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

**POST-EFFECTIVE AMENDMENT NO. 1
TO FORM S-1
ON
FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

Tectonic Therapeutic, Inc.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

2836
(Primary Standard Industrial
Classification Code No.)
490 Arsenal Way
Suite 210
Watertown, MA 02472 (339) 666-3320
(I.R.S. Employer
Identification Number)

81-0710585
(I.R.S. Employer
Identification Number)

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

Daniel Lochner
Chief Financial Officer
490 Arsenal Way
Suite 210
Watertown, MA 02472 (339) 666-3320
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:
Divakar S. Gupta
Brandon Fenn
Minkyu Park
Cooley LLP
55 Hudson Yards
New York, New York 10001
(212) 479-6000

Approximate Date of Commencement of Proposed Sale to the Public: From time to time after the effective date of this 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, as amended, 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 the 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 this registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

EXPLANATORY NOTE

On March 26, 2025, Tectonic Therapeutic, Inc., a Delaware corporation (the “Company”), filed a Registration Statement on Form S-1, which was subsequently declared effective by the Securities and Exchange Commission (the “SEC”) on April 2, 2025 (the “Registration Statement”).

This Post-Effective Amendment No. 1 to the Registration Statement is being filed by the Registrant to (i) convert the Registration Statement into a registration statement on Form S-3 (the “Post-Effective Amendment”) and (ii) update certain information regarding the securities being offered pursuant to the prospectus contained herein.

The information included in this filing amends the Registration Statement and the prospectus contained therein. No additional securities are being registered under this Post-Effective Amendment. All applicable registration fees were paid at the time of the original filing of the Registration Statement.

The information in this preliminary prospectus is not complete and may be changed. Neither we nor the selling securityholders may sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and is not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED JULY 7, 2025

PRELIMINARY PROSPECTUS



Up to 3,689,465 Shares of Common Stock

This prospectus relates to the proposed offer and resale or other disposition from time to time by the selling stockholders identified in this prospectus of up to an aggregate of 3,689,465 shares of common stock, par value \$0.0001 per share, of Tectonic Therapeutic, Inc.

We are registering the resale of the shares of common stock pursuant to the selling stockholders' registration rights under the Securities Purchase Agreement among us and the selling stockholders. Our registration of the resale of the shares of common stock covered by this prospectus does not mean that the selling stockholders will offer or sell all or any of the shares of common stock. The selling stockholders may offer, sell or distribute all or a portion of their shares of common stock from time to time directly or indirectly through one or more underwriters, broker-dealers or agents, and in one or more public or private transactions, which may involve crosses or block transactions. The shares of common stock may be sold in one or more transactions at fixed prices, at prevailing market prices at the time of the sale, at varying prices determined at the time of sale or at negotiated prices. See the section entitled "*Plan of Distribution*" for more information.

We will not receive any proceeds from any sale of common stock by the selling stockholders pursuant to this prospectus. We have agreed to bear the expenses in connection with the registration of the resale of the shares of common stock to be offered by this prospectus by the selling stockholders except for any underwriting discounts and commissions or transfer taxes relating to the sale of common stock, which will be borne by the selling stockholders.

Our common stock is listed on the Nasdaq Global Market ("Nasdaq") under the symbol "TECX." On July 3, 2025, the closing price for our common stock, as reported on Nasdaq, was \$21.34 per share.

See the section entitled "[Risk Factors](#)" beginning on page 7 of this prospectus to read about factors you should consider before buying our securities.

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

The date of this prospectus is _____, 2025.

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You should rely only on the information provided in this prospectus, as well as the information incorporated by reference to exhibits to the registration statement of which this prospectus forms a part and any applicable prospectus supplement or amendment. Neither we nor the selling stockholders have authorized anyone to provide you with different information. Neither we nor the selling stockholders are making an offer of these securities in any jurisdiction where the offer is not permitted. You should not assume that the information in this prospectus or any applicable prospectus supplement is accurate as of any date other than the date of the applicable document. Since the date of this prospectus and the documents filed as exhibits to the registration statement of which this prospectus forms a part, our business, financial condition, results of operations and prospects may have changed.

ABOUT THIS PROSPECTUS

This prospectus relates to the resale by the selling stockholders identified in this prospectus under the caption “Selling Stockholders,” from time to time, of up to an aggregate of 3,689,465 shares of common stock. We are not selling any shares of common stock under this prospectus, and we will not receive any proceeds from the sale of shares of common stock offered hereby by the selling stockholders.

Neither we, nor the selling stockholders, have authorized anyone to give any information or to make any representation other than those contained or incorporated by reference in this prospectus. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus. The selling stockholders are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where it is lawful to do so. This prospectus does not constitute an offer to sell or the solicitation of an offer to buy any shares other than the registered shares to which it relates, nor does this prospectus constitute an offer to sell or the solicitation of an offer to buy shares in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus is delivered or shares are sold on a later date. Our business, financial condition, results of operations and prospects may have changed since those dates. This prospectus incorporates by reference market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. Although we believe these sources are reliable, we do not guarantee the accuracy or completeness of this information and we have not independently verified this information. In addition, the market and industry data and forecasts that may be included or incorporated by reference in this prospectus may involve estimates, assumptions and other risks and uncertainties and are subject to change based on various factors, including those discussed under the heading “Risk Factors” contained in this prospectus, and under similar headings in other documents that are incorporated by reference into this prospectus. Accordingly, investors should not place undue reliance on this information.

A prospectus supplement may add to, update or change the information contained in this prospectus. You should read both this prospectus and any applicable prospectus supplement together with additional information described below under the heading “Where You Can Find Additional Information” or incorporated by reference herein as described under the heading “Incorporation of Certain Information by Reference.”

Unless the context otherwise indicates, references in this prospectus to “Company,” “we,” “our” and “us” refer, collectively to Tectonic Therapeutic, Inc., a Delaware corporation, and its consolidated subsidiaries (including Tectonic Operating Company, Inc., previously Tectonic Therapeutic, Inc., referred to as “Legacy Tectonic”).

We use various trademarks and trade names in our business, including without limitation our corporate name and logo. All other trademarks or trade names referred to in this prospectus are the property of their respective owners. Solely for convenience, the trademarks and trade names in this prospectus may be referred to without the ® and ™ symbols, but such references should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains and/or incorporates by reference statements that are not historical facts and are considered forward-looking within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). Our forward-looking statements include, but are not limited to, statements regarding our or our management team’s expectations, hopes, beliefs, intentions or strategies regarding the future. In addition, any statements that refer to projections, forecasts or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. The words “anticipate,” “believe,” “contemplate,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “might,” “plan,” “possible,” “potential,” “predict,” “project,” “should,” “will,” “would” and similar expressions or negative of these terms may identify forward-looking statements, but the absence of these words does not mean that a statement is not forward-looking. Forward-looking statements in this prospectus may include, for example, statements about:

- our strategies, prospects, plans, expectations or objectives of management for our future operations;
- our progress, scope or timing of the development of our product candidates;
- our expectations surrounding the potential safety, efficacy, and regulatory and clinical progress of TX45, TX2100 and any other product candidates, and our anticipated milestones and timing therefor;
- the benefits that may be derived from any of our future products, if approved, or the commercial or market opportunity with respect to any of our future products, if approved;
- our ability to protect our intellectual property rights;
- our anticipated operations, financial position, ability to raise capital to fund our operations, revenues, costs or expenses; and
- the statements regarding our future economic conditions or performance, statements of belief and any statement of assumptions underlying any of the foregoing.

These forward-looking statements are based on information available to us at the time of this prospectus or the documents incorporated by reference herein and current expectations, forecasts and assumptions, and involve a number of judgments, risks and uncertainties. Accordingly, forward-looking statements should not be relied upon as representing our views as of any subsequent date, and we do not undertake any obligation to update forward-looking statements to reflect events or circumstances after the date they were made, whether as a result of new information, future events or otherwise, except as may be required under applicable securities laws.

The outcome of the events described in these forward-looking statements is subject to known and unknown risks, uncertainties, and other factors. As a result of a number of known and unknown risks and uncertainties, our actual results or performance may be materially different from those expressed or implied by these forward-looking statements, including those set forth in this prospectus in the section entitled “Risk Factors” and in our periodic filings with the Securities and Exchange Commission (the “SEC”). Our SEC filings are available publicly on the SEC’s website at www.sec.gov. Given these risks and uncertainties, you should not place undue reliance on these forward-looking statements. Additional cautionary statements or discussions of risks and uncertainties that could affect our results or the achievement of the expectations described in forward-looking statements may also be contained in any accompanying prospectus supplement. Should one or more of the risks or uncertainties described in this prospectus, or should underlying assumptions prove incorrect, actual results and plans could differ materially from those expressed in any forward-looking statements.

