

The information in this preliminary prospectus supplement is not complete and may be changed. A registration statement relating to these securities has been declared effective by the Securities and Exchange Commission. This preliminary prospectus supplement and the accompanying base prospectus are not an offer to sell these securities, and we are not soliciting offers to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to Completion, Dated February 2, 2023

Preliminary Prospectus Supplement
(To prospectus dated March 19, 2021)

Shares of Common Stock
Warrants to Purchase up to Shares of Common Stock



We are offering shares of our common stock, par value \$0.001 per share, and accompanying warrants to purchase up to shares of our common stock (the "Warrants") (and the shares of common stock issuable from time to time upon exercise of such Warrants) pursuant to this prospectus supplement and the accompanying prospectus. Each share of common stock sold in this offering will be accompanied by a Warrant to purchase shares of our common stock at an exercise price of \$ per share. The shares of common stock and Warrants can only be purchased together in this offering but will be issued separately and will be immediately separable upon issuance. Subject to certain ownership limitations, the Warrants will be exercisable immediately, and the Warrants will expire on the first anniversary of the date of issuance.

Our common stock is listed on The Nasdaq Capital Market under the symbol "AVTX." The last reported sale price of our common stock on February 1, 2023 was \$3.90 per share. There is no established public trading market for the Warrants, and we do not expect a market to develop. In addition, we do not intend to list the Warrants, nor do we expect the Warrants to be quoted, on the Nasdaq Capital Market or any other national securities exchange or any other nationally recognized trading system. Without an active trading market, the liquidity of the Warrants will be limited.

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-5 of this prospectus supplement and the risk factors incorporated by reference into this prospectus supplement and the accompanying prospectus.

| | PER SHARE AND ACCOMPANYING WARRANT | TOTAL |
|---|---------------------------------------|-------|
| Public offering price | \$ | \$ |
| Underwriting discounts and commissions ⁽¹⁾ | \$ | \$ |
| Proceeds, before expenses, to us | \$ | \$ |

⁽¹⁾We have agreed to reimburse the underwriters for certain expenses that are not reflected above. See the section of this prospectus supplement entitled "Underwriting" for a description of the compensation payable to the underwriters.

Certain of our insiders may purchase securities in this offering. Because we have not entered into any binding agreements or received any commitments to purchase from any insiders, such insiders may elect not to purchase any securities in this offering. The underwriters will receive the same discounts and commissions with respect to securities purchased by such insiders as other securities offered in 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 or the accompanying prospectus. Any representation to the contrary is a criminal offense.

The underwriters expect to deliver the securities to purchasers on or about _____, 2023.

Joint Bookrunning Managers

SVB Securities

RBC Capital Markets

Prospectus Supplement dated _____, 2023.

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PROSPECTUS

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ABOUT THIS PROSPECTUS SUPPLEMENT

On March 8, 2021, we filed with the Securities and Exchange Commission or the SEC, a registration statement on Form S-3 (File No. 333-254000) utilizing a shelf registration process relating to the securities described in this prospectus supplement, which registration statement became effective on March 19, 2021. Under this shelf registration, we may, from time to time, sell common stock and other securities, including in this offering.

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this offering of common stock and accompanying Warrants and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into the prospectus and this prospectus supplement. The second part is the accompanying prospectus dated March 19, 2021, which provides more general information, some of which does not apply to this offering. Generally, when we refer to this prospectus, we are referring to both parts of this document combined.

If the description of the offering varies between this prospectus supplement and the accompanying prospectus, you should rely on the information contained in this prospectus supplement. To the extent there is any other conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or in any document incorporated by reference that was filed with the SEC before the date of 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 the accompanying prospectus - the statement in the document having the later date modifies or supersedes the earlier statement. It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus, including the documents we have referred you to in the section entitled "Where You Can Find More Information" below in this prospectus supplement.

You should rely only on the information incorporated by reference or provided in this prospectus supplement and the accompanying prospectus. Neither we nor any of the underwriters have authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. You should assume that the information contained in this prospectus supplement or the accompanying prospectus, or any document incorporated by reference in this prospectus supplement or the accompanying prospectus, is accurate only as of the date of those respective documents. Neither the delivery of this prospectus supplement nor any distribution of securities pursuant to this prospectus supplement shall, under any circumstances, create any implication that there has been no change in the information set forth or incorporated by reference into this prospectus supplement or in our affairs since the date of this prospectus supplement. Our business, financial condition, results of operations and prospects may have changed since that date.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference in this prospectus supplement or the accompanying prospectus were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

This prospectus supplement and the accompanying prospectus do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the shares of common stock and accompanying Warrants to which it relates, nor do this prospectus supplement and the accompanying prospectus constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

Unless otherwise indicated, information contained in or incorporated by reference into this prospectus supplement and the accompanying prospectus concerning our industry and the markets in which we operate, including market position and market opportunity, is based on information from our management's estimates, as well as from industry publications and research, surveys and studies conducted by third parties. Management estimates are derived from publicly available information, our knowledge of our industry and assumptions based on such information and knowledge, which we believe to be reasonable. However, assumptions and estimates of our future performance, and the future performance of

our industry are subject to numerous known and unknown risks and uncertainties, including those described under the heading “Risk Factors” beginning on page S-5 of this prospectus supplement and the risk factors incorporated by reference into this prospectus supplement and accompanying prospectus. These and other important factors could result in our estimates and assumptions being materially different from future results. You should read the information contained in, or incorporated by reference into, this prospectus supplement and the accompanying prospectus completely and with the understanding that future results may be materially different and worse from what we expect. See the information included under the heading “Special Note Regarding Forward-Looking Statements.”

Unless the context otherwise requires, “Avalo,” “the Company,” “we,” “us,” “our” and similar terms refer to 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, 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, 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:

- our debt and cash position and the need to raise additional capital in the near future;
- drug development costs, timing and other risks, including reliance on investigators and enrollment of patients in clinical trials, which might be slowed by the COVID-19 pandemic;
- reliance on key personnel, including as a result of recent management and board changes;
- regulatory risks;
- general economic and market risks and uncertainties, including those caused by the COVID-19 pandemic and tensions in Ukraine;
- our ability to comply with the applicable continued listing requirements or standards of The Nasdaq Stock Market (“Nasdaq”); 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 – Application of Critical Accounting Estimates” 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 Annual Report on Form 10-K for the year ended December 31, 2021, our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2022, June 30, 2022 and September 30, 2022 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 securities 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, 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” and our financial statements and the related notes incorporated by reference into this prospectus supplement and the accompanying prospectus, before purchasing our securities in this offering.

