall not constitute a Default or Event of Default with respect to such Series under Section 6.1) and the occurrence of any event specified in a supplemental indenture for such Series of Securities or a Board Resolution or an Officer's Certificate delivered pursuant to Section 2.2.18 and designated as an Event of Default shall not constitute a Default or Event of Default hereunder, with respect to the Securities of such Series, but, except as specified above, the remainder of this Indenture and such Securities will be unaffected thereby; provided that the following conditions shall have been satisfied:

(a) with reference to this Section 8.4, the Company has irrevocably deposited or caused to be irrevocably deposited (except as provided in Section 8.2(c)) with the Trustee as trust funds in trust for the purpose of making the following payments specifically pledged as security for, and dedicated solely to, the benefit of the Holders of such Securities (i) in the case of Securities of such Series denominated in Dollars, cash in Dollars and/or U.S. Government Obligations, or (ii) in the case of

Securities of such Series denominated in a Foreign Currency (other than a composite currency), money and/or Foreign Government Obligations, which through the payment of interest and principal in respect thereof in accordance with their terms, will provide (and without reinvestment and assuming no tax liability will be imposed on such Trustee), not later than one day before the due date of any payment of money, an amount in cash, sufficient, in the opinion of a nationally recognized firm of independent certified public accountants or investment bank expressed in a written certification thereof delivered to the Trustee, to pay and discharge each installment of principal (including mandatory sinking fund or analogous payments) of and interest on all the Securities of such Series on the dates such installments of principal or interest are due;

(b) such deposit will not result in a breach or violation of, or constitute a default under, this Indenture or any other agreement or instrument to which the Company is a party or by which it is bound;

(c) no Default or Event of Default with respect to the Securities of such Series shall have occurred and be continuing on the date of such deposit;

(d) the Company shall have delivered to the Trustee an Officers' Certificate and an Opinion of Counsel to the effect that (i) the Company has received from, or there has been published by, the Internal Revenue Service a ruling, or (ii) since the date of execution of this Indenture, there has been a change in the applicable Federal income tax law, in either case to the effect that, and based thereon such Opinion of Counsel shall confirm, subject to customary exclusions, that the Holders of the Securities of such Series will not recognize income, gain or loss for Federal income tax purposes as a result of such deposit, covenant defeasance and discharge and will be subject to Federal income tax on the same amount and in the same manner and at the same times as would have been the case if such deposit, covenant defeasance and discharge had not occurred;

(e) The Company shall have delivered to the Trustee an Officer's Certificate stating the deposit was not made by the Company with the intent of defeating, hindering, delaying or defrauding any other creditors of the Company; and

(f) The Company shall have delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each stating that all conditions precedent herein provided for relating to the covenant defeasance contemplated by this Section have been complied with.

Section 8.5 Repayment to Company.

Subject to applicable abandoned property law, the Trustee and the Paying Agent shall pay to the Company upon request any money held by them for the payment of principal and interest that remains unclaimed for two years. After that, Securityholders entitled to the money must look to the Company for payment as general creditors unless an applicable abandoned property law designates another person, and the Trustee shall have no further liability with respect to such money.

Section 8.6 Reinstatement.

If the Trustee or the Paying Agent is unable to apply any money deposited with respect to Securities of any Series in accordance with Section 8.1 by reason of any legal proceeding or by reason of any order or judgment of any court or governmental authority enjoining, restraining or otherwise prohibiting such application, the obligations of the Company under this Indenture with respect to the Securities of such Series and under the Securities of such Series shall be revived and reinstated as though

no deposit had occurred pursuant to Section 8.1 until such time as the Trustee or the Paying Agent is permitted to apply all such money in accordance with Section 8.1; provided, however, that if the Company has made any payment of principal of or interest on or any Additional Amounts with respect to any Securities because of the reinstatement of its obligations, the Company shall be subrogated to the rights of the Holders of such Securities to receive such payment from the money or U.S. Government Obligations held by the Trustee or Paying Agent after payment in full to the Holders.

ARTICLE IX AMENDMENTS AND WAIVERS

Section 9.1 Without Consent of Holders.

