

PROSPECTUS SUPPLEMENT
(To Prospectus Dated May 23, 2023)

ASTRIA THERAPEUTICS, INC.
8,253,895 Shares of Common Stock
Pre-Funded Warrants to Purchase 1,571,093 Shares of
Common Stock
Common Stock Warrants to Purchase 7,368,738 Shares of
Common Stock

We are offering (i) 8,253,895 shares of our common stock and accompanying common stock warrants to purchase 6,190,418 shares of our common stock and (ii), in lieu of common stock to certain investors that so choose, pre-funded warrants to purchase 1,571,093 shares of our common stock and accompanying common stock warrants to purchase 1,178,320 shares of our common stock. Each share of common stock is being offered and sold together with an accompanying common stock warrant to purchase 0.75 shares of common stock at a combined offering price of \$6.514, and each pre-funded warrant is being offered and sold together with an accompanying common stock warrant to purchase 0.75 share of common stock at a combined offering price of \$6.513, which is equal to the combined offering price per share of common stock and accompanying common stock warrant less the \$0.001 exercise price of each pre-funded warrant. This prospectus supplement also relates to the offering of the shares of our common stock issuable upon the exercise of such pre-funded warrants and common stock warrants.

The shares of common stock and the pre-funded warrants, on the one hand, and the accompanying common stock warrants, on the other hand, are immediately separable and will be issued separately, but can only be purchased together in this offering. Each pre-funded warrant will have an exercise price per share of common stock equal to \$0.001 and will be exercisable from the date of issuance and will expire on the date the warrant is exercised in full, subject to an ownership limitation. Each common stock warrant will have an exercise price per share of common stock equal to \$8.025 and will be exercisable from the date of issuance and will expire on the date that is five years after the date of issuance, subject to an ownership limitation.

Our common stock is listed on The Nasdaq Global Market under the symbol "ATXS." On October 11, 2023, the last reported sale price of our common stock on The Nasdaq Global Market was \$6.42 per share. There is no established public trading market for the pre-funded warrants or the common stock warrants, and we do not expect a market to develop. We do not intend to list the pre-funded warrants or the common stock warrants on The Nasdaq Global Market or any other national securities exchange or nationally recognized trading system.

Investing in our securities involves risks. See the "Risk Factors" on page S-11 of this prospectus supplement and in the accompanying prospectus and in the documents incorporated by reference in this prospectus supplement concerning factors you should consider before investing in our securities.

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

	PER SHARE OF COMMON STOCK AND ACCOMPANYING COMMON STOCK WARRANT	PER PRE-FUNDED WARRANT AND ACCOMPANYING COMMON STOCK WARRANT	TOTAL
Public offering price	\$ 6.5140	\$ 6.5130	\$63,998,400.74
Underwriting discounts and commissions ⁽¹⁾	\$ 0.39084	\$ 0.39078	\$ 3,839,904.04
Proceeds to us, before expenses	\$ 6.12316	\$ 6.12222	\$60,158,496.70

⁽¹⁾ See the section titled "Underwriting" beginning on page S-29 for a description of the compensation payable to the underwriters.

Delivery of shares of common stock, pre-funded warrants and accompanying common stock warrants are expected on or about October 16, 2023.

Joint Book-Running Managers

Jefferies

Evercore ISI

Co-Lead Managers

LifeSci Capital

Oppenheimer & Co.

Prospectus Supplement dated October 11, 2023

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is the prospectus supplement, which describes the specific terms of this offering. The second part is the accompanying prospectus, which provides more general information about securities we may offer from time to time, 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. Before purchasing any securities that we are offering, you should carefully read this prospectus supplement, the accompanying prospectus and all of the information contained in the documents incorporated by reference herein and therein.

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 herein 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.

Neither we nor any of the underwriters have authorized any person to provide any information or to make any representation other than those contained or incorporated by reference in this prospectus supplement or in the accompanying prospectus. We and the underwriters take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you.

The information contained in this prospectus supplement and the accompanying prospectus, or incorporated by reference herein or therein, is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus or of any sale of our securities. It is important for you to read and consider all information contained in this prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein and therein, in making your investment decision. You should also read and consider the information in the documents to which we have referred you in the sections entitled "Where You Can Find More Information" and "Incorporation by Reference" in this prospectus supplement.

We are not, and none of the underwriters is, making an offer to sell our securities in any jurisdiction where the offer and sale is not permitted. The distribution of this prospectus and this offering in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, this offering and the distribution of this prospectus outside the United States. This prospectus does not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

This prospectus incorporates by reference market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. Although we believe these sources are reliable, we do not guarantee the accuracy or completeness of this information and we have not independently verified this information. In addition, the market and industry data and forecasts that may be included or incorporated by reference in this prospectus or any applicable free writing prospectus may involve estimates, assumptions and other risks and uncertainties and are subject to change based on various factors, including those discussed under the headings "Risk Factors" contained in this prospectus and any applicable free writing prospectus, and under similar headings in other documents that are incorporated by reference into this prospectus. Accordingly, investors should not place undue reliance on this information.

Solely for convenience, any trademarks, service marks, logos and trade names referred to in this prospectus are without the ® and ™ symbols, but such references are not intended to indicate, in any way, that we will not assert, to the fullest extent under applicable law, our rights. This prospectus may contain additional trademarks, service marks and trade names of others, which are the property of their respective owners. All trademarks, service marks and trade names appearing in this prospectus are, to our knowledge, the property of their respective owners. We do not intend our use or display of other companies' trademarks, service marks, copyrights or trade names to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

Unless the context otherwise indicates, references in this prospectus supplement to “we,” “our” and “us” refer, collectively, to Astria Therapeutics, Inc., a Delaware corporation, and its consolidated subsidiaries.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission, or the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at <http://www.sec.gov>. Copies of certain information filed by us with the SEC are also available on our website at www.astriatx.com. Our website is not a part of this prospectus and is not incorporated by reference in this prospectus.

This prospectus is part of a registration statement we filed with the SEC. This prospectus omits some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information about us and our consolidated subsidiaries and the securities we are offering. Statements in this prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings. You should review the complete document to evaluate these statements.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference information we file with the SEC into this prospectus supplement, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus supplement is considered to be part of this prospectus supplement. Because we are incorporating by reference future filings with the SEC, this prospectus supplement is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus supplement. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus supplement or in any document previously incorporated by reference have been modified or superseded. This prospectus supplement incorporates by reference the documents listed below that have been previously filed with the SEC (File No. 001-37467) and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, (in each case, other than those documents or the portions of those documents not deemed to be filed) until the offering of the securities under this prospectus supplement is terminated or completed:

- Our [Annual Report on Form 10-K for the year ended December 31, 2022, filed with the SEC on March 22, 2023](#), including the information specifically incorporated by reference into our [Annual Report on Form 10-K for the year ended December 31, 2022](#) from our [Definitive Proxy Statement on Schedule 14A filed with the SEC on April 20, 2023](#);
- our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2023 and June 30, 2023, filed with the SEC on [May 11, 2023](#) and [August 7, 2023](#), respectively;
- our Current Reports on Form 8-K filed with the SEC on [January 5, 2023](#) (other than Item 2.02, Item 7.01 and Item 9.01); [February 2, 2023](#); [March 31, 2023](#); [June 6, 2023](#); [October 11, 2023](#) and [October 12, 2023](#); and
- the description of our common stock contained in our [Registration Statement on Form 8-A filed on June 23, 2015](#), as the description therein has been updated and superseded by the description of our capital stock contained in [Exhibit 4.3](#) to our Annual Report on Form 10-K for the year ended December 31, 2022, and including any amendments or reports filed for the purpose of updating such description.

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

Astria Therapeutics, Inc.
75 State Street, Suite 1400
Boston, MA 02109
Attn: Investor Relations
(617) 349-1971

FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the information incorporated by reference herein and therein include “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Exchange Act. All statements, other than statements of historical facts, contained in this prospectus supplement and the accompanying prospectus, and the information incorporated by reference herein and therein, including statements regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans and objectives of management, clinical development programs, regulatory filings and expected market growth are forward-looking statements. The words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “target,” “would” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

These forward-looking statements include, among other things, statements about:

- our expectations regarding adding additional cohorts, and the timing of the results therefrom, to our Phase 1a clinical trial of STAR-0215, and the timing of availability of final results from such trial;
- our expectations regarding the potential significance of the preliminary results from the Phase 1a STAR-0215 clinical trial and the anticipated nature and timing of receipt of additional data from such trial;
- our expectations regarding the timing, nature, goals and results of our Phase 1b/2 clinical trial of STAR-0215 and that favorable results from such trial could allow us to move directly into a Phase 3 pivotal trial of STAR-0215 as a potential treatment for hereditary angioedema, or HAE;
- our expectations about the design and anticipated timing of a Phase 3 pivotal clinical trial for STAR-0215 as a potential treatment for HAE, assuming positive data from the Phase 1b/2 trial;
- our expectations about the unmet medical need for HAE, the potential differentiating attributes of STAR-0215 as a potential treatment for HAE, along with the potential market impact of such differentiation, the potential of STAR-0215 to be a best-in-class monoclonal antibody inhibitor of plasma kallikrein able to provide long-acting, effective attack prevention for HAE, and our vision for STAR-0215 to become the first-choice preventative treatment for HAE with administration every three or six months with the goal of normalizing the lives of people living with HAE;
- the nature and anticipated growth of the global HAE market and HAE therapies;
- our plans to improve the formulation of STAR-0215 and corresponding work to develop a drug-device combination for STAR-0215 for potential use in late-stage clinical trials and commercially, if approved;
- our expectations that we have scaled the manufacturing process for STAR-0215 cell line in a manner to generate sufficient material for our planned STAR-0215 nonclinical and clinical studies;
- the potential therapeutic benefits and potential attributes of STAR-0310, a preclinical stage product candidate which we recently in-licensed, and our plans to develop STAR-0310 as a treatment for atopic dermatitis, or AD;
- our expectations regarding the timing of regulatory filings for STAR-0310;
- our expectations about the design and anticipated timing of planned clinical trials of STAR-0310;
- our expectations regarding the timing and nature of anticipated data for planned clinical trials of STAR-0310;
- the potential commercial opportunity for STAR-0310 in AD and the likelihood that it can effectively compete in AD, assuming it is approved;
- the estimated size and anticipated growth of the AD market and the need for treatments for AD;
- the potential to pursue the development of STAR-0310 in additional indications;
- our goals and visions for the STAR-0310 program;
- our expectations regarding our ability to expand our pipeline;

- the potential benefits of any future acquisition, in-license, collaboration or preclinical development activities;
- our manufacturing plans, capabilities and strategy;
- our intellectual property position and strategy;
- our estimates regarding our cash runway, expenses, future revenue, capital requirements and needs for additional financing, including additional financing to fund our long-term operations;
- developments relating to our competitors and our industry;
- the impact of government laws and regulations; and
- the anticipated use of the net proceeds from this offering.

You are cautioned that these forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions, including those referenced in the sections of this prospectus entitled “Risk Factors” and in the sections entitled “Risk Factors” in our most recent Annual Report on Form 10-K and the other filings we make with the SEC from time to time that are incorporated by reference into this prospectus.

These forward-looking statements speak only as of the respective dates of this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein and any free writing prospectus, as applicable. The events and circumstances reflected in our forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Moreover, we operate in an evolving environment. New risk factors and uncertainties may emerge from time to time, and it is not possible for management to predict all risk factors and uncertainties. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein and any free writing prospectus, whether as a result of any new information, future events, changed circumstances or otherwise.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights certain information about us, this offering and selected information contained elsewhere in or incorporated by reference into this prospectus. This summary is not complete and does not contain all of the information that you should consider before deciding whether to invest in our securities. For a more complete understanding of our company and this offering, we encourage you to read and consider carefully the more detailed information in this prospectus, including the information incorporated by reference herein, and any free writing prospectus prepared by or on our behalf that we have authorized for use in connection with this offering, including the information in "Risk Factors" beginning on page [S-11](#) of this prospectus supplement, along with our consolidated financial statements and notes to those consolidated financial statements incorporated by reference in this prospectus.

Overview

We are a biopharmaceutical company focused on the discovery, development and commercialization of novel therapeutics for allergic and immunological diseases. Our focus is to develop first-choice therapies that improve the health and outcomes of patients with allergic and immunological diseases. Our lead product candidate is STAR-0215, a potential best-in-class monoclonal antibody inhibitor of plasma kallikrein in clinical development for the treatment of hereditary angioedema, or HAE, a rare, debilitating and potentially life-threatening disease. STAR-0215 has the potential to be the most patient-friendly chronic treatment option for HAE, based on the data generated to date and the existing HAE treatment landscape. Our second product candidate is STAR-0310, a monoclonal antibody OX40 antagonist that is in preclinical development for the treatment of atopic dermatitis, or AD, an immune disorder associated with loss of skin barrier function and itching. We believe that with both of these programs, we are advancing a pipeline of products with meaningfully differentiated profiles based on validated mechanisms.

STAR-0215

The treatment options for patients with HAE have improved in recent years, however, there is remaining unmet medical need and the global market for HAE therapy is strong and growing. The goal for STAR-0215 is to develop a best-in-class monoclonal antibody inhibitor of plasma kallikrein able to provide long-acting, effective attack prevention for HAE. Our vision for STAR-0215 is to become the first-choice preventative treatment for HAE with administration every three or six months with the goal of normalizing the lives of people living with HAE. Targeted plasma kallikrein inhibition can prevent HAE attacks by suppressing the pathway that generates bradykinin and causes excessive swelling. STAR-0215 is currently in clinical development. We submitted an investigational new drug application, or IND, for STAR-0215 in June 2022 and the FDA cleared our IND for STAR-0215 in July 2022. STAR-0215 for the treatment of HAE received FDA Fast Track designation in July 2023.