You should read this prospectus and any accompanying prospectus supplement if any, completely and with the understanding that our actual future results, levels of activity and performance as well as other events and circumstances may be materially different from what we expect. Except as otherwise required by applicable law, we disclaim any duty to update any forward-looking statements, all of which are expressly qualified by the statements in this section, to reflect events or circumstances after the date of this prospectus. We qualify all of our forward-looking statements by these cautionary statements.

PROSPECTUS SUMMARY

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

Our Company

We are a clinical-stage biotechnology company focused on the discovery and development of therapeutic proteins and antibodies that modulate the activity of G-protein coupled receptors (“GPCRs”). The discovery of biologics that can modulate GPCRs has historically been quite challenging. We have developed a proprietary technology platform called GEODe™, with the aim of addressing these challenges to enable the discovery and development of GPCR-targeted biologic medicines that can modify the course of disease. We focus on areas of significant unmet medical need, often where therapeutic options are poor or nonexistent, as these are areas where new medicines have the potential to improve patient quality of life or extend duration of life.

Our lead asset, TX45, is an Fc-relaxin fusion molecule that activates the RXFP1 receptor, the GPCR target of the hormone, relaxin. In September 2024, we announced favorable results from a Phase 1a trial evaluating safety, tolerability and pharmacokinetic (“PK”) and pharmacodynamic (“PD”) properties for TX45. In this trial, TX45 was well-tolerated with no drug-related severe adverse events, no observed immunogenicity and Part A clinical trial enrolled a patient population and evaluated hemodynamic endpoints which are similar to the ongoing APEX Phase 2 clinical trial. We dosed our first patient in the APEX Phase 2 clinical trial in October 2024. Subjects will be randomized to 300 mg SC once monthly of TX45, 300 mg SC once every other week of TX45, or placebo. We expect topline trial results from the APEX clinical trial in 2026. Part B of the Phase 1b trial, which is assessing the acute hemodynamic effects of TX45 in subjects with Group 2 PH-HrpEF enrolled its first patient in the first half of 2025 with data expected to be announced in the second half of 2025. We are also evaluating TX002100 (“TX2100”) as our second development candidate for the treatment of Hereditary Hemorrhagic Telangiectasia (“HHT”), the second most common genetic bleeding disorder with no current approved therapy. TX2100 is a VHH-Fc fusion antagonist antibody that binds to an undisclosed GPCR target which plays a key role in pathogenic angiogenesis. A rodent surrogate of TX2100 demonstrated reduced arteriovenous malformation development and bleeding in an animal model of HHT. A 4-week non-human primate dose-range study with a functionally equivalent precursor to TX2100 showed no treatment-related toxicity observed at doses up to 100 mg/kg. A formulation supporting TX2100 SC dosing has been identified. Both Investigational New Drug (“IND”)-enabling non-human primate good laboratory practices toxicology studies and technical development activities to generate good manufacturing practice drug supply and drug product for TX2100 started in the second quarter of 2025. We expect to initiate a Phase 1 clinical trial for TX2100 in the fourth quarter of 2025 or the first quarter of 2026, subject to the results of IND enabling studies. demonstrated a favorable PK/PD relationship. Renal plasma flow was measured in each patient at several time points as a PD marker. This data was used to develop an exposure-response model which enabled the selection of doses for the APEX Phase 2 trial.

We are currently evaluating TX45 in a Phase 1b Part B hemodynamic clinical trial and in the APEX Phase 2 clinical trial. Part A of the TX45 Phase 1b hemodynamic clinical trial was a single intravenous dose, open-label clinical trial that evaluated the safety, tolerability, and acute hemodynamic effects of TX45 in subjects with Group 2 Pulmonary Hypertension in Heart Failure with preserved Ejection Fraction (“PH-HFpEF”). Part B which is still enrolling has a similar design but is being conducted in subjects with Group 2 Pulmonary Hypertension in

Heart Failure with reduced Ejection Fraction (“PH-HFrEF”). APEX is a 24-week, placebo-controlled trial designed to evaluate the safety and efficacy of TX45 administered subcutaneously (“SC”) in subjects with PH-HFrEF.

In May 2025, we announced the complete results from Part A of the Phase 1b clinical trial of TX45 in subjects with PH-HFrEF. The complete data from Part A confirmed the tolerability and hemodynamic effects of TX45 in patients with PH-HFrEF previously reported in the interim data. Based on the complete dataset, TX45 was well-tolerated in subjects with PH-HFrEF with no serious or severe adverse events. In the overall study population, TX45 achieved a 19.0% reduction in pulmonary capillary wedge pressure (“PCWP”), an endpoint known to correlate with exercise capacity, morbidity and mortality in patients with heart failure. In the subpopulation with combined pre- and post-capillary pulmonary hypertension who have an elevated Pulmonary Vascular Resistance (“PVR”) and more severe disease, TX45 demonstrated >30% reduction in PVR, which along with PCWP is correlated to exercise capacity and mortality in this patient population. The Phase 1b Part A clinical trial enrolled a patient population and evaluated hemodynamic endpoints which are similar to the ongoing APEX Phase 2 clinical trial. We dosed our first patient in the APEX Phase 2 clinical trial in October 2024. Subjects will be randomized to 300 mg SC once monthly of TX45, 300 mg SC once every other week of TX45, or placebo. We expect topline trial results from the APEX clinical trial in 2026. Part B of the Phase 1b trial, which is assessing the acute hemodynamic effects of TX45 in subjects with Group 2 PH-HFrEF enrolled its first patient in the first half of 2025 with data expected to be announced in the second half of 2025.

We are also evaluating TX002100 (“TX2100”) as our second development candidate for the treatment of Hereditary Hemorrhagic Telangiectasia (“HHT”), the second most common genetic bleeding disorder with no current approved therapy. TX2100 is a VHH-Fc fusion antagonist antibody that binds to an undisclosed GPCR target which plays a key role in pathogenic angiogenesis. A rodent surrogate of TX2100 demonstrated reduced arteriovenous malformation development and bleeding in an animal model of HHT. A 4-week non-human primate dose-range study with a functionally equivalent precursor to TX2100 showed no treatment-related toxicity observed at doses up to 100 mg/kg. A formulation supporting TX2100 SC dosing has been identified. Both Investigational New Drug (“IND”)-enabling non-human primate good laboratory practices toxicology studies and technical development activities to generate good manufacturing practice drug supply and drug product for TX2100 started in the second quarter of 2025. We expect to initiate a Phase 1 clinical trial for TX2100 in the fourth quarter of 2025 or the first quarter of 2026, subject to the results of IND enabling studies.

Private Placement

Securities Purchase Agreement

On February 3, 2025, we entered into a Securities Purchase Agreement (the “Purchase Agreement”) with certain accredited investors (the “selling stockholders”), pursuant to which we issued and sold 3,689,465 shares (the “Shares”) of our common stock, \$0.0001 par value per share, at a price of \$50.00 per Share to certain institutional accredited investors and \$54.14 per Share to individual accredited investors that are either an officer or director of the Company (the “Private Placement”). Our total gross proceeds from the sale of the Shares in the Private Placement were approximately \$185.0 million. The closing of the Private Placement occurred on February 5, 2025.

Registration Rights Agreement

In connection with the Private Placement, we entered into a registration rights agreement (the “Registration Rights Agreement”) with the selling stockholders, pursuant to which we agreed to register the Shares for resale. Under the Registration Rights Agreement, we agreed, among other things, to prepare and file with the SEC a registration statement on Form S-1 to register for resale the Shares within 54 calendar days of the closing of the Private Placement, and to use reasonable best efforts to have the registration statement declared effective at the

earliest possible date, but in any event no later than the earlier of (a) the 90th calendar day following the initial filing date or (b) the fifth business day after the date we are notified (orally or in writing, whichever is earlier) by the SEC that the registration statement will not be “reviewed” or will not be subject to further review. We also agreed to use reasonable best efforts to keep such registration statement effective until the earlier of the date the Shares covered by such registration statement have been sold or may be resold pursuant to Rule 144 without restriction. We agreed to be responsible for all fees and expenses incurred in connection with the registration of the Shares.

Corporate Information

Our principal executive office is located at 490 Arsenal Way, Suite 210, Watertown, Massachusetts 02472, and our telephone number is (339) 666-3320. Our website address is www.tectonictx.com. We do not incorporate the information on or accessible through our website into this prospectus, and you should not consider any information on, or that can be accessed through, our website as part of this prospectus. Our common stock is listed on Nasdaq under the symbol “TECX.”