Company Overview

Avalo Therapeutics, Inc. 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.

Overview of Our Pipeline

| Program | Mechanism of Action | Indication | Designation | Development Stage | | | | Anticipated Milestone |
|--|-----------------------------|----------------------------|---------------------------|-------------------|---------|---------|-----------------|---|
| | | | | Preclinical | Phase 1 | Phase 2 | Phase 3/Pivotal | |
| Core Programs: Immune Dysregulation Disorders | | | | | | | | |
| AVTX-002 | Anti-LIGHT mAb | NEA | – | | | | | Phase 2 Topline Data 2Q 2023 (Target Enrollment Complete) |
| | | Crohn’s Disease | – | | | | | * |
| | | COVID-19 ARDS | Fast Track | | | | | * |
| AVTX-008 | BTLA agonist fusion protein | Immunoregulatory disorders | – | | | | | IND 2024 |
| Other | | | | | | | | |
| AVTX-803 | Fucose replacement | LAD II (SLC35C1-CDG) | ODD RPDD Fast Track | | | | | Pivotal Trial Data 2H 2023 |

* The Company will assess the next stage of development for these indications, as well as potentially others, upon or close to data readout of the NEA trial.

ARDS, acute respiratory distress syndrome; BTLA, B and T lymphocyte attenuator, Ig superfamily checkpoint; CDG, congenital disorder of glycosylation; LAD, leukocyte adhesion deficiency; LIGHT, Lymphotoxin-like, exhibits Inducible expression, and competes with HSV Glycoprotein D for HVEM, a receptor expressed by T lymphocytes; mAb, monoclonal antibody; NEA, non-eosinophilic asthma; ODD, orphan drug designation; RPDD, rare pediatric disease designation

Recent Developments

On January 17, 2023 Avalo announced that it completed enrollment of the 80 patients targeted for the Phase 2 PEAK Trial evaluating AVTX-002 (anti-LIGHT mAb) in patients with Non-Eosinophilic Asthma (NEA). Avalo will allow additional patients currently in the run-in period to complete enrollment. Topline data is expected to be released in the second quarter of 2023.

The Phase 2 PEAK Trial is a randomized, double-blind, placebo-controlled, parallel group trial designed to evaluate the safety and efficacy of AVTX-002 for the treatment of poorly controlled NEA (NCT05288504). Following 12 weeks of treatment, efficacy and safety of AVTX-002 will be evaluated compared with placebo. The primary endpoint is the

proportion of patients who experience any of the following asthma-related events: (i) ≥ 6 additional reliever puffs of a short-acting beta-agonist (compared to baseline) in a 24-hour period on 2 consecutive days, or (ii) increase in inhaled corticosteroid dose ≥ 4 times than the dose at baseline, or (iii) a decrease in peak flow of 30% or more (compared to baseline) on 2 consecutive days of treatment, or (iv) an asthma exacerbation requiring the use of systemic corticosteroids (tablets, suspension, or injection) for at least 3 days, or (v) a hospitalization or emergency room visit because of an asthma exacerbation.

As of December 31, 2022, Avalo had cash and cash equivalents of approximately \$13.2 million. The Company's cash and cash equivalents as of December 31, 2022 is preliminary, has not been audited and is subject to change.

Corporate Information

Our principal executive offices are located at 540 Gaither Road, Suite 400, Rockville, Maryland 20850. 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 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 |
| Warrants offered by us | Warrants to purchase up to an aggregate of shares of our common stock. Each share of our common stock is being sold together with a Warrant to purchase up to shares of our common stock. Each Warrant has an exercise price of \$ per share, is immediately exercisable and will expire on the first anniversary of the original issuance date. The exercise price is subject to customary adjustments for stock splits and similar recapitalization transactions. The shares of common stock and the accompanying Warrants can only be purchased together in this offering but will be issued separately and will be immediately separable upon issuance. This offering also relates to the offering of the shares of common stock issuable upon exercise of the Warrants. See “Description of Securities Offered” on page S-12 of this prospectus supplement. |
| Common stock to be outstanding immediately after this offering | shares, assuming no exercise of any Warrants issued in this offering. |
| Use of Proceeds | We intend to use the net proceeds for working capital and other general corporate purposes, primarily to support the ongoing clinical development of key assets within our pipeline, general and administrative expenses and debt payments. See “Use of Proceeds” on page S-7 of this prospectus supplement. |
| Risk Factors | 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-5 of this prospectus supplement and the risk factors incorporated by reference into this prospectus supplement and the accompanying prospectus. |
| Nasdaq Capital Market symbol | “AVTX” |

Lock-up Agreements

We and our directors and executive officers have agreed with the underwriters that, without the prior written consent of SVB Securities LLC and RBC Capital Markets, LLC, subject to certain exceptions, we and our directors and executive officers will not, for a period of 90 days, in either case, following the date of this prospectus supplement, offer or contract to sell any of our securities. See “Underwriting” on page S-14 of this prospectus supplement.

The number of shares of common stock to be outstanding after this offering is based on an aggregate of 9,414,104 shares outstanding as of September 30, 2022, and excludes:

- 1,055,392 shares of common stock issuable upon the exercise of stock options outstanding pursuant to the Third Amended and Restated 2016 Equity Incentive Plan, at a weighted-average exercise price of \$31.37 per share;
- 361,892 shares of common stock available for future issuance under the Third Amended and Restated 2016 Equity Incentive Plan⁽¹⁾;
- 181,028 shares of common stock reserved for future issuance under the Employee Stock Purchase Plan⁽²⁾;
- 205,514 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 \$47.59 per share;
- 114,007 shares of common stock issuable upon the exercise of pre-funded warrants at an exercise price of \$0.012 per share; and
- 366,990 shares of common stock issuable upon the exercise of warrants at a weighted average exercise price of \$139.11 per share.