The Company and the Trustee may amend or supplement this Indenture or the Securities of one or more Series without the consent of any Securityholder:

- (a) to cure any ambiguity, defect or inconsistency as evidenced by an Officer Certificate;
- (b) to comply with Article V;
- (c) to provide for uncertificated Securities in addition to or in place of certificated Securities;
- (d) to add guarantees with respect to Securities of any Series or secure Securities of any Series;
- (e) to surrender any of the Company's rights or powers under this Indenture;
- (f) to add covenants or events of default for the benefit of the holders of Securities of any Series (and if such covenants or events of default are to be for the benefit of less than all Series of Securities, stating that such covenants or events of default, as applicable, are expressly being included solely for the benefit of such Series);
- (g) to comply with the applicable procedures of the applicable depository;
- (h) to make any change that does not adversely affect the rights of any Securityholder;
- (i) to provide for the issuance of and establish the form and terms and conditions of Securities of any Series as permitted by this Indenture;
- (j) to evidence and provide for the acceptance of appointment hereunder by a successor Trustee with respect to the Securities of one or more Series and to add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee;
- (k) to comply with requirements of the SEC in order to effect or maintain the qualification of this Indenture under the TIA;

(l) to add to, change or eliminate any provision of this Indenture or the Securities of such Series in accordance with the TIA, or to comply with the provisions of DTC, Euroclear or Clearstream or the Trustee with respect to provisions of this Indenture or the Securities of such Series relating to transfers or exchanges of the Securities of such Series or beneficial interests in the Securities of such Series; or

(m) to conform any provision of this Indenture, in so far as it relates to the Securities of such Series, to the description of the Securities of such Series in the prospectus supplement relation to the offering of the Securities of such Series.

Section 9.2 With Consent of Holders.

The Company and the Trustee may enter into a supplemental indenture with the written consent of the Holders of at least a majority in aggregate principal amount of the outstanding Securities of each Series affected by such supplemental indenture (including consents obtained in connection with a tender offer or exchange offer for the Securities of such Series), for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of this Indenture or of any supplemental indenture or of modifying in any manner the rights of the Securityholders of each such Series. Except as provided in Section 6.13, the Holders of at least a majority in aggregate principal amount of the outstanding Securities of any Series by notice to the Trustee (including consents obtained in connection with a tender offer or exchange offer for the Securities of such Series) may waive compliance by the Company with any provision of this Indenture or the Securities with respect to such Series.

It shall not be necessary for the consent of the Holders of Securities under this Section 9.2 to approve the particular form of any proposed supplemental indenture or waiver, but it shall be sufficient if such consent approves the substance thereof. After a supplemental indenture or waiver under this section becomes effective, the Company shall send to the Holders of Securities affected thereby, a notice briefly describing the supplemental indenture or waiver. Any failure by the Company to send such notice, or any defect therein, shall not, however, in any way impair or affect the validity of any such supplemental indenture or waiver.

Section 9.3 Limitations.

Without the consent of each Securityholder affected, an amendment or waiver may not:

- (a) reduce the principal amount of Securities whose Holders must consent to an amendment, supplement or waiver;
- (b) reduce the rate of or extend the time for payment of interest (including default interest) on any Security;
- (c) reduce the principal or change the Stated Maturity of any Security or reduce the amount of, or postpone the date fixed for, the payment of any sinking fund or analogous obligation;
- (d) reduce the principal amount of Discount Securities payable upon acceleration of the maturity thereof;
- (e) waive a Default or Event of Default in the payment of the principal of or interest, if any, on any Security (except a rescission of acceleration of the Securities of any Series by the Holders)

of at least a majority in principal amount of the outstanding Securities of such Series and a waiver of the payment default that resulted from such acceleration);

- (f) make the principal of or interest, if any, on any Security payable in any currency other than that stated in the Security;
- (g) make any change in Sections 6.8, 6.13 or 9.3 (this sentence); or
- (h) waive a redemption payment with respect to any Security, provided that such redemption is made at the Company's option.

Section 9.4 Compliance with Trust Indenture Act.

Every amendment to this Indenture or the Securities of one or more Series shall be set forth in a supplemental indenture hereto that complies with the TIA as then in effect.

Section 9.5 Revocation and Effect of Consents.

Until an amendment is set forth in a supplemental indenture or a waiver becomes effective, a consent to it by a Holder of a Security is a continuing consent by the Holder and every subsequent Holder of a Security or portion of a Security that evidences the same debt as the consenting Holder's Security, even if notation of the consent is not made on any Security. However, any such Holder or subsequent Holder may revoke the consent as to his Security or portion of a Security if the Trustee receives the notice of revocation before the date of the supplemental indenture or the date the waiver becomes effective.

Any amendment or waiver once effective shall bind every Securityholder of each Series affected by such amendment or waiver unless it is of the type described in any of clauses (a) through (h) of Section 9.3. In that case, the amendment or waiver shall bind each Holder of a Security who has consented to it and every subsequent Holder of a Security or portion of a Security that evidences the same debt as the consenting Holder's Security.

The Company may, but shall not be obligated to, fix a record date for the purpose of determining the Holders entitled to give their consent or take any other action described above or required or permitted to be taken pursuant to this Indenture. If a record date is fixed, then notwithstanding the second immediately preceding paragraph, those Persons who were Holders at such record date (or their duly designated proxies), and only those persons, shall be entitled to give such consent or to revoke any consent previously given or take any such action, whether or not such Persons continue to be Holders after such record date. No such consent shall be valid or effective for more than 120 days after such record date.

