

PROSPECTUS SUPPLEMENT
(To prospectus dated May 2, 2023)



**Up to \$75,000,000
Common Stock**

We have entered into a sales agreement with TD Securities (USA) LLC (the “Agent”, or “TD Cowen”) dated June 5, 2025, relating to the sale of shares of our common stock, \$0.001 par value per share, offered by this prospectus supplement. In accordance with the terms of the sales agreement, under this prospectus supplement we may offer and sell shares of our common stock having an aggregate offering price of up to \$75,000,000 from time to time through the Agent.

Our common stock is listed on the Nasdaq Capital Market under the symbol “AVTX.” On May 29, 2025, the last reported sale price of our common stock on the Nasdaq Capital Market was \$3.72 per share. We are not subject General Instruction I.B.6 of Form S-3 as the aggregate market value of our common stock held by non-affiliates equaled or exceeded \$75.0 million as of the filing date of our Annual Report on Form 10-K for the fiscal year ended December 31, 2024 (the “2024 Form 10-K”) on March 20, 2025. As of March 20, 2025, the aggregate market value of our outstanding common stock held by non-affiliates, or public float, was approximately \$90.1 million, based on 10,671,868 shares of our common stock that were held by non-affiliates on such date and a price of \$8.44 per share, which was the price at which our common stock was last sold on the Nasdaq Capital Market on February 21, 2025 (a date within 60 days of the filing date of the 2024 Form 10-K), calculated in accordance with General Instruction I.B.6 of Form S-3. If we become subject to the offering limitations contained in General Instruction I.B.6 of Form S-3 in the future, we will file another prospectus supplement.

Sales of our common stock, if any, under this prospectus supplement and the accompanying prospectus will be made in negotiated transactions, including block trades or block sales, or by any method permitted by law deemed to be an “at the market offering” as defined in Rule 415 promulgated under the Securities Act of 1933, as amended (the “Securities Act”), including without limitation sales made through the Nasdaq Capital Market or on any other trading market for our common stock, or by any other method permitted by law. The Agent is not required to sell any specific amount, but will act as our sales agent using commercially reasonable efforts consistent with its normal trading and sales practices on mutually agreed terms between the Agent and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

The Agent will be entitled to compensation at a commission rate equal to up to 3.0% of the gross sales price of the shares of our common stock sold by them pursuant to the sales agreement. See “Plan of Distribution” beginning on page S-7 for additional information regarding the compensation to be paid to the Agent. In connection with the sale of the common stock on our behalf, the Agent may be deemed to be an “underwriter” within the meaning of the Securities Act and the compensation of the Agent may be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to the Agent with respect to certain liabilities, including liabilities under the Securities Act. See “Plan of Distribution” beginning on page S-7 regarding the compensation to be paid to the Agent.

Investing in our securities involves a high degree of risk. Before making any investment decision, you should carefully review and consider all the information in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein, including the risks and uncertainties described under “Risk Factors” beginning on page S-3 of this prospectus supplement and the risk factors incorporated by reference into this prospectus supplement and the accompanying prospectus.

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

TD Cowen
Prospectus Supplement dated June 5, 2025.

TABLE OF CONTENTS
PROSPECTUS SUPPLEMENT

	Page
<u>ABOUT THIS PROSPECTUS SUPPLEMENT</u>	<u>iii</u>
<u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	<u>iv</u>
<u>PROSPECTUS SUPPLEMENT SUMMARY</u>	<u>S-1</u>
<u>THE OFFERING</u>	<u>S-2</u>
<u>RISK FACTORS</u>	<u>S-3</u>
<u>USE OF PROCEEDS</u>	<u>S-5</u>
<u>DIVIDEND POLICY</u>	<u>S-6</u>
<u>PLAN OF DISTRIBUTION</u>	<u>S-7</u>
<u>LEGAL MATTERS</u>	<u>S-8</u>
<u>EXPERTS</u>	<u>S-8</u>
<u>WHERE YOU CAN FIND MORE INFORMATION; INCORPORATION BY REFERENCE</u>	<u>S-8</u>

PROSPECTUS

	Page
<u>ABOUT THIS PROSPECTUS</u>	<u>1</u>
<u>THE COMPANY</u>	<u>2</u>
<u>RISK FACTORS</u>	<u>3</u>
<u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	<u>4</u>
<u>USE OF PROCEEDS</u>	<u>5</u>
<u>PLAN OF DISTRIBUTION</u>	<u>6</u>
<u>DESCRIPTION OF OUR CAPITAL STOCK</u>	<u>8</u>
<u>DESCRIPTION OF DEBT SECURITIES</u>	<u>13</u>
<u>DESCRIPTION OF WARRANTS</u>	<u>15</u>
<u>DESCRIPTION OF UNITS</u>	<u>17</u>
<u>LEGAL MATTERS</u>	<u>18</u>
<u>EXPERTS</u>	<u>18</u>
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	<u>18</u>
<u>INCORPORATION OF CERTAIN INFORMATION BY REFERENCE</u>	<u>18</u>

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement is part of a registration statement that we have filed with the U.S. Securities and Exchange Commission (the “SEC”), utilizing a “shelf” registration process. By using a shelf registration statement, we may offer shares of our common stock having an aggregate offering price of up to \$75,000,000 from time to time under this prospectus supplement at prices and on terms to be determined by market conditions at the time of offering.

We provide information to you about this offering of our common stock in two separate documents that are bound together: (1) this prospectus supplement, which describes the specific details regarding this offering; and (2) the accompanying base prospectus dated May 2, 2023, which provides general information, some of which may not apply to this offering. Generally, when we refer to this “prospectus supplement,” we are referring to both documents combined. If information in this prospectus supplement is inconsistent with the accompanying base prospectus, you should rely on this prospectus supplement. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in any document incorporated by reference in this prospectus supplement, on the other hand, you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in this prospectus supplement—the statement in the document having the later date modifies or supersedes the earlier statement.

We have not, and the Agent has not, authorized anyone to provide you with information other than that contained in this prospectus supplement, the accompanying base prospectus and any free writing prospectus. We are not, and the Agent is not, making an offer to sell or soliciting any offer to buy these securities in any jurisdiction where the offer or sale is not permitted or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation. You should assume that the information appearing in this prospectus supplement, the accompanying base prospectus, the documents incorporated by reference herein and therein and any free writing prospectus that we have authorized for use in connection with this offering is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates.

Before buying any of the common stock that we are offering, we urge you to carefully read this prospectus supplement, the accompanying base prospectus and all of the information incorporated by reference herein and therein, as well as the additional information described under the headings “*Where You Can Find More Information*” and “*Incorporation by Reference*.” These documents contain important information that you should consider when making your investment decision.

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

When we refer to “Avalo,” “Company,” “we,” “our” and “us” in this prospectus supplement, we mean Avalo Therapeutics, Inc. and its consolidated subsidiaries, unless otherwise specified.

“Avalo”, the Avalo logo and other trademarks or service marks of Avalo Therapeutics, Inc. appearing in this prospectus supplement are the property of Avalo Therapeutics, Inc.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus, and the information incorporated by reference herein and therein and any free writing prospectus that we have authorized for use in connection with this offering contain or may include “forward-looking statements” within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and Section 27A of the Securities Act. For these purposes, any statements contained or incorporated by reference herein regarding our strategy, future operations, financial position, future revenues, projected costs, prospects, plans and objectives of management, other than statements of historical facts, are forward-looking statements. In some cases, forward-looking statements can be identified by the use of forward-looking words such as “believes,” “expects,” “may,” “will,” “plans,” “intends,” “estimates,” “could,” “should,” “would,” “continue,” “seeks,” “aims,” “projects,” “predicts,” “pro forma,” “anticipates,” “potential” or other similar words (including their use in the negative), or by discussions of future matters such as: the development of product candidates or products, timing and success of trial results and regulatory review, potential attributes and benefits of product candidates, the expansion of our drug portfolio, and other statements that are not historical.