⁽¹⁾As of December 31, 2022, there were 193,931 shares available for future issuance under the 2016 Third Amended and Restated Equity Plan. On January 1, 2023, an additional 377,221 shares were automatically made available for issuance, which represents a 4% increase of the total outstanding shares of common stock on December 31, 2022, pursuant to the terms of the 2016 Third Amended and Restated Plan.

⁽²⁾As of December 31, 2022, there were 170,035 shares available for future issuance under the Employee Stock Purchase Plan. On January 1, 2023, an additional 41,667 shares, which represents the minimum increase called for in the Employee Stock Purchase Plan, were automatically made available for issuance, pursuant to the terms of the Employee Stock Purchase Plan.

Certain of our insiders may purchase securities in this offering. Because we have not entered into any binding agreements or received any commitments to purchase from any insiders, such insiders may elect not to purchase any securities in this offering. The underwriters will receive the same discounts and commissions with respect to securities purchased by such insiders as other securities offered in this prospectus supplement and the accompanying prospectus.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should consider carefully the risks and uncertainties described below together with the other information included in this prospectus supplement and the accompanying prospectus, and other information included in our securities filings, including our Annual Reports on Form 10-K, our Quarterly Reports on Form 10-Q and other information in our consolidated financial statements incorporated by reference herein, before deciding to purchase our securities. 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 Related to the Offering

Purchasers of common stock and accompanying Warrants in this offering will experience immediate and substantial dilution in the book value of their investment. You may experience further dilution upon exercise of our outstanding options and warrants.

The public offering price per share in this offering will exceed the net tangible book value (deficit) per share of our common stock outstanding prior to this offering, in which case you will incur an immediate and substantial dilution in the net tangible book value (deficit) of the shares of common stock you purchase in this offering and the shares of common stock underlying the Warrants you purchase in this offering. After giving effect to the sale by us of shares of our common stock and accompanying Warrants to purchase shares of our common stock at the combined public offering price of \$ per share of common stock and the accompanying Warrant, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us, you will experience immediate dilution of \$ per share, representing the difference between the effective public offering price per share and our as adjusted net tangible book value (deficit) per share as of September 30, 2022, after giving effect to this offering. The exercise of warrants, including the Warrants issued in this offering, the exercise of outstanding stock options and the vesting of other stock awards may result in further dilution of your investment. See "Dilution" on page S-10 of this prospectus supplement for a more detailed discussion of the dilution you will incur if you participate in this offering.

Future sales of our common stock, or the perception that such future sales may occur, may cause our stock price to decline.

Sales of a substantial number of shares of our common stock in the public market, or the perception that these sales could occur, following this offering could cause the market price of our common stock to decline. A substantial majority of the outstanding shares of our common stock are, and the shares of common stock sold in this offering upon issuance will be, freely tradable without restriction or further registration under the Securities Act.

Raising additional capital, including as a result of this offering, may cause dilution to our stockholders, restrict our operations or require us to relinquish rights to our product candidates.

Until such time, if ever, that we can generate substantial revenue from the sale of our product candidates, we expect to finance our cash needs through a combination of equity offerings, debt financings and license and development agreements. To the extent that we raise additional capital through the sale of equity securities, including from this offering, or convertible debt securities, your ownership interest will be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect your rights as a common stockholder. The price per share at which we sell additional shares of our common stock, or securities convertible or exchangeable into common stock, in future transactions may be higher or lower than the price per share paid by investors in this offering. Debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. In addition, holders of secured debt securities that we have or may in the future issue do and would have a claim to our assets that would be senior to the rights of stockholders until the debt is paid. Interest on these debt securities would increase costs and negatively impact operating results. If the issuance of new securities results in diminished rights to holders of our common stock, the market price of our common stock could be negatively impacted.

If we raise additional funds through collaborations, strategic alliances or marketing, distribution or licensing arrangements with third parties, we may be required to relinquish valuable rights to our research programs or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings or other arrangements with third parties when needed, we may be required to delay, limit, reduce or terminate our product development or future commercialization efforts or grant rights to third parties to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

The Warrants are speculative in nature and may never have any value.

The Warrants, which have an exercise price of \$ _____ per share of common stock, are exercisable, in whole or in part, beginning at any time or times on or after the issuance date for a period of two years from the date such Warrants are first exercisable. If our common stock price does not increase to an amount sufficiently above the exercise price of the Warrants during the period during which the Warrants are exercisable, you will be unable to recover any of your investment in the Warrants. In such event, the Warrants will not have any value.

There can be no assurance that the market price of our common stock will ever equal or exceed the exercise price of the Warrants, and consequently, whether it will ever be profitable for holders of the Warrants to exercise such Warrants.

There is no public market for the Warrants being offered in this offering.

There is no established public trading market for the Warrants to purchase shares of our common stock being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply to list the Warrants on any national securities exchange or other nationally recognized trading system. Without an active market, the liquidity of the Warrants will be limited.

Holders of Warrants will have no rights as a common stockholder until such holders exercise their Warrants and acquire our common stock.

Until you acquire shares of our common stock upon exercise of your Warrants, you will have no rights with respect to the shares of our common stock underlying such Warrants. Upon exercise of your Warrants, you will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

We have broad discretion in the use of the net proceeds from this offering and we might not use them effectively.

Our management will have broad discretion in the application of the net proceeds from this offering, including for any of the purposes described in the section titled "Use of Proceeds," including for working capital and other general corporate purposes, primarily to support the ongoing clinical development of key assets within our pipeline, general and administrative expenses and debt payments, and you will be relying on the judgment of our management regarding the application of these proceeds. You will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. Our management might not apply the net proceeds or our existing cash in ways that ultimately increase the value of your investment. If we do not invest or apply the net proceeds from this offering or our existing cash in ways that enhance stockholder value, we may fail to achieve expected operational and financial results, which could cause our stock price to decline. See "Use of Proceeds."

We do not currently intend to pay dividends on our common stock, and any return to investors is expected to come, if at all, only from potential increases in the price of our common stock.