We initiated a Phase 1a clinical trial in August 2022 and we announced initial results in December 2022. We presented additional preliminary results from the trial through the first 84 days of follow up at the American Academy of Allergy, Asthma, and Immunology conference in February 2023. This Phase 1a randomized, double-blind, placebo-controlled single ascending dose clinical trial evaluated the safety, pharmacokinetics, or PK, and pharmacodynamics, or PD, of STAR-0215 at a single U.S. center. Healthy subjects received a single dose of STAR-0215 or placebo in three cohorts of 100mg, 300mg, and 600mg administered subcutaneously. STAR-0215 was well-tolerated at all dose levels. Additionally, there were no clinically significant changes in laboratory assessments and there were no treatment-emergent anti-drug antibodies detected. STAR-0215 demonstrated rapid and sustained drug levels with dose-dependent PK and an estimated half-life of up to 117 days. Sustained target engagement was seen with inhibition of plasma kallikrein consistent with levels associated with clinical benefit for at least three months. These results establish early proof of concept for STAR-0215 as a potential long-acting preventative therapy for HAE. The initial results from the Phase 1a trial support investigating STAR-0215 in HAE patients and also suggest that there could be an opportunity to dose STAR-0215 every three or six months. We are evaluating the potential for six-month dosing with additional healthy subject cohorts in the Phase 1a trial and expect initial results in the fourth quarter of 2023. The final results from the first three cohorts in the Phase 1a trial are also expected in the fourth quarter of 2023. These data will provide more information around plans for future trials, dose selection for potential every three- and six-month administration, safety and tolerability, and PK and PD, after a wide range of single dose levels.

The initial Phase 1a results support STAR-0215's target profile as a long-acting plasma kallikrein inhibitor and supported advancing STAR-0215 to a Phase 1b/2 trial called ALPHA-STAR, or Astria Long-acting Prophylaxis for Hereditary Angioedema: STAR-0215, which we initiated in February 2023. This global, multi-center, open-label, single and multiple dose proof-of-concept clinical trial in people with HAE is evaluating safety, tolerability, HAE attack rate, PK, PD, and quality of life in patients three and six months after STAR-0215 administration. We are currently enrolling patients in the third and final cohort of the trial. We expect to report initial data from single and multiple dose cohorts in the trial in mid-2024. If the results from ALPHA-STAR are positive, we expect to progress directly to a Phase 3 pivotal trial which we anticipate initiating in the first quarter of 2025.

We have initiated and are enrolling subjects in ALPHA-SOLAR, a long-term open-label trial assessing the long-term safety and efficacy of STAR-0215. We are currently administering STAR-0215 to those patients who have completed ALPHA-STAR and have enrolled in ALPHA-SOLAR. Participants will be assigned to a 300 mg or 600 mg dosing regimen based on their cohort assignment in the ALPHA-STAR trial and all will receive STAR-0215 every three or six months.

In May 2023, we presented new human mechanistic modeling data at the 13th C1-Inhibitor Deficiency & Angioedema Workshop. These data support the potential for STAR-0215 to be administered once every three or six months for robust suppression of HAE attacks. At the European Academy of Allergy and Clinical Immunology Annual Meeting in June 2023, we presented an overview of the design of the ALPHA-STAR clinical trial, a summary of the positive initial Phase 1a results evaluating STAR-0215 in healthy subjects and details about STAR-0215's differentiated plasma kallikrein binding mode.

STAR-0310

On October 4, 2023, we entered into a license agreement with Ichnos Sciences SA and Ichnos Sciences Inc., or collectively Ichnos, pursuant to which Ichnos granted to us an exclusive (even as to Ichnos and its affiliates), worldwide, and sublicensable right and license to certain patent rights and related know-how, or collectively the Licensed Intellectual Property, to develop, manufacture, and commercialize Ichnos' proprietary OX40 portfolio. The OX40 portfolio includes Ichnos' proprietary OX40 antagonist monoclonal antibody, with the generic name telazorlimab and also referred to by Ichnos as "ISB 830" as well as Ichnos' proprietary affinity matured next generation OX40 antagonist monoclonal antibody referred to by Ichnos as "ISB 830-X8" and referred to by us as the "STAR-0310 candidate." We plan to develop the STAR-0310 candidate, which was engineered with YTE half-life extension technology (and will be referred to by us as STAR-0310), for AD and potentially for other allergic and immunological diseases. STAR-0310 is currently in preclinical development. Ichnos has also agreed not to develop or commercialize any product that directly modulates the OX40 receptor.

Our vision for STAR-0310, a monoclonal antibody OX40 antagonist that incorporates YTE half-life extension technology, is to develop a potential best-in-class treatment for AD. AD is an immune disorder associated with loss of skin barrier function and itching. AD is caused by diverse mechanisms, spanning the spectrum of T cell-driven pathology. Approximately 90% of patients develop the disease within the first 5 years of life. AD is estimated to affect approximately 5% of the adult population in the United States, approximately half of which cases are reported to be moderate or severe. AD is a chronic disease and current treatment options are insufficient to address the needs of many patients. Standard of care treatments include steroids and topical medications, which can treat symptoms but do not address the underlying disease. We estimate that the moderate-to-severe AD treatment market was approximately \$7 billion in 2022 and that it has the potential to grow to \$26 billion by 2030 likely due to an increase in drug-treatment rates, especially with availability of new therapies and growth in biologics-treated patients owing to dermatologists' increasing comfort with biologics.

Our goal for STAR-0310 is to reduce disease activity, relapse rate, and treatment burden for patients with moderate and severe AD in order to help normalize their lives. STAR-0310 was engineered with YTE half-life extension technology with the aim of less frequent dosing of every two to three months. As a potential long-acting OX40 inhibitor, STAR-0310 aims to address the need for a safe, effective, and infrequently administered AD treatment. By targeting OX40, STAR-0310 is designed to address a wide range of T cells involved in the heterogenous AD pathology, providing the potential for better efficacy and a broader addressable patient population.

STAR-0310 was developed as a next generation of telazorlimab with 99% sequence identity. As observed in preclinical studies, STAR-0310 candidate inhibited donor T-cell proliferation similarly to rocatinlimab, an afucosylated anti-OX40 antibody currently in Phase 3 clinical development by Amgen, and at least 10-fold better than telazorlimab. In preclinical studies of donor regulatory T-cells, STAR-0310 candidate was observed to have lower antibody-dependent cellular cytotoxicity, as compared to rocatinlimab, particularly sparing regulatory T cells. In clinical trials conducted by Ichnos, telazorlimab exhibited a favorable safety and tolerability profile. As an affinity matured next generation of telazorlimab that includes YTE modification, STAR-0310 has the potential to have a favorable safety and tolerability profile.

We anticipate submitting an IND to the FDA for STAR-0310 for the treatment of AD by year-end 2024. If the IND is cleared, we anticipate initiating a Phase 1a clinical trial in healthy subjects in the first quarter of 2025. We anticipate reporting initial results from the Phase 1a clinical in the third quarter of 2025, including PK, PD, and early signals on safety and tolerability. Pending positive results from the Phase 1a clinical trial, we plan to initiate a Phase 1b clinical trial in patients with AD in the second half of 2025, and we anticipate reporting results in the second quarter of 2026. The goals of the Phase 1b trial will be to demonstrate initial efficacy in AD as well as show differentiation on safety and tolerability.

We also see an opportunity to explore the potential of STAR-0310 in additional allergic and immunological indications, such as asthma, chronic urticaria and autoimmune indications. In October 2023, Ichnos filed with the U.S. Patent and Trademark Office a provisional patent application covering STAR-0310 and its use in treating various disorders, including AD. This provisional patent application is included in the Licensed Intellectual Property.

THE OFFERING

Common stock offered by us	<p>8,253,895 shares.</p> <p>Each share of common stock is being offered and sold together with an accompanying common stock warrant to purchase 0.75 shares of common stock at a combined offering price of \$6.514.</p>
Pre-funded warrants offered by us	<p>We are also offering, in lieu of common stock to certain investors that so choose, pre-funded warrants to purchase 1,571,093 shares of our common stock.</p> <p>Each pre-funded warrant is being offered and sold together with an accompanying common stock warrant to purchase 0.75 shares of common stock at a combined offering price of \$6.513. Each pre-funded warrant has an exercise price per share equal to \$0.001, is exercisable from the date of issuance and will expire on the date the warrant is exercised in full, subject to an ownership limitation. See "Description of Securities We Are Offering."</p> <p>This prospectus supplement also relates to the offering of the shares of common stock issuable upon the exercise of such pre-funded warrants.</p>
Common stock warrants offered by us	<p>We are also offering common stock warrants to purchase 7,368,738 shares of our common stock. Each share of our common stock or pre-funded warrant is being offered and sold together with an accompanying common stock warrant to purchase 0.75 shares of our common stock. Each common stock warrant will have an exercise price of \$8.025 per share of common stock and, will be exercisable until the date that is five years after the date of issuance, subject to a beneficial ownership limitation. The common stock and the pre-funded warrants, on the one hand, and the accompanying common stock warrants to purchase common stock, on the other hand, are immediately separable and will be issued separately, but can only be purchased together in this offering. See "Description of Securities We Are Offering."</p> <p>This prospectus supplement also relates to the offering of shares of common stock issuable upon exercise of the common stock warrants issued in this offering.</p>
Common stock to be outstanding after this offering	<p>36,279,739 shares.</p>
Use of Proceeds	<p>We plan to use the net proceeds from this offering for research and development activities, including clinical development of STAR-0215 and preclinical and clinical development of STAR-0310, and for working capital and other general corporate purposes. We reserve the right, at the sole discretion of our management, to reallocate the proceeds of this offering in response to developments in our business and other factors. See the section entitled "Use of Proceeds" on page S-13 of this prospectus supplement.</p>

Risk Factors

See “Risk Factors” beginning on page [S-11](#) of this prospectus supplement, as well as the other information included in or incorporated by reference in this prospectus, for a discussion of certain factors you should carefully consider before deciding to invest in our securities.

There is no established public trading market for the pre-funded warrants or the common stock warrants, and we do not expect a market to develop. We do not intend to list the pre-funded warrants or the common stock warrants on The Nasdaq Global Market or any other national securities exchange or nationally recognized trading system. Without an active trading market, the liquidity of the pre-funded warrants and the common stock warrants will be limited. See “Description of Securities We Are Offering.”

The Nasdaq Global Market symbol “ATXS”

The number of shares of our common stock to be outstanding immediately after this offering is based on 28,025,844 shares of our common stock outstanding as of June 30, 2023, which excludes:

- 3,183,045 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2023 at a weighted-average exercise price of \$14.83 per share;
- 4,326,074 shares of our common stock available for future issuance as of June 30, 2023 under our amended and restated 2015 stock incentive plan;
- 395,900 shares of our common stock available for future issuance as of June 30, 2023 under our 2022 inducement stock incentive plan;
- 331,858 shares of our common stock that had been reserved for issuance in connection with warrants outstanding as of June 30, 2023 at a weighted-average exercise price of \$37.50 per share;
- 43,060 shares of our common stock available for future issuance as of June 30, 2023 under our 2015 employee stock purchase plan; and
- 5,184,591 shares of our common stock issuable upon the conversion of shares of Series X Preferred Stock outstanding as of June 30, 2023.

Unless otherwise indicated, all information in this prospectus supplement assumes (i) no exercise of the pre-funded warrants that we are offering in this offering, (ii) no exercise of the common stock warrants that we are offering in this offering, and (iii) no exercise of stock options or warrants or conversion of Series X Preferred Stock outstanding as of June 30, 2023. The information in this prospectus supplement does not reflect the potential issuance of up to \$50.0 million of shares of our common stock that remain available for sale as of the date of this prospectus supplement under our “at the market” program with Jefferies LLC.

RISK FACTORS

An investment in our securities involves a high degree of risk. Before deciding whether to invest in our securities, you should consider carefully the risks and uncertainties described below and under the section captioned "Risk Factors" contained in our [Annual Report on Form 10-K for the year ended December 31, 2022](#) and other filings we make with the SEC from time to time, which are incorporated by reference herein in their entirety, together with other information in this prospectus supplement, the accompanying prospectus and the information incorporated by reference herein and therein and in any free writing prospectus that we may authorize for use in connection with this offering. If any of these risks actually occurs, our business, financial condition, results of operations or cash flow could suffer materially. In such event, the trading price of our common stock could decline and you might lose all or part of your investment.

Risks Related to This Offering and Ownership of Shares of Our Common Stock, Pre-Funded Warrants or Common Stock Warrants

If you purchase shares of our common stock and common stock warrants (or pre-funded warrants and common stock warrants) in this offering, you will suffer immediate dilution of your investment.

The combined offering price of our common stock and accompanying common stock warrants (and our pre-funded warrants and accompanying common stock warrants) is substantially higher than the pro forma as adjusted net tangible book value per share of our common stock. Therefore, if you purchase securities in this offering, you will pay a price per share that substantially exceeds our as adjusted net tangible book value per share after giving effect to this offering. Based on a combined offering price of \$6.514 per share of common stock and accompanying common stock warrant and a combined offering price of \$6.513 for each pre-funded warrant and accompanying common stock warrant (and assuming no exercise of the common stock warrants or pre-funded warrants being offered in this offering and that the common stock warrants and the pre-funded warrants are classified as and accounted for as equity), you will experience immediate dilution of \$0.24 per share, representing the difference between our pro forma as adjusted net tangible book value per share as of June 30, 2023 after giving effect to this offering and the combined offering price. To the extent outstanding options or warrants or other convertible securities are exercised for shares of our common stock at exercise or conversion prices that are lower than the price per share of common stock you paid in this offering, you will incur further dilution.