These statements are based upon the current beliefs and expectations of our management but are subject to significant risks and uncertainties, including:

- the results of our clinical studies, including results in our Phase 2 LOTUS trial of AVTX-009;
- drug development costs, timing and other risks, including reliance on investigators and enrollment of patients in clinical trials;
- our cash position and the need to raise additional capital in the future;
- reliance on key personnel;
- regulatory risks;
- general economic and market risks and uncertainties, including those caused by military conflicts, trade barriers, or governmental budget dynamics; and
- those other risks detailed in our filings with the SEC.

We have based these forward-looking statements largely on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, business strategy, short-term and long-term business operations and objectives, and financial needs. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described above, those described in “critical accounting estimates” described in Part II, Item 7. “Management's Discussion and Analysis of Financial Condition and Results of Operations – Critical Accounting Estimates and Assumptions” of our most recent annual report filed on Form 10-K, and those described below under the heading “Risk Factors” and under similar headings in other documents, including in our 2024 Form 10-K, our Quarterly Report on Form 10-Q for the quarter ended March 31, 2025 and in other filings with the SEC, that are incorporated by reference in this prospectus supplement and the accompanying prospectus. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the future events and trends discussed in this prospectus supplement and accompanying prospectus might not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

We undertake no obligation to revise or publicly release the results of any revision to these forward-looking statements, except as required by law. Given these risks and uncertainties, readers are cautioned not to place undue reliance on such forward-looking statements. All forward-looking statements are qualified in their entirety by this cautionary statement.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights information contained in other parts of this prospectus supplement, the accompanying prospectus or information incorporated by reference herein or therein from our filings with the SEC, listed in the section of this prospectus supplement entitled “Incorporation of Certain Information by Reference.” Because it is only a summary, it does not contain all of the information that you should consider before purchasing our common stock in this offering and it is qualified in its entirety by, and should be read in conjunction with, the more detailed information appearing elsewhere or incorporated by reference into this prospectus supplement and the accompanying prospectus. You should read the entire prospectus supplement, the accompanying prospectus, the registration statement of which this prospectus supplement and the accompanying prospectus are a part, and the information incorporated by reference herein in their entirety, including the “Risk Factors” beginning on page S-3 of this prospectus supplement and page 3 of the accompany prospectus and our financial statements and the related notes incorporated by reference into this prospectus supplement and the accompanying prospectus, before purchasing our common stock in this offering.

Company Overview

Avalo Therapeutics, Inc. (the “Company,” “Avalo”, or “we”) is a clinical stage biotechnology company focused on the treatment of immune dysregulation. Avalo’s lead asset is AVTX-009, an anti-IL-1 β monoclonal antibody (“mAb”), targeting inflammatory diseases.

Overview of Our Pipeline

Compound	Indication	PreClin	P1	P2	P3	Anticipated Milestone
AVTX-009 Anti-IL-1 β mAb	Hidradenitis suppurativa (HS)					Phase 2 Topline Results Mid-2026

The Company’s Phase 2 (“LOTUS”) trial of AVTX-009, an anti-IL-1 β mAb, in hidradenitis suppurativa (“HS”), is a randomized, double-blind, placebo-controlled, parallel-group Phase 2 trial with two AVTX-009 dose regimens to evaluate the efficacy, safety and tolerability of AVTX-009 in approximately 220 adults with moderate to severe HS. Subjects will be randomized (1:1:1) to receive either one of two doses of AVTX-009 or placebo. The primary efficacy endpoint is the proportion of subjects achieving Hidradenitis Suppurativa Clinical Response at Week 16. Avalo is the study sponsor and the current proposed trial locations include the United States, Canada, France, Germany, Italy, Spain, Bulgaria, Czech Republic, Greece, Poland, Australia and Turkey.

Corporate Information

Our principal executive offices are located at 1500 Liberty Ridge Drive, Suite 321, Wayne, Pennsylvania 19087. Our website address is www.avalotx.com. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to reports filed pursuant to Sections 13(a) and 15(d) of the Exchange Act, will be made available free of charge on our website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The contents of our website are not incorporated into this prospectus supplement and our reference to the URL for our website is intended to be an inactive textual reference only.

The trademarks, trade names and service marks appearing in this prospectus supplement are the property of their respective owners. We do not intend our use or display of other companies’ trademarks, trade names or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other companies or products.

Implications of Being a Smaller Reporting Company

We qualify as a “smaller reporting company” as defined in the Exchange Act which allows us to take advantage of exemptions from disclosure requirements including reduced disclosure obligations in our periodic reports and proxy statements. We may take advantage of these reduced disclosure obligations available to smaller reporting companies for so long as our voting and non-voting common stock held by non-affiliates is less than \$250.0 million measured on the last business day of our second fiscal quarter, or our annual revenue is less than \$100.0 million during the most recently completed fiscal year and our voting and non-voting common stock held by non-affiliates is less than \$700.0 million measured on the last business day of our second fiscal quarter.

THE OFFERING

Common Stock offered by us	Shares of our common stock having an aggregate offering price of up to \$75,000,000.
Common stock to be outstanding immediately after this offering	Up to 30,988,910 shares, assuming sales of 20,161,290 shares of our common stock in this offering at an offering price of \$3.72 per share, which was the last reported sale price of our common stock on the Nasdaq Capital Market on May 29, 2025. The actual number of shares issued will vary depending on the sales price under this offering.
Plan of Distribution	“At the market offering” that may be made from time to time on the Nasdaq Capital Market or other existing trading market for our common stock through the Agent. See the section entitled “Plan of Distribution” on page S-7 of this prospectus supplement.
Use of Proceeds	We intend to use the net proceeds of this offering, if any, for working capital and other general corporate purposes, primarily to support the ongoing clinical development of AVTX-009 and general and administrative expenses. See the section entitled “Use of Proceeds” on page S-6 of this prospectus supplement.
Risk Factors	Investing in our common stock involves a high degree of risk. See the information contained or incorporated by reference under the heading “Risk Factors” beginning on page S-3 of this prospectus supplement and on page 3 of the accompanying prospectus and in the documents incorporated by reference herein and therein and in any free writing prospectus that we authorize for use in connection with this offering.
Nasdaq Capital Market symbol	“AVTX”

The number of shares of our common stock shown above is based on 10,827,620 shares of our common stock issued and outstanding as of March 31, 2025, and excludes:

- 3,297,471 shares of common stock issuable upon the exercise of stock options outstanding pursuant to the Fourth Amended and Restated 2016 Equity Incentive Plan, at a weighted-average exercise price of \$13.66 per share;
- 1,387,443 shares of common stock available for future issuance under the Fourth Amended and Restated 2016 Equity Incentive Plan;
- 580,256 shares of common stock reserved for future issuance under the Employee Stock Purchase Plan;
- 534,278 shares of common stock issuable upon the exercise of stock options outstanding pursuant to equity compensation plans not approved by stockholders, at a weighted-average exercise price of \$17.36 per share;
- 24,695,920 shares of common stock issuable upon the conversion of Series C Preferred Stock outstanding;
- 421,397 shares of common stock issuable upon the vesting of restricted stock units outstanding pursuant to the Fourth Amended and Restated 2016 Equity Incentive Plan; and
- 148 shares of common stock issuable upon the exercise of warrants outstanding at a weighted average exercise price of \$7,488.00 per share.