Section 9.6 Notation on or Exchange of Securities.

The Company or the Trustee may place an appropriate notation about an amendment or waiver on any Security of any Series thereafter authenticated. The Company in exchange for Securities of that Series may issue and the Trustee shall authenticate upon receipt of a Company Order in accordance with Section 2.3 new Securities of that Series that reflect the amendment or waiver.

Section 9.7 Trustee Protected.

In executing, or accepting the additional trusts created by, any supplemental indenture permitted by this Article or the modifications thereby of the trusts created by this Indenture, the Trustee shall be entitled to receive, and (subject to Section 7.1) shall be fully protected in relying upon, an Officer's Certificate or an Opinion of Counsel or both complying with Section 10.4 and stating that the supplemental indenture is authorized or permitted by this Indenture and constitutes a legal valid and binding obligation of the Company, enforceable against it in accordance with its terms. The Trustee shall sign all supplemental indentures upon delivery of such an Officer's Certificate or Opinion of Counsel or both, except that the Trustee need not sign any supplemental indenture that adversely affects its rights, duties, liabilities or immunities under this Indenture.

ARTICLE X
MISCELLANEOUS

Section 10.1 Trust Indenture Act Controls.

If any provision of this Indenture limits, qualifies, or conflicts with another provision which is required or deemed to be included in this Indenture by the TIA, such required or deemed provision shall control.

Section 10.2 Notices.

Any notice or communication by the Company or the Trustee to the other, or by a Holder to the Company or the Trustee, is duly given if in writing and delivered in person or mailed by first-class mail (registered or certified, return receipt requested), facsimile transmission, email or overnight air courier guaranteeing next day delivery, to the others' address:

if to the Company:

LENZ Therapeutics, Inc.
201 Lomas Santa Fe Dr., Suite 300
Solana Beach, California 92075
Attention: Chief Executive Officer

with a copy to:

Wilson Sonsini Goodrich & Rosati, Professional Corporation
12235 El Camino Real
San Diego, CA 92130
Attention: Dan Koeppen

if to the Trustee:

[]
[]
Attention: []

The Company or the Trustee by notice to the other may designate additional or different addresses for subsequent notices or communications. Any notice or communication delivered to the Trustee shall be deemed effective upon actual receipt thereof.

Any notice or communication to a Securityholder shall be sent electronically or by first-class mail to his address shown on the register kept by the Registrar, in accordance with the procedures of the Depositary. Failure to send a notice or communication to a Securityholder of any Series or any defect in it shall not affect its sufficiency with respect to other Securityholders of that or any other Series.

If a notice or communication is sent or published in the manner provided above, within the time prescribed, it is duly given, whether or not the Securityholder receives it.

If the Company sends a notice or communication to Securityholders, it shall send a copy to the Trustee and each Agent at the same time.

Notwithstanding any other provision of this Indenture or any Security, where this Indenture or any Security provides for notice of any event (including any notice of redemption) to a Holder of a Global Security (whether by mail or otherwise), such notice shall be sufficiently given to the Depositary for such Security (or its designee) pursuant to the customary procedures of such Depositary.

Section 10.3 Communication by Holders with Other Holders.

Securityholders of any Series may communicate pursuant to TIA § 312(b) with other Securityholders of that Series or any other Series with respect to their rights under this Indenture or the Securities of that Series or all Series. The Company, the Trustee, the Registrar and anyone else shall have the protection of TIA § 312(c).

Section 10.4 Certificate and Opinion as to Conditions Precedent.

Upon any request or application by the Company to the Trustee to take any action under this Indenture, the Company shall furnish to the Trustee:

(a) an Officer's Certificate stating that, in the opinion of the signers, all conditions precedent, if any, provided for in this Indenture relating to the proposed action have been complied with; and

(b) an Opinion of Counsel stating that, in the opinion of such counsel, all such conditions precedent have been complied with.

Section 10.5 Statements Required in Certificate or Opinion.

Each certificate or opinion with respect to compliance with a condition or covenant provided for in this Indenture (other than a certificate provided pursuant to TIA § 314(a)(4)) shall comply with the provisions of TIA § 314(e) and shall include:

(a) a statement that the person making such certificate or opinion has read such covenant or condition;

(b) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based;

(c) a statement that, in the opinion of such person, he has made such examination or investigation as is necessary to enable him to express an informed opinion as to whether or not such covenant or condition has been complied with; and

(d) a statement as to whether or not, in the opinion of such person, such condition or covenant has been complied with.

Section 10.6 Rules by Trustee and Agents.