Implications of Being a Smaller Reporting Company

We are a “smaller reporting company” as defined in the Exchange Act. 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 the market value of the 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 the market value of the common stock held by non-affiliates is less than \$700.0 million measured on the last business day of our second fiscal quarter.

As a result, the information in this prospectus and that we provide to our investors in the future may be different than what you might receive from other public reporting companies.

THE OFFERING

Issuer	Tectonic Therapeutic, Inc.
Shares of Common Stock Offered by the Selling Stockholders	Up to an aggregate of 3,689,465 shares of common stock.
Shares of Common Stock Outstanding	18,671,229 shares of common stock as of March 31, 2025.
Use of Proceeds	All of the shares of common stock offered by the selling stockholders pursuant to this prospectus will be sold by the selling stockholders for their respective accounts. We will not receive any proceeds from the sale of the shares of common stock covered by this prospectus.
Nasdaq Symbol	TECX.
Offering Price	The selling stockholders will offer the shares of common stock offered by this prospectus at the prevailing market prices or at privately negotiated prices.
Risk Factors	You should read the “Risk Factors” section of this prospectus for a discussion of factors to consider carefully before deciding to invest in shares of our common stock.

For additional information concerning the offering, see “*Plan of Distribution*” beginning on page 19.

The number of issued and outstanding shares of common stock as of March 31, 2025 excludes the following:

- 1,791,232 shares of common stock issuable upon the exercise of outstanding stock options at a weighted average exercise price of \$19.32 under our 2019 and 2024 Equity Incentive Plan as of March 31, 2025;
- 31,891 shares of common stock issuable upon the exercise of outstanding options at a weighted average exercise price of \$40.80 under the AVROBIO, Inc. 2018 Equity Incentive Plan as of March 31, 2025;
- 181,987 shares of common stock issuable upon the settlement of outstanding restricted stock units as of March 31, 2025;
- 1,227,159 shares of common stock reserved for future issuance under our 2024 Equity Incentive Plan as of March 31, 2025; and
- 295,906 shares of common stock reserved for future issuance under our 2024 Employee Stock Purchase Plan as of March 31, 2025.

RISK FACTORS

Investing in our securities involves risks. Before you make a decision to buy our securities, in addition to the risks and uncertainties discussed above under “*Cautionary Note Regarding Forward-Looking Statements*,” you should carefully consider the risk factors incorporated by reference to our most recent Annual Report on Form 10-K, any subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K, and all other information contained or incorporated by reference into this prospectus, as updated by our subsequent filings under the Exchange Act, and the risk factors and other information contained in any applicable prospectus supplement before acquiring any of such securities. We operate in a dynamic and rapidly changing industry that involves numerous risks and uncertainties. If any of these risks actually occur, it may materially harm our business, financial condition, liquidity and results of operations. As a result, the market price of our securities could decline, and you could lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently believe to be immaterial may become material and adversely affect our business.

USE OF PROCEEDS

All of the shares of common stock offered by the selling stockholders pursuant to this prospectus will be sold by the selling stockholders for their respective accounts. We will not receive any proceeds from any sales of shares of our common stock by the selling stockholders.

SELLING STOCKHOLDERS

The shares of common stock being offering by the selling stockholders consist of the Shares issued to the selling stockholders in the Private Placement. For additional information regarding the issuance of the Shares in connection with the Private Placement, see the section “*Prospectus Summary—Private Placement*” above. We are registering the resale of the Shares issued to the selling stockholders in order to permit such selling stockholders to offer the Shares for resale from time to time.

The table below lists the selling stockholders and other information regarding their ownership of the Shares offered hereby. The second column lists the number of shares of common stock beneficially owned by the selling stockholders as of February 28, 2025. The selling stockholders may have sold or transferred some or all of the common stock indicated below and may in the future sell or transfer some or all of the common stock indicated below in transactions exempt from the registration requirements of the Securities Act rather than under this prospectus. The third column lists the shares of common stock being offered by this prospectus by the selling stockholders. The fourth column assumes the sale of all of the shares of common stock offered by the selling stockholders pursuant to this prospectus. The selling stockholders may sell all, some or none of their shares of common stock in this offering. See “*Plan of Distribution*.”

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Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the selling stockholders have sole voting and investment power with respect to all shares of common stock that they own, subject to applicable community property laws. Beneficial ownership for the purposes of the table below is determined in accordance with the rules and regulations of the SEC. These rules generally provide that a person is the beneficial owner of securities if such person has or shares the power to vote or direct the voting thereof, or to dispose or direct the disposition thereof or has the right to acquire such powers within 60 days. Percentage of beneficial ownership is based on 18,662,672 shares of common stock outstanding as of February 28, 2025.

Name	Beneficial Ownership Before Offering	Maximum Number of Shares Offered Pursuant to Prospectus	Beneficial Ownership After Offering	
	Number of Shares	Number of Shares	Number of Shares	Percentage (%)
Deep Track Biotechnology Master Fund, Ltd. ⁽¹⁾	1,401,938	800,000	601,938	3.23%
Fidelity Advisor Series VII: Fidelity Advisor Biotechnology Fund ⁽²⁾	245,985	30,544	215,441	1.15%
Fidelity Select Portfolios: Biotechnology Portfolio ⁽²⁾	442,889	160,000	282,889	1.52%
Fidelity Mt. Vernon Street Trust: Fidelity Series Growth Company Fund ⁽²⁾	175,705	42,727	132,978	*
Fidelity Mt. Vernon Street Trust: Fidelity Growth Company Fund ⁽²⁾	651,163	169,171	481,922	2.58%
Fidelity Growth Company Commingled Pool, By: Fidelity Management Trust Company, as Trustee ⁽²⁾	1,007,880	234,884	772,996	4.14%
Fidelity Mt. Vernon Street Trust: Fidelity Growth Company K6 Fund ⁽²⁾	241,174	53,218	187,956	1.01%
TAS Partners, LLC ⁽³⁾	970,223	660,000	310,223	1.66%
Timothy A. Springer ⁽⁴⁾	5,382,415	129,294	5,253,121	28.15%
Entities associated with EcoR1 Capital LLC ⁽⁵⁾	1,024,143	500,000	524,143	2.81%
Point 72 Associates, LLC ⁽⁶⁾	200,000	200,000	—	—
Entities associated with Farallon Capital Management L.L.C. ⁽⁷⁾	853,050	140,000	713,050	3.82%
Entities associated with Baker Bros. Advisors LP ⁽⁸⁾	100,000	100,000	—	—
Woodline Master Fund LP ⁽⁹⁾	330,878	100,000	230,878	1.24%
Adage Capital Partners, LP ⁽¹⁰⁾	285,715	100,000	185,715	1.00%
Ally Bridge Medalpha Master Fund L.P. ⁽¹¹⁾	117,222	80,000	37,222	*
Citadel CEMF Investments Ltd. ⁽¹²⁾	65,000	65,000	—	—
StemPoint Capital LP ⁽¹³⁾	96,764	60,000	36,764	*
Soleus Capital Master Fund ⁽¹⁴⁾	76,841	60,000	16,841	*
Daniel Lochner, M.B.A. ⁽¹⁵⁾	5,986	4,617	1,369	*

* Represents beneficial ownership of less than one percent.

- (1) Consists of 1,401,938 shares of common stock held by Deep Track Biotechnology Master Fund, Ltd. (“Deep Track”). David Kroin is the managing member of Deep Track Capital GP, LLC, the General Partner of Deep Track Capital, LP. Deep Track Capital, LP is the Investment Manager of Deep Track Biotechnology Master Fund, Ltd. The address of the above persons and entities is 200 Greenwich Avenue, 3rd Floor, Greenwich, CT 06830.
- (2) These funds and accounts are managed by direct or indirect subsidiaries of FMR LLC. Abigail P. Johnson is a Director, the Chairman and the Chief Executive Officer of FMR LLC. Members of the Johnson family,

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including Abigail P. Johnson, are the predominant owners, directly or through trusts, of Series B voting common shares of FMR LLC, representing 49% of the voting power of FMR LLC. The Johnson family group and all other Series B shareholders have entered into a shareholders' voting agreement under which all Series B voting common shares will be voted in accordance with the majority vote of Series B voting common shares. Accordingly, through their ownership of voting common shares and the execution of the shareholders' voting agreement, members of the Johnson family may be deemed, under the Investment Company Act of 1940, to form a controlling group with respect to FMR LLC. The address of these funds and accounts is 245 Summer Street, Boston, MA 02210.