RISK FACTORS

Investing in our securities involves a high degree of risk. Before deciding to purchase our common stock, you should consider carefully the risks and uncertainties described below together with the other information included in this prospectus supplement, the accompanying prospectus and any free writing prospectus that we authorize for use in connection with this offering. In particular, you should consider the risk factors described in the heading “Risk Factors” in our most recent Annual Report on Form 10-K, as may be amended or supplemented by our subsequent Quarterly Reports on Form 10-Q or Current Reports on Form 8-K that are incorporated by reference herein. These risks and uncertainties are not the only risks and uncertainties we face. Additional risks and uncertainties not currently known to us, or that we currently view as immaterial, may also impair our business. If any of the risks or uncertainties described in our SEC filings or any additional risks and uncertainties actually occur, our business, financial condition, results of operations and cash flow could be materially and adversely affected. In that case, the trading price of our common stock could decline and you might lose all or part of your investment. Certain statements below are forward-looking statements. See the information included under the heading “Special Note Regarding Forward-Looking Statements.”

Risks Relating to this Offering

A substantial number of common stock may be sold in the market during this offering, which might depress the market price for our common stock.

Sales of a substantial number of our common stock in the public market during this offering, including after any purchase you make pursuant to this offering, could cause the market price of our common stock to decline. There can be no assurance that any of the \$75,000,000 worth of common stock being offered under this prospectus supplement will be sold or the price at which any such shares might be sold. However, assuming that an aggregate of 20,161,290 shares of our common stock are sold during the term of the sales agreement with the Agent at an assumed price of \$3.72, the last reported sale price of our common stock on the Nasdaq Capital Market on May 29, 2025, upon completion of this offering and based on 10,827,620 shares of our common stock outstanding as of March 31, 2025, we will have outstanding an aggregate of 30,988,910 shares of common stock, assuming no exercise of outstanding options and warrants and assuming no vesting of restricted stock units outstanding.

You might experience future dilution as a result of future equity offerings.

In order to raise additional capital, we may in the future offer additional common stock or other securities convertible into or exchangeable for our common stock at prices that may not be the same as the price per share paid by investors in this offering. We may sell common stock or other securities convertible into or exchangeable for our common stock in any other offering at a price per share that is less than the price per share paid by investors in this offering, and investors purchasing common stock or other securities convertible into or exchangeable for our common stock in the future could have rights superior to existing stockholders. The price per share at which we sell additional common stock or other securities convertible or exchangeable into our common stock, in future transactions may be higher or lower than the price per share paid by investors in this offering.

We have broad discretion in how we use the net proceeds of this offering, and we may not use these proceeds effectively or in ways with which you agree.

We intend to use the net proceeds of this offering, if any, for working capital and other general corporate purposes, primarily to support the ongoing clinical development of AVTX-009 and general and administrative expenses. Our management will have broad discretion as to the application of the net proceeds of this offering and could use them for purposes other than those contemplated at the time of this offering. Our stockholders may not agree with the manner in which our management chooses to allocate and spend the net proceeds. Moreover, our management may use the net proceeds for corporate purposes that may not increase the market price of our common stock.

Purchasers may experience dilution in the book value per share of the common stock purchased in the offering.

The shares sold in this offering, if any, will be sold from time to time at various prices. While you will not experience immediate dilution based on an assumed offering price of \$3.72 per share, the offering price of our common stock may in the future be higher than the net tangible book value per share of our outstanding common stock, and if you purchase shares of our common stock at a price that is above the net tangible book value per share, you will experience immediate dilution.

In addition to this offering, subject to market conditions and other factors, we may pursue additional equity financings in the future, including future public offerings or future private placements of equity securities or securities convertible into or exchangeable for equity securities. Further, the exercise of outstanding stock options or the exercise of stock options issued in

the future could result in dilution to investors and any additional shares issued in connection with acquisitions, should we choose to pursue any, will result in dilution to investors. In addition, the market price of our common stock could fall as a result of resales of any of these shares of common stock due to an increased number of shares available for sale in the market.

The actual number of shares we will issue under the sales agreement with the Agent, at any one time or in total, is uncertain.

Subject to certain limitations in the sales agreement with the Agent and compliance with applicable law, we have the discretion to deliver placement notices to the Agent at any time throughout the term of the sales agreement. The number of shares that are sold by the Agent after delivering a placement notice will fluctuate based on the market price of the common stock during the sales period and limits we set with the Agent.

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

Investors who purchase shares in this offering at different times will likely pay different prices, and so may experience different outcomes in their investment results. We will have discretion, subject to market demand, to vary the timing, prices, and numbers of shares sold, and there is no minimum or maximum sales price. Investors may experience a decline in the value of their shares as a result of share sales made at prices lower than the prices they paid.

We do not expect to pay dividends in the foreseeable future. As a result, you must rely on stock appreciation for any return on your investment.

We do not anticipate paying cash dividends on our common stock in the foreseeable future. Any payment of cash dividends will also depend on our financial condition, results of operations, capital requirements and other factors and will be at the discretion of our board of directors. Accordingly, you will have to rely on capital appreciation, if any, to earn a return on your investment in our common stock. Furthermore, we may in the future become subject to additional contractual restrictions on, or prohibitions against, the payment of dividends.

USE OF PROCEEDS

We may issue and sell shares of our common stock having aggregate sales proceeds of up to \$75,000,000 from time to time pursuant to the sales agreement. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. There can be no assurance that, in the future, we will sell any shares under or fully utilize the sales agreement with the Agent as a source of financing.

We intend to use the net proceeds of this offering, if any, for working capital and other general corporate purposes, primarily to support the ongoing clinical development of AVTX-009 and general and administrative expenses.

The amounts and timing of our actual expenditures will depend on numerous factors, including the progress of our clinical trials and other development efforts and other factors described under “*Risk Factors*” in this prospectus supplement, the accompanying base prospectus and the documents incorporated by reference herein and therein, as well as the amount of cash used in our operations. We will have broad discretion in the application of the net proceeds. Pending the use of the net proceeds described above, we may invest the net proceeds from this offering in one or a variety of capital preservation investments, which may include short- and intermediate-term, interest-bearing obligations, investment-grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

DIVIDEND POLICY

We have never declared or paid cash dividends on our common stock. We anticipate that we will retain all of our future earnings, if any, for use in the expansion and operation of our business and do not anticipate paying cash dividends in the foreseeable future. Payment of future dividends, if any, will be at the discretion of our Board of Directors.

PLAN OF DISTRIBUTION

We have entered into a sales agreement with TD Cowen, under which we may issue and sell from time to time up to \$75,000,000 of our common stock through or to TD Cowen as our sales agent or principal. Sales of our common stock, if any, will be made in negotiated transactions, including block trades or block sales, or by any method permitted by law deemed to be an “at the market offering” as defined in Rule 415 under the Securities Act, including without limitation sales made through Nasdaq or on any other existing trading market for our common stock, or by any other method permitted by law. Sales pursuant to the sales agreement may be made through an affiliate of TD Cowen.