The Trustee may make reasonable rules for action by or a meeting of Securityholders of one or more Series. Any Agent may make reasonable rules and set reasonable requirements for its functions.

Section 10.7 Legal Holidays.

A “*Legal Holiday*” is any day that is not a Business Day. If a payment date is a Legal Holiday at a place of payment, payment may be made at that place on the next succeeding day that is not a Legal Holiday, and no interest shall accrue for the intervening period.

Section 10.8 No Recourse Against Others.

A director, officer, employee or stockholder (past or present), as such, of the Company shall not have any liability for any obligations of the Company under the Securities or the Indenture or for any claim based on, in respect of or by reason of such obligations or their creation. Each Securityholder by accepting a Security waives and releases all such liability. The waiver and release are part of the consideration for the issue of the Securities.

Section 10.9 Counterparts.

This Indenture may be executed in any number of counterparts and by the parties hereto in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement. The exchange of copies of this Indenture and of signature pages by facsimile or PDF transmission shall constitute effective execution and delivery of this Indenture as to the parties hereto and may be used in lieu of the original Indenture for all purposes. Signatures of the parties hereto transmitted by facsimile or PDF shall be deemed to be their original signatures for all purposes.

Section 10.10 Governing Law; Waiver of Jury Trial; Consent to Jurisdiction.

THIS INDENTURE AND THE SECURITIES, INCLUDING ANY CLAIM OR CONTROVERSY ARISING OUT OF OR RELATING TO THE INDENTURE OR THE SECURITIES, SHALL BE GOVERNED BY THE LAWS OF THE STATE OF NEW YORK. THE COMPANY, THE TRUSTEE AND THE HOLDERS (BY THEIR ACCEPTANCE OF THE SECURITIES) EACH HEREBY IRREVOCABLY WAIVE, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS INDENTURE, THE SECURITIES OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY.

Any legal suit, action or proceeding arising out of or based upon this Indenture or the transactions contemplated hereby may be instituted in the federal courts of the United States of America located in the City of New York or the courts of the State of New York in each case located in the City of

New York (collectively, the “*Specified Courts*”), and each party irrevocably submits to the nonexclusive jurisdiction of such courts in any such suit, action or proceeding. Service of any process, summons, notice or document by mail (to the extent allowed under any applicable statute or rule of court) to such party’s address set forth above shall be effective service of process for any suit, action or other proceeding brought in any such court. The Company, the Trustee and the Holders (by their acceptance of the Securities) each hereby irrevocably and unconditionally waive any objection to the laying of venue of any suit, action or other proceeding in the Specified Courts and irrevocably and unconditionally waive and agree not to plead or claim any such suit, action or other proceeding has been brought in an inconvenient forum.

Section 10.11 No Adverse Interpretation of Other Agreements.

This Indenture may not be used to interpret another indenture, loan or debt agreement of the Company or a Subsidiary of the Company. Any such indenture, loan or debt agreement may not be used to interpret this Indenture.

Section 10.12 Successors.

All agreements of the Company in this Indenture and the Securities shall bind its successor. All agreements of the Trustee in this Indenture shall bind its successor.

Section 10.13 Severability.

In case any provision in this Indenture or in the Securities shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

Section 10.14 Table of Contents, Headings, Etc.

The Table of Contents, Cross Reference Table, and headings of the Articles and Sections of this Indenture have been inserted for convenience of reference only, are not to be considered a part hereof, and shall in no way modify or restrict any of the terms or provisions hereof.

Section 10.15 Securities in a Foreign Currency.

Unless otherwise specified in a Board Resolution, a supplemental indenture hereto or an Officer’s Certificate delivered pursuant to Section 2.2 of this Indenture with respect to a particular Series of Securities, whenever for purposes of this Indenture any action may be taken by the Holders of a specified percentage in aggregate principal amount of Securities of all Series or all Series affected by a particular action at the time outstanding and, at such time, there are outstanding Securities of any Series which are denominated in more than one currency, then the principal amount of Securities of such Series which shall be deemed to be outstanding for the purpose of taking such action shall be determined by converting any such other currency into a currency that is designated upon issuance of any particular Series of Securities. Unless otherwise specified in a Board Resolution, a supplemental indenture hereto or an Officer’s Certificate delivered pursuant to Section 2.2 of this Indenture with respect to a particular Series of Securities, such conversion shall be at the spot rate for the purchase of the designated currency as published in The Financial Times in the “Currency Rates” section (or, if The Financial Times is no longer published, or if such information is no longer available in The Financial Times, such source as may be selected in good faith by the Company) on any date of determination. The provisions of this paragraph shall apply in determining the equivalent principal amount in respect of Securities of a Series

denominated in currency other than Dollars in connection with any action taken by Holders of Securities pursuant to the terms of this Indenture.