At the present time, we intend to use available funds to finance our operations. Accordingly, while payment of dividends rests within the discretion of our board of directors, we have no intention of paying any such dividends in the foreseeable future. Any return to investors is expected to come, if at all, only from potential increases in the price of our common stock.

USE OF PROCEEDS

We estimate the net proceeds to us in this offering will be approximately \$ million, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

We intend to use the net proceeds for working capital and other general corporate purposes, primarily to support the ongoing clinical development of key assets within our pipeline, general and administrative expenses and debt payments.

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.

Due to the uncertainties inherent in the preclinical and clinical development and regulatory process, it is difficult to estimate with certainty the exact amounts of the net proceeds from this offering that may be used for any purpose. As a result, our management will have broad discretion in applying the net proceeds from this offering. These investments might not yield a favorable return to our stockholders.

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.

SELECTED FINANCIAL DATA

On July 7, 2022, the Company effected a 1-for-12 reverse stock split (the “Reverse Stock Split”). As a result of the Reverse Stock Split, for every twelve (12) outstanding shares of common stock before the Reverse Stock Split represents one (1) share of common stock after the reverse stock split. On a pre-split basis, we had 112,794,203 and 75,004,127 common shares issued and outstanding as of December 31, 2021 and 2020, respectively. On a post-split basis, we had 9,399,517 and 6,250,344 common shares issued and outstanding as of December 31, 2021 and 2020, respectively. As of December 31, 2020, we had 1,257,143 preferred shares issued and outstanding both on a pre- and post-split basis. In April 2021, the preferred stock outstanding was converted to shares of common stock on an approximately 1-for-0.42 ratio (ratio adjusted for the Reverse Stock Split).

The following selected financial data is based on the common and preferred stock and per share data from our [Annual Report on Form 10-K for the fiscal year ended December 31, 2021](#) and is retrospectively adjusted to reflect the Reverse Stock Split. Our latest interim financial information as of the date of this prospectus supplement, which was contained in our [Quarterly Report on Form 10-Q for the quarter ended September 30, 2022](#) reflects the effects of the Reverse Stock Split and is incorporated herein by reference.

| | Year Ended December 31, | |
|--|-------------------------|-------------|
| | 2021 | 2020 |
| Net loss | \$ (84,376) | \$ (63,500) |
| Net loss per share of common stock, basic and diluted | \$ (9.95) | \$ (10.38) |
| Net loss per share of preferred stock, basic and diluted | \$ (4.15) | \$ (4.32) |
| Weighted average shares used in computing common basic and diluted net loss per share | 8,324,038 | 5,557,372 |
| Weighted average shares used in computing preferred basic and diluted net loss per share | 361,644 | 1,356,597 |

DILUTION

If you invest in our common stock and accompanying Warrants in this offering, you will experience dilution to the extent of the difference between the public offering price per share and accompanying Warrant and the net tangible book value (deficit) per share of our common stock immediately after this offering (excluding the shares of common stock issuable upon exercise of the Warrants being offered in this offering and the payment of the exercise price therefor).

Our net tangible book value (deficit) on September 30, 2022 was approximately \$(16.4) million, or \$(1.75) per share of our common stock. “Net tangible book value (deficit)” is total assets minus the sum of liabilities and intangible assets. “Net tangible book value (deficit) per share” is net tangible book value (deficit) divided by the total number of shares outstanding. Dilution in net tangible book value (deficit) per share represents the difference between the amount per share and accompanying Warrant paid by purchasers of shares of common stock in this offering and the net tangible book value (deficit) per share of our common stock immediately after this offering.

After giving effect to the sale of _____ shares of our common stock in this offering (excluding shares of common stock issuable upon exercise of the Warrants being offered in this offering) at the public offering price of \$ _____ per share and accompanying Warrant and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, our net tangible book value (deficit) as of September 30, 2022 would have been approximately \$ _____ million, or \$ _____ per share. This represents an immediate increase in net tangible book value (deficit) of \$ _____ per share to existing stockholders and immediate dilution in net tangible book value (deficit) of \$ _____ per share to new investors purchasing our common stock. The following table illustrates this dilution on a per share basis.

| | |
|---|-----------|
| Public offering price per share of common stock and accompanying Warrant | \$ _____ |
| Net tangible book value (deficit) per share as of September 30, 2022 | \$ (1.75) |
| Increase in net tangible book value per share attributable to new investors | _____ |
| As adjusted net tangible book value (deficit) per share as of September 30, 2022 after giving effect to this offering | _____ |
| Dilution in net tangible book value (deficit) per share to investors in this offering | \$ _____ |

The number of shares of common stock to be outstanding after this offering is based on an aggregate of 9,414,104 shares outstanding as of September 30, 2022, and excludes:

- 1,055,392 shares of common stock issuable upon the exercise of stock options outstanding pursuant to the Third Amended and Restated 2016 Equity Incentive Plan, at a weighted-average exercise price of \$31.37 per share;
- 361,892 shares of common stock available for future issuance under the Third Amended and Restated 2016 Equity Incentive Plan⁽¹⁾;
- 181,028 shares of common stock reserved for future issuance under the Employee Stock Purchase Plan⁽²⁾;
- 205,514 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 \$47.59 per share;
- 114,007 shares of common stock issuable upon the exercise of pre-funded warrants at an exercise price of \$0.012 per share; and
- 366,990 shares of common stock issuable upon the exercise of warrants at a weighted average exercise price of \$139.11 per share.

⁽¹⁾As of December 31, 2022, there were 193,931 shares available for future issuance under the 2016 Third Amended and Restated Equity Plan. On January 1, 2023, an additional 377,221 shares were automatically made available for issuance, which represents a 4% increase of the total outstanding shares of common stock on December 31, 2022, pursuant to the terms of the 2016 Third Amended and Restated Plan.

⁽²⁾As of December 31, 2022, there were 170,035 shares available for future issuance under the Employee Stock Purchase Plan. On January 1, 2023, an additional 41,667 shares, which represents the minimum increase called for in the

Employee Stock Purchase Plan, were automatically made available for issuance pursuant to the terms of the Employee Stock Purchase Plan.