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

The aggregate compensation payable to TD Cowen as sales agent equals up to 3.0% of the gross sales price of the shares sold through it pursuant to the sales agreement. We have also agreed to reimburse TD Cowen up to \$75,000 of TD Cowen’s actual outside legal expenses incurred by TD Cowen in connection with the execution of the sales agreement, in addition to certain ongoing disbursements of its legal counsel. We estimate that the total expenses of the offering payable by us, excluding commissions payable to TD Cowen under the sales agreement, will be approximately \$0.2 million.

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

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

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

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

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

Our common stock is listed on the Nasdaq Capital Market and trades under the symbol “AVTX.” The transfer agent of our common stock is American Stock Transfer & Trust Company, LLC.

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

LEGAL MATTERS

Wyrick Robbins Yates & Ponton LLP, Raleigh, North Carolina will pass upon certain legal matters relating to the issuance and sale of the common stock offered hereby on behalf of Avalo Therapeutics, Inc. TD Cowen is being represented in connection with this offering by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

EXPERTS

The consolidated financial statements of Avalo Therapeutics, Inc. appearing in Avalo Therapeutics, Inc.'s Annual Report (Form 10-K) for the year ended December 31, 2024 have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon included therein, and incorporated herein by reference. Such financial statements are, and audited financial statements to be included in subsequently filed documents will be, incorporated herein in reliance upon the report of Ernst & Young LLP pertaining to such financial statements (to the extent covered by consents filed with the Securities and Exchange Commission) given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed a registration statement on Form S-3 with the SEC for the securities we are offering by this prospectus supplement. This prospectus supplement does not include all of the information contained in the registration statement. You should refer to the registration statement and its exhibits for additional information. We will provide to each person, including any beneficial owner, to whom a prospectus supplement is delivered, a copy of any or all of the information that has been incorporated by reference in the prospectus supplement but not delivered with the prospectus supplement.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website at www.sec.gov that contains reports, proxy and information statements and other information regarding registrants. Our SEC filings, including our registration statement and the exhibits and schedules thereto, are available on the SEC website at www.sec.gov.

We maintain a website at www.avalotx.com. Information contained in or accessible through our website does not constitute a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to “incorporate by reference” information into this prospectus supplement, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The SEC file number for the documents incorporated by reference in this prospectus supplement is 001-37590. The documents incorporated by reference into this prospectus supplement contain important information that you should read about us.

The following documents are incorporated by reference into this document:

- our Annual Report on Form 10-K for the fiscal year ended December 31, 2024, as filed with the SEC on [March 20, 2025](#);
- our Quarterly Report on Form 10-Q for the quarter ended March 31, 2025, as filed with the SEC on [May 12, 2025](#);
- our Current Reports on Form 8-K filed with the SEC on [January 2, 2025](#), [January 13, 2025](#), [March 26, 2025](#), [May 8, 2025](#), and [June 4, 2025](#) in each case only to the extent the information in such report is filed and not furnished; and
- the description of our common stock contained in [Exhibit 4.5](#) to the Registrant's Form 10-K for the fiscal year ended December 31, 2024, filed with the Commission on March 20, 2025, including any amendments or reports filed for the purpose of updating such description.

We also incorporate by reference into this prospectus supplement all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of the offering. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

Any statement in a document incorporated by reference or deemed to be incorporated by reference in this prospectus supplement shall be deemed to be modified or superseded for the purposes of this prospectus supplement to the extent that a statement contained herein or therein or in any other subsequently filed document which also is incorporated or deemed to be incorporated by reference herein or therein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference in this prospectus supplement, including exhibits to these documents. You should direct any requests for documents to Avalo Therapeutics, Inc., 1500 Liberty Ridge Drive, Suite 321, Wayne, Pennsylvania 19087; telephone: (410) 522-8707.

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

PROSPECTUS



**\$375,000,000 of
Common Stock
Preferred Stock
Debt Securities, Warrants and/or
Units**

From time to time, we may offer up to \$375,000,000 of any combination of the securities described in this prospectus in one or more offerings. We may also offer securities as may be issuable upon conversion, redemption, repurchase, exchange or exercise of any securities registered hereunder, including pursuant to any applicable anti-dilution provisions.

This prospectus provides you with a general description of the securities we may offer. Each time we offer securities, we will provide you with a prospectus supplement containing specific information about the terms of the securities being offered and the offering. We may also authorize one or more free writing prospectuses to be provided to you in connection with any offering. Any prospectus supplement may also add, update or change information contained in this prospectus. If information in any prospectus supplement or any related free writing prospectus is inconsistent with the information in this prospectus, then the information in that prospectus supplement or any related free writing prospectus will apply and will supersede the information in this prospectus.

We may offer and sell these securities to or through one or more underwriters, dealers or agents, or directly to purchasers, on a continuous or delayed basis. If any underwriters, dealers or agents are involved in the sale of any of the securities, their names and any applicable purchase price, fee, commission or discount arrangement with, between or among them will be set forth, or will be calculable from the information set forth, in an accompanying prospectus supplement or any related free writing prospectus. For more detailed information, see "Plan of Distribution" in this prospectus.

Our common stock is traded on The Nasdaq Capital Market under the symbol "AVTX." On April 11, 2023, the last reported sale price of our common stock was \$3.10 per share. The aggregate market value of our outstanding common stock held by non-affiliates as of the date of this prospectus is \$28.4 million based on 8,741,194 shares of outstanding common stock held by non-affiliates, and a per share price of \$3.25 based on the closing sale price of our common stock on February 21, 2023 (a date within 60 days of the date hereof). Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell securities registered on the registration statement of which this prospectus is a part in a public primary offering with a value exceeding more than one-third of our public float in any 12-month period if our public float, measured in accordance with such instruction, remains below \$75.0 million. As of the date hereof, we have not offered any securities pursuant to General Instruction I.B.6 of Form S-3 during the 12 calendar months prior to and including the date of this prospectus. The applicable prospectus supplement or any related free writing prospectus will contain information, where applicable, as to any other listing on The Nasdaq Capital Market or any securities market or other exchange of the securities, if any, covered by the prospectus supplement or any related free writing prospectus.

This prospectus may not be used by us to consummate a sale of securities unless accompanied by the applicable prospectus supplement. You should carefully read this prospectus, any prospectus supplement and any related free writing prospectus, together with additional information described in "Where You Can Find Additional Information" and "Incorporation of Certain Information by Reference", before you invest in our securities.

Investing in our securities involves a high degree of risk. See "Risk Factors" beginning on page 5 of this prospectus, in any accompanying prospectus supplement, any related free writing prospectus and in the documents incorporated by reference herein and therein, to read about factors you should consider before investing in our securities.

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

Prospectus dated May 2, 2023

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, utilizing a shelf registration process. Under this shelf registration process, we may offer shares of our common stock, shares of our preferred stock, debt securities, warrants for such securities, or units consisting of a combination of any such securities, in one or more offerings, up to a total dollar amount of \$375,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will contain specific information about the terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to any offering.

This prospectus does not contain all of the information included in the registration statement. For a more complete understanding of the offering of the securities, you should refer to the registration statement, including its exhibits. Prospectus supplements and any related free writing prospectus may also add, update or change information contained or incorporated by reference in this prospectus. However, no prospectus supplement or any related free writing prospectus will fundamentally change the terms that are set forth in this prospectus or offer a security that is not registered and described in this prospectus at the time of its effectiveness. This prospectus, together with the applicable prospectus supplements and any related free writing prospectus and the documents incorporated by reference herein and therein, will include material information relating to the offering. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, the information and documents incorporated herein and therein by reference and the additional information under the heading “*Where You Can Find Additional Information*” before making an investment decision.