- (3) Consists of 970,223 shares of common stock held by TAS. Dr. Springer is the sole managing member of TAS and exercises sole voting and dispositive power over the shares held by TAS. Dr. Springer disclaims beneficial ownership of the shares held by TAS. The principal business address of each of Dr. Springer and TAS is 36 Woodman Road, Newton, MA 02467.
- (4) Consists of (i) 4,226,058 shares of common stock held by Dr. Springer, (ii) 186,134 shares held by Dr. Chafen Lu and (iii) 970,223 shares of common stock held by TAS. Dr. Lu is the spouse of Dr. Springer. Dr. Springer is the sole managing member of TAS. Dr. Springer exercises sole voting and dispositive power over the shares held by him directly and the shares held by TAS. Dr. Springer disclaims beneficial ownership of the shares held by TAS. Dr. Lu exercises sole voting and dispositive power over the shares held by her directly. The principal business address of each of Dr. Springer, Dr. Lu and TAS is 36 Woodman Road, Newton, MA 02467.
- (5) Consists of (i) 470,000 shares of common stock purchased in the Private Placement by EcoR1 Capital Fund Qualified, L.P. ("Qualified Fund"); and (ii) 30,000 shares of common stock purchased in the Private Placement by EcoR1 Capital Fund, L.P. ("Capital Fund", and together with Qualified Fund, the "EcoR1 Capital Funds"). EcoR1 Capital LLC ("EcoR1") is the general partner of the EcoR1 Capital Funds. Oleg Nodelman is the control person of EcoR1 and may be deemed to share dispositive voting power over the shares held by the EcoR1 Capital Funds. Mr. Nodelman and EcoR1 both disclaim beneficial ownership of all shares except to the extent of their pecuniary interest. The address for EcoR1 Capital LLC, the EcoR1 Capital Funds and Oleg Nodelman is 357 Tehama Street #3, San Francisco, CA 94103.
- (6) Point72 Asset Management, L.P. maintains investment and voting power with respect to the securities held by certain investment funds it manages, including Point72 Associates, LLC. Point72 Capital Advisors, Inc. is the general partner of Point72 Asset Management, L.P. Mr. Steven A. Cohen controls each of Point72 Asset Management, L.P. and Point72 Capital Advisors, Inc. By reason of the provisions of Rule 13d-3 of the Exchange Act, each of Point72 Asset Management, L.P., Point72 Capital Advisors, Inc., and Mr. Cohen may be deemed to beneficially own the securities directly held by Point72 Associates, LLC that are disclosed in this questionnaire. Each of Point72 Asset Management, L.P., Point72 Capital Advisors, Inc., and Mr. Cohen disclaims beneficial ownership of any such securities. The address of the above person and entities is 72 Cummings Point Road, Stamford, CT 06902.
- (7) The securities that are the subject of this resale registration statement are held directly by the Farallon Funds (as defined below), as follows:
 - (i) Farallon Capital Partners, L.P. ("FCP") holds 25,592 shares of common stock; (ii) Farallon Capital Institutional Partners, L.P. ("FCIP") holds 38,780 shares; (iii) Farallon Capital Institutional Partners II, L.P. ("FCIP II") holds 1,036 shares; (iv) Farallon Capital Institutional Partners III, L.P. ("FCIP III") holds 3,360 shares; (v) Four Crossings Institutional Partners V, L.P. ("FCIP V") holds 4,046 shares; (vi) Farallon Capital Offshore Investors II, L.P. ("FCOI II") holds 57,862 shares; (vii) Farallon Capital (AM) Investors, L.P. ("FCAMI") holds 3,360 shares; and (viii) Farallon Capital F5 Master I, L.P. ("F5MI" and, together with FCP, FCIP, FCIP II, FCIP III, FCIP V, FCOI II and FCAMI, the "Farallon Funds") holds 5,964 shares. Farallon Partners, L.L.C. (the "Farallon General Partner"), as the general partner of each of FCP, FCIP, FCIP II, FCIP III, FCOI II and FCAMI and the sole member of the FCIP V General Partner (as defined below), may be deemed a beneficial owner of the Shares held by the Farallon Funds other than F5MI. Farallon Institutional (GP) V, L.L.C. (the "FCIP V General Partner"), as the general partner of FCIP V, may be deemed a beneficial owner of the Shares held by FCIP V. Farallon F5 (GP), L.L.C. (the "F5MI General Partner"), as the general partner of F5MI, may be deemed a beneficial owner of the Shares held by F5MI. Each of Joshua J. Dapice, Philip D. Dreyfuss, Hannah E. Dunn, Richard B. Fried, Varun N. Gehani, Nicolas Giauque, David T. Kim, Michael G. Linn, Patrick (Cheng) Luo, Rajiv A. Patel,

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Dr. Thomas G. Roberts, Jr., Edric C. Saito, William Seybold, Daniel S. Short, Andrew J. M. Spokes, John R. Warren and Mark C. Wehrly (collectively, the “Farallon Managing Members”), as a senior managing member or managing member, as the case may be, of the Farallon General Partner, and a manager or senior manager, as the case may be, of the FCIP V General Partner and the F5MI General Partner, in each case with the power to exercise investment discretion, may be deemed a beneficial owner of all such Shares held by the Farallon Funds. Each of the Farallon General Partner, the FCIP V General Partner, the F5MI General Partner, and the Farallon Managing Members hereby disclaims any beneficial ownership of any such Shares. The address of each of the entities and individuals referenced in this note is c/o Farallon Capital Management, L.L.C., One Maritime Plaza, Suite 2100, San Francisco, CA 94111.

- (8) Consists of 91,596 shares of common stock held by Baker Brothers Life Sciences, L.P. (“Life Sciences”) and 8,404 shares of common stock held by 667, L.P. (“667”). Life Sciences and 667 are direct holders under the advisement of Baker Bros. Advisors LP. Baker Bros. Advisors (GP) LLC is the sole general partner of Baker Bros. Advisors LP. Julian C. Baker and Felix. J. Baker are managing members of Baker Bros. Advisors (GP) LLC. The address of the above person and entities is 860 Washington Street, 3rd Floor, New York, NY 10014.
- (9) Consists of 330,878 shares of common stock held by Woodline Master Fund LP. Woodline Partners LP (“Woodline Partners”) serves as the investment manager of Woodline Master Fund LP and may be deemed to be the beneficial owner of the shares. Woodline Partners disclaims any beneficial ownership of these shares. The address of the foregoing entities is 4 Embarcadero Center, Suite 3450, San Francisco, CA 94111.
- (10) Consists of 100,000 shares of common stock held by Adage Capital Partners, LP (“Adage”). Bob Atchinson and Phillip Gross are the managing members of Adage Capital Advisors, L.L.C., which is the managing member of Adage Capital Partners GP, L.L.C., which is the general partner of Adage, and each such person or entity, as the case may be, has shared voting and/or investment power over the securities held by Adage and may be deemed the beneficial owner of such shares, and each such person or entity, as the case may be, disclaims beneficial ownership of such securities except to the extent of their respective pecuniary interest therein.
- (11) Consists of 80,000 shares of common stock held by Ally Bridge Medalpha Master Fund L.P. (“MedAlpha”). Mr. Fan Yu is the sole shareholder of ABG Management Ltd., which is the sole member of Ally Bridge Group (NY) LLC, which manages investments of MedAlpha. As such, each of the foregoing entities and Mr. Fan Yu may be deemed to share beneficial ownership of the shares held by MedAlpha. Each of them disclaims any such beneficial ownership. The address of the above person and entities is 430 Park Avenue, 12th Floor, New York, NY 10022.
- (12) Consists of 65,000 shares of common stock held by Citadel CEMF Investments Ltd. (“Citadel CEMF”). Citadel Advisors LLC (“Citadel Advisors”) is the portfolio manager of Citadel CEMF. Citadel Advisors Holdings LP (“CAH”) is the sole member of Citadel Advisors and Citadel GP LLC (“CGP”) is the general partner of CAH. Kenneth Griffin owns a controlling interest in CGP. Mr. Griffin, as the owner of a controlling interest in CGP, may be deemed to have shared power to vote, or to direct the vote of, and/or shared power to dispose of, or to direct the disposition over, the 65,000 shares held by Citadel CEMF. This disclosure is not and shall not be construed as an admission that Mr. Griffin or any of the Citadel-related entities listed above is the beneficial owner of any securities of the Company other than the securities actually owned by such person (if any). The address of Citadel CEMF is c/o Citadel Enterprise Americas LLC, Southeast Financial Center, 200 S. Biscayne Blvd., Suite 3300, Miami, FL 33131.
- (13) Consists of 60,000 shares of common stock held by StemPoint Capital LP (“StemPoint”). Michelle Ross is the sole managing member of StemPoint and exercises sole voting and dispositive power over the securities beneficially owned by StemPoint. Ms. Ross disclaims beneficial ownership of the shares held by StemPoint. The address of the above person and entity is 520 Madison Avenue, 19th Floor, New York, NY 10022.
- (14) Consists of 60,000 shares of common stock held by Soleus Capital Master Fund (“Soleus Master Fund”). Soleus Capital, LLC is the sole general partner of Soleus Master Fund, Soleus Capital Group, LLC (“SCG”) is the sole managing member of Soleus Capital, LLC, Soleus Capital Management, L.P. (“SCM”) is the investment manager of Soleus Master Fund, Soleus GP, LLC is the general partner of SCM, and Guy Levy is the sole managing member of each of SCG and of Soleus GP, LLC. Each of Soleus Capital, LLC, SCG, SCM, Soleus GP, LLC and Mr. Levy disclaims beneficial ownership of the shares held by Soleus Master

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Fund except to the extent of their pecuniary interest therein. The address of the above persons is 104 Field Point Road, 2nd Floor, Greenwich, CT 06830.