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

In order to raise additional capital, we may in the future offer additional shares of our common stock or other securities convertible into or exchangeable for our common stock at prices that may not be the same as the price per share of common stock you pay in this offering, including pursuant to our "at-the-market offering" program with Jefferies LLC. We may sell shares or other securities in any other offering at a price per share that is less than the price per share of common stock paid by you in this offering, and investors purchasing shares or other securities in the future could have rights superior to existing security holders. 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 of common stock paid by you in this offering. As a result, you may experience future dilution.

We have broad discretion over the use of our cash and cash equivalents, including the net proceeds we receive in this offering, and may not use them effectively.

Our management has broad discretion to use our cash and cash equivalents, including the net proceeds we receive in this offering, to fund our operations and could spend these funds in ways that do not improve our results of operations or enhance the value of our common stock. The failure by our management to apply these funds effectively could result in financial losses that could have a material adverse effect on our business, cause the price of our common stock to decline and delay the development of our product candidates. Pending their use to fund operations, we may invest our cash and cash equivalents in a manner that does not produce income or that loses value.

There is no public market for the pre-funded warrants or the common stock warrants being offered in this offering.

There is no established public trading market for the pre-funded warrants or the common stock warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to list the pre-funded warrants or the common stock warrants on The Nasdaq Global Market or any other national securities exchange or nationally recognized trading system. Without an active trading market, the liquidity of the pre-funded warrants and the common stock warrants will be limited.

We will not receive any additional funds upon the exercise of the pre-funded warrants.

Each pre-funded warrant will be exercisable from the date of issuance until the date the warrant is exercised in full and will be exercisable only by means of a cashless exercise, meaning that the holder would not pay a cash purchase price upon exercise, but instead would receive upon such exercise the net number of shares of our common stock determined according to the formula set forth in the pre-funded warrant. Accordingly, we will not receive any additional funds upon the exercise of the pre-funded warrants.

Except for the right to participate in certain dividends and distributions, holders of the pre-funded warrants and the common stock warrants will have no rights as common stockholders unless and until such holders exercise their pre-funded warrants or common stock warrants for shares of our common stock.

Unless and until holders of the pre-funded warrants and common stock warrants exercise the applicable pre-funded warrants or common stock warrants and acquire shares of our common stock, such holders will have no rights with respect to the shares of our common stock underlying such warrants, except for the right to participate in certain dividends and distributions. Upon exercise of the warrants, the holders 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.

The common stock warrants are speculative.

The holders of the common stock warrants may exercise their right to acquire the common stock and pay an exercise price per share equal to \$8.025, subject to certain adjustments, prior to five years from the date of issuance, after which date any such unexercised warrants will expire and have no further value. Moreover, following this offering, the market value of the common stock warrants, if any, is uncertain and there can be no assurance that the market value of such warrants will equal or exceed their imputed offering price. There can be no assurance that the market price of the common stock will ever equal or exceed the exercise price of the common stock warrants, and consequently, it may not ever be profitable for holders of such warrant to exercise them.

USE OF PROCEEDS

We estimate that we will receive net proceeds from this offering of approximately \$59.6 million, based on the combined offering prices of \$6.514 per share of common stock and accompanying common stock warrant and \$6.513 per pre-funded warrant and accompanying common stock warrant and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. We will not receive any additional proceeds from the exercise of the pre-funded warrants.

We plan to use the net proceeds from this offering for research and development activities, including clinical development of STAR-0215 and preclinical and clinical development of STAR-0310, and for working capital and other general corporate purposes. General corporate purposes may include repayment and refinancing of debt, and working capital and capital expenditures. This expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions, which could change in the future as our plans and business conditions evolve. The amounts and timing of our actual expenditures may vary significantly depending on numerous factors, including the progress of our development efforts, the status of and results from clinical trials, the timing of regulatory submissions and the outcome of regulatory review, as well as any collaborations that we may enter into with third parties for our product candidates, and any unforeseen cash needs. As a result, management will retain broad discretion over the allocation of the net proceeds from this offering.

As of June 30, 2023, we had cash, cash equivalents and short-term investments of approximately \$203.0 million.

Based upon our current operating plan, we estimate that the net proceeds from this offering, together with our existing cash, cash equivalents and short-term investments, will enable us to fund our operating expenses and capital expenditure requirements into 2026. Our current operating plan includes the development of STAR-0215 and STAR-0310, including (i) for STAR-0215, support for all program activities up to the initiation of the planned Phase 3 pivotal trial and (ii) for STAR-0310, the upfront payment of \$15.0 million to Ichnos in connection with the in-license of STAR-0310, the anticipated submission of the IND and the initiation and completion of the planned Phase 1a clinical trial of healthy subjects (and any related anticipated milestone payments). We have based this estimate on assumptions that may prove to be wrong, and we could use our available capital resources sooner than we currently expect. See the "Risk Factors" section of this prospectus supplement and the documents incorporated by reference for a discussion of the risks affecting our business that could have an adverse effect on our available capital resources. We do not expect that our existing cash, cash equivalents and short-term investments and net proceeds from this offering alone will be sufficient to enable us to fund the completion of the development of any of our product candidates, including STAR-0215 and STAR-0310.

Pending application of the net proceeds as described above, we intend to temporarily invest the proceeds in short-term, interest-bearing instruments.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our capital stock. We currently intend to retain earnings, if any, to finance the growth and development of our business. We do not intend to pay cash dividends in respect of our capital stock in the foreseeable future. Payment of future dividends, if any, will be at the discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements, restrictions contained in current or future financing instruments, provisions of applicable law and other factors the board deems relevant.

CAPITALIZATION

The following table sets forth our cash, cash equivalents and short-term investments and our capitalization as of June 30, 2023:

- on an actual basis; and
- on an as adjusted basis to reflect the issuance and sale by us in this offering of (i) 8,253,895 shares of common stock and accompanying common stock warrants to purchase 6,190,418 shares of our common stock at a combined offering price of \$6.514 and (ii) pre-funded warrants to purchase 1,571,093 shares of common stock and accompanying common stock warrants to purchase 1,178,320 shares of our common stock at a combined offering price of \$6.513, after deducting underwriting discounts and commissions and estimated offering expenses payable by us (and assuming no exercise of the pre-funded warrants and common stock warrants offered hereby and that the pre-funded warrants and common stock warrants are classified and accounted for as equity).

You should read this information together with our consolidated financial statements and related notes and the information under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations," appearing in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2023, incorporated by reference in this prospectus supplement. For more details on how you can obtain our SEC reports and other information, you should read the section of the prospectus supplement entitled "Where You Can Find More Information."

	AS OF JUNE 30, 2023	
	ACTUAL	AS ADJUSTED
	(in thousands, except share and per share data) (unaudited)	
Cash, cash equivalents and short-term investments	\$ 202,958	\$ 262,576
Stockholders' equity:		
Preferred stock, \$0.001 par value per share, 4,908,620 shares authorized and no shares issued and outstanding	—	—
Series X convertible preferred stock, \$0.001 par value per share, 91,380 shares authorized, 31,107 shares issued and outstanding	95,324	95,324
Common stock, \$0.001 par value per share, 150,000,000 shares authorized; 28,025,844 shares issued and outstanding, actual; 36,279,739 shares issued and outstanding, as adjusted	28	36
Additional paid-in capital	636,447	696,057
Accumulated other comprehensive loss	—	—
Accumulated deficit	(531,397)	(531,397)
Total stockholders' equity	200,402	260,020
Total capitalization	\$ 200,402	\$ 260,020

The number of shares of common stock issued and outstanding as of June 30, 2023 as reported in the table above excludes:

- 3,183,045 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2023 at a weighted-average exercise price of \$14.83 per share;
- 4,326,074 shares of our common stock available for future issuance as of June 30, 2023 under our amended and restated 2015 stock incentive plan;
- 395,900 shares of our common stock available for future issuance as of June 30, 2023 under our 2022 inducement stock incentive plan;

- 331,858 shares of our common stock that had been reserved for issuance in connection with warrants outstanding as of June 30, 2023 at a weighted-average exercise price of \$37.50 per share;
- 43,060 shares of our common stock available for future issuance as of June 30, 2023 under our 2015 employee stock purchase plan; and
- 5,184,591 shares of our common stock issuable upon the conversion of shares of Series X Preferred Stock outstanding as of June 30, 2023.

DILUTION

Dilution represents the difference between the amount per share of common stock paid by purchasers of common stock in this offering and the pro forma as adjusted net tangible book value per share of our common stock immediately after this offering. The data in this section are derived from our balance sheet as of June 30, 2023.

As of June 30, 2023, our historical net tangible book value as of June 30, 2023 was \$200.4 million, or \$7.15 per share of common stock, based on 28,025,844 shares of our common stock outstanding as of June 30, 2023. Our historical net tangible book value per share of common stock is equal to our total tangible assets less the amount of our total liabilities, divided by the number of shares of common stock outstanding as of June 30, 2023, excluding shares of common stock underlying outstanding options and warrants.

We present dilution on a pro forma basis to give effect to the assumed conversion of all outstanding shares of our Series X Preferred Stock without regard to the beneficial ownership limitations applicable thereto. Assuming such conversion, our pro forma net tangible book value per share as of June 30, 2023 would have been \$6.03 per share of common stock.

We present pro forma as adjusted net tangible book value by further giving effect to our receipt of the estimated net proceeds from the sale in this offering of (i) 8,253,895 shares of common stock and accompanying common stock warrants to purchase 6,190,418 shares of our common stock at a combined offering price of \$6.514 and (ii) pre-funded warrants to purchase 1,571,093 shares of common stock and accompanying common stock warrants to purchase 1,178,320 shares of our common stock at a combined offering price of \$6.513, after deducting underwriting discounts and commissions and estimated offering expenses payable by us (and assuming no exercise of the pre-funded warrants and common stock warrants offered hereby and that the pre-funded warrants and the common stock warrants are classified and accounted for as equity). On a pro forma as adjusted basis, our net tangible book value as of June 30, 2023 would have been \$260.0 million, or \$6.27 per share of common stock. This represents an immediate increase in pro forma as adjusted net tangible book value to existing stockholders of \$0.24 per share of common stock and immediate dilution in pro forma as adjusted net tangible book value to new investors participating in this offering of \$0.24 per share of common stock. The following table illustrates this dilution per share of common stock:

Combined public offering price per share of common stock and accompanying common stock warrant	\$ 6.514
Historical net tangible book value per share of common stock as of June 30, 2023	\$ 7.15
Pro forma net tangible book value per share as of June 30, 2023	\$ 6.03
Increase in pro forma net tangible book value per share of common stock attributable to new investors participating in this offering	<u>\$ 0.24</u>
Pro forma as adjusted net tangible book value per share of common stock immediately after this offering	<u>\$ 6.27</u>
Dilution per share of common stock to new investors participating in this offering	<u><u>\$ 0.24</u></u>

Except as noted above, the foregoing table and calculations exclude:

- 3,183,045 shares of our common stock issuable upon the exercise of stock options outstanding as of June 30, 2023 at a weighted-average exercise price of \$14.83 per share;
- 4,326,074 shares of our common stock available for future issuance as of June 30, 2023 under our amended and restated 2015 stock incentive plan;
- 395,900 shares of our common stock available for future issuance as of June 30, 2023 under our 2022 inducement stock incentive plan;
- 331,858 shares of our common stock that had been reserved for issuance in connection with warrants outstanding as of June 30, 2023 at a weighted-average exercise price of \$37.50 per share;

- 43,060 shares of our common stock available for future issuance as of June 30, 2023 under our 2015 employee stock purchase plan; and
- 5,184,591 shares of our common stock issuable upon the conversion of shares of Series X Preferred Stock outstanding as of June 30, 2023.

DESCRIPTION OF SECURITIES WE ARE OFFERING

The following is a brief summary of certain terms and conditions of the common stock, pre-funded warrants and common stock warrants being offered in this offering. The following description is subject in all respects to the provisions contained in instruments governing the applicable security.

Common Stock

The material terms and provisions of our common stock are described under the heading "Description of Capital Stock" in the accompanying prospectus.

Pre-Funded Warrants

Form

The pre-funded warrants will be issued as individual warrant agreements to the holders. The form of pre-funded warrant will be filed as an exhibit to a Current Report on Form 8-K that we expect to file with the SEC.

Term

The pre-funded warrants will expire on the date the warrant is exercised in full.

Exercisability

The pre-funded warrants are exercisable at any time after their original issuance. The pre-funded warrants will be exercisable solely by means of a cashless exercise at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice, in which case the holder would receive upon such cashless exercise the net number of shares of our common stock determined according to the formula set forth in the pre-funded warrant. No fractional shares of our common stock will be issued in connection with the exercise of a pre-funded warrant. In lieu of fractional shares, we will pay the holder an amount in cash equal to the fractional amount multiplied by the last trade price of our common stock on the exercise date.

Exercise Limitations

We may not effect the exercise of any pre-funded warrant, and a holder will not be entitled to exercise any portion of any pre-funded warrant that, upon giving effect to or immediately prior to such exercise, would cause: (1) the aggregate number of shares of our common stock beneficially owned by such holder (together with its affiliates) to exceed 9.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise; or (2) the combined voting power of our securities beneficially owned by such holder (together with its affiliates) to exceed 9.99% of the combined voting power of all of our securities 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 of a pre-funded warrant may increase or decrease such percentage to any other percentage not in excess of 19.99% provided that any such increase will not be effective until the 61st day after notice from the holder is delivered to us.

Exercise Price

The exercise price of our common stock purchasable upon the exercise of the pre-funded warrants is \$0.001 per share. The exercise price of the pre-funded warrants and the number of shares of our common stock issuable upon exercise of the pre-funded warrants are subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock, as well as upon any distribution of assets, including cash, stock or other property, to our stockholders. The exercise price of the pre-funded warrants will not be adjusted below the par value of our common stock.