You should rely only on the information we have provided or incorporated by reference in this prospectus or any prospectus supplement or any related free writing prospectus. We have not authorized anyone to provide you with information different from that contained or incorporated by reference in this prospectus or any prospectus supplement or any related free writing prospectus. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained or incorporated by reference in this prospectus or any prospectus supplement or any related free writing prospectus. You must not rely on any unauthorized information or representation. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information in this prospectus or any prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and that any information we have incorporated herein and therein by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus or any prospectus supplement or any related free writing prospectus or any sale of a security.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading “*Where You Can Find Additional Information*.”

To the extent there are inconsistencies between this prospectus, any prospectus supplement and any related free writing prospectus and any documents incorporated by reference, the document with the most recent date will control.

This prospectus may not be used to consummate sales of our securities, unless it is accompanied by a prospectus supplement.

THE COMPANY

This summary highlights selected information from this prospectus and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus, the applicable prospectus supplement and any related free writing prospectus, including the risks of investing in our securities discussed under the heading “Risk Factors” contained in the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are 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. Unless the context indicates otherwise, references in this prospectus to “Avalo,” “Company,” “we,” “us” and “our” refer to Avalo Therapeutics, Inc.

Company Overview

Avalo Therapeutics, Inc. (the “Company,” “Avalo” or “we”) is a clinical stage biotechnology company focused on the treatment of immune dysregulation by developing therapies that target the LIGHT network.

LIGHT (Lymphotoxin-like, exhibits Inducible expression, and competes with HSV Glycoprotein D for Herpesvirus Entry Mediator (“HVEM”), a receptor expressed by T lymphocytes; also referred to as TNFSF14) is an immunoregulatory cytokine. LIGHT and its signaling receptors, HVEM (TNFRSF14), and lymphotoxin β receptor (TNFRSF3), form an immune regulatory network with two co-receptors of herpesvirus entry mediator, checkpoint inhibitor B and T Lymphocyte Attenuator (“BTLA”), and CD160 (collectively, the “LIGHT-signaling network” or the “LIGHT network”). Accumulating evidence points to the dysregulation of the LIGHT network as a disease-driving mechanism in autoimmune and inflammatory reactions in barrier organs. Therefore, we believe reducing LIGHT levels can moderate immune dysregulation in many acute and chronic inflammatory disorders. We have two drug candidates that modulate the LIGHT-signaling network, AVTX-002, an anti-LIGHT monoclonal antibody (“mAb”) in Phase 2, and AVTX-008, a BTLA agonist fusion protein in lead optimization.

Our Strategy

Our strategy for increasing stockholder value includes:

- Advancing our pipeline of compounds through development and to regulatory approval;
- Developing the go-to-market strategy to quickly and effectively market, launch, and distribute each of our compounds that receive regulatory approval;
- Opportunistically out-licensing rights to indications or geographies; and
- Acquiring or licensing rights to targeted, complementary differentiated preclinical and clinical stage compounds.

Corporate Information

Our principal executive offices are located at 540 Gaither Road, Suite 400, Rockville, Maryland 20850 and our telephone number is (410) 522-8707. Our website address is www.avalotx.com. The information contained on, or that can be accessed through, our website is not a part of this prospectus. We have included our website address in this prospectus solely as an inactive textual reference.

“Avalo”, the Avalo logo and other trademarks or service marks of Avalo Therapeutics, Inc. appearing in this prospectus are the property of Avalo Therapeutics, Inc. Our company is a “smaller reporting company” as defined in Rule 12b-2 of the Exchange Act, and we have elected to take advantage of certain of the scaled disclosure available to smaller reporting companies under the Exchange Act.

RISK FACTORS

Investing in our securities involves a high degree of risk. Before purchasing any securities you should consider carefully the risks and uncertainties described in the section entitled “*Risk Factors*” contained in our Annual Report on Form 10-K for the year ended December 31, 2022, as filed with SEC on March 29, 2023, which are incorporated in this prospectus by reference in their entirety, as well as in any prospectus supplement or any related free writing prospectus hereto. These risks and uncertainties are not the only risks and uncertainties we face. Additional risks and uncertainties not currently known to us, or that we currently view as immaterial, may also impair our business. If any of the risks or uncertainties described in our SEC filings or any additional risks and uncertainties actually occur, our business, financial condition, results of operations and cash flow could be materially and adversely affected. In that case, the trading price of our common stock could decline and you might lose all or part of your investment. Please also refer to the section entitled “*Special Note Regarding Forward-Looking Statements.*”

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus and the information incorporated by reference in this prospectus include “forward-looking statements” within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and Section 27A of the Securities Act of 1933, as amended, or the Securities Act. For these purposes, any statements contained or incorporated by reference herein regarding our strategy, future operations, financial position, future revenues, projected costs, prospects, plans and objectives of management, other than statements of historical facts, are forward-looking statements. In some cases, you can identify forward-looking statements by the words “may,” “might,” “can,” “will,” “to be,” “could,” “would,” “should,” “expect,” “intend,” “plan,” “objective,” “anticipate,” “believe,” “estimate,” “predict,” “project,” “potential,” “likely,” “continue” and “ongoing,” or the negative of these terms, or other comparable terminology intended to identify statements about the future, although not all forward-looking statements contain these words. These forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these forward-looking statements. We cannot guarantee that we actually will achieve the plans, intentions or expectations expressed or implied in our forward-looking statements. There are a number of important factors that could cause actual results, levels of activity, performance or events to differ materially from those expressed or implied in the forward-looking statements we make.

You should refer to the “*Business*,” “*Risk Factors*,” and “*Management’s Discussion and Analysis of Financial Condition and Results of Operations*” and other sections contained in this prospectus and the applicable prospectus supplement and any related free writing prospectus, and under similar headings in the other documents that are incorporated herein and therein by reference, for a discussion of important factors that may cause our actual results to differ materially from those expressed or implied by our forward-looking statements. Given these risks, uncertainties and other factors, many of which are beyond our control, we cannot assure you that the forward-looking statements in this prospectus or any prospectus supplement or related free writing prospectus will prove to be accurate, and you should not place undue reliance on these forward-looking statements. Furthermore, if our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, you should not regard these statements as a representation or warranty by us or any other person that we will achieve our objectives and plans in any specified timeframe, or at all.

Any forward-looking statement speaks only as of the date on which it is made. Although we may elect to update forward-looking statements in the future, we specifically disclaim any obligation to do so, except as may be required by law, even if our estimates change, and readers should not rely on our forward-looking statements as representing our views as of any date subsequent to the date the statements were made.

USE OF PROCEEDS

Unless we otherwise indicate in the applicable prospectus supplement or any free writing prospectus relating to a specific offering, we currently intend to use the net proceeds from the sale of the securities for general corporate purposes.

PLAN OF DISTRIBUTION

We may sell the securities offered hereby from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities to or through underwriters or dealers, through agents, or directly to one or more purchasers. We may distribute securities from time to time in one or more transactions:

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

We may also sell equity securities covered by this registration statement in an “at the market offering” as defined in Rule 415 under the Securities Act. Such offering may be made into an existing trading market for such securities in transactions at other than a fixed price, either:

- on or through the facilities of The Nasdaq Capital Market or any other security exchange or quotation or trading service on which such securities may be listed, quoted or traded at the time of sale; and/or
- other than on The Nasdaq Capital Market or such other securities exchanges or quotation or trading services.