- (15) Consists of 5,986 shares of common stock held by Mr. Lochner. Mr. Lochner exercises sole voting and dispositive power over the shares held by him. The principal address of Mr. Lochner is 55 Iris Avenue, Boulder, CO 80304.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock and provisions of our charter and bylaws are summaries and are qualified by reference to such charter and bylaws and applicable provisions of Delaware corporate law. Copies of these documents are filed as exhibits to the registration statement of which this prospectus forms a part.

Authorized Capital Stock

Our authorized capital stock consists of 150,000,000 shares of common stock, par value \$0.0001 per share, and 10,000,000 shares of preferred stock, par value \$0.0001 per share.

Common Stock

Dividends

Holders of our common stock are entitled to receive dividends ratably, if any, as may be declared by our Board out of legally available funds, subject to any preferential dividend rights of any our preferred stock then outstanding

Voting

Holders of our common stock are entitled to one vote for each share of our common stock held of record for the election of directors of the Company and on all matters submitted to a vote of the stockholders. The holders of our common stock do not have any cumulative voting rights.

Distributions on Liquidation

In the event of the Company's dissolution, liquidation or winding up, holders of our common stock are entitled to share ratably in all assets remaining after payment of all debts and other liabilities and any liquidation preference of any outstanding preferred stock. All outstanding shares are fully paid and non-assessable.

Other Rights

Holders of our common stock are not entitled to preemptive, subscription, redemption or conversion rights, and no sinking fund provisions are applicable to our common stock.

Preferred Stock

Our charter provides for 10,000,000 authorized shares of preferred stock. The existence of authorized but unissued shares of preferred stock may enable the Board to discourage an attempt to obtain control of the Company by means of a merger, tender offer, proxy contest or otherwise. For example, if in the due exercise of its fiduciary obligations, the Board were to determine that a takeover proposal is not in the best interests of the Company stockholders, the Board could cause shares of preferred stock to be issued without stockholder approval in one or more private offerings or other transactions that might dilute the voting or other rights of the proposed acquirer or insurgent stockholder or stockholder group. In this regard, our charter grants the Board broad power to establish the rights and preferences of authorized and unissued shares of preferred stock. The issuance of shares of preferred stock could decrease the amount of earnings and assets available for distribution to holders of shares of common stock. The issuance may also adversely affect the rights and powers, including voting rights, of these holders and may have the effect of delaying, deterring or preventing a change in control of the Company.

Anti-Takeover Effects of Delaware Law and Provisions of the Company's Charter and Bylaws

Certain provisions of the DGCL and of the Company's charter and bylaws could have the effect of delaying, deferring or discouraging another party from acquiring control of the Company. These provisions, which are

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summarized below, are expected to discourage certain types of coercive takeover practices and inadequate takeover bids and, as a consequence, they might also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions are also designed in part to encourage anyone seeking to acquire control of the Company to first negotiate with the Board. These provisions might also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders might otherwise deem to be in their best interests. However, the Company holds that the advantages gained by protecting its ability to negotiate with any unsolicited and potentially unfriendly acquirer outweigh the disadvantages of discouraging such proposals, including those priced above the then-current market value of our common stock, because, among other reasons, the negotiation of such proposals could improve their terms.

Delaware Anti-Takeover Statute

We are subject to the provisions of Section 203 of the DGCL. In general, Section 203 prohibits a publicly held Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a three-year period following the date that this stockholder becomes an interested stockholder, unless the business combination is approved in a prescribed manner. Under Section 203, a business combination between a corporation and an interested stockholder is prohibited unless it satisfies one of the following conditions:

- before the stockholder became interested, the board of directors approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction which resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the voting stock outstanding shares owned by persons who are directors and also officers, and employee stock plans, in some instances, but not the outstanding voting stock owned by the interested stockholder; or
- at or after the time the stockholder became interested, the business combination was approved by the board of directors and authorized at an annual or special meeting of the stockholders by the affirmative vote of at least two-thirds of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

- any merger or consolidation involving the corporation or any direct or indirect majority-owned subsidiary of the corporation and the interested stockholder;
- any sale, transfer, lease, pledge or other disposition (in one or more transactions) involving the interested stockholder of 10% or more of either the aggregate market value of all (i) the assets of the corporation or (ii) the outstanding capital stock of the corporation, involving the interested stockholder;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation or by any direct or indirect majority-owned subsidiary of the corporation of any stock of the corporation or any subsidiary to the interested stockholder;
- subject to exceptions, any transaction involving the corporation or any direct or indirect majority-owned subsidiary of the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation or of any subsidiary beneficially owned by the interested stockholder; and
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation or any direct or indirect majority-owned subsidiary.

In general, Section 203 defines an “interested stockholder” as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation and any entity or person that is an affiliate or associate

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of the corporation and who beneficially owned 15% or more of the outstanding voting stock of the corporation at any time within the three year period immediately prior to the date of determining whether such entity or person is an interested stockholder, and any affiliate or associate of that entity or person.

Board Composition and Filling Vacancies

Our charter provides for the division of the Board into three classes serving staggered three-year terms, with one class being elected each year. Our charter also provides that directors may be removed only for cause and then only by the affirmative vote of the holders of two-thirds or more of the shares then entitled to vote at an election of directors. Furthermore, any vacancy on the Board, however occurring, including a vacancy resulting from an increase in the size of the Board, may only be filled by the affirmative vote of a majority of directors then in office even if less than a quorum. The classification of directors, together with the limitations on removal of directors and treatment of vacancies, has the effect of making it more difficult for stockholders to change the composition of the Board.

No Written Consent of Stockholders

Our charter provides that all stockholder actions are required to be taken by a vote of the stockholders at an annual or special meeting, and that stockholders may not take any action by written consent in lieu of a meeting. This limit may lengthen the amount of time required to take stockholder actions and would prevent the amendment of the Company's bylaws or removal of directors by stockholders without holding a meeting of stockholders.

Meetings of Stockholder

Our charter and bylaws provide that only a majority of the members of the Board then in office may call special meetings of stockholders and only those matters set forth in the notice of the special meeting may be considered or acted upon at a special meeting of stockholders. Our bylaws limit the business that may be conducted at an annual meeting of stockholders to those matters properly brought before the meeting.

Advance Notice Requirements

Our bylaws establish advance notice procedures with regard to stockholder proposals relating to the nomination of candidates for election as directors or new business to be brought before meetings of Company stockholders. These procedures provide that notice of stockholder proposals must be timely given in writing to our corporate secretary prior to the meeting at which the action is to be taken. Generally, to be timely, notice must be received at our principal executive offices not less than 90 days nor more than 120 days prior to the first anniversary date of the annual meeting for the preceding year. Our bylaws specify the requirements as to form and content of all stockholders' notices. These requirements may preclude stockholders from bringing matters before the stockholders at an annual or special meeting.