The above illustration of dilution per share to the investors participating in this offering assumes no exercise of outstanding options to purchase our common stock or warrants to purchase shares of our common stock that will be outstanding after this offering. The exercise, if any, of outstanding options and warrants that will be outstanding after this offering having an exercise price less than the offering price will increase dilution to the new investors.

DESCRIPTION OF SECURITIES OFFERED

We are offering _____ shares of our common stock and accompanying Warrants to purchase up to _____ shares of our common stock. We are also registering the shares of common stock issuable from time to time upon exercise of the Warrants offered hereby.

Common Stock

The material terms and provisions of our common stock and each other class of our securities which qualifies or limits our common stock are described in the section entitled “Description of Capital Stock” beginning on page 10 of the accompanying prospectus and the “Description of Registered Securities” included as Exhibit 4.15 to our [Annual Report on Form 10-K for the year ended December 31, 2021](#), filed with the SEC on March 2, 2022.

Warrants

The following summary of certain terms and provisions of the Warrants that are being offered hereby is not complete and is subject to, and qualified in its entirety by, the provisions of the Warrant, the form of which will be filed as an exhibit to a Current Report on Form 8-K in connection with this offering and incorporated by reference into the registration statement of which this prospectus supplement forms a part. Prospective investors should carefully review the terms and provisions of the form of Warrant for a complete description of the terms and conditions of the Warrants.

Duration and Exercise Price

Each Warrant offered hereby has an initial exercise price per share equal to \$ _____. The Warrants are immediately exercisable and will expire on the first anniversary of the original issuance date. The exercise price and number of shares of common stock issuable upon exercise are subject to customary adjustment in the event stock dividends, stock splits, reorganizations or similar events affecting our common stock and the exercise price.

Exercisability

The Warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise. No fractional shares of common stock will be issued in connection with the exercise of a Warrant. In lieu of fractional shares, at our election, we will either pay the holder an amount in cash equal to the fractional amount multiplied by the exercise price or round up to the next whole share.

Fundamental Transaction

In the event of any fundamental transaction, as described in the Warrants and generally including any merger with or into another entity, sale of all or substantially all of our assets, tender offer or exchange offer, or reclassification of our shares of common stock, then upon any subsequent exercise of a Warrant, the holder will have the right to receive as alternative consideration, for each share of common stock that would have been issuable upon such exercise immediately prior to the occurrence of such fundamental transaction, the number of shares of common stock of the successor or acquiring corporation of our company, if it is the surviving corporation, and any additional consideration receivable upon or as a result of such transaction by a holder of the number of shares of common stock for which the Warrant is exercisable immediately prior to such event. If the holders of our common stock are given the choice to receive alternative forms of consideration in connection with the fundamental transaction, the holders of the Warrants shall have the same choice.

Transferability

Subject to applicable laws, a Warrant may be transferred at the option of the holder upon surrender of the Warrant to us together with the appropriate instruments of transfer and payment of funds sufficient to pay any transfer taxes (if applicable).

Exchange Listing

There is no trading market available for the Warrants on any securities exchange or nationally recognized trading system nor do we expect one to develop. We do not intend to list the Warrants on any securities exchange or nationally recognized trading system.

Right as a Stockholder

Except as otherwise provided in the Warrants or by virtue of such holder's ownership of shares of our common stock, the holders of the Warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their Warrants.

UNDERWRITING

SVB Securities LLC and RBC Capital Markets, LLC are acting as representatives of each of the underwriters named below and as joint bookrunning managers for this offering. Subject to the terms and conditions set forth in the underwriting agreement among us and the underwriters, we have agreed to sell to the underwriters, and each of the underwriters has agreed, severally and not jointly, to purchase from us, the number of shares of common stock and accompanying warrants set forth opposite its name below.

| Underwriter | Number of Shares and accompanying Warrants |
|--------------------------|---|
| SVB Securities LLC | |
| RBC Capital Markets, LLC | |
| Total | |

Subject to the terms and conditions set forth in the underwriting agreement, the underwriters have agreed, severally and not jointly, to purchase all of the shares and accompanying warrants sold under the underwriting agreement if any of the shares and accompanying warrants are purchased. If an underwriter defaults, the underwriting agreement provides that the purchase commitments of the non-defaulting underwriters may be increased or the underwriting agreement may be terminated.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, or to contribute to payments the underwriters may be required to make in respect of those liabilities.

The underwriters are offering the shares and accompanying warrants, subject to prior sale, when, as and if issued to and accepted by them, subject to approval of legal matters by their counsel, including the validity of the shares, warrants and shares of common stock underlying the warrants, and subject to other conditions contained in the underwriting agreement, such as the receipt by the underwriters of officers' certificates and legal opinions. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Discounts and Commissions

The representatives have advised us that the underwriters propose initially to offer the shares and accompanying warrants to the public at the initial public offering price set forth on the cover page of this prospectus supplement and to dealers at that price less a concession not in excess of \$ per share. After the initial offering of the shares and accompanying warrants, the public offering price, concession or any other term of this offering may be changed by the representatives.

The following table shows the initial public offering price, underwriting discounts and commissions and proceeds, before expenses, to us.

| | Per Share and accompanying Warrant | Total |
|--|---|--------------|
| Initial public offering price | \$ | \$ |
| Underwriting discounts and commissions | \$ | \$ |
| Proceeds, before expenses, to us | \$ | \$ |

We estimate expenses payable by us in connection with this offering, other than the underwriting discounts and commissions referred to above, will be approximately \$0.2 million. We also have agreed to reimburse the underwriters for up to \$150,000 for certain of their expenses in connection with this offering. In accordance with FINRA Rule 5110, this reimbursement is deemed underwriting compensation for this offering.