Such at the market offerings, if any, may be conducted by underwriters acting as principal or agent.

A prospectus supplement or supplements (and any related free writing prospectus that we may authorize to be provided to you) will describe the terms of the offering of the securities, including, to the extent applicable:

- the name or names of any underwriters, dealers or agents, if any;
- the purchase price of the securities and the proceeds we will receive from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and other items constituting agents’ or underwriters’ compensation;
- any public offering price;
- any discounts or concessions allowed or reallowed or paid to dealers; and
- any securities exchange or market on which the securities may be listed.

Only underwriters named in the prospectus supplement are underwriters of the securities offered by the prospectus supplement.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement. Any public offering price and any discounts or concessions allowed or reallowed or paid to dealers may change from time to time. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement, naming the underwriter, the nature of any such relationship. The prospectus supplement will also include any over-allotment options.

We may sell securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities and we will describe any commissions we will pay the agent in the prospectus supplement and we will include the net proceeds payable to us. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

We may provide agents and underwriters with indemnification against civil liabilities related to the offering, including

liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

The securities we offer may be new issues of securities and may have no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the existence or liquidity of a trading market for any securities.

The specific terms of any lock-up provisions in respect of any given offering will be described in the applicable prospectus supplement.

The anticipated date of delivery of any offered securities will be set forth in the applicable prospectus supplement relating to each offer.

Any underwriter may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids. Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time. These transactions may be effected on any exchange or over-the-counter market or otherwise.

Any underwriters who are qualified market makers on The Nasdaq Capital Market may engage in passive market making transactions in the securities on The Nasdaq Capital Market in accordance with Rule 103 of Regulation M, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the securities. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

DESCRIPTION OF OUR CAPITAL STOCK

The following description of our capital stock and provisions of our amended and restated certificate of incorporation, as amended (the “A&R Certificate of Incorporation”) and our third amended and restated bylaws (the “A&R Bylaws”) are summaries. This description also summarizes relevant provisions of the General Corporation Law of the State of Delaware, which we refer to as the DGCL. The terms of our amended and restated certificate of incorporation and amended and restated bylaws and the terms of the DGCL are more detailed than the general information provided below. Therefore, please carefully consider the actual provisions of the A&R Certificate of Incorporation and the A&R Bylaws, which have been filed with the SEC as exhibits to the registration statement of which this prospectus forms a part, as well as the DGCL.

General

Under our A&R Certificate of Incorporation, we are authorized to issue up to 200,000,000 shares of common stock, \$0.001 par value per share, and 5,000,000 shares of preferred stock, \$0.001 par value per share, all of which shares of preferred stock are undesignated. Our board of directors may establish the rights and preferences of the preferred stock from time to time. As of April 11, 2023 we had 13,200,535 shares of common stock outstanding and no shares of preferred stock outstanding.

Common Stock

Voting

Each holder of common stock is entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders, including the election of directors, and does not have cumulative voting rights. Accordingly, the holders of a majority of the shares of common stock entitled to vote in any election of directors can elect all of the directors standing for election.

Dividends

Subject to preferences that may be applicable to any then-outstanding preferred stock, the holders of common stock are entitled to receive dividends, if any, as may be declared from time to time by the board of directors out of legally available funds.

Liquidation

In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, and the satisfaction of any liquidation preference granted to the holders of any then-outstanding shares of preferred stock.

Rights and Preferences

Holders of our common stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of common stock are subject to, and may be adversely affected by, the rights of the holders of shares of any series of preferred stock that we may designate in the future.

Fully Paid and Nonassessable

All of our outstanding shares of common stock are fully paid and nonassessable.

Warrants

As of April 11, 2023, excluding 114,007 pre-funded warrants exercisable at \$0.012 per share, we had outstanding 4,136,990 warrants to purchase shares of our common stock at a weighted average exercise price of \$16.90 per share, subject to adjustment upon occurrence of certain conditions, including but not limited to stock dividends and splits, distribution of property, or certain fundamental transactions, and in some cases for subsequent rights offerings.

We issued 333,334 warrants in December 2018 to Armistice Capital Master Fund Ltd. in a private placement financing. These warrants are exercisable at any time after their original issuance and expire on June 27, 2024. Each warrant allows the holder to purchase one share of our common stock. Upon certain fundamental transactions (as defined in the warrants), the holders of these warrants will be entitled to receive upon exercise of the warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the warrants immediately prior to such fundamental transaction without regard to any limitations on exercise contained in the warrants.

The pre-funded warrants were issued in January 2021 and are exercisable at any time after their original issuance and do not expire. Each pre-funded warrant allows the holder to purchase one share of our common stock. The pre-funded warrants cannot be exercised if such exercise would cause (i) the aggregate number of shares of our common stock beneficially owned by the holder (together with its affiliates and certain related persons) to exceed 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, or (ii) the combined voting power of our securities beneficially owned by the holder (together with its affiliates) to exceed 9.99% of the combined voting power of all of our securities then outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants. However, any holder may increase or decrease such percentage, but not in excess of 19.99%, upon at least 61 days' prior notice from the holder to us. Upon certain fundamental transactions (as defined in the pre-funded warrants), the holders of the pre-funded warrants will be entitled to receive upon exercise of the pre-funded warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the pre-funded warrants immediately prior to such fundamental transaction without regard to any limitations on exercise contained in the pre-funded warrants.

We issued 33,656 warrants in June 2021 to Horizon Technology Finance Corporation and Powerscourt Investments XXV, LP as part of a debt financing. These warrants are exercisable at any time after their original issuance and expire on June 4, 2031. Each warrant allows the holder to purchase one share of our common stock. Upon certain fundamental transactions (as defined in the warrants), the holders of these warrants will be entitled to receive upon exercise of the warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the warrants immediately prior to such fundamental transaction without regard to any limitations on exercise contained in the warrants.

We issued 3,770,000 warrants in February 2023 to the investors in a public offering. These warrants are exercisable at any time after their original issuance and expire on February 7, 2024. Each warrant allows the holder to purchase one share of our common stock. These warrants have the same restrictions on exercise as contained in the pre-funded warrants although some investors elected a 4.99% or 19.99% ownership threshold. Upon certain fundamental transactions (as defined in the warrants), the holders of these warrants will be entitled to receive upon exercise of the warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the warrants immediately prior to such fundamental transaction without regard to any limitations on exercise contained in the warrants.

Preferred Stock

Pursuant to our amended and restated certificate of incorporation, our board of directors has the authority, without further action by the stockholders (unless such stockholder action is required by applicable law or stock exchange listing rules), to designate and issue up to 5,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the designations, powers, preferences, privileges and relative participating, optional or special rights and the qualifications, limitations or restrictions thereof, including dividend rights, conversion rights, voting rights, terms of redemption and liquidation preferences, any or all of which may be greater than the rights of the common stock, and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

Our board of directors, without stockholder approval, can issue preferred stock with voting, conversion or other rights that could adversely affect the voting power and other rights of the holders of common stock. Preferred stock could be issued quickly with terms designed to delay or prevent a change in control of our company or make removal of management more difficult. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of the common stock and may adversely affect the voting power of holders of common stock and reduce the likelihood that common stockholders will receive dividend payments and payments upon liquidation.