All decisions and determinations provided for in the preceding paragraph shall, in the absence of manifest error, to the extent permitted by law, be conclusive for all purposes and irrevocably binding upon the Trustee and all Holders.

Section 10.16 Judgment Currency.

The Company agrees, to the fullest extent that it may effectively do so under applicable law, that (a) if for the purpose of obtaining judgment in any court it is necessary to convert the sum due in respect of the principal of or interest or other amount on the Securities of any Series (the “*Required Currency*”) into a currency in which a judgment will be rendered (the “*Judgment Currency*”), the rate of exchange used shall be the rate at which in accordance with normal banking procedures the Trustee could purchase in The City of New York the Required Currency with the Judgment Currency on the day on which final unappealable judgment is entered, unless such day is not a New York Banking Day, then the rate of exchange used shall be the rate at which in accordance with normal banking procedures the Trustee could purchase in The City of New York the Required Currency with the Judgment Currency on the New York Banking Day preceding the day on which final unappealable judgment is entered and (b) its obligations under this Indenture to make payments in the Required Currency (i) shall not be discharged or satisfied by any tender, any recovery pursuant to any judgment (whether or not entered in accordance with subsection (a)), in any currency other than the Required Currency, except to the extent that such tender or recovery shall result in the actual receipt, by the payee, of the full amount of the Required Currency expressed to be payable in respect of such payments, (ii) shall be enforceable as an alternative or additional cause of action for the purpose of recovering in the Required Currency the amount, if any, by which such actual receipt shall fall short of the full amount of the Required Currency so expressed to be payable, and (iii) shall not be affected by judgment being obtained for any other sum due under this Indenture. For purposes of the foregoing, “*New York Banking Day*” means any day except a Saturday, Sunday or a Legal Holiday in The City of New York on which banking institutions are authorized or required by law, regulation or executive order to close.

Section 10.17 Force Majeure.

In no event shall the Trustee be responsible or liable for any failure or delay in the performance of its obligations hereunder arising out of or caused by, directly or indirectly, forces beyond its control, including, without limitation, strikes, work stoppages, accidents, acts of war or terrorism, civil or military disturbances, nuclear or natural catastrophes or acts of God, and interruptions, loss or malfunctions of utilities, communications or computer (software and hardware) services, it being understood that the Trustee shall use reasonable best efforts which are consistent with accepted practices in the banking industry to resume performance as soon as practicable under the circumstances.

Section 10.18 U.S.A. Patriot Act.

The parties hereto acknowledge that in accordance with Section 326 of the U.S.A. Patriot Act, the Trustee is required to obtain, verify, and record information that identifies each person or legal entity that establishes a relationship or opens an account with the Trustee. The parties to this Indenture agree that they will provide the Trustee with such information as it may request in order for the Trustee to satisfy the requirements of the U.S.A. Patriot Act.

ARTICLE XI SINKING FUNDS

Section 11.1 Applicability of Article.

The provisions of this Article shall be applicable to any sinking fund for the retirement of the Securities of a Series if so provided by the terms of such Securities pursuant to Section 2.2 and except as otherwise permitted or required by any form of Security of such Series issued pursuant to this Indenture.

The minimum amount of any sinking fund payment provided for by the terms of the Securities of any Series is herein referred to as a “*mandatory sinking fund payment*” and any other amount provided for by the terms of Securities of such Series is herein referred to as an “*optional sinking fund payment*.” If provided for by the terms of Securities of any Series, the cash amount of any sinking fund payment may be subject to reduction as provided in Section 11.2. Each sinking fund payment shall be applied to the redemption of Securities of any Series as provided for by the terms of the Securities of such Series.

Section 11.2 Satisfaction of Sinking Fund Payments with Securities.

The Company may, in satisfaction of all or any part of any sinking fund payment with respect to the Securities of any Series to be made pursuant to the terms of such Securities (1) deliver outstanding Securities of such Series to which such sinking fund payment is applicable (other than any of such Securities previously called for mandatory sinking fund redemption) and (2) apply as credit Securities of such Series to which such sinking fund payment is applicable and which have been repurchased by the Company or redeemed either at the election of the Company pursuant to the terms of such Series of Securities (except pursuant to any mandatory sinking fund) or through the application of permitted optional sinking fund payments or other optional redemptions pursuant to the terms of such Securities, provided that such Securities have not been previously so credited. Such Securities shall be received by the Trustee, together with an Officer’s Certificate with respect thereto, not later than 15 days prior to the date on which the Trustee begins the process of selecting Securities for redemption, and shall be credited for such purpose by the Trustee at the price specified in such Securities for redemption through operation of the sinking fund and the amount of such sinking fund payment shall be reduced accordingly. If as a result of the delivery or credit of Securities in lieu of cash payments pursuant to this Section 11.2, the principal amount of Securities of such Series to be redeemed in order to exhaust the aforesaid cash payment shall be less than \$100,000, the Trustee need not call Securities of such Series for redemption, except upon receipt of a Company Order that such action be taken, and such cash payment shall be held by the Trustee or a Paying Agent and applied to the next succeeding sinking fund payment, provided, however, that the Trustee or such Paying Agent shall from time to time upon receipt of a Company Order pay over and deliver to the Company any cash payment so being held by the Trustee or such Paying Agent upon delivery by the Company to the Trustee of Securities of that Series purchased by the Company having an unpaid principal amount equal to the cash payment required to be released to the Company.