MATERIAL UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS TO NON-U.S. HOLDERS OF OUR COMMON STOCK

The following summary describes the material U.S. federal income tax consequences of the ownership and disposition of our common stock acquired in this offering by Non-U.S. Holders (as defined below). This discussion is not a complete analysis of all potential U.S. federal income tax consequences relevant to a Non-U.S. Holder's particular circumstances, and does not deal with non-U.S., state and local tax consequences that may be relevant to Non-U.S. Holders, nor does it address any U.S. federal tax consequences (such as gift and estate taxes) other than income taxes. Special rules different from those described below may apply to certain Non-U.S. Holders that are subject to special treatment under the U.S. Internal Revenue Code of 1986, as amended, or the Code, such as:

- banks, insurance companies and other financial institutions,
- tax-exempt organizations,
- brokers, dealers and certain electing traders in securities who mark their securities positions to market for U.S. tax purposes,
- certain former U.S. citizens or long-term residents,
- "controlled foreign corporations,"
- "passive foreign investment companies,"
- corporations that accumulate earnings to avoid U.S. federal income tax, corporations organized outside of the United States, any state thereof or the District of Columbia that are nonetheless treated as U.S. income taxpayers for U.S. federal tax purposes,
- persons that hold our common stock as part of a "straddle," "conversion transaction," "synthetic security," integrated investment or other risk reduction strategy,
- persons subject to the alternative minimum tax, the federal Medicare contribution tax on net investment income or the special tax accounting rules under Section 451(b) of the Code,
- tax-qualified retirement plans,
- persons who acquire our common stock through the exercise of an option or otherwise as compensation,
- "qualified foreign pension funds" as defined in Section 897(l)(2) of the Code and entities all of the interests of which are held by qualified foreign pension funds,
- persons that own or have owned, actually or constructively, more than 5% of our common stock, and
- partnerships and other pass-through entities or arrangements, and investors in such pass-through entities or arrangements.

Such Non-U.S. Holders are urged to consult their tax advisors to determine the U.S. federal, state, local and other tax consequences that may be relevant to them.

In addition, this discussion assumes that the Non-U.S. Holder holds our common stock as a "capital asset" within the meaning of Section 1221 of the Code (generally, property held for investment). Furthermore, the discussion below is based upon the provisions of the Code, Treasury regulations promulgated thereunder, rulings and judicial decisions, in each case as of the date hereof, and such authorities may be repealed, revoked or modified, perhaps retroactively, so as to result in U.S. federal income tax consequences different from those discussed below. We have not requested a ruling from the U.S. Internal Revenue Service, or the IRS, with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS will agree with such statements and conclusions.

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Persons considering the purchase of our common stock pursuant to this offering should consult their tax advisors concerning the U.S. federal income, estate and other tax consequences of acquiring, owning and disposing of our common stock in light of their particular situations as well as any consequences arising under the laws of any other taxing jurisdiction, including any state, local or non-U.S. tax consequences.

For the purposes of this discussion, a “Non-U.S. Holder” is, for U.S. federal income tax purposes, a beneficial owner of common stock that is neither a U.S. Person, nor a partnership (or other entity or arrangement treated as a partnership for U.S. federal income tax purposes regardless of its place of organization or formation). A “U.S. Person” means any person that is, for U.S. federal income tax purposes, any of the following:

- an individual who is a citizen or resident of the United States;
- a corporation or other entity treated as a corporation for U.S. federal income tax purposes created or organized in or under the laws of the United States, any state thereof or the District of Columbia;
- an estate the income of which is subject to U.S. federal income taxation regardless of its source; or
- a trust if it (1) is subject to the primary supervision of a court within the United States and one or more “United States persons” (within the meaning of Code Section 7701(a)(30)) have the authority to control all substantial decisions of the trust or (2) has a valid election in effect under applicable Treasury regulations to be treated as a United States person.

In the case of a beneficial owner of our common stock that is classified as a partnership for U.S. federal income tax purposes, the tax treatment of a person treated as a partner in such partnership for U.S. federal income tax purposes generally will depend on the status of the partner, the activities of the partner and the partnership and certain determinations made at the partner level. A person treated as a partner in a partnership or who holds our common stock through another pass-through entity should consult his, her or its tax advisor regarding the tax consequences of the ownership and disposition of our common stock through a partnership or other pass-through entity, as applicable.

Distributions. Distributions, if any, made on our common stock to a Non-U.S. Holder to the extent made out of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles) generally will constitute dividends for U.S. federal income tax purposes and will be subject to withholding tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty, subject to the discussions below regarding effectively connected income, backup withholding and foreign accounts. To obtain a reduced rate of withholding under a treaty, a Non-U.S. Holder generally will be required to provide us or the applicable withholding agent with a properly executed IRS Form W-8BEN (in the case of individuals) or IRS Form W-8BEN-E (in the case of entities), or other appropriate form, certifying the Non-U.S. Holder’s entitlement to benefits under that treaty and, in certain circumstances, providing such Non-U.S. Holder’s U.S. taxpayer identification number and/or foreign tax identifying number. This certification must be provided prior to the payment of dividends and must be updated periodically. In the case of a Non-U.S. Holder that is an entity, Treasury regulations and the relevant income tax treaty provide rules to determine whether, for purposes of determining the applicability of an income tax treaty, dividends will be treated as paid to the entity or to those holding an interest in that entity. If a Non-U.S. Holder holds our common stock through a financial institution or other agent acting on its behalf, it will be required to provide appropriate documentation to such agent, which will then be required to provide certification to the applicable withholding agent, either directly or through other intermediaries. If the Non-U.S. Holder is eligible for a reduced rate of U.S. federal withholding tax under an income tax treaty and does not timely file the required certification, it may be able to obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim for a refund with the IRS. Non-U.S. Holders should consult their tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

We and other applicable withholding agents are not required to withhold tax on dividends paid to a Non-U.S. Holder that are effectively connected with the Non-U.S. Holder’s conduct of a trade or business within

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the United States (and, if required by an applicable income tax treaty, are attributable to a permanent establishment or fixed base that it maintains in the United States) if a properly executed IRS Form W-8ECI, stating that the dividends are so connected, is furnished to the applicable withholding agent prior to the payment of such dividends. In general, such effectively connected dividends will be subject to U.S. federal income tax, on a net income basis at the regular rates applicable to U.S. Persons. A corporate Non-U.S. Holder receiving effectively connected dividends may also be subject to an additional “branch profits tax,” which is imposed, under certain circumstances, at a rate of 30% (or such lower rate as may be specified by an applicable treaty) on the corporate Non-U.S. Holder’s effectively connected earnings and profits, subject to certain adjustments. Non-U.S. Holders should consult their tax advisors regarding any applicable income tax treaties that may provide for different rules.

To the extent distributions on our common stock, if any, exceed our current and accumulated earnings and profits, they will first reduce the Non-U.S. Holder’s adjusted basis in our common stock, but not below zero, and then will be treated as capital gain to the extent of any excess, and taxed in the same manner as gain realized from a sale or other disposition of common stock as described in the next section.

Gain on Disposition of Our Common Stock. Subject to the discussions below regarding backup withholding and foreign accounts, a Non-U.S. Holder generally will not be subject to U.S. federal income tax with respect to gain realized on a sale or other disposition of our common stock unless:

- (a) the gain is effectively connected with a trade or business of the Non-U.S. Holder in the United States (and, if required by an applicable income tax treaty, is attributable to a permanent establishment or fixed base that such Non-U.S. Holder maintains in the United States),
- (b) the Non-U.S. Holder is a nonresident alien individual and is present in the United States for 183 or more days in the taxable year of the disposition and certain other conditions are met, or
- (c) we are or have been a “United States real property holding corporation,” or USRPHC, within the meaning of Code Section 897(c)(2) at any time within the shorter of the five-year period preceding such disposition and such Non-U.S. Holder’s holding period.

In general, we would be a USRPHC if the aggregate fair market value of our “United States real property interests” (within the meaning of Code Section 897(c)(1)), or USRPIs, equaled or exceeded fifty percent (50%) of the combined fair market value of our USRPIs, our non-U.S. real property interests and our other business assets. We believe that we have not been and are not, and do not anticipate becoming, a USRPHC. Even if we are or were to become a USRPHC, gain realized by a Non-U.S. Holder on a disposition of our common stock will not be subject to U.S. federal income tax under the provisions applicable to USRPIs so long as our common stock is “regularly traded,” as defined by applicable Treasury regulations, on an established securities market. There can be no assurance that we are not or will not become a USRPHC or that our common stock will qualify as regularly traded on an established securities market.

Non-U.S. Holders described in (a) above will be required to pay tax on the gain derived from the sale or other taxable disposition at regular U.S. federal income tax rates applicable to U.S. Persons, and corporate Non-U.S. Holders described in (a) above may, in addition, be subject to a branch profits tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty, as adjusted for certain items. A Non-U.S. Holder described in (b) above will be subject to U.S. federal income tax at a flat 30% rate, or such lower rate as may be specified by an applicable income tax treaty, on gain realized upon the sale or other taxable disposition, which gain may be offset by certain U.S.-source capital losses of the Non-U.S. Holder (even though the Non-U.S. Holder is not considered a resident of the United States), provided that the Non-U.S. Holder has timely filed U.S. federal income tax returns with respect to such losses.