Our board of directors will fix the designations, voting powers, preferences and rights of each series, as well as the qualifications, limitations or restrictions thereof, of any series of preferred stock that we offer in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of that series of preferred stock. This description will

include:

- the title and stated value;
- the number of shares we are offering;
- the liquidation preference per share;
- the purchase price per share;
- the dividend rate per share, if any, dividend period and payment dates and method of calculation for dividends;
- whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
- our right, if any, to defer payment of dividends and the maximum length of any such deferral period;
- the procedures for any auction and remarketing, if any;
- the provisions for a sinking fund, if any;
- the provisions for redemption or repurchase, if applicable, and any restrictions on our ability to exercise those redemption and repurchase rights;
- any listing of the preferred stock on any securities exchange or market;
- whether the preferred stock will be convertible into our common stock or other securities of ours, including warrants, and, if applicable, the conversion period, the conversion price, or how it will be calculated, and under what circumstances it may be adjusted;
- whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange period, the exchange price, or how it will be calculated, and under what circumstances it may be adjusted;
- voting rights, if any, of the preferred stock;
- preemption rights, if any;
- restrictions on transfer, sale or other assignment, if any;
- a discussion of any material or special U.S. federal income tax considerations applicable to the preferred stock;
- the relative ranking and preferences of the preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs;
- any limitations on issuances of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock being issued as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; and
- any other specific terms, rights, preferences, privileges, qualifications or restrictions of the preferred stock.

The DGCL, the corporate law of our state of our incorporation, which is Delaware, provides that the holders of preferred stock will have the right to vote separately as a class (or, in some cases, as a series) on an amendment to our certificate of incorporation if the amendment would change the par value or, unless the certificate of incorporation provided otherwise, the number of authorized shares of the class or change the powers, preferences or special rights of the class or series so as to adversely affect the class or series, as the case may be. This right is in addition to any voting rights that may be provided for in the applicable certificate of designation.

Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws

Provisions of DGCL, our A&R Certificate of Incorporation, and our A&R Bylaws could make it more difficult to acquire us by means of a tender offer, a proxy contest, open market purchases, removal of incumbent directors and otherwise. It is possible that these provisions also could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests. These provisions, summarized below, are expected to discourage types of coercive takeover practices and inadequate takeover bids and to encourage persons to acquire control of us to first negotiate with us. We believe that the benefits of increased protection of our potential ability to negotiate with the proponent of an unfriendly or unsolicited proposal to acquire or restructure us outweigh the disadvantages of discouraging takeover or acquisition proposals because negotiation of these proposals could result in an improvement of their terms.

Delaware Anti-Takeover Law

We are subject to section 203 of the DGCL, or Section 203. Section 203 generally prohibits a public Delaware corporation from engaging in a “business combination” with an “interested stockholder” for a period of three years after the date of the transaction in which the person became an interested stockholder, unless:

- prior to such time the board of directors of the corporation 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 (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or subsequent to such time the business combination is approved by the board of directors and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% 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 and the interested stockholder;
- any sale, transfer, pledge or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;
- subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- subject to exceptions, any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or
- 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.

Subject to certain exceptions, Section 203 defines an “interested stockholder” as an entity or person (other than the corporation or any direct or indirect majority-owned subsidiary of the corporation) who, together with the entity or person’s affiliates and associates, beneficially owns, or is an affiliate or associate of the corporation and within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

The existence of this provision generally will have an anti-takeover effect for transactions not approved in advance by our board of directors, including discouraging attempts that might result in a premium over the market price for the shares of common stock held by stockholders.

A&R Certificate of Incorporation and A&R Bylaws

Provisions of our A&R Certificate of Incorporation and A&R Bylaws may delay or discourage transactions involving an actual or potential change in our control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of our common stock. Among other things, our A&R Certificate of Incorporation and A&R Bylaws:

- permit our board of directors to issue up to 5,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate (including the right to approve an acquisition or other change in our control);
- provide that the authorized number of directors may be changed only by resolution of our board of directors;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide notice in writing in a timely manner, and also specify requirements as to the form and content of such a stockholder’s notice;
- do not provide for cumulative voting rights (therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose); and
- provide that special meetings of our stockholders may be called only by the chairman of the board, our chief executive officers or by our board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors.

The amendment of any of these provisions, with the exception of the ability of our board of directors to issue shares of preferred stock and designate any rights, preferences and privileges thereto, would require approval by the holders of at least 66 2/3% of our then outstanding common stock.

Choice of Forum

Our A&R Certificate of Incorporation provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware is the exclusive forum for:

- any derivative action or proceeding brought on our behalf;
- any action asserting a claim of breach of a fiduciary duty;
- any action asserting a claim against us arising pursuant to any provision of the DGCL, our A&R Certificate of Incorporation or our A&R Bylaws; or
- any action asserting a claim against us that is governed by the internal affairs doctrine.

The enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that, in connection with any action, a court could find the choice of forum provisions contained in our A&R Certificate of Incorporation to be inapplicable or unenforceable in such action. These provisions would not apply to suits brought to enforce a duty or liability created by the Exchange Act, Securities Act or any other claim for which the federal courts have exclusive or concurrent jurisdiction. Any person or entity purchasing or otherwise acquiring any interest in our securities shall be deemed to have notice of and consented to these provisions. Our exclusive forum provision will not relieve us of our duties to comply with the federal securities laws and the rules and regulations thereunder, and our stockholders will not be deemed to have waived our compliance with these laws, rules and regulations.

Nasdaq Capital Market Listing

Our common stock is listed on The Nasdaq Capital Market under the symbol "AVTX."

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC. The transfer agent and registrar's address is 6201 15th Avenue, Brooklyn, NY 11219. The transfer agent and registrar for any series of preferred stock will be set forth in each applicable prospectus supplement.

DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplement, summarizes the material terms and provisions of any debt securities that we may offer under this prospectus. While the terms we have summarized below will apply generally to any future debt securities we offer, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement. The terms of any debt securities we may offer under a prospectus supplement may differ from the terms described below. For any debt securities that we offer, an indenture (and any relevant supplemental indenture), if required, will contain additional important terms and provisions, the form of which we filed as an exhibit to the Registration Statement of which this prospectus is a part and is incorporated herein by reference. We will file any definitive indenture as an exhibit to reports that we file with the SEC and incorporate by reference in this prospectus and the applicable prospectus supplement. Any indenture would be qualified under the Trust Indenture Act of 1939, as amended.