Section 11.3 Redemption of Securities for Sinking Fund.

Not less than 45 days (unless otherwise indicated in the Board Resolution, supplemental indenture hereto or Officer’s Certificate in respect of a particular Series of Securities) prior to each sinking fund payment date for any Series of Securities, the Company will deliver to the Trustee an Officer’s Certificate specifying the amount of the next ensuing mandatory sinking fund payment for that Series pursuant to the terms of that Series, the portion thereof, if any, which is to be satisfied by payment

of cash and the portion thereof, if any, which is to be satisfied by delivering and crediting of Securities of that Series pursuant to Section 11.2, and the optional amount, if any, to be added in cash to the next ensuing mandatory sinking fund payment, and the Company shall thereupon be obligated to pay the amount therein specified. Not less than 30 days (unless otherwise indicated in the Board Resolution, Officer's Certificate or supplemental indenture in respect of a particular Series of Securities) before each such sinking fund payment date the Securities to be redeemed upon such sinking fund payment date will be selected in the manner specified in Section 3.2 and the Company shall send or cause to be sent a notice of the redemption thereof to be given in the name of and at the expense of the Company in the manner provided in and in accordance with Section 3.3. Such notice having been duly given, the redemption of such Securities shall be made upon the terms and in the manner stated in Sections 3.4, 3.5 and 3.6.

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed as of the day and year first above written.

LENZ THERAPEUTICS, INC.

By: _____
Name:
Title:

[_____] ,
as Trustee

By: _____
Name:
Title:



Wilson Sonsini Goodrich & Rosati
Professional Corporation
12235 El Camino Real
San Diego, California 92130
o: 858.350.2300
f: 866.974.7329

April 4, 2025

LENZ Therapeutics, Inc.
201 Lomas Santa Fe Dr., Suite 300
Solana Beach, California 92075

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

At your request, we have examined the Registration Statement on Form S-3 (the “Registration Statement”), filed by LENZ Therapeutics, Inc., a Delaware corporation (the “Company”), with the Securities and Exchange Commission (the “Commission”) in connection with the registration pursuant to the Securities Act of 1933, as amended (the “Act”), of the Securities (as defined below).

The Registration Statement relates to the proposed issuance and sale by the Company, from time to time, pursuant to Rule 415 under the Act, as set forth in the Registration Statement, the prospectus contained therein (the “Prospectus”) and the supplements to the prospectus referred to therein (each a “Prospectus Supplement”), of up to an aggregate offering price of \$500,000,000, or the equivalent thereof, of (a) shares of the Company’s common stock, \$0.00001 par value per share (the “Common Stock”); (b) shares of the Company’s preferred stock, \$0.00001 par value per share (the “Preferred Stock”); (c) the Company’s debt securities (the “Debt Securities”); (d) depositary shares of the Company representing a fractional interest in a share of Preferred Stock (the “Depositary Shares”); (e) warrants to purchase any of the securities above (the “Warrants”); (f) subscription rights to purchase Common Stock, Preferred Stock, Debt Securities, Depositary Shares, Warrants or units consisting of some or all of these securities (the “Subscription Rights”); (g) purchase contracts of the Company with respect to the securities of the Company (the “Purchase Contracts”); and (h) units consisting of two or more securities described above in any combination (the “Units”) (the Common Stock, the Preferred Stock, the Debt Securities, the Depositary Shares, the Warrants, the Subscription Rights, the Purchase Contracts and the Units are collectively referred to herein as the “Securities”).

We advise you that we have also examined the Prospectus Supplement to the Registration Statement relating to the registration under the Act of the Company’s issuance and sale of up to \$150,000,000 of shares of Common Stock (the “Shares”). We understand that the Company has agreed to issue and sell the Shares from time to time pursuant to the sales agreement, dated as of April 4, 2025, by and between the Company and TD Securities (USA) LLC, as sales agent (the “Sales Agreement”).