Transferability

Subject to applicable laws, the pre-funded warrants may be offered for sale, sold, transferred or assigned without our consent.

Exchange Listing

There is no established public trading market for the pre-funded warrants, and we do not expect a market to develop. We do not intend to list the pre-funded warrants on The Nasdaq Global Market, any other national securities exchange or any other nationally recognized trading system.

Fundamental Transactions

Upon the consummation of a fundamental transaction (as described in the pre-funded warrants, and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our assets, our consolidation or merger with or into another person in which we are not the surviving entity, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power of our outstanding common stock), the holders of the pre-funded warrants will be entitled to receive, upon exercise of the pre-funded warrants, the same kind and amount of securities, cash or other property that such 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.

Notwithstanding the foregoing, in the event of a fundamental transaction where the consideration consists solely of cash, solely of marketable securities or a combination of cash and marketable securities, then each pre-funded warrant shall automatically be deemed to be exercised in full in a cashless exercise effective immediately prior to and contingent upon the consummation of such fundamental transaction.

No Rights as a Stockholder

Except by virtue of such holder's ownership of shares of our common stock, and except for the right to participate in certain dividends and distributions, the holder of a pre-funded warrant does not have the rights or privileges of a holder of our common stock, including any voting rights, until such holder receives shares of our common stock upon the due exercise of a pre-funded warrant.

Common Stock Warrants***Form***

The common stock warrants will be issued as individual warrant agreements to the holders. The form of common stock warrant will be filed as an exhibit to a Current Report on Form 8-K that we expect to file with the SEC.

Term and Exercisability

The common stock warrants are exercisable at any time after their original issuance and may be exercised until the date that is five years after the original issuance date. Except as noted below, the common stock warrants will be exercisable solely by means of a cash exercise at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice and the exercise price.

Cashless Exercise

If, at the time a holder exercises its common stock warrants, a registration statement registering the issuance of the shares of common stock underlying the common stock warrants under the Securities Act is not then effective or available for the issuance of such shares, then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the common stock warrants. No fractional shares will be issued upon the exercise of the warrant. We will, at our election, either pay a cash adjustment in respect of any such final fraction in an amount equal to such fraction multiplied by the exercise price or round up to the next whole share.

Exercise Limitations

We may not effect the exercise of any common stock warrant, and a holder will not be entitled to exercise any portion of any common stock warrant that, upon giving effect to or immediately prior to such exercise, would cause: (1) the aggregate number of shares of our common stock beneficially owned by such holder (together with its affiliates) to exceed 4.99% of the number of shares of our common stock outstanding immediately after giving effect to the exercise; or (2) the combined voting power of our securities beneficially owned by such holder (together with its affiliates) to exceed 4.99% of the combined voting power of all of our securities outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the common stock warrants. However, any holder of a common stock warrant may increase or decrease such percentage to any other percentage not in excess of 9.99% provided that any such increase will not be effective until the 61st day after notice from the holder is delivered to us.

Exercise Price

The exercise price per share of our common stock purchasable upon the exercise of the common stock warrants is \$8.025, which was 125% of the closing price of the common stock on the date of pricing. The exercise price of the common stock warrants and the number of shares of our common stock issuable upon exercise of the common stock warrants are subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock, as well as upon any distribution of assets, including cash, stock or other property, to our stockholders. The exercise price of the common stock warrants will not be adjusted below the par value of our common stock.

Transferability

Subject to applicable laws, the common stock warrants may be offered for sale, sold, transferred or assigned without our consent.

Exchange Listing

There is no established public trading market for the common stock warrants, and we do not expect a market to develop. We do not intend to list the common stock warrants on The Nasdaq Global Market, any other national securities exchange or any other nationally recognized trading system.

Fundamental Transactions

In the event of a fundamental transaction, as described in the common stock warrants and generally including any reorganization, recapitalization or reclassification of our common stock, the sale, transfer or other disposition of all or substantially all of our properties or assets, our consolidation or merger with or into another person, the acquisition of more than 50% of our outstanding common stock, or any person or group becoming the beneficial owner of 50% of the voting power represented by our outstanding common stock, the holders of the common stock warrants will be entitled to receive upon exercise of the common stock warrants the kind and amount of securities, cash or other property that the holders would have received had they exercised the common stock warrants immediately prior to such fundamental transaction. In addition, in the event of a fundamental transaction which is approved by our board of directors, the holders of the common stock warrants have the right to require us or a successor entity to redeem the common stock warrant for cash in the amount of the Black-Scholes value of the unexercised portion of the common stock warrant on the date of the consummation of the fundamental transaction. In the event of a fundamental transaction which is not approved by our board of directors, the holders of the common stock warrants have the right to require us or a successor entity to redeem the common stock warrant for the consideration paid in the fundamental transaction in the amount of the Black Scholes value of the unexercised portion of the common stock warrant on the date of the consummation of the fundamental transaction.

No Rights as a Stockholder

Except by virtue of such holder's ownership of shares of our common stock, and except for the right to participate in certain dividends and distributions, the holder of a common stock warrant does not have the rights or privileges of a holder of our common stock, including any voting rights, until such holder receives shares of our common stock upon the due exercise of a common stock warrant.

Exchange Listing

There is no established public trading market for the common stock warrants, and we do not expect a market to develop. We do not intend to list the common stock warrants on The Nasdaq Global Market or any other national securities exchange or nationally recognized trading system.

MATERIAL U.S. FEDERAL TAX CONSIDERATIONS FOR HOLDERS OF COMMON STOCK, PRE-FUNDED WARRANTS OR COMMON STOCK WARRANTS

The following is a discussion of material U.S. federal income and estate tax considerations relating to ownership and disposition of our common stock, pre-funded warrants or common stock warrants acquired in this offering. For purposes of this discussion, the term “U.S. holder” means a beneficial owner (other than a partnership or other pass-through entity) of our common stock, pre-funded warrants or common stock warrants that is, for U.S. federal income tax purposes:

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

A “Non-U.S. holder” is, for U.S. federal income tax purposes, a beneficial owner of common stock, pre-funded warrants or common stock warrants that is not a U.S. holder or a partnership or other pass-through entity for U.S. federal income tax purposes.

This discussion does not address the tax treatment of partnerships or other entities or arrangements that are pass-through entities for U.S. federal income tax purposes or persons who hold their shares of our common stock, pre-funded warrants or common stock warrants through partnerships or such other pass-through entities or arrangements. A partner in a partnership or other pass-through entity that will hold our common stock, pre-funded warrants or common stock warrants should consult his, her or its own tax advisor regarding the tax consequences of the ownership and disposition of our common stock, pre-funded warrants or common stock warrants through a partnership or other pass-through entity, as applicable.

This discussion is based on current provisions of the Internal Revenue Code of 1986, or the Code, existing and proposed U.S. Treasury Regulations promulgated thereunder, current administrative rulings and judicial decisions, all as in effect as of the date of this prospectus supplement and all of which are subject to change or to differing interpretation, possibly with retroactive effect. Any change or differing interpretation could alter the tax consequences to holders described in this prospectus supplement. We have not requested a ruling from the IRS with respect to the statements made and the conclusions reached in the following discussion and there can be no assurance that the Internal Revenue Service, or the IRS, will not challenge one or more of the tax consequences described in this prospectus supplement.

We assume in this discussion that each holder holds shares of our common stock, pre-funded warrants or common stock warrants as a “capital asset” within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all aspects of U.S. federal income and estate taxation that may be relevant to a particular holder in light of that holder’s individual circumstances nor does it address any aspects of U.S. state, local or non-U.S. taxes, the alternative minimum tax, the special tax accounting rules under Section 451(b) of the Code or the Medicare tax on net investment income. This discussion also does not consider any specific facts or circumstances that may apply to a holder and does not address the special tax rules applicable to particular holders, such as:

- banks, financial institutions, investment funds;
- brokers or dealers in securities;
- tax-exempt organizations and governmental organizations;
- pension plans, including “qualified foreign pension funds” as defined in Section 897(l)(2) of the Code and entities all of the interests of which are held by qualified foreign pension funds;
- persons deemed to sell our common stock or pre-funded warrants under the constructive sale provisions of the Code;

- persons that hold our common stock or pre-funded warrants as part of a straddle, hedge, conversion transaction, synthetic security or other integrated investment or who have elected to mark securities to market;
- insurance companies;
- controlled foreign corporations;
- passive foreign investment companies;
- persons that hold our common stock or pre-funded warrants that constitute “qualified small business stock” under Section 1202 of the Code, or “Section 1244 stock” under Section 1244 of the Code;
- non-U.S. governments; and
- certain U.S. expatriates and former citizens or former long-term residents of the United States.

THIS DISCUSSION IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT, AND IS NOT INTENDED TO BE, LEGAL OR TAX ADVICE. PROSPECTIVE INVESTORS SHOULD CONSULT THEIR OWN TAX ADVISORS REGARDING THE U.S. FEDERAL, STATE, LOCAL, AND NON-U.S. INCOME, ESTATE AND OTHER TAX CONSIDERATIONS OF ACQUIRING, HOLDING AND DISPOSING OF OUR COMMON STOCK, PRE-FUNDED WARRANTS OR COMMON STOCK WARRANTS.

Allocation of Purchase Price to Common Stock, Pre-funded Warrants and Common Stock Warrants

For U.S. federal income tax purposes, a holder’s acquisition of the common stock warrants and common stock or pre-funded warrants, as applicable, should be treated as the acquisition of an “investment unit” consisting of one share of common stock or one pre-funded warrant, as applicable, and a warrant to acquire 0.75 of a share of our common stock, subject to adjustment. The purchase price for each investment unit will be allocated between these two components in proportion to their relative fair market values at the time the unit is purchased by the holder. This allocation of the purchase price for each unit will establish the holder’s initial tax basis for U.S. federal income tax purposes in the common stock or pre-funded warrant, as applicable, and the common stock warrant included in each unit. The separation of the share of common stock or pre-funded warrant, as applicable, and the common stock warrant included in each unit should not be a taxable event for U.S. federal income tax purposes. Each holder should consult his, her or its own tax advisor regarding the allocation of the purchase price for a unit.

Treatment of Pre-Funded Warrants

Although it is not entirely free from doubt, a pre-funded warrant should be treated as a share of our common stock for U.S. federal income tax purposes and a holder of pre-funded warrants should generally be taxed in the same manner as a holder of common stock as described below. Accordingly, upon exercise, no gain or loss should be recognized and the holding period of a pre-funded warrant should carry over to the share of common stock received. Similarly, the tax basis of the pre-funded warrant should carry over to the share of common stock received upon exercise increased by the exercise price of \$0.001 per share. Our characterization is not binding on the IRS, and the IRS may treat our pre-funded warrants as warrants to acquire shares of our common stock. In that case, the amount and character of a holder’s gain with respect to an investment in pre-funded warrants pursuant to this offering could be materially different than the discussion set forth below. Each holder should consult his, her or its own tax advisor regarding the risks associated with the acquisition of a pre-funded warrant pursuant to this offering (including potential alternative characterizations). The balance of this discussion generally assumes that the characterization described above is respected for U.S. federal income tax purposes.

Tax Considerations Applicable to U.S. Holders

Exercise and Expiration of Common Stock Warrants

In general, a U.S. holder will not recognize gain or loss for U.S. federal income tax purposes upon exercise of a common stock warrant. The U.S. holder will take a tax basis in the shares acquired on the exercise of a common stock warrant equal to the exercise price of the warrant, increased by the U.S. holder’s adjusted tax basis in the common stock warrant exercised (as determined pursuant to the rules discussed above). The U.S. holder’s holding period in the shares of our common stock acquired on exercise of the common stock warrant will begin on the date of exercise of the warrant (or possibly, the day after), and will not include any period for which the U.S. holder held the warrant.

In certain limited circumstances, a U.S. holder may be permitted to undertake a cashless exercise of common stock warrants into our common stock. The U.S. federal income tax treatment of a cashless exercise of common stock warrants into our common stock is unclear, and the tax consequences of a cashless exercise could differ from the consequences upon the exercise of a common stock warrant described in the preceding paragraph. U.S. holders should consult their own tax advisors regarding the U.S. federal income tax consequences of a cashless exercise of common stock warrants, including with respect to their holding period and tax basis in the shares of common stock acquired on the exercise of common stock warrants.

The lapse or expiration of a common stock warrant will be treated as if the U.S. holder sold or exchanged the common stock warrant and recognized a loss in an amount equal to the U.S. holder's tax basis in the common stock warrant. Any such loss generally will be a capital loss and will be long-term capital loss if the common stock warrant is held for more than one year. The deductibility of capital losses is subject to limitations.

Certain Adjustments to and Distributions on the Common Stock Warrants

Under Section 305 of the Code, an adjustment to (or failure to adjust) the number of shares of common stock issued on the exercise of the common stock warrants, or an adjustment to (or failure to adjust) the exercise price of the common stock warrants, may be treated as a constructive distribution to a U.S. holder of the common stock warrants if, and to the extent that, such adjustment (or failure to adjust) has the effect of increasing such U.S. holder's proportionate interest in our "earnings and profits" or assets, as determined under U.S. federal income tax principles, depending on the circumstances of such adjustment. An adjustment made pursuant to a bona fide reasonable adjustment formula that has the effect of preventing dilution should generally not be considered to result in a constructive distribution. Any such constructive distribution would be taxable whether or not there is an actual distribution in cash or other property to the holders of common stock warrants. In certain circumstances, if we were to make a distribution in cash or other property with respect to our common stock after the issuance of the common stock warrants, then we may make a corresponding distribution to a warrant holder. The taxation of a distribution received with respect to a common stock warrant is unclear. It is possible such a distribution would be treated as a distribution (or constructive distribution), although other treatments are possible. For more information regarding the tax considerations related to distributions, see the discussion below regarding "Distributions on Common Stock and Pre-Funded Warrants". U.S. holders should consult their tax advisors regarding the proper treatment of any adjustments to and distributions on the common stock warrants.