With respect to any debt securities that we issue, we will describe in each prospectus supplement the following terms relating to a series of debt securities:

- the title;
- the principal amount being offered, and if a series, the total amount authorized and the total amount outstanding;
- any limit on the amount that may be issued;
- whether or not we will issue the series of debt securities in global form, and if so, the terms and who the depository will be;
- the maturity date;
- the principal amount due at maturity;
- whether and under what circumstances, if any, we will pay additional amounts on any debt securities held by a person who is not a United States person for tax purposes, and whether we can redeem the debt securities if we have to pay such additional amounts;
- the annual interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
- whether or not the debt securities will be convertible into shares of our common stock or our preferred stock and, if so, the terms of such conversion;
- whether or not the debt securities will be secured or unsecured by some or all of our assets, and the terms of any secured debt;
- the terms of the subordination of any series of subordinated debt;
- the place where payments will be payable;
- restrictions on transfer, sale or other assignment, if any;
- our right, if any, to defer payment or interest and the maximum length of any such deferral period;
- the date, if any, after which and the conditions upon which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;
- the date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;
- whether the indenture will restrict our ability to pay dividends, or will require us to maintain any asset ratios or reserves;
- whether we will be restricted from incurring any additional indebtedness, issuing additional securities, or entering into a merger, consolidation or sale of our business;
- a discussion of any material or special U.S. federal income tax considerations applicable to the debt securities;
- information describing any book-entry features;
- any provisions for payment of additional amounts for taxes;
- whether the debt securities are to be offered at a price such that they will be deemed to be offered at an "original issue discount" as defined in paragraph (a) of Section 1273 of the Internal Revenue Code of 1986, as amended;
- the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;
- events of default;
- whether we and/or the indenture trustee may change an indenture without the consent of any holders;
- the form of debt security and how it may be exchanged and transferred;

- description of the indenture trustee and paying agent, and the method of payments; and
- any other specified terms, preferences, rights or limitations of, or restrictions on, the debt securities and any terms that may be required by us or advisable under applicable laws or regulations.

We summarize below the material terms of the form of indenture, if required, or indicate which material terms will be described in the applicable prospectus supplement. The indenture:

- does not limit the amount of debt securities that we may issue;
- allows us to issue debt securities in one or more series;
- does not require us to issue all of the debt securities of a series at the same time;
- allows us to reopen a series to issue additional debt securities without the consent of the holders of the debt securities of such series; and
- provides that the debt securities may be secured or unsecured, as may be set forth in the applicable prospectus supplement.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplement or related free writing prospectus, summarizes the material terms and provisions of the warrants that we may offer under this prospectus, which may consist of warrants to purchase common stock, preferred stock or debt securities, or a combination thereof, and may be issued in one or more series. Warrants may be issued independently or together with common stock, preferred stock or debt securities offered by any prospectus supplement, and may be attached to or separate from those securities. While the terms we have summarized below will apply generally to any warrants that we may offer under this prospectus, we will describe the particular terms of any series of warrants that we may offer in more detail in the applicable prospectus supplement and any applicable free writing prospectus. The terms of any warrants offered under a prospectus supplement may differ from the terms described below. However, no prospectus supplement or related free writing prospectus will fundamentally change the terms that are set forth in this prospectus or offer a security that is not registered and described in this prospectus at the time of its effectiveness.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant agreement, if any, or a form of warrant, that describes the terms of the particular series of warrants we are offering. The following summaries of material provisions of the warrants are subject to, and qualified in their entirety by reference to, all the provisions of the warrant agreement and warrant applicable to the particular series of warrants that we may offer under this prospectus. We urge you to read the applicable prospectus supplements related to the particular series of warrants that we may offer under this prospectus, as well as any related free writing prospectuses, and the complete warrant agreement or the form of warrant that contains the terms of the warrants.

General

We will describe in the applicable prospectus supplement the terms relating to a series of warrants being offered, including:

- the title of such warrants;
- the offering price or prices and aggregate number of warrants offered;
- if applicable, the designation and terms of the securities and the exercise price with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- if applicable, the minimum or maximum amount of such warrants which may be exercised at any one time;
- in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one warrant and the price at which the principal amount of the debt securities may be purchased upon such exercise;
- in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business and the warrants;
- the terms of any rights to redeem or call the warrants;
- the terms of any rights to force the exercise of the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreements or forms of warrants may be modified;
- a discussion of any material or special U.S. federal income tax consequences of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including:

- in the case of warrants to purchase debt securities, the right to receive payments of principal of, or premium, if any, or interest on, the debt securities purchasable upon exercise or to enforce covenants in the applicable indenture; or
- in the case of warrants to purchase common stock or preferred stock, the right to receive dividends, if any, or, payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants by delivering a notice of the warrants to be exercised together with specified information, and paying the required amount in immediately available funds, as provided in the applicable prospectus supplement. We will set forth in the warrant and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to the warrant agent in connection with the exercise of the warrant.

Upon receipt of the required payment and the exercise notice properly completed and duly executed in accordance with its terms, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant are exercised, then we will issue a new warrant for the remaining amount of warrants. If we so indicate in the applicable prospectus supplement, holders of the warrants may surrender securities as all or part of the exercise price for warrants.

Enforceability of Rights by Holders of Warrants

Each warrant agent, if any, will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of any related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

DESCRIPTION OF UNITS

We may issue units comprised of shares of common stock, shares of preferred stock, debt securities, or warrants in any combination and in one or more series. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement, if any, under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We may choose to evidence each series of units by unit certificates that we would issue under separate agreements. If we choose to evidence the units by unit certificate, we will enter into unit agreements with a unit agent and will indicate the name and address of the unit agent in the applicable prospectus supplement related to the particular series of units. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of unit agreement, unit certificate, as may be applicable, and any supplemental agreements that describe the terms of the units we are offering before the issuance of the units.

LEGAL MATTERS

The validity of the securities being offered hereby will be passed upon for us by Wyrick Robbins Yates & Ponton LLP, Raleigh, North Carolina. If legal matters in connection with offerings made pursuant to this prospectus are passed upon by counsel for underwriters, dealers or agents, if any, such counsel will be named in the prospectus supplement relating to such offerings.

EXPERTS

Ernst & Young LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2022, as set forth in their report (which contains an explanatory paragraph describing conditions that raise substantial doubt about the Company's ability to continue as a going concern as described in Note 1 to the consolidated financial statements), which is incorporated by reference in this prospectus and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

This prospectus is part of a registration statement we filed with the SEC. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information with respect to us and the securities we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. You should rely only on the information contained in this prospectus or incorporated by reference. We have not authorized anyone else to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of the securities offered by this prospectus.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website at www.sec.gov that contains reports, proxy and information statements and other information regarding registrants. Our SEC filings, including our registration statement and the exhibits and schedules thereto, are available on the SEC website at www.sec.gov.

We maintain a website at www.avalotx.com. Information contained in or accessible through our website does not constitute a part of this prospectus.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" information into this prospectus, which means that we can disclose important information to you by referring you to another document filed separately with the SEC. The SEC file number for the documents incorporated by reference in this prospectus is 001-37590. The documents incorporated by reference into this prospectus contain important information that you should read about us.

The following documents are incorporated by reference into this document:

- [our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, as filed with the SEC on March 29, 2023;](#)
- our Current Reports on Form 8-K filed with the SEC on [January 17, 2023](#) and [February 3, 2023](#), in each case only to the extent the information in such report is filed and not furnished; and
- [the description of our common stock contained in our Registration Statement on Form 8-A, filed with the SEC on October 9, 2015, including any amendments or reports filed for the purposes of updating this description.](#)

We also incorporate by reference into this prospectus all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act prior to the termination of the offering. These documents include periodic reports, such as Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as proxy statements.

Any statement in a document incorporated by reference or deemed to be incorporated by reference in this prospectus shall be deemed to be modified or superseded for the purposes of this prospectus to the extent that a statement contained herein or therein or in any other subsequently filed document which also is incorporated or deemed to be incorporated by reference herein or therein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference in this prospectus, including exhibits to these documents. You should direct any requests for documents to Avalo Therapeutics, Inc., 540 Gaither Road, Suite 400 Rockville, Maryland 20850; telephone: (410) 522-8707.



**Up to \$75,000,000
Common Stock**

PROSPECTUS SUPPLEMENT

TD Cowen

June 5, 2025