The Securities are to be sold from time to time as set forth in the Registration Statement, the Prospectus contained therein and the Prospectus Supplement. The Debt Securities are to be issued pursuant to a debt securities indenture (the “Indenture”), a form of which has been filed as an exhibit to the Registration Statement and is to be entered into between the Company and a trustee to be named in a Prospectus Supplement to the Registration Statement (the “Trustee”). The Securities are to be sold pursuant to a purchase, underwriting or similar agreement in substantially the form to be filed under the Registration Statement or a Current Report on Form 8-K. The Debt Securities are to be issued in the form set forth in the Indenture. The Indenture may be supplemented in connection with the issuance of each such series of Debt Securities, by a supplemental indenture or other appropriate action of the Company creating such series of Debt Securities.

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

We have examined instruments, documents, certificates and records that we have deemed relevant and necessary for the basis of our opinions hereinafter expressed. In such examination, we have assumed: (a) the authenticity of original documents and the genuineness of all signatures; (b) the conformity to the originals of all documents submitted to us as copies; (c) the truth, accuracy and completeness of the information, representations and warranties contained in the instruments, documents, certificates and records we have reviewed; (d) that the Registration Statement, and any amendments thereto (including post-effective amendments), will have become effective under the Act; (e) that a Prospectus Supplement will have been filed with the Commission describing the Securities offered thereby; (f) that the Securities will be issued and sold in compliance with applicable U.S. federal and state securities laws and in the manner stated in the Registration Statement and the applicable Prospectus Supplement; (g) that a definitive purchase, underwriting or similar agreement with respect to any Securities offered will have been duly authorized and validly executed and delivered by the Company and the other parties thereto; (h) that any Securities issuable upon conversion, exchange, redemption or exercise of any Securities being offered will be duly authorized, created and, if appropriate, reserved for issuance upon such conversion, exchange, redemption or exercise; (i) with respect to shares of Common Stock or Preferred Stock, that there will be sufficient shares of Common Stock or Preferred Stock authorized under the Company's organizational documents that are not otherwise reserved for issuance; and (j) the legal capacity of all natural persons. As to any facts material to the opinions expressed herein that were not independently established or verified, we have relied upon oral or written statements and representations of officers and other representatives of the Company.

Based on such examination, we are of the opinion that:

1. With respect to the shares of Common Stock, when: (a) the Board of Directors of the Company or a duly constituted and acting committee thereof (such Board of Directors or committee being hereinafter referred to as the "Board") has taken all necessary corporate action to approve the issuance and the terms of the offering of the shares of Common Stock and related matters; and (b) the shares of Common Stock have been duly delivered either (i) in accordance with the applicable definitive purchase, underwriting or similar agreement approved by the Board, or upon the exercise of Warrants to purchase Common Stock, upon payment of the consideration therefor (not less than the par value of the Common Stock) provided for therein or (ii) upon conversion or exercise of any other Security, in accordance with the terms of such Security or the instrument governing such Security providing for such conversion or exercise as approved by the Board, for the consideration approved by the Board, then the shares of Common Stock will be validly issued, fully paid and nonassessable.

2. With respect to any particular series of shares of Preferred Stock, when: (a) the Board has taken all necessary corporate action to approve the issuance and terms of the shares of Preferred Stock, the terms of the offering thereof, and related matters, including the adoption of a certificate of designation (a "Certificate") relating to such Preferred Stock conforming to the General Corporation Law of the State of Delaware (the "DGCL") and the filing of the Certificate with the Secretary of State of the State of Delaware; and (b) the shares of Preferred Stock have been duly delivered either (i) in accordance with the applicable definitive purchase, underwriting or similar agreement approved by the Board, or upon the exercise of Warrants to purchase Preferred Stock, upon payment of the consideration therefor (not less than the par value of the Preferred Stock) provided for therein or (ii) upon conversion or exercise of any other Security, in accordance with the terms of such Security or the instrument governing such Security providing for such conversion or exercise as approved by the Board, for the consideration approved by the Board, then the shares of Preferred Stock will be validly issued, fully paid and nonassessable.

3. With respect to Debt Securities to be issued under the Indenture, when: (a) the Trustee is qualified to act as Trustee under the Indenture and the Company has filed a Form T-1 for the Trustee with the Commission; (b) the Trustee has duly executed and delivered the Indenture; (c) the Indenture has been duly authorized and validly executed and delivered by the Company to the Trustee; (d) the Indenture has been duly qualified under the Trust Indenture Act of 1939, as amended; (e) the Board has taken all necessary corporate action to approve the issuance and terms of such Debt Securities, the terms of the offering thereof and related matters; and (f) such Debt Securities have been duly executed, authenticated, issued and delivered in accordance with the provisions of the Indenture and the applicable definitive purchase, underwriting or similar agreement approved by the Board, or upon the exercise of Warrants to purchase Debt Securities, upon payment of the consideration therefor provided for therein, such Debt

Securities will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms, and entitled to the benefits of the Indenture.