No Sales of Similar Securities

We and our executive officers and directors have agreed not to sell or transfer any common stock or securities convertible into or exchangeable or exercisable for common stock, for 90 days after the date of this prospectus supplement without first obtaining the written consent of SVB Securities LLC and RBC Capital Markets, LLC on behalf of the underwriters. Specifically, we and these other persons have agreed, with certain limited exceptions, not to directly or indirectly:

- offer, pledge, sell or contract to sell any common stock;
- sell any option or contract to purchase any common stock;
- purchase any option or contract to sell any common stock;
- grant any option, right or warrant for the sale of any common stock;
- otherwise dispose of or transfer any common stock;
- request or demand that we file a registration statement related to the common stock; or
- enter into any swap or other agreement or any transaction that transfers, in whole or in part, the economic consequence of ownership of any common stock, whether any such swap, agreement or transaction is to be settled by delivery of shares or other securities, in cash or otherwise.

The lock-up provisions apply to common stock and to securities convertible into or exchangeable or exercisable for common stock. They also apply to common stock owned now or acquired later by the person executing the lock-up agreement or for which the person executing the lock-up agreement later acquires the power of disposition.

Right of First Refusal

We have granted a right of first refusal to (i) SVB Securities LLC to act as lead-left joint book-running manager or lead-left placement agent for the first registered equity offering or private placement effected by us subsequent to this offering for a period of eighteen months following this offering, and (ii) RBC Capital Markets, LLC to act as active joint book-running manager or active co-lead placement agent for the first registered equity offering or private placement effected by us subsequent to this offering for a period ending on October 14, 2023.

Nasdaq Capital Market Listing

Our common stock is listed on the Nasdaq Capital Market under the symbol “AVTX.” We do not plan to list the warrants on the Nasdaq Capital Market or any other securities exchange or trading market.

Price Stabilization, Short Positions and Penalty Bids

Until the distribution of the shares is completed, SEC rules may limit underwriters and selling group members from bidding for and purchasing our common stock. However, the representatives may engage in transactions that stabilize the price of the common stock, such as bids or purchases to peg, fix or maintain that price.

In connection with this offering, the underwriters may purchase and sell our common stock in the open market. These transactions may include short sales, purchases on the open market to cover positions created by short sales and stabilizing transactions. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in this offering. The underwriters must close out any short position by purchasing shares in the open market. A short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our common stock in the open market after pricing that could adversely affect investors who purchase in this offering. Stabilizing transactions consist of various bids for or purchases of shares of common stock made by the underwriters in the open market prior to the closing of this offering.

The underwriters may also impose a penalty bid. This occurs when a particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the representatives have repurchased shares sold by or for the account of such underwriter in stabilizing or short covering transactions.

Similar to other purchase transactions, the underwriters' purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. The underwriters may conduct these transactions on the Nasdaq Capital Market, in the over-the-counter market or otherwise.

Neither we nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. In addition, neither we nor any of the underwriters make any representation that the representatives will engage in these transactions or that these transactions, once commenced, will not be discontinued without notice.

Electronic Distribution

In connection with this offering, certain of the underwriters or securities dealers may distribute prospectuses by electronic means, such as e-mail.

Other Relationships

The underwriters and certain of their affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. Some of the underwriters and certain of their affiliates may in the future engage in investment banking and other commercial dealings in the ordinary course of business with us and our affiliates, for which they may in the future receive customary fees, commissions and expenses.

In addition, in the ordinary course of their business activities, the underwriters and their affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Selling Restrictions

Notice to Prospective Investors in the European Economic Area

In relation to each Member State of the European Economic Area (each, a "Relevant State"), no securities have been offered or will be offered pursuant to the offering to the public in that Relevant State prior to the publication of a prospectus in relation to the securities which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation, except that securities may be offered to the public in that Relevant State at any time:

- A. to any legal entity which is a qualified investor as defined under Article 2 of the Prospectus Regulation;
- B. to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or
- C. in any other circumstances falling within Article 1(4) of the Prospectus Regulation,

provided that no such offer of securities shall require us or any of the representatives to publish a prospectus pursuant to Article 3 of the Prospectus Regulation or supplement a prospectus pursuant to Article 23 of the Prospectus Regulation.

For the purposes of this provision, the expression an "offer to the public" in relation to any securities in any Relevant State means the communication in any form and by any means of sufficient information on the terms of the offer and any securities to be offered so as to enable an investor to decide to purchase or subscribe for any securities, and the expression "Prospectus Regulation" means Regulation (EU) 2017/1129, as amended.

Notice to Prospective Investors in the United Kingdom

No securities have been offered or will be offered pursuant to the offering to the public in the United Kingdom prior to the publication of a prospectus in relation to the securities which has been approved by the Financial Conduct Authority, except that the securities may be offered to the public in the United Kingdom at any time:

- A. to any legal entity which is a qualified investor as defined under Article 2 of the UK Prospectus Regulation;
- B. to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the UK Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or
- C. in any other circumstances falling within Section 86 of the Financial Services and Markets Act 2000 (the “FMSA”),

provided that no such offer of the securities shall require us or any representative to publish a prospectus pursuant to Section 85 of the FSMA or supplement a prospectus pursuant to Article 23 of the UK Prospectus Regulation. For the purposes of this provision, the expression an “offer to the public” in relation to the securities in the United Kingdom means the communication in any form and by any means of sufficient information on the terms of the offer and any securities to be offered so as to enable an investor to decide to purchase or subscribe for any securities and the expression “UK Prospectus Regulation” means Regulation (EU) 2017/1129 as it forms part of domestic law by virtue of the European Union (Withdrawal) Act 2018.

Notice to Prospective Investors in Canada

The securities may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the securities must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the time limit prescribed by the securities legislation of the purchaser’s province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser’s province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

LEGAL MATTERS

The validity of the securities being offered under this prospectus supplement by us will be passed upon for us by Wyrick Robbins Yates & Ponton LLP, Raleigh, North Carolina. The underwriters are being represented in connection with this offering by Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., Boston, Massachusetts.