Distributions on Common Stock and Pre-Funded Warrants

If we make distributions in respect of our common stock or pre-funded warrants, those distributions generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the U.S. holder's investment, up to the holder's tax basis in the common stock or pre-funded warrants (and will reduce the U.S. holder's basis in the common stock or pre-funded warrants, but not below zero). Any remaining excess will be treated as capital gain, subject to the tax treatment described below under the heading "Gain on Sale, Exchange or Other Taxable Disposition of Our Common Stock, Pre-Funded Warrants or Common Stock Warrants."

Gain on Sale, Exchange or Other Taxable Disposition of Our Common Stock, Pre-Funded Warrants or Common Stock Warrants

Upon a sale, exchange or other taxable disposition of our common stock, pre-funded warrants or common stock warrants (other than by exercise), a U.S. holder generally will recognize capital gain or loss in an amount equal to the difference between the amount of cash and the fair market value of any property received upon the sale, exchange or other taxable disposition and the U.S. holder's adjusted tax basis in the common stock, pre-funded warrants or common stock warrants, as applicable. Capital gain or loss will constitute long-term capital gain or loss if the U.S. holder's holding period for the common stock, pre-funded warrants or common stock warrants, as applicable, exceeds one year. Long-term capital gains recognized by certain non-corporate U.S. holders, including individuals, generally will be subject to reduced rates of U.S. federal income tax. The deductibility of capital losses is subject to certain limitations. U.S. holders who recognize losses with respect to a sale, exchange or other taxable disposition of our common stock, pre-funded warrants or common stock warrants should consult their own tax advisors regarding the tax treatment of such losses.

Information Reporting and Backup Withholding

Information reporting requirements generally will apply to distributions (including constructive distributions) on the common stock, pre-funded warrants or common stock warrants and to the proceeds of a sale or other disposition of common stock, pre-funded warrants or common stock warrants paid by us to a U.S. holder unless such U.S. holder is an exempt recipient from backup withholding, such as C corporations and certain tax-exempt organizations. Backup withholding will apply to those payments if the U.S. holder fails to provide the holder's taxpayer identification number, or certification of exempt status, or if the holder otherwise fails to comply with applicable requirements to establish an exemption. Backup withholding is not an additional tax. Rather, any amounts withheld under the backup withholding rules may be allowed as a refund or a credit against the U.S. holder's U.S. federal income tax liability provided the required information is timely furnished to the IRS. U.S. holders should consult their tax advisors regarding their qualification for an exemption from backup withholding and the procedures for obtaining such an exemption.

Tax Considerations Applicable To Non-U.S. Holders**Exercise and Expiration of Common Stock Warrants**

In general, a Non-U.S. holder will not be subject to U.S. federal income tax on the exercise of the common stock warrants into shares of common stock. The U.S. federal income tax treatment of a cashless exercise of common stock warrants into our common stock is unclear. A Non-U.S. holder should consult his, her, or its own tax advisor regarding the U.S. federal income tax consequences of a cashless exercise of our common stock warrants.

The expiration or lapse of a common stock warrant will be treated as if the Non-U.S. holder sold or exchanged the warrant and recognized a capital loss equal to the Non-U.S. holder's tax basis in the common stock warrant. However, a Non-U.S. holder will not be able to utilize a loss recognized upon expiration or lapse of a common stock warrant against the Non-U.S. holder's U.S. federal income tax liability unless the loss is effectively connected with the Non-U.S. holder's conduct of a trade or business within the United States (and, if an income tax treaty applies, is attributable to a permanent establishment or fixed base maintained by the Non-U.S. holder in the United States) or is treated as a U.S.-source loss and the Non-U.S. holder is present in the United States for 183 days or more in the taxable year of disposition and certain other conditions are met.

Certain Adjustments to and Distributions on the Common Stock Warrants

As described under "—Tax Considerations Applicable to U.S. Holders—Certain Adjustments to and Distributions on the Common Stock Warrants", an adjustment to the common stock warrants could result in a constructive distribution to a Non-U.S. holder, which would be treated as described under "—Tax Considerations Applicable to Non-U.S. Holders—Distributions on our Common Stock or Pre-Funded Warrants" below, and the tax treatment of a distribution on a common stock warrant is unclear. Any resulting withholding tax attributable to deemed dividends would be collected from other amounts payable or distributable to the Non-U.S. holder. Non-U.S. holders should consult their tax advisors regarding the proper treatment of any adjustments to and distributions on the common stock warrants.

Distributions on our Common Stock or Pre-Funded Warrants

If we make distributions in respect of our common stock or pre-funded warrants, those distributions generally will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. If a distribution exceeds our current and accumulated earnings and profits, the excess will be treated as a tax-free return of the non-U.S. holder's investment, up to the holder's tax basis in the common stock or pre-funded warrants (and will reduce the non-U.S. holder's basis in the common stock or pre-funded warrants, but not below zero). Any remaining excess will be treated as capital gain, subject to the tax treatment described below under the heading "Gain on Sale, Exchange or Other Taxable Disposition of Our Common Stock, Pre-Funded Warrants or Common Stock Warrants." Any distributions will also be subject to the discussions below under the headings "Information Reporting and Backup Withholding" and "FATCA."

Except as described below, dividends paid to a non-U.S. holder generally will be subject to withholding of U.S. federal income tax at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence. A non-U.S. holder of our common stock or pre-funded warrants who claims the benefit of an applicable income tax treaty between the United States

and such holder's country of residence generally will be required to provide us or our paying agent with a properly executed IRS Form W-8BEN or W-8BEN-E (or successor form) and satisfy applicable certification and other requirements. A non-U.S. holder that is eligible for a reduced rate of U.S. withholding tax under an income tax treaty may obtain a refund or credit of any excess amounts withheld by timely filing an appropriate claim with the IRS. Non-U.S. holders are urged to consult their own tax advisors regarding their entitlement to benefits under a relevant income tax treaty and the specific methods available to them to satisfy these requirements.

Dividends that are treated as effectively connected with a trade or business conducted by a non-U.S. holder within the United States, and, if an applicable income tax treaty so provides, that are attributable to a permanent establishment or a fixed base maintained by the non-U.S. holder within the United States, are generally exempt from the 30% withholding tax if the non-U.S. holder satisfies applicable certification and disclosure requirements (generally including provision of a valid IRS Form W-8ECI (or applicable successor form) certifying that the dividends are effectively connected with the non-U.S. holder's conduct of a trade or business within the United States). However, such U.S. effectively connected income is taxed on a net income basis at the same U.S. federal income tax rates applicable to U.S. persons (as defined in the Code). Any U.S. effectively connected income received by a non-U.S. holder that is classified as a corporation for U.S. federal income tax purposes may also, under certain circumstances, be subject to an additional "branch profits tax" at a 30% rate or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence. Non-U.S. holders should consult their tax advisors with respect to other U.S. tax consequences of the ownership and disposition of our common stock and pre-funded warrants, including the possible imposition of the branch profits tax.

Gain on Sale, Exchange or Other Taxable Disposition of Our Common Stock, Pre-Funded Warrants or Common Stock Warrants

Subject to the discussions below under "— Information Reporting and Backup Withholding" and "FATCA," a non-U.S. holder generally will not be subject to U.S. federal income tax on any gain realized upon such non-U.S. holder's sale, exchange or other disposition of our common stock, pre-funded warrants or common stock warrants unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States, and, if an applicable income tax treaty so provides, the gain is attributable to a permanent establishment or fixed base maintained by the non-U.S. holder in the United States; in these cases, the non-U.S. holder generally will be taxed on a net income basis at the same U.S. federal income tax rates applicable to U.S. persons (as defined in the Code), and, if the non-U.S. holder is a foreign corporation, the branch profits tax described above under the heading "— Tax Considerations Applicable to Non-U.S. Holders — Distributions on our Common Stock or Pre-funded Warrants" may also apply;
- the non-U.S. holder is a non-resident alien individual present in the United States for 183 days or more in the taxable year of the disposition and certain other requirements are met, in which case the non-U.S. holder will be subject to a 30% tax (or such lower rate as may be specified by an applicable income tax treaty between the United States and such holder's country of residence) on the net gain derived from the disposition, which may be offset by certain U.S.-source capital losses of the non-U.S. holder, if any, provided that the non-U.S. holder has timely filed U.S. federal income tax returns with respect to such losses; or
- we are or have been, at any time during the five-year period preceding such disposition (or the non-U.S. holder's holding period, if shorter) a "U.S. real property holding corporation" unless our common stock is regularly traded on an established securities market and the non-U.S. holder held no more than 5% of our outstanding common stock, directly or indirectly, during the shorter of the five-year period ending on the date of the disposition or the period that the non-U.S. holder held our common stock. Special rules may apply to a holder of a pre-funded warrant or common stock warrants. Non-U.S. holders are urged to consult their own tax advisors regarding the application of these rules to pre-funded warrants or common stock warrants. If we are determined to be a U.S. real property holding corporation and the foregoing exception does not apply, then the non-U.S. holder generally will be taxed on its net gain derived from the disposition at the U.S. federal income tax rates applicable to U.S. persons (as defined in the Code). Generally, a corporation is a "U.S. real property holding

corporation" if the fair market value of its "U.S. real property interests" equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. Although there can be no assurance, we believe that we are not currently, and we do not anticipate becoming, a "U.S. real property holding corporation" for U.S. federal income tax purposes. No assurance can be provided that our common stock will be regularly traded on an established securities market for purposes of the rule described above.

U.S. Federal Estate Tax

Shares of our common stock or pre-funded warrants that are owned or treated as owned by an individual who is a non-U.S. holder (as specially defined for U.S. federal estate tax purposes) at the time of death are considered U.S. situs assets and will be included in the individual's gross estate for U.S. federal estate tax purposes. Such shares, therefore, may be subject to U.S. federal estate tax, unless an applicable estate tax or other treaty provides otherwise. The foregoing may also apply to common stock warrants.

Information Reporting and Backup Withholding

We must report annually to the IRS and to each non-U.S. holder the gross amount of the distributions (including constructive distributions) on our common stock, pre-funded warrants or common stock warrants paid to such holder and the tax withheld, if any, with respect to such distributions. Non-U.S. holders may have to comply with specific certification procedures to establish that the holder is not a U.S. person (as defined in the Code) in order to avoid backup withholding at the applicable rate with respect to distributions on our common stock or pre-funded warrants. Generally, a non-U.S. holder will comply with such procedures if it provides a properly executed IRS Form W-8BEN or W-8BEN-E (or other applicable Form W-8), or otherwise meets documentary evidence requirements for establishing that it is a non-U.S. holder, or otherwise establishes an exemption. Dividends paid to non-U.S. holders subject to withholding of U.S. federal income tax, as described above under the heading "Distributions on Common Stock or Pre-funded Warrants," will generally be exempt from U.S. backup withholding.

Information reporting and backup withholding generally will apply to the proceeds of a disposition of our common stock, pre-funded warrants or common stock warrants by a non-U.S. holder effected by or through the U.S. office of any broker, U.S. or non-U.S., unless the holder certifies its status as a non-U.S. holder and satisfies certain other requirements, or otherwise establishes an exemption. Generally, information reporting and backup withholding will not apply to a payment of disposition proceeds to a non-U.S. holder where the transaction is effected outside the United States through a non-U.S. office of a non-U.S. broker. Non-U.S. holders should consult their own tax advisors regarding the application of the information reporting and backup withholding rules to them.

Copies of information returns may be made available to the tax authorities of the country in which the non-U.S. holder resides or is incorporated under the provisions of a specific treaty or agreement.

Backup withholding is not an additional tax. Rather, any amounts withheld under the backup withholding rules from a payment to a non-U.S. holder can be refunded or credited against the non-U.S. holder's U.S. federal income tax liability, if any, provided that an appropriate claim is timely filed with the IRS.

FATCA

Provisions of the Code commonly referred to as the Foreign Account Tax Compliance Act, or FATCA, generally impose a 30% withholding tax on dividends on, and gross proceeds from the sale or other disposition of, our common stock, pre-funded warrants or common stock warrants if paid to a foreign entity unless (1) if the foreign entity is a "foreign financial institution" (which is broadly defined for this purpose and in general includes investment vehicles), the foreign entity undertakes certain due diligence, reporting, withholding, and certification obligations, (2) if the foreign entity is not a "foreign financial institution," the foreign entity identifies certain of its U.S. investors, or (3) the foreign entity is otherwise excepted under FATCA.

Withholding under FATCA generally applies to payments of dividends (including constructive dividends) on our common stock, pre-funded warrants or common stock warrants. While withholding under FATCA may apply to payments of gross proceeds from a sale or other disposition of our common stock, pre-funded warrants or common stock warrants, withholding on payments of gross proceeds is not required under proposed U.S.

Treasury Regulations. Although such regulations are not final, applicable withholding agents may rely on the proposed regulations until final regulations are issued.

If withholding under FATCA is required on any payment related to our common stock, pre-funded warrants or common stock warrants, investors not otherwise subject to withholding (or that otherwise would be entitled to a reduced rate of withholding) on such payment may be required to seek a refund or credit from the IRS. An intergovernmental agreement between the United States and an applicable foreign country may modify the requirements described in this section. Non-U.S. holders should consult their own tax advisors regarding the possible implications of FATCA on their investment in our common stock, pre-funded warrants or common stock warrants and the entities through which they hold our common stock, pre-funded warrants or common stock warrants.