4. With respect to Depositary Shares, when: (a) the Board has taken all necessary corporate action to approve the issuance and terms of the Depositary Shares, the terms of the offering thereof, and related matters, including the adoption of a Certificate relating to the Preferred Stock underlying such Depositary Shares and the filing of the Certificate with the Secretary of State of the State of Delaware; (b) the Deposit Agreement (the “Deposit Agreement”) or agreements relating to the Depositary Shares and the related Depositary Receipts (the “Depositary Receipts”) have been duly authorized and validly executed and delivered by the Company and the depositary appointed by the Company; (c) the shares of Preferred Stock underlying such Depositary Shares have been deposited with a bank or trust company (which meets the requirements for the depositary set forth in the Registration Statement) under the applicable Deposit Agreement; and (d) the Depositary Receipts representing the Depositary Shares have been duly executed, countersigned, registered and delivered in accordance with the appropriate Deposit Agreement and the applicable definitive purchase, underwriting or similar agreement approved by the Board upon payment of the consideration therefor provided for therein, the Depositary Shares will be validly issued and will entitle their holders to the rights specified in the Deposit Agreement and the Depositary Receipts.

5. With respect to the Warrants, when: (a) the Board has taken all necessary corporate action to approve the issuance and terms of the Warrants and related matters; and (b) the Warrants have been duly executed and delivered against payment therefor, pursuant to the applicable definitive purchase, underwriting, warrant or similar agreement, as applicable, duly authorized, executed and delivered by the Company and a warrant agent and the certificates for the Warrants have been duly executed and delivered by the Company and such warrant agent, then the Warrants will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

6. With respect to the Subscription Rights, when: (a) the Board has taken all necessary corporate action to authorize the issuance and terms of the Subscription Rights, the terms of the offering thereof, and related matters and (b) the rights agreement under which the Subscription Rights are to be issued has been duly authorized and validly executed and delivered by the Company, and upon payment of the consideration for the Subscription Rights provided for in such rights agreement, if any, then the Subscription Rights will be valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

7. With respect to the Purchase Contracts, when: (a) the Board has taken all necessary corporate action to approve the issuance and terms of the Purchase Contracts and related matters and (b) the agreement under which the Purchase Contracts are to be issued has been duly authorized and validly executed and delivered by the Company, then the Purchase Contracts will be valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

8. With respect to the Units, when: (a) the Board has taken all necessary corporate action to approve the issuance and terms of the Units (including any Securities underlying the Units) and related matters; and (b) the Units (including any Securities underlying the Units) have been duly executed and delivered against payment therefor, pursuant to the applicable definitive purchase, underwriting, or similar agreement duly authorized, executed and delivered by the Company and any applicable unit or other agents, and the certificates for the Units (including any Securities underlying the Units) have been duly executed and delivered by the Company and any applicable unit or other agents, then the Units will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

9. The Shares to be issued and sold by the Company have been duly authorized and, when issued and delivered by the Company against payment therefor in accordance with the terms of the Sales Agreement, will be validly issued, fully paid and nonassessable.

Our opinion that any document is legal, valid and binding is qualified as to:

- (a) limitations imposed by bankruptcy, insolvency, reorganization, arrangement, fraudulent transfer, moratorium or other similar laws relating to or affecting the rights of creditors generally;
- (b) rights to indemnification and contribution, which may be limited by applicable law or equitable principles; and
- (c) the effect of general principles of equity, including without limitation concepts of materiality, reasonableness, good faith and fair dealing, and the possible unavailability of specific performance or injunctive relief, whether considered in a proceeding in equity or at law.

We express no opinion as to the laws of any other jurisdiction, other than the federal laws of the United States of America, the laws of the State of New York as to the enforceability of the Debt Securities and the DGCL.

* * *

We hereby consent to the filing of this opinion as an exhibit to the above-referenced Registration Statement and to the use of our name wherever it appears in the Registration Statement, the Prospectus, any Prospectus Supplement, and in any amendment or supplement 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 Commission thereunder.

Very truly yours,

/s/ Wilson Sonsini Goodrich & Rosati

WILSON SONSINI GOODRICH & ROSATI
Professional Corporation

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption "Experts" in the Registration Statement (Form S-3) and related Prospectus of LENZ Therapeutics, Inc. for the registration of its common stock, preferred stock, debt securities, depositary shares, warrants, subscription rights, purchase contracts and/or units and to the incorporation by reference therein of our report dated March 19, 2025, with respect to the consolidated financial statements of LENZ Therapeutics, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2024, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

San Diego, California

April 4, 2025