Information Reporting Requirements and Backup Withholding. Generally, we or an applicable withholding agent will be required to report information to the IRS with respect to any distributions we pay on our common stock (even if the payments are exempt from withholding), including the amount of any such distributions, the

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name and address of the recipient, and the amount, if any, of tax withheld. A similar report is sent to the Non-U.S. Holder to whom any such distributions are paid. Pursuant to tax treaties or certain other agreements, the IRS may make its reports available to tax authorities in the recipient's country of residence.

Distributions to a Non-U.S. Holder that are classified as dividends paid by us may also be subject to U.S. backup withholding currently at a rate of 24%. U.S. backup withholding generally will not apply to a Non-U.S. Holder who provides a properly executed IRS Form W-8BEN, IRS Form W-8BEN-E, or IRS Form W-8ECI, or otherwise establishes an exemption. Notwithstanding the foregoing, backup withholding may apply if the applicable payor has actual knowledge, or reason to know, that the Non-U.S. Holder is a U.S. Person who is not an exempt recipient.

U.S. information reporting and backup withholding requirements generally will apply to the proceeds of a sale or other taxable disposition of our common stock effected by or through a U.S. office of any broker, U.S. or foreign, except that information reporting and such requirements may be avoided if the Non-U.S. Holder provides a properly executed IRS Form W-8BEN, IRS Form W-8BEN-E or IRS Form W-8ECI, or otherwise meets documentary evidence requirements for establishing non-U.S. Person status or otherwise establishes an exemption. Generally, U.S. information reporting and backup withholding requirements will not apply to a payment of disposition proceeds to a Non-U.S. Holder where the transaction is effected outside the United States through a non-U.S. office of a non-U.S. broker. Information reporting and backup withholding requirements may, however, apply to a payment of disposition proceeds if the payor has actual knowledge, or reason to know, that the Non-U.S. Holder is, in fact, a U.S. Person. For information reporting purposes, certain brokers with substantial U.S. ownership or operations will generally be treated in a manner similar to U.S. payors.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding rules may be allowed as a refund or credit against the U.S. federal income tax liability of a Non-U.S. Holder subject to backup withholding, provided that the required information is timely furnished to the IRS.

Foreign Accounts. Sections 1471 through 1474 of the Code and the related Treasury regulations, together with other U.S. Treasury and IRS guidance issued thereunder and intergovernmental agreements, legislation, rules and other official guidance adopted pursuant to such intergovernmental agreements (commonly referred to as FATCA) impose a U.S. federal withholding tax of 30% on certain payments to a "foreign financial institution" (as defined in the Code) which does not provide the withholding agent with sufficient documentation evidencing either (x) an exemption from FATCA or (y) its compliance (or deemed compliance) with FATCA (which may alternatively be in the form of compliance with an intergovernmental agreement with the United States) to withhold on certain payments and to collect and provide to the U.S. tax authorities certain information regarding U.S. account holders of such institution (which includes certain equity holders of such institution, as well as certain account holders that are foreign entities with U.S. owners). FATCA also generally imposes a federal withholding tax of 30% on certain payments to a non-financial foreign entity (as defined in the Code) which does not provide the withholding agent with sufficient documentation evidencing either (x) an exemption from FATCA or (y) either a certification that it does not have any substantial direct or indirect U.S. owners or provides information regarding substantial direct and indirect U.S. owners of the entity. An intergovernmental agreement between the United States and an applicable foreign country may modify those requirements. The withholding tax described above will not apply if the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from FATCA. Prospective investors are encouraged to consult with their own tax advisors regarding the possible implications of FATCA on their investment in our common stock.

The withholding provisions described above generally apply to payments of dividends. Under proposed Treasury regulations, the preamble to which states that taxpayers may rely on them until final Treasury regulations are issued, this withholding tax does not apply to payments of gross proceeds from a sale or other disposition of common stock.

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EACH PROSPECTIVE INVESTOR SHOULD CONSULT ITS OWN TAX ADVISOR REGARDING THE TAX CONSEQUENCES OF PURCHASING, HOLDING AND DISPOSING OF OUR COMMON STOCK, INCLUDING THE CONSEQUENCES OF ANY CHANGES IN APPLICABLE LAW SUBSEQUENT TO THE DATE HEREOF.

PLAN OF DISTRIBUTION

The selling stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling shares of common stock or interests therein received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their shares of common stock or interests therein on any stock exchange, market or trading facility on which the shares are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling stockholders may use any one or more of the following methods when disposing of shares or interests therein:

- distributions to members, partners, stockholders or other equityholders of the selling stockholders;
- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales and settlement of short sales entered into after the effective date of the registration statement of which this prospectus is a part;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share
- a combination of any such methods of sale; or
- any other method permitted pursuant to applicable law.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of shares of common stock owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell shares of common stock, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act, amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer shares of common stock in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling stockholders for purposes of this prospectus.

In addition, a selling stockholder that is an entity may elect to make an in-kind distribution of securities to its members, partners or stockholders pursuant to the registration statement of which this prospectus is a part by delivering a prospectus with a plan of distribution. Such members, partners or stockholders would thereby receive freely tradeable securities pursuant to the distribution through a registration statement. To the extent a distributee is an affiliate of ours (or to the extent otherwise required by law), we may file a prospectus supplement in order to permit the distributees to use the prospectus to resell the securities acquired in the distribution.

In connection with the sale of our common stock or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of

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the common stock in the course of hedging the positions they assume. The selling stockholders may also sell shares of our common stock short and deliver these securities to close out their short positions, or loan or pledge the common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling stockholders from the sale of the common stock offered by them will be the purchase price of the common stock less discounts or commissions, if any. Each of the selling stockholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of common stock to be made directly or through agents. We will not receive any of the proceeds from this offering.

The selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act, provided that they meet the criteria and conform to the requirements of that rule, or another available exemption from the registration requirements under the Securities Act.

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the common stock or interests therein may be “underwriters” within the meaning of Section 2(a)(11) of the Securities Act (it being understood that the selling stockholders shall not be deemed to be underwriters solely as a result of their participation in this offering). Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling stockholders who are “underwriters” within the meaning of Section 2(a)(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act.

To the extent required, the shares of common stock to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agent, dealer or underwriter, and any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the common stock may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the common stock may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and their affiliates. In addition, to the extent applicable, we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

We have agreed to indemnify the selling stockholders against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares of common stock offered by this prospectus.

We have agreed with the selling stockholders to use reasonable best efforts to cause the registration statement of which this prospectus constitutes a part to become effective and to remain continuously effective until the earlier of: (i) the date on which the selling stockholders shall have resold or otherwise disposed of all the

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shares covered by this prospectus pursuant to Rule 144 or pursuant to the registration statement of which this prospectus constitutes a part, and (ii) the date on which the securities covered by the registration statement of which this prospectus constitutes a part no longer constitute “Registrable Securities” as such term is defined in the Registration Rights Agreement, such that they may be resold by the selling stockholders without registration and without regard to any volume or manner-of-sale limitations and without current public information pursuant to Rule 144 under the Securities Act or any other rule of similar effect.

LEGAL MATTERS

The validity of the common stock being offered by this prospectus has been passed upon for us by Cooley LLP, New York, New York.

EXPERTS

The financial statements of Tectonic Therapeutic, Inc. as of December 31, 2024 and 2023, and for the years then ended, incorporated by reference in this prospectus, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report. Such financial statements are incorporated in reliance upon the report of such firm given their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Exchange Act and in accordance therewith, file annual, quarterly and current reports, proxy statements and other information with the SEC electronically, and the SEC maintains a website that contains our filings as well as reports, proxy and information statements, and other information issuers file electronically with the SEC at www.sec.gov.

We also make available free of charge on or through our website at www.tectonictx.com, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after we electronically file such material with or otherwise furnishes it to the SEC. The website addresses are inactive textual references and except as specifically incorporated by reference into this prospectus, information on those websites is not part of this prospectus.