The preceding discussion of material U.S. federal tax considerations is for informational purposes only. It is not legal or tax advice. Prospective investors should consult their own tax advisors regarding the particular U.S. federal, state, local, and non-U.S. tax consequences of purchasing, holding and disposing of our common stock, pre-funded warrants or common stock warrants, including the consequences of any proposed changes in applicable laws.

UNDERWRITING

Subject to the terms and conditions set forth in the underwriting agreement, dated October 11, 2023, among us and Jefferies LLC and Evercore Group L.L.C., as the representatives of the underwriters named below, we have agreed to sell to the underwriters, and each of the underwriters has agreed, severally and not jointly, to purchase from us, the respective number of shares of common stock, pre-funded warrants and common stock warrants shown opposite its name below.

UNDERWRITERS	NUMBER OF SHARES OF COMMON STOCK	NUMBER OF PRE-FUNDED WARRANTS	NUMBER OF ACCOMPANYING COMMON STOCK WARRANTS
Jefferies LLC	3,714,253	706,992	3,315,932
Evercore Group L.L.C.	2,888,864	549,883	2,579,058
LifeSci Capital LLC	825,389	157,109	736,874
Oppenheimer & Co. Inc.	825,389	157,109	736,874
Total	8,253,895	1,571,093	7,368,738

The underwriting agreement provides that the obligations of the underwriters are subject to certain conditions precedent, such as the receipt by the underwriters of officers' certificates, legal opinions and approval of certain legal matters by their counsel. The underwriting agreement provides that the underwriters will purchase all of the shares of common stock and accompanying common stock warrants and pre-funded warrants and accompanying common stock warrants if any of these securities 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 and certain of their controlling persons against certain liabilities, including liabilities under the Securities Act, and to contribute to payments that the underwriters may be required to make in respect of those liabilities.

The underwriters have advised us that, following the completion of this offering, they currently intend to make a market in our common stock as permitted by applicable laws and regulations. However, the underwriters are not obligated to do so and the underwriters may discontinue any market-making activities at any time without notice in their sole discretion. Accordingly, no assurance can be given as to the liquidity of the trading market for our common stock, that you will be able to sell any of our common stock held by you at a particular time or that the prices that you receive when you sell will be favorable.

The underwriters are offering the shares of common stock and accompanying common stock warrants and pre-funded warrants and accompanying common stock warrants subject to their acceptance of securities from us and subject to prior sale. The underwriters reserve the right to withdraw, cancel or modify offers to the public and to reject orders in whole or in part.

Commissions and Expenses

The underwriters have advised us that they propose to offer the (i) shares of common stock and accompanying common stock warrants and (ii) pre-funded warrants and the accompanying common stock warrants to the public at the applicable combined public offering prices set forth on the cover page of this prospectus supplement and to certain dealers, which may include the underwriters, at that price, less a concession not in excess of \$0.23450 per share of common stock and accompanying warrant and \$0.23450 per share of pre-funded warrant and accompanying warrant. After the offering, the public offering price, concession and reallowance to dealers may be reduced by the representatives. No such reduction will change the amount of proceeds to be received by us as set forth on the cover page of this prospectus supplement.

The following table shows the public offering price, the underwriting discounts and commissions that we are to pay the underwriters and the proceeds to us, before expenses, in connection with this offering.

	PER SHARE OF COMMON STOCK AND ACCOMPANYING COMMON STOCK WARRANT	PER PRE-FUNDED WARRANT AND ACCOMPANYING COMMON STOCK WARRANT	TOTAL
Public offering price	\$ 6.514	\$ 6.513	\$63,998,400.74
Underwriting discounts and commissions	\$ 0.39084	\$ 0.39078	\$ 3,839,904.04
Proceeds to us, before expenses	\$ 6.12316	\$ 6.12222	\$60,158,496.70

We estimate expenses payable by us in connection with this offering, other than the underwriting discounts and commissions, referred to above, will be approximately \$540,000. We have also agreed to reimburse the underwriters for certain of their expenses up to \$25,000.

Listing

Our common stock is traded on The Nasdaq Global Market under the symbol "ATXS." There is no established public trading market for the pre-funded warrants or the common stock warrants, and we do not expect a market to develop. We do not intend to list the pre-funded warrants or the common stock warrants on The Nasdaq Global Market, any other national securities exchange or any other nationally recognized trading system.

No Sales of Similar Securities

We and our officers and directors have agreed, subject to specified exceptions, not to directly or indirectly:

- offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of any shares of our common stock beneficially owned (as such term is used in Rule 13d-3 of the Exchange Act) or any other securities so owned that are convertible into or exercisable or exchangeable for our common stock;
- dispose of any shares of common stock, options or warrants to acquire shares of common stock, or securities exchangeable or exercisable for or convertible into shares of common stock currently or hereafter owned either of record or beneficially; or
- publicly announce an intention to do any of the foregoing for a period of 90 days after the date of this prospectus supplement without the prior written consent of Jefferies LLC and Evercore Group L.L.C.

This restriction terminates after the close of trading of the common stock on and including the 90th day after the date of this prospectus supplement. Jefferies LLC and Evercore Group L.L.C. may, in their sole discretion, and at any time or from time to time before the termination of the 90-day period, release all or any portion of the securities subject to lock-up agreements. Except for customary lock-up exceptions, including with respect to our Open Market Sale AgreementSM with Jefferies LLC, there are no existing agreements between the underwriters and any of our officers or directors who will execute a lock-up agreement that provide consent to the sale of shares of common stock prior to the expiration of the lock-up period.

Stabilization

The underwriters have advised us that they, pursuant to Regulation M under the Exchange Act may engage in short sale transactions, stabilizing transactions, syndicate covering transactions or the imposition of penalty bids in connection with this offering. These activities may have the effect of stabilizing or maintaining the market price of our common stock at a level above that which might otherwise prevail in the open market.

A stabilizing bid is a bid for the purchase of shares of our common stock on behalf of the underwriters for the purpose of fixing or maintaining the price of our common stock. A syndicate covering transaction is the bid for or the purchase of shares of our common stock on behalf of the underwriters to reduce a short position incurred by the underwriters in connection with the offering. 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. A penalty bid is an arrangement permitting the underwriters to reclaim the selling concession

otherwise accruing to a syndicate member in connection with the offering if shares of common stock originally sold by such syndicate member are purchased in a syndicate covering transaction and therefore have not been effectively placed by such syndicate member.

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. The underwriters are not obligated to engage in these activities and, if commenced, any of the activities may be discontinued at any time.

The underwriters may also engage in passive market making transactions in our common stock on The Nasdaq Global Market in accordance with Rule 103 of Regulation M during a period before the commencement of offers or sales of shares of our common stock in this offering and extending through the completion of distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, that bid must then be lowered when specified purchase limits are exceeded.

Electronic Distribution

A prospectus in electronic format may be made available by e-mail or on the web sites or through online services maintained by one or more of the underwriters or their affiliates. In those cases, prospective investors may view offering terms online and may be allowed to place orders online. The underwriters may agree with us to allocate a specific number of shares of common stock for sale to online brokerage account holders. Any such allocation for online distributions will be made by the underwriters on the same basis as other allocations. Other than the prospectus in electronic format, the information on the underwriters' web sites and any information contained in any other web site maintained by any of the underwriters is not part of this prospectus supplement and the accompanying prospectus, has not been approved and/or endorsed by us or the underwriters and should not be relied on by investors.

Other Activities and Relationships

The underwriters and certain of their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory services, investment management, investment research, principal investment, hedging, financing and brokerage activities. The underwriters and certain of their respective affiliates have performed, and may in the future perform, various commercial and investment banking and financial advisory services for us and our affiliates, for which they received or will receive customary fees and expenses. For example, Jefferies LLC is the sales agent under an Open Market Sale AgreementSM dated as of June 30, 2021, with us. Under the Open Market Sale AgreementSM, we may offer and sell, from time to time, shares of our common stock through Jefferies LLC through an "at-the-market offering" as defined in Rule 415(a)(4) promulgated under the Securities Act. Additionally, certain of the underwriters have served as underwriters in other of our equity offerings.

In the ordinary course of their various business activities, the underwriters and certain of 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, and such investment and securities activities may involve securities and/or instruments issued by us and our affiliates. If the underwriters or their respective affiliates have a lending relationship with us, they routinely hedge their credit exposure to us consistent with their customary risk management policies. The underwriters and their respective affiliates may hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities or the securities of our affiliates, including potentially the securities offered hereby. Any such short positions would adversely affect future trading prices of the securities offered hereby. The underwriters and certain of their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such securities or instruments and may at any time hold or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

Disclaimers about Non-U.S. Jurisdictions

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 have 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 the 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 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 the securities shall require us or any of the underwriters 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 “offer to the public” in relation to the 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.

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 underwriters for any such offer; or
- (c) in any other circumstances falling within Section 86 of the FSMA,

provided that no such offer of the securities shall require the Issuer or any Manager 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.

Hong Kong

No securities have been offered or sold, and no securities may be offered or sold, in Hong Kong, by means of any document, other than: to persons whose ordinary business is to buy or sell shares or debentures, whether as principal or agent; or to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571) of Hong Kong, or the SFO, and any rules made under that Ordinance; or in other circumstances which do not result in the document being a “prospectus” as defined in the Companies Ordinance (Cap. 32) of Hong Kong, or the CO, or which do not constitute an offer or invitation to the public for the purpose of the CO or the SFO. No document, invitation or advertisement relating to the securities has been issued or may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere),

that is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted under the securities laws of Hong Kong) other than with respect to securities that are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” as defined in the SFO and any rules made under that Ordinance.

This prospectus supplement and the accompanying prospectus have not been registered with the Registrar of Companies in Hong Kong. Accordingly, this prospectus supplement and the accompanying prospectus may not be issued, circulated or distributed in Hong Kong, and the securities may not be offered for subscription to members of the public in Hong Kong. Each person acquiring the securities will be required, and is deemed by the acquisition of the securities, to confirm that he is aware of the restriction on offers of the securities described in this prospectus supplement and accompanying prospectus and that he is not acquiring, and has not been offered, any securities in circumstances that contravene any such restrictions.

Japan

The offering has not been and will not be registered under the Financial Instruments and Exchange Law of Japan (Law No. 25 of 1948 of Japan, as amended), or the FIEL, and the underwriters will not offer or sell any securities, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan (the term as used herein means any person resident in Japan, including any corporation or other entity organized under the laws of Japan), or to others for re-offering or resale, directly or indirectly, in Japan or to, or for the benefit of, any resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with the FIEL and any other applicable laws, regulations and ministerial guidelines of Japan.

Singapore

This prospectus supplement and the accompanying prospectus have not been and will not be lodged or registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus supplement and the accompanying prospectus and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the securities offered hereby may not be circulated or distributed, nor may the securities be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than: (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore, or the SFA; (ii) to a relevant person pursuant to Section 275(1), or any person pursuant to Section 275(1A), and in accordance with the conditions specified in Section 275, of the SFA; or (iii) otherwise pursuant to, and in accordance with the conditions of, any other applicable provision of the SFA.

Where the securities are subscribed or purchased under Section 275 of the SFA by a relevant person that is:

- a corporation (which is not an accredited investor (as defined in Section 4A of the SFA)), the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or
- a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary of the trust is an individual who is an accredited investor, securities (as defined in Section 239(1) of the SFA) of that corporation or the beneficiaries' rights and interest (howsoever described) in that trust shall not be transferred within six months after that corporation or that trust has acquired the securities pursuant to an offer made under Section 275 of the SFA except:
- to an institutional investor or to a relevant person defined in Section 275(2) of the SFA, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
- where no consideration is or will be given for the transfer;
- where the transfer is by operation of law;
- as specified in Section 276(7) of the SFA; or
- as specified in Regulation 32 of the Securities and Futures (Offers of Investments) (Shares and Debentures) Regulations 2005 of Singapore.

Canada

(A) Resale Restrictions

The distribution of securities in Canada is being made only in the provinces of Ontario, Quebec, Alberta, British Columbia, Manitoba, New Brunswick and Nova Scotia on a private placement basis exempt from the requirement that we prepare and file a prospectus with the securities regulatory authorities in each province

where trades of these securities are made. Any resale of the securities in Canada must be made under applicable securities laws which may vary depending on the relevant jurisdiction, and which may require resales to be made under available statutory exemptions or under a discretionary exemption granted by the applicable Canadian securities regulatory authority. Purchasers are advised to seek legal advice prior to any resale of the securities.

(B) Representations of Canadian Purchasers

By purchasing securities in Canada and accepting delivery of a purchase confirmation, a purchaser is representing to us and the dealer from whom the purchase confirmation is received that:

- the purchaser is entitled under applicable provincial securities laws to purchase the securities without the benefit of a prospectus qualified under those securities laws as it is an “accredited investor” as defined under National Instrument 45-106—Prospectus Exemptions or Section 73.3(1) of the Securities Act (Ontario), as applicable,
- the purchaser is a “permitted client” as defined in National Instrument 31-103—Registration Requirements, Exemptions and Ongoing Registrant Obligations,
- where required by law, the purchaser is purchasing as principal and not as agent, and
- the purchaser has reviewed the text above under Resale Restrictions.

(C) Conflicts of Interest

Canadian purchasers are hereby notified that certain of the underwriters are relying on the exemption set out in section 3A.3 or 3A.4, if applicable, of National Instrument 33-105—*Underwriting Conflicts* from having to provide certain conflict of interest disclosure in this document.

(D) Statutory Rights of Action

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if the prospectus supplement and the accompanying prospectus (including any amendment thereto) such as this document 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 of these securities in Canada 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.