EXPERTS

Ernst & Young LLP, an independent registered public accounting firm, audited Avalo's consolidated financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2021, as set forth in their report (which contains an explanatory paragraph describing conditions that raise substantial doubt about Avalo'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 supplement and the accompanying prospectus and elsewhere in the registration statement. Avalo's financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We 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 that we file with them. Incorporation by reference allows us to disclose important information to you by referring you to those other documents. The information incorporated by reference is an important part of this prospectus supplement and the accompanying prospectus, and information that we file later with the SEC will automatically update and supersede this information. We filed a registration statement on Form S-3 under the Securities Act with the SEC with respect to the securities being offered pursuant to this prospectus supplement and the accompanying prospectus. This prospectus supplement and the accompanying prospectus omit certain information contained in the registration statement, as permitted by the SEC. You should refer to the registration statement, including the exhibits, for further information about us and the securities being offered pursuant to this prospectus supplement and the accompanying prospectus. Statements contained in this prospectus supplement and the accompanying prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Any part of the registration statement, including the documents incorporated by reference or the exhibits, may be accessed on the SEC website as noted in “Where You Can Find More Information.” The documents we are incorporating by reference into this prospectus supplement are:

- our [Annual Report on Form 10-K for the fiscal year ended December 31, 2021, filed with the SEC on March 2, 2022](#)
- our Quarterly Reports on Form 10-Q for the quarters ended [March 31, 2022](#), [June 30, 2022](#) and [September 30, 2022](#) filed with the SEC on May 5, 2022, August 4, 2022 and November 7, 2022, respectively;
- our Current Reports on Form 8-K filed with the SEC on [January 6, 2022](#), [February 8, 2022](#), [February 18, 2022](#), [March 16, 2022](#), [March 18, 2022](#), [May 24, 2022](#), [June 14, 2022](#), [July 7, 2022](#), [July 22, 2022](#), [August 1, 2022](#), [August 11, 2022](#), [August 16, 2022](#), [November 14, 2022](#), and [January 17, 2023](#), in each case only to the extent the information in such report is filed and not furnished;
- our [definitive proxy statement on Schedule 14A, filed with the SEC on April 25, 2022, specifically incorporated by reference into our Annual Report on Form 10-K](#) 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 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, (i) after the date of the initial filing of the registration statement of which this prospectus supplement forms a part and prior to effectiveness of the registration statement, or (ii) after the date of this prospectus supplement but 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.

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 and the accompanying 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.

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

PROSPECTUS



**\$150,000,000 of
Common Stock
Preferred Stock
Debt Securities and/or
Warrants**

From time to time, we may offer up to \$150,000,000 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 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 "CERC." On March 5, 2021, the last reported sale price of our common stock was \$3.10 per share. 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 into this prospectus, 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 March 19, 2021

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, or warrants for such securities, in one or more offerings, up to a total dollar amount of \$150,000,000. 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 into this prospectus, 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 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 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 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.

PROSPECTUS SUMMARY

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 “Cerecor,” “Company,” “we,” “us” and “our” refer to Cerecor Inc.

Company Overview

We are a biopharmaceutical company focused on becoming a leader in development and commercialization of treatments for rare and orphan diseases. The Company is advancing its clinical-stage pipeline of innovative therapies that address unmet patient needs within rare and orphan diseases. The Company's rare disease pipeline includes CERC-801, CERC-802 and CERC-803 (“CERC-800 compounds”), which are in development for therapies for congenital disorders of glycosylation and CERC-006, an oral mTORC1/2 inhibitor in development for the treatment of complex lymphatic malformations. The Company is also developing two monoclonal antibodies, CERC-002 and CERC-007. CERC-002 targets the cytokine LIGHT (TNFSF14) and is in clinical development for the treatment of severe pediatric-onset Crohn's disease and COVID-19 acute respiratory distress syndrome (“ARDS”). CERC-007 targets the cytokine IL-18 and is in clinical development for the treatment of Still's disease (adult onset Still's disease (“AOSD”) and systemic juvenile idiopathic arthritis (“sJIA”)) and multiple myeloma (“MM”). CERC-006, 801, 802 and 803 have all received Orphan Drug Designation (“ODD”) and Rare Pediatric Disease Designation (“RPDD”), which makes all four eligible for a priority review voucher (“PRV”) upon approval from the U.S. Food and Drug Administration (“FDA”).

The Company continues to explore strategic alternatives for its non-core assets, including its commercialized product, Millipred®, an oral prednisolone indicated across a wide variety of inflammatory conditions, and its neurology pipeline assets.

Our Strategy

Our strategy for increasing stockholder value includes:

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

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.cerecor.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.

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

Offerings Under This Prospectus

We may offer shares of our common stock; shares of our preferred stock; debt securities; or warrants for such securities, with a total value of up to \$150,000,000 from time to time under this prospectus at prices and on terms to be determined by market conditions at the time of any offering. 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 describe the specific amounts, prices and other important terms of the securities.

The prospectus supplement also may add, update or change information contained in this prospectus or in documents we have incorporated by reference into this prospectus. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to any offering. However, no prospectus supplement nor 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 may not be used to consummate a sale of any securities unless it is accompanied by a prospectus supplement.

We may sell the securities directly to investors or to or through agents, underwriters or dealers. We, and our agents or underwriters, reserve the right to accept or reject all or part of any proposed purchase of securities. If we offer securities through agents or underwriters, we will include in the applicable prospectus supplement or any related free writing prospectus:

- the names of those agents or underwriters;
- applicable fees, discounts and commissions to be paid to them;
- details regarding over-allotment options, if any; and
- the net proceeds to us.

Common Stock

Under our amended and restated certificate of incorporation, we are authorized to issue up to 200,000,000 shares of common stock, \$0.001 par value per share. As of March 5, 2021 we had 89,104,816 shares of common stock outstanding. 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. 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.

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. 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.

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. As of March 5, 2021, we had 1,257,143 shares of

preferred stock 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 the preferred stock of each series that we offer under this prospectus and applicable prospectus supplements or any related free writing prospectus in the certificate of designation relating to that series of preferred stock.

Warrants

We may issue warrants for the purchase of common stock, preferred stock and/or debt securities (described below) in one or more series. We may issue warrants independently or together with common stock, preferred stock and/or debt securities, and the warrants may be attached to or separate from these securities. We will evidence each series of warrants by warrant certificates that we will issue under a separate agreement. We may enter into warrant agreements with a bank or trust company that we select to be our warrant agent. We will indicate the name and address of the warrant agent in the applicable prospectus supplement or any related free writing prospectus relating to a particular series of warrants.