This prospectus and any prospectus supplement are part of a registration statement that we filed with the SEC and do not contain all of the information in the registration statement. The full registration statement may be obtained from the SEC or us, as provided below. Other documents establishing the terms of the offered securities are or may be filed as exhibits to the registration statement or documents incorporated by reference in the registration statement. 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 refer to the actual documents for a more complete description of the relevant matters. You may inspect a copy of the registration statement through the SEC's website, as provided above.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” information that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus. Information in this prospectus supersedes information incorporated by reference that we filed with the SEC prior to the date of this prospectus, while information that we file later with the SEC will automatically update and supersede the information in this prospectus. We also incorporate by reference into this prospectus the documents listed below and any future filings made by us with the SEC (other than Current Reports on Form 8-K or portions thereof furnished under Item 2.02 or Item 7.01 and exhibits filed pursuant to Item 9.01 on such form that are related to such items and other portions of documents that are furnished, but not filed, or are otherwise not incorporated into registration statements pursuant to applicable rules promulgated by the SEC) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the filing of the registration statement of which this prospectus is a part and prior to the effectiveness of the registration statement, and (ii) after the effectiveness of the registration statement but prior to the termination of all offerings of securities covered by this prospectus:

- our Annual Report on [Form 10-K](#) for the year ended December 31, 2024, filed with the SEC on March 20, 2025 and the information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2024 from our Definitive Proxy Statement on [Schedule 14A](#), filed with the SEC on April 25, 2025;
- our Quarterly Report on [Form 10-Q](#) for the quarterly period ended March 31, 2025, filed with the SEC on May 8, 2025;
- our Current Reports on Form 8-K (other than information furnished rather than filed), filed with the SEC on [January 30, 2025](#), [February 3, 2025](#), [May 19, 2025](#) and [June 6, 2025](#); and
- the description of our common stock, which is registered under Section 12 of the Exchange Act, described in [Exhibit 4.1](#) to our Annual Report on Form 10-K for the year ended December 31, 2024, filed with the SEC on March 20, 2025.

We will provide to each person, including any beneficial owner, to whom a prospectus is delivered, without charge upon written or oral request, a copy of any or all of the documents that are incorporated by reference into this prospectus but not delivered with the prospectus, including exhibits which are specifically incorporated by reference into such documents. You should direct any requests for documents by writing or by telephoning us at the following address or phone number:

Tectonic Therapeutic, Inc.
Attention: Chief Financial Officer
490 Arsenal Way, Suite 210
Watertown, Massachusetts 02472
(339) 666-3320

Any statement contained herein or in a document incorporated or deemed to be incorporated by reference into this document will be deemed to be modified or superseded for purposes of the document to the extent that a statement contained in this document or any other subsequently filed document that is deemed to be incorporated by reference into this document modifies or supersedes the statement.



Up to 3,689,465 Shares of Common Stock

PROSPECTUS

, 2025

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following is an estimate of the expenses (all of which are to be paid by the registrant) that we may incur in connection with the securities being registered hereby.

	<u>Amount</u>
SEC registration fee	\$ 12,037.11*
Legal fees and expenses	\$ 5,000.00
Accounting fees and expenses	\$ 5,000.00
Miscellaneous	\$ 10,000.00
Total	<u>\$ 32,037.11</u>

* Previously paid.

Item 15. Indemnification of Directors and Officers.

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

Section 102(b)(7) of the DGCL provides that a corporation's certificate of incorporation may contain a provision eliminating or limiting the personal liability of a director or officer to the corporation or its stockholders for monetary damages for breach of fiduciary duty, provided that such provision shall not eliminate or limit the liability (i) for any breach of the duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL, or (iv) for any transaction from which an improper personal benefit was derived. The Bylaws provide that we will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding (other than an action by or in the right of us) by reason of the fact that he or she is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom, if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful. The Bylaws provide that we will indemnify any Indemnitee who was or is a party to an action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such

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capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses (including attorneys' fees) actually and reasonably incurred in connection therewith. Expenses must be advanced to an Indemnitee under certain circumstances.

We have entered into indemnification agreements with each of our directors and officers. These indemnification agreements may require us, among other things, to indemnify our directors and officers for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or officer in any action or proceeding arising out of his or her service as one of our directors or officers, or any of our subsidiaries or any other company or enterprise to which the person provides services at our request.

We also maintain general liability insurance that covers certain liabilities of our directors and officers arising out of claims based on acts or omissions in their capacities as directors or officers, including liabilities under the Securities Act.

Under the Merger Agreement, from the effective time of the Merger through the sixth anniversary of the date of the effective time, we agreed to indemnify and hold harmless each person who was, as of January 30, 2024, the signing date of the Merger Agreement, or had been at any time prior, or who becomes prior to the effective time of the Merger, a director or officer of our company or Legacy Tectonic, against all claims, losses, liabilities, damages, judgments, fines and reasonable fees, costs and expenses, including attorneys' fees and disbursements, pertaining to claims arising out of the fact that such person was a director or officer of our company or Legacy Tectonic, at or prior to the effective time of the merger, to the fullest extent permitted under the DGCL.

Under the Merger Agreement, we agreed not to amend, modify or repeal provisions in the Fourth Amended and Restated Certificate of Incorporation and the Amended and Restated Bylaws that were in effect as of January 30, 2024, the date of the Merger Agreement, with respect to indemnification, advancement of expenses and exculpation of our present and former directors and officers for a period of six years from the effective time of the Merger in a manner that would adversely affect the rights of such individuals who at the effective time of the Merger were our officers or directors.

In connection with the Merger, we purchased an insurance policy in effect for six years from the effective time of the Merger, providing no less favorable coverage as the current directors' and officers' liability insurance policies maintained by us with respect to any actual or alleged error, misstatement, misleading statement, act, omission, neglect, breach of duty or any matter claimed against our current and former officers and directors.

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Item 16. Exhibits

Exhibit Number	Description	Incorporation by Reference				Filed Herewith
		Form	File No	Exhibit	Filing Date	
2.1	Agreement and Plan of Merger and Reorganization, dated as of January 30, 2024, by and among AVROBIO, Inc., Alpine Merger Subsidiary, Inc. and Tectonic Therapeutic, Inc.	8-K	001-38537	2.1	1/30/2024	
3.2	Fourth Amended and Restated Certificate of Incorporation of the Company, as amended through June 20, 2024.	10-Q	001-38537	3.1	8/14/2024	
3.3	Amended and Restated Bylaws, as currently in effect.	8-K	001-38537	3.2	6/25/2018	
4.1	Description of Capital Stock.	10-K	001-38537	4.1	3/20/2025	
5.1	Opinion of Cooley LLP	S-1	333-286133	5.1	3/26/2025	
10.1	Form of Securities Purchase Agreement	8-K	001-38537	10.1	2/3/2025	
10.2	Form of Registration Rights Agreement	8-K	001-38537	10.2	2/3/2025	
23.1	Consent of Deloitte & Touche LLP, independent registered public accounting firm of Tectonic Therapeutic, Inc.					X
23.2	Consent of Cooley LLP (included in Exhibit 5.1).	S-1	333-286133	5.1	3/26/2025	
24.1	Power of Attorney (included on signature page).	S-1	333-286133	24.1	3/26/2025	
107	Filing Fee Table	S-1	333-286133	107	3/26/2025	

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 Securities and Exchange Commission (the "Commission") pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table 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) of this section do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to Section 13 or Section 15(d) of the Securities and Exchange Act of 1934, as amended (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;

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- (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.
- (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 SEC 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.
- (c) The undersigned registrant hereby undertakes that:
 - (1) For purposes of determining any liability under the Securities Act of 1933, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the registrant pursuant to Rule 424(b)(1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.
 - (2) For the purpose of determining any liability under the Securities Act of 1933, each post-effective amendment that contains a form of prospectus 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.

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 Watertown, Commonwealth of Massachusetts, on July 7, 2025.

TECTONIC THERAPEUTIC, INC.

/s/ Alise Reicin
Name: Alise Reicin
Title: Chief Executive Officer, President and Director

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed below by the following persons in the capacities and on the date indicated.

Signature	Title	Date
<u>/s/ Alise Reicin</u> Alise Reicin	Chief Executive Officer, President and Director <i>Principal Executive Officer</i>	July 7, 2025
<u>/s/ Daniel Lochner</u> Daniel Lochner	Chief Financial Officer <i>Principal Financial Officer and Principal Accounting Officer</i>	July 7, 2025
<u>*</u> Terrance McGuire	Director	July 7, 2025
<u>*</u> Stefan Vitorovic	Director	July 7, 2025
<u>*</u> Timothy A. Springer	Director	July 7, 2025
<u>*</u> Praveen Tipirneni	Director	July 7, 2025
<u>*</u> Phillip B. Donenberg	Director	July 7, 2025
<u>*By: /s/ Daniel Lochner</u> Daniel Lochner Attorney-in-Fact		

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-3 of our report dated March 20, 2025, relating to the financial statements of Tectonic Therapeutic, Inc., appearing in the Annual Report on Form 10-K of Tectonic Therapeutic, Inc. for the year ended December 31, 2024. We also consent to the reference to us under the heading “Experts” in such Registration Statement.

/s/ Deloitte & Touche LLP

Boston, Massachusetts
July 7, 2025