(E) Enforcement of Legal Rights

All of our directors and officers as well as the experts named herein may be located outside of Canada and, as a result, it may not be possible for Canadian purchasers to effect service of process within Canada upon us or those persons. All or a substantial portion of our assets and the assets of those persons may be located outside of Canada and, as a result, it may not be possible to satisfy a judgment against us or those persons in Canada or to enforce a judgment obtained in Canadian courts against us or those persons outside of Canada.

(F) Taxation and Eligibility for Investment

Canadian purchasers of securities should consult their own legal and tax advisors with respect to the tax consequences of an investment in the securities in their particular circumstances and about the eligibility of the securities for investment by the purchaser under relevant Canadian legislation.

Australia

This prospectus supplement and the accompanying prospectus is not a disclosure document for the purposes of Australia’s Corporations Act 2001 (Cth) of Australia, or the Corporations Act, is not lodged with the Australian Securities and Investments Commission and is only directed to the categories of exempt persons set out below. Accordingly, if you receive this prospectus supplement and the accompanying prospectus in Australia, you confirm and warrant that you are either:

- a “sophisticated investor” under Section 708(8)(a) or (b) of the Corporations Act;
- a “sophisticated investor” under Section 708(8)(c) or (d) of the Corporations Act and that you have provided an accountant’s certificate to the Company that complies with the requirements of Section 708(8)(c)(i) or (ii) of the Corporations Act and related regulations before the offer has been made;
- a person associated with the Company under Section 708(12) of the Corporations Act; or
- a “professional investor” under Section 708(11)(a) or (b) of the Corporations Act.

To the extent that you are unable to confirm or warrant that you are an exempt sophisticated investor, associated person or professional investor under the Corporations Act, any offer made to you under this prospectus supplement and the accompanying prospectus is void and incapable of acceptance.

Further, you warrant and agree that you will not offer any of the securities issued to you pursuant to this prospectus supplement and the accompanying prospectus for resale in Australia within 12 months of those securities being issued unless any such resale offer is exempt from the requirement to issue a disclosure document under Section 708 of the Corporations Act.

Israel

This document does not constitute a prospectus under the Israeli Securities Law, 5728-1968, or the Israeli Securities Law, and has not been filed with or approved by the Israel Securities Authority. In Israel, this prospectus supplement and the accompanying prospectus is being distributed only to, and is directed only at, and any offer of the securities offered hereby is directed only at: (i) a limited number of persons in accordance with the Israeli Securities Law; and (ii) investors listed in the first addendum to the Israeli Securities Law, as it may be amended from time to time, or the Addendum, consisting primarily of joint investment in trust funds, provident funds, insurance companies, banks, portfolio managers, investment advisors, members of the Tel Aviv Stock Exchange, underwriters, venture capital funds, entities with equity in excess of NIS 50 million and "qualified individuals," each as defined in the Addendum, collectively referred to as qualified investors (in each case, purchasing for their own account or, where permitted under the Addendum, for the accounts of their clients who are investors listed in the Addendum). Qualified investors are required to submit written confirmation that they fall within the scope of the Addendum, are aware of the meaning of the Addendum and agree to it.

Switzerland

The securities may not be publicly offered in Switzerland and will not be listed on the SIX Swiss Exchange, or the SIX, or on any other stock exchange or regulated trading facility in Switzerland. This prospectus supplement and the accompanying prospectus has been prepared without regard to the disclosure standards for issuance prospectuses under art. 652a or art. 1156 of the Swiss Code of Obligations or the disclosure standards for listing prospectuses under art. 27 ff. of the SIX Listing Rules or the listing rules of any other stock exchange or regulated trading facility in Switzerland. Neither this prospectus supplement and the accompanying prospectus, nor any other offering or marketing material relating to the securities or the offering, may be publicly distributed or otherwise made publicly available in Switzerland.

Neither this prospectus supplement and the accompanying prospectus, nor any other offering or marketing material relating to the offering, us or the securities offered hereby, have been or will be filed with or approved by any Swiss regulatory authority. In particular, this prospectus supplement and the accompanying prospectus will not be filed with, and the offer of securities will not be supervised by, the Swiss Financial Market Supervisory Authority FINMA, and the offer of securities has not been and will not be authorized under the Swiss Federal Act on Collective Investment Schemes, or the CISA. The investor protection afforded to acquirers of interests in collective investment schemes under the CISA does not extend to acquirers of securities offered hereby.

LEGAL MATTERS

The validity of the securities offered hereby will be passed upon for us by Wilmer Cutler Pickering Hale and Dorr LLP, Boston, Massachusetts. The underwriters are being represented in connection with this offering by Cooley LLP, New York, New York.

EXPERTS

Ernst & Young, LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our [Annual Report on Form 10-K for the year ended December 31, 2022](#), as set forth in their report, which is incorporated by reference in this prospectus supplement and elsewhere in the registration statement. Our financial statements are incorporated by reference in reliance on Ernst & Young LLP's report, given on their authority as experts in accounting and auditing.

PROSPECTUS

\$250,000,000

ASTRIA THERAPEUTICS, INC.

**Common Stock
Preferred Stock
Depository Shares
Units
Warrants**

We may offer and sell securities from time to time in one or more offerings of up to \$250,000,000 in aggregate offering price. This prospectus describes the general terms of these securities and the general manner in which these securities will be offered. We will provide the specific terms of these securities in supplements to this prospectus. The prospectus supplements will also describe the specific manner in which these securities will be offered and may also supplement, update or amend information contained in this document. You should read this prospectus and any applicable prospectus supplement before you invest.

We may offer these securities in amounts, at prices and on terms determined at the time of offering. The securities may be sold directly to you, through agents, or through underwriters and dealers. If agents, underwriters or dealers are used to sell the securities, we will name them and describe their compensation in a prospectus supplement.

Our common stock is listed on The Nasdaq Global Market under the symbol "ATXS".

Investing in these securities involves certain risks. See "Risk Factors" on page 4 of this prospectus, any similar section included in any accompanying prospectus supplement and in the documents incorporated by reference in this prospectus for a discussion of the factors you should carefully consider before deciding to purchase these securities.

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

The date of this prospectus is May 23, 2023

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ABOUT THIS PROSPECTUS

Unless the context otherwise indicates, references in this prospectus to “we,” “our” and “us” refer, collectively, to Astria Therapeutics, Inc., a Delaware corporation, and its consolidated subsidiaries. This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, which we refer to as the “SEC,” utilizing a “shelf” registration process. Under this shelf registration process, we may from time to time sell any combination of the securities described in this prospectus in one or more offerings for an aggregate initial offering price of up to \$250,000,000.

This prospectus provides you with a general description of the securities we may offer. Each time we sell securities, we will provide one or more prospectus supplements that will contain specific information about the terms of the offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read both this prospectus and the accompanying prospectus supplement together with the additional information described under the heading “Where You Can Find More Information” beginning on page [2](#) of this prospectus.

You should rely only on the information contained in or incorporated by reference in this prospectus, any accompanying prospectus supplement or in any related free writing prospectus filed by us with the SEC. We have not authorized anyone to provide you with different information. This prospectus and any accompanying prospectus supplement do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the securities described in this prospectus or such accompanying prospectus supplement or an offer to sell or the solicitation of an offer to buy such securities in any circumstances in which such offer or solicitation is unlawful. You should assume that the information appearing in this prospectus, any prospectus supplement, the documents incorporated by reference and any related free writing prospectus is accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed materially since those dates.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings are available to the public over the Internet at the SEC's website at <http://www.sec.gov>. Copies of certain information filed by us with the SEC are also available on our website at www.astriatx.com. Our website is not a part of this prospectus and is not incorporated by reference in this prospectus.

This prospectus is part of a registration statement we filed with the SEC. This prospectus omits some information contained in the registration statement in accordance with SEC rules and regulations. You should review the information and exhibits in the registration statement for further information about us and our consolidated subsidiaries and the securities we are offering. Statements in this prospectus concerning any document we filed as an exhibit to the registration statement or that we otherwise filed with the SEC are not intended to be comprehensive and are qualified by reference to these filings and the exhibits attached thereto. You should review the complete document to evaluate these statements.

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus is considered to be part of this prospectus. Because we are incorporating by reference future filings with the SEC, this prospectus is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded. This prospectus incorporates by reference the documents listed below (File No. 001-37467) and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, or the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) between the date of the initial registration statement and the effectiveness of the registration statement and following the effectiveness of the registration statement until the offering of the securities under the registration statement is terminated or completed:

- [Annual Report on Form 10-K for the fiscal year ended December 31, 2022](#), including the information specifically incorporated by reference into the Annual Report on Form 10-K from our [Definitive Proxy Statement on Schedule 14A filed with the SEC on April 20, 2023](#);
- [Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2023](#);
- Current Reports on Form 8-K filed [January 5, 2023](#) (only Item 8.01), [February 2, 2023](#) and [March 31, 2023](#); and
- [The description of our common stock contained in our Registration Statement on Form 8-A filed on June 23, 2015, including any amendments or reports filed for the purpose of updating such description.](#)

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

Astria Therapeutics, Inc.
75 State Street, Suite 1400
Boston, MA 02109
Attn: Investor Relations
(617) 349-1971

FORWARD-LOOKING STATEMENTS

This prospectus and the information incorporated by reference in this prospectus include “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Exchange Act. All statements, other than statements of historical facts, contained or incorporated by reference in this prospectus, including statements regarding our strategy, future operations, future financial position, future revenue, projected costs, prospects, plans and objectives of management and expected market growth are forward-looking statements. The words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “should,” “target,” “would” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

These forward-looking statements include, among other things, statements about:

- our expectations regarding the potential significance of the preliminary results from the Phase 1a STAR-0215 clinical trial and the anticipated nature and timing of receipt of the data from additional cohorts in such trial;
- our expectations regarding the timing, nature, goals and results of our Phase 1b/2 clinical trial of STAR-0215 and that favorable results from such trial could allow us to move directly into a pivotal trial of STAR-0215 as a potential treatment for hereditary angioedema, or HAE;
- our expectations about the design of a pivotal clinical trial for STAR-0215 as a potential treatment for HAE, assuming positive data from the Phase 1b/2 trial;
- our expectations about the unmet medical need for HAE, the potential differentiating attributes of STAR-0215 as a potential treatment for HAE, along with the potential market impact of such differentiation, the potential of STAR-0215 to be a best-in-class monoclonal antibody inhibitor of plasma kallikrein able to provide long-acting, effective attack prevention for HAE, and our vision for STAR-0215 to become the first-choice preventative treatment for HAE with administration every three or six months with the goal of normalizing the lives of people living with HAE;
- the nature and anticipated growth of the global HAE market and HAE therapies;
- our plans to improve the formulation of STAR-0215 and corresponding work to develop a drug-device combination for STAR-0215 for potential use in late-stage clinical trials and commercially, if approved;
- our expectations that we have scaled the manufacturing process for STAR-0215 cell line in a manner to generate sufficient material for our planned STAR-0215 nonclinical and clinical studies;
- our expectations regarding our ability to expand our pipeline;
- the potential benefits of any future acquisition, in-license, collaboration or preclinical development activities;
- our manufacturing plans, capabilities and strategy;
- our intellectual property position and strategy;
- our estimates regarding expenses, future revenue, capital requirements and needs for additional financing, including additional financing to fund our long-term operations;
- developments relating to our competitors and our industry; and
- the impact of government laws and regulations.

You are cautioned that these forward-looking statements are only predictions and are subject to risks, uncertainties and assumptions that are referenced in the section of any accompanying prospectus supplement entitled “Risk Factors.” You should also carefully review the risk factors and cautionary statements described in the other documents we file from time to time with the SEC, specifically our most recent Annual Report on Form 10-K, our Quarterly Reports on Form 10-Q and our Current Reports on Form 8-K. We undertake no obligation to revise or update any forward-looking statements, except to the extent required by law.

RISK FACTORS

Investing in our securities involves significant risk. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed under the heading “Risk Factors” in the applicable prospectus supplement and in any free-writing prospectus that we authorize for use in connection with an offering, together with all of the other information contained or incorporated by reference in the prospectus supplement or appearing or incorporated by reference in this prospectus, including the risks, uncertainties and assumptions discussed under the heading “Risk Factors” included in our most recent Annual Report on Form 10-K, as revised or supplemented by our most recent Quarterly Report on Form 10-Q or our current reports on Form 8-K that we have filed with the SEC, which are incorporated herein by reference, and which may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our operations. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities.

ASTRIA THERAPEUTICS, INC.

This summary highlights selected information contained elsewhere in this prospectus and in the documents we incorporate by reference. This summary does not contain all of the information you should consider before making an investment decision. You should read this entire prospectus carefully, especially the risks discussed under “Risk Factors” beginning on page 4 of this prospectus, along with our consolidated financial statements and notes to those consolidated financial statements and the other information incorporated by reference in this prospectus.

We are a biopharmaceutical company focused on the discovery, development and commercialization of novel therapeutics. Our mission is to bring hope with life-changing therapies to patients and families that are affected by rare and niche allergic and immunological diseases. Our lead product candidate is STAR-0215, a potential best-in-class monoclonal antibody inhibitor of plasma kallikrein in clinical development for the treatment of hereditary angioedema, or HAE, a rare, debilitating and potentially life-threatening disease. STAR-0215 has the potential to be the most patient-friendly chronic treatment option for HAE, based on the data generated to date and the existing HAE treatment landscape.

The treatment options for patients with HAE have improved in recent years, however, there is remaining unmet medical need and the global market for HAE therapy is strong and growing. The goal for STAR-0215 is to develop a best-in-class monoclonal antibody inhibitor of plasma kallikrein able to provide long-acting, effective attack prevention for HAE. Our vision for STAR-0215 is to become the first-choice preventative treatment for HAE with administration every three or six months with the goal of normalizing the lives of people living with HAE. Targeted plasma kallikrein inhibition can prevent HAE attacks by suppressing the pathway that generates bradykinin and causes excessive swelling. STAR-0215 is currently in clinical development.