In this prospectus, we have summarized certain general features of warrants. We urge you, however, to read the applicable prospectus supplement and any free writing prospectus related to the particular series of warrants being offered, as well as the warrant agreements and warrant certificates that contain the terms of the warrants. 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 and warrant certificate containing the terms of the warrants we are offering before the issuance of the warrants. As of March 5, 2021, excluding 1,676,923 pre-funded warrants exercisable at \$0.001 per share (the "Pre-Funded Warrants"), we had outstanding 4,002,380 warrants to purchase shares of our common stock at a weighted average exercise price of \$12.50 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, subject to certain limitations, in some cases for subsequent rights offerings. The Pre-Funded Warrants are exercisable at any time after their original issuance and do not expire.

Debt Securities

We may offer debt securities from time to time, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. The senior debt securities will rank equally with any other unsecured and unsubordinated debt. Any subordinated debt securities will be subordinate and junior in right of payment, to the extent and in the manner described in the instrument governing the debt, to all of our senior indebtedness. Any convertible debt securities will be convertible into or exchangeable for our common stock or our other securities. Conversion may be mandatory or at your option or both and would be at prescribed conversion rates.

With respect to any debt securities that we issue, we will issue such debt securities under an indenture, which we would enter into with the trustee named in the indenture. The form of indenture is filed as an exhibit to the registration statement of which this prospectus is a part and is incorporated herein by reference. Any indenture would be qualified under the Trust Indenture Act of 1939, as amended.

Listing

If any securities are to be listed or quoted on a securities exchange or quotation system, the applicable prospectus supplement or any related free writing prospectus will so indicate. Our common stock is listed on The Nasdaq Capital Market and trades under the symbol "CERC."

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, 2020, as filed with SEC on March 8, 2021, which is 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. Please refer to the sections entitled “Special Note Regarding Forward-Looking Statements,” “Where You Can Find Additional Information” and “Incorporation of Certain Information by Reference.” In that case, the trading price of our common stock could decline and you might lose all or part of your investment.

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. 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 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 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, 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 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 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 reallocated 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 reallocated 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.

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, we will describe any commissions we will pay the agent in the prospectus supplement and we will include the net proceeds payable to us. The prospectus supplement will also include any over-allotment options. 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 this 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.

All securities we offer, other than common stock, will be new issues of securities with 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 liquidity of the trading markets for any securities.

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 and amended and restated 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 these documents, which have been filed with the SEC as exhibits to the registration statement of which this prospectus forms a part, and the DGCL.

General

Under our amended and restated 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, of which 2,857,143 shares were designated as our Series B Non-Voting Convertible Preferred Stock (discussed below) and the remainder 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 March 5, 2021 we had 89,104,816 shares of common stock outstanding and 1,257,143 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 March 5, 2021, excluding 1,676,923 pre-funded warrants exercisable at \$0.001 per share, we had outstanding 4,002,380 warrants to purchase shares of our common stock at a weighted average exercise price of \$12.50 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. The Pre-Funded Warrants are exercisable at any time after their original issuance and do not expire. 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.

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 the preferred stock of each series that we offer under this prospectus and applicable prospectus supplements or any related free writing prospectus 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, 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

depository shares and 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;
- whether interests in the preferred stock will be represented by depository shares;
- 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, 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.

Convertible Preferred Stock

On December 26, 2018, we filed a Certificate of Designation of Preferences of Series B Non-Voting Convertible Preferred Stock (the “convertible preferred stock”) (the “Certificate of Designation”) classifying and designating the rights, preferences and privileges of the convertible preferred stock. The Certificate of Designation authorized 2,857,143 shares of convertible preferred stock. The convertible preferred stock converts to shares of common stock on a 1-for-5 ratio and has the same rights, preferences, and privileges as common stock other than it holds no voting rights. As of March 5, 2021, we had 1,257,143 shares of convertible preferred stock outstanding.

Anti-Takeover Effects of Delaware Law and Our Charter and Bylaws

Provisions of Delaware law and our amended and restated certificate of incorporation and amended and restated 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. 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 increase 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 the 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.

Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Provisions of our amended and restated certificate of incorporation and amended and restated 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 amended and restated certificate of incorporation and amended and restated 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 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 amended and restated 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 amended and restated certificate of incorporation or our amended and restated 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 amended and restated 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 shareholders will not be deemed to have waived our compliance with these laws, rules and regulations.

The provisions of the DGCL, our amended and restated certificate of incorporation and our amended and restated bylaws could have the effect of discouraging others from attempting hostile takeovers and may also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Nasdaq Capital Market Listing

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

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 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 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 have filed forms of the warrant agreements as exhibits to the registration statement of which this prospectus is a part. 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, including a form of warrant certificate, that describes the terms of the particular series of warrants we are offering. The following summaries of material provisions of the warrants and the warrant agreements are subject to, and qualified in their entirety by reference to, all the provisions of the warrant agreement and warrant certificate 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 agreements and warrant certificates that contain 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 securities;
- the offering price or prices and aggregate number of warrants offered;
- the currency or currencies for which the warrants may be purchased;
- 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, and currency in which, this principal amount of 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, and the currency in which, these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreements 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 and 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 the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate 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 warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate 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 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 the 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 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 therein 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.

LEGAL MATTERS

The validity of the securities being offered hereby will be passed upon for us by Troutman Pepper Hamilton Sanders LLP. 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, 2020, 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.cerecor.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, 2020, as filed with the SEC on March 8, 2021](#);
- our Current Reports on Form 8-K filed with the SEC on [January 5, 2021](#), [January 7, 2021](#), [January 8, 2021](#) and [March 1, 2021](#), 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 (i) after the date of the initial filing of the registration

statement of which this prospectus forms a part and prior to effectiveness of the registration statement, or (ii) after the date of this prospectus but 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.

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 Cerecor Inc., 540 Gaither Road, Suite 400 Rockville, Maryland 20850; telephone: (410) 522-8707.

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



Common Stock and Warrants

PROSPECTUS SUPPLEMENT

Joint Bookrunning Managers

SVB Securities

RBC Capital Markets

, 2023