Our principal executive offices are located at 75 State Street, Suite 1400, Boston, Massachusetts 02109, and our telephone number is (617) 349-1971.

USE OF PROCEEDS

We intend to use the net proceeds from the sale of any securities offered under this prospectus for general corporate purposes unless otherwise indicated in the applicable prospectus supplement. General corporate purposes may include research and development expenditures, repayment and refinancing of debt, working capital and capital expenditures. We have not determined the amount of net proceeds to be used specifically for such purposes. As a result, management will retain broad discretion over the allocation of the net proceeds of any offering.

DESCRIPTION OF CAPITAL STOCK

The following description of our capital stock is intended as a summary only and therefore is not a complete description of our capital stock. This description is based upon, and is qualified by reference to, our certificate of incorporation, our by-laws and applicable provisions of Delaware corporate law. You should read our certificate of incorporation and by-laws, which are filed as exhibits to the registration statement of which this prospectus forms a part, for the provisions that are important to you.

Our authorized capital stock consists of 150,000,000 shares of common stock, \$0.001 par value per share, and 5,000,000 shares of preferred stock, \$0.001 par value per share. As of March 31, 2023, 27,986,718 shares of common stock were outstanding and 31,107 shares of our Series X Preferred Stock were outstanding.

Common Stock

Voting Rights. Holders of our common stock are entitled to one vote for each share held on all matters submitted to a vote of stockholders, except that unless otherwise required by law, holders of our common stock are not entitled to vote on any amendment to the certificate of incorporation that relates solely to the terms of one or more outstanding series of preferred stock, if the holders of such affected series are entitled, either separately or together as a class with the holders of one or more such other series, to vote thereon pursuant to the certificate of incorporation. Holders of our common stock do not have cumulative voting rights.

An election of directors will be decided by a plurality of the votes cast by the stockholders entitled to vote on the election at a duly held stockholders' meeting at which a quorum is present. All other questions will be decided by a majority of the votes cast by stockholders entitled to vote thereon at a duly held meeting of stockholders at which a quorum is present, except when a different vote is required by law, our certificate of incorporation or by-laws.

Dividends. Holders of common stock are entitled to receive proportionately any dividends as may be declared by our board of directors, subject to any preferential dividend or other rights of any series of preferred stock that we may designate and issue in the future.

Liquidation and Dissolution. In the event of our liquidation or dissolution, the holders of common stock are entitled to receive proportionately our net assets available for distribution to stockholders after the payment of all debts and other liabilities and subject to the prior rights of any outstanding preferred stock.

Other Rights. Holders of common stock have no preemptive, subscription, redemption or conversion rights. The rights, preferences and privileges of 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 and issue in the future.

Transfer Agent and Registrar. The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC.

Listing on The Nasdaq Global Market. Our common stock is listed on The Nasdaq Global Market under the symbol "ATXS."

Preferred Stock

General Description

Under our restated certificate of incorporation, we are authorized to issue "blank check" preferred stock, which may be issued in one or more series upon authorization of our board of directors. Our board of directors is authorized to fix the designation of the series, the number of authorized shares of the series, dividend rights and terms, conversion rights, voting rights, redemption rights and terms, liquidation preferences and any other rights, powers, preferences and limitations applicable to each series of preferred stock. The authorized shares of our preferred stock are available for issuance without further action by our

stockholders, unless such action is required by applicable law or the rules of any stock exchange on which our securities may be listed. If the approval of our stockholders is not required for the issuance of shares of our preferred stock, our board may determine not to seek stockholder approval. The specific terms of any series of preferred stock offered pursuant to this prospectus will be described in the prospectus supplement relating to that series of preferred stock.

A series of our preferred stock could, depending on the terms of such series, impede the completion of a merger, tender offer or other takeover attempt. Our board of directors will make any determination to issue preferred shares based upon its judgment as to the best interests of our stockholders. Our directors, in so acting, could issue preferred stock having terms that could discourage an acquisition attempt through which an acquirer may be able to change the composition of our board of directors, including a tender offer or other transaction that some, or a majority, of our stockholders might believe to be in their best interests or in which stockholders might receive a premium for their stock over the then-current market price of the stock.

The preferred stock has the terms described below unless otherwise provided in the prospectus supplement relating to a particular series of preferred stock. You should read the prospectus supplement relating to the particular series of preferred stock being offered for specific terms, including:

- the designation and stated value per share of the preferred stock and the number of shares offered;
- the amount of liquidation preference per share;
- the price at which the preferred stock will be issued;
- the dividend rate, or method of calculation of dividends, the dates on which dividends will be payable, whether dividends will be cumulative or noncumulative and, if cumulative, the dates from which dividends will commence to accumulate;
- any redemption or sinking fund provisions;
- if other than the currency of the United States, the currency or currencies including composite currencies in which the preferred stock is denominated and/or in which payments will or may be payable;
- any conversion provisions;
- whether we have elected to offer depositary shares as described under “Description of Depositary Shares”; and
- any other rights, preferences, privileges, limitations and restrictions on the preferred stock.

The preferred stock will, when issued, be fully paid and non-assessable. Unless otherwise specified in the prospectus supplement, each series of preferred stock will rank equally as to dividends and liquidation rights in all respects with each other series of preferred stock. The rights of holders of shares of each series of preferred stock will be subordinate to those of our general creditors.

As described under “Description of Depositary Shares,” we may, at our option, with respect to any series of preferred stock, elect to offer fractional interests in shares of preferred stock, and provide for the issuance of depositary receipts representing depositary shares, each of which will represent a fractional interest in a share of the series of preferred stock. The fractional interest will be specified in the prospectus supplement relating to a particular series of preferred stock.

Rank. Unless otherwise specified in the prospectus supplement, the preferred stock will, with respect to dividend rights and rights upon our liquidation, dissolution or winding up of our affairs, rank:

- senior to our common stock and to all equity securities ranking junior to such preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs;
- on a parity with all equity securities issued by us, the terms of which specifically provide that such equity securities rank on a parity with the preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs; and

- junior to all equity securities issued by us, the terms of which specifically provide that such equity securities rank senior to the preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs.

The term “equity securities” does not include convertible debt securities.

Dividends. Holders of the preferred stock of each series will be entitled to receive, when, as and if declared by our board of directors, cash dividends at such rates and on such dates described in the prospectus supplement. Different series of preferred stock may be entitled to dividends at different rates or based on different methods of calculation. The dividend rate may be fixed or variable or both. Dividends will be payable to the holders of record as they appear on our stock books on record dates fixed by our board of directors, as specified in the applicable prospectus supplement.

Dividends on any series of preferred stock may be cumulative or noncumulative, as described in the applicable prospectus supplement. If our board of directors does not declare a dividend payable on a dividend payment date on any series of noncumulative preferred stock, then the holders of that noncumulative preferred stock will have no right to receive a dividend for that dividend payment date, and we will have no obligation to pay the dividend accrued for that period, whether or not dividends on that series are declared payable on any future dividend payment dates. Dividends on any series of cumulative preferred stock will accrue from the date we initially issue shares of such series or such other date specified in the applicable prospectus supplement.

No dividends may be declared or paid or funds set apart for the payment of any dividends on any parity securities unless full dividends have been paid or set apart for payment on the preferred stock. If full dividends are not paid, the preferred stock will share dividends pro rata with the parity securities.

No dividends may be declared or paid or funds set apart for the payment of dividends on any junior securities unless full dividends for all dividend periods terminating on or prior to the date of the declaration or payment will have been paid or declared and a sum sufficient for the payment set apart for payment on the preferred stock.

Liquidation Preference. Upon any voluntary or involuntary liquidation, dissolution or winding up of our affairs, then, before we make any distribution or payment to the holders of any common stock or any other class or series of our capital stock ranking junior to the preferred stock in the distribution of assets upon any liquidation, dissolution or winding up of our affairs, the holders of each series of preferred stock shall be entitled to receive out of assets legally available for distribution to stockholders, liquidating distributions in the amount of the liquidation preference per share set forth in the prospectus supplement, plus any accrued and unpaid dividends thereon. Such dividends will not include any accumulation in respect of unpaid noncumulative dividends for prior dividend periods. Unless otherwise specified in the prospectus supplement, after payment of the full amount of their liquidating distributions, the holders of preferred stock will have no right or claim to any of our remaining assets. Upon any such voluntary or involuntary liquidation, dissolution or winding up, if our available assets are insufficient to pay the amount of the liquidating distributions on all outstanding preferred stock and the corresponding amounts payable on all other classes or series of our capital stock ranking on parity with the preferred stock and all other such classes or series of shares of capital stock ranking on parity with the preferred stock in the distribution of assets, then the holders of the preferred stock and all other such classes or series of capital stock ranking on parity with the preferred stock will share ratably in any such distribution of assets in proportion to the full liquidating distributions to which they would otherwise be entitled.

Upon any such liquidation, dissolution or winding up and if we have made liquidating distributions in full to all holders of preferred stock, we will distribute our remaining assets among the holders of any other classes or series of capital stock ranking junior to the preferred stock according to their respective rights and preferences and, in each case, according to their respective number of shares. For such purposes, our consolidation or merger with or into any other corporation, trust or entity, or the sale, lease or conveyance of all or substantially all of our property or assets will not be deemed to constitute a liquidation, dissolution or winding up of our affairs.

Redemption. If so provided in the applicable prospectus supplement, the preferred stock will be subject to mandatory redemption or redemption at our option, as a whole or in part, in each case upon the terms, at the times and at the redemption prices set forth in such prospectus supplement.

The prospectus supplement relating to a series of preferred stock that is subject to mandatory redemption will specify the number of shares of preferred stock that shall be redeemed by us in each year commencing after a date to be specified, at a redemption price per share to be specified, together with an amount equal to all accrued and unpaid dividends thereon to the date of redemption. Unless the shares have a cumulative dividend, such accrued dividends will not include any accumulation in respect of unpaid dividends for prior dividend periods. We may pay the redemption price in cash or other property, as specified in the applicable prospectus supplement. If the redemption price for preferred stock of any series is payable only from the net proceeds of the issuance of shares of our capital stock, the terms of such preferred stock may provide that, if no such shares of our capital stock shall have been issued or to the extent the net proceeds from any issuance are insufficient to pay in full the aggregate redemption price then due, such preferred stock shall automatically and mandatorily be converted into the applicable shares of our capital stock pursuant to conversion provisions specified in the applicable prospectus supplement. Notwithstanding the foregoing, we will not redeem any preferred stock of a series unless:

- if that series of preferred stock has a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full cumulative dividends on the preferred stock for all past dividend periods and the then current dividend period; or
- if such series of preferred stock does not have a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full dividends for the then current dividend period.

In addition, we will not acquire any preferred stock of a series unless:

- if that series of preferred stock has a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full cumulative dividends on all outstanding shares of such series of preferred stock for all past dividend periods and the then current dividend period; or
- if that series of preferred stock does not have a cumulative dividend, we have declared and paid or contemporaneously declare and pay or set aside funds to pay full dividends on the preferred stock of such series for the then current dividend period.

However, at any time we may purchase or acquire preferred stock of that series (1) pursuant to a purchase or exchange offer made on the same terms to holders of all outstanding preferred stock of such series or (2) by conversion into or exchange for shares of our capital stock ranking junior to the preferred stock of such series as to dividends and upon liquidation.

If fewer than all of the outstanding shares of preferred stock of any series are to be redeemed, we will determine the number of shares that may be redeemed pro rata from the holders of record of such shares in proportion to the number of such shares held or for which redemption is requested by such holder or by any other equitable manner that we determine. Such determination will reflect adjustments to avoid redemption of fractional shares.

Unless otherwise specified in the prospectus supplement, we will mail notice of redemption at least 10 days but not more than 60 days before the redemption date to each holder of record of preferred stock to be redeemed at the address shown on our stock transfer books. Each notice shall state:

- the redemption date;
- the number of shares and series of preferred stock to be redeemed;
- the redemption price;
- the place or places where certificates for such preferred stock are to be surrendered for payment of the redemption price;
- that dividends on the shares to be redeemed will cease to accrue on such redemption date;
- the date on which the holder's conversion rights, if any, as to such shares shall terminate; and
- the specific number of shares to be redeemed from each such holder if fewer than all the shares of any series are to be redeemed.

If notice of redemption has been given and we have set aside the funds necessary for such redemption in trust for the benefit of the holders of any shares called for redemption, then from and after the redemption date, dividends will cease to accrue on such shares, and all rights of the holders of such shares will terminate, except the right to receive the redemption price.

Voting Rights. Holders of preferred stock will not have any voting rights, except as required by law or as indicated in the applicable prospectus supplement.

Unless otherwise provided for under the terms of any series of preferred stock, no consent or vote of the holders of shares of preferred stock or any series thereof shall be required for any amendment to our certificate of incorporation that would increase the number of authorized shares of preferred stock or the number of authorized shares of any series thereof or decrease the number of authorized shares of preferred stock or the number of authorized shares of any series thereof (but not below the number of authorized shares of preferred stock or such series, as the case may be, then outstanding).

Conversion Rights. The terms and conditions, if any, upon which any series of preferred stock is convertible into shares of our common stock will be set forth in the applicable prospectus supplement relating thereto. Such terms will include the number of shares of common stock into which the shares of preferred stock are convertible, the conversion price, rate or manner of calculation thereof, the conversion period, provisions as to whether conversion will be at our option or at the option of the holders of the preferred stock, the events requiring an adjustment of the conversion price and provisions affecting conversion in the event of the redemption.

Transfer Agent and Registrar. The transfer agent and registrar for the preferred stock will be set forth in the applicable prospectus supplement.

Series X Preferred Stock

Pursuant to our Certificate of Designation of Preferences, Rights and Limitations of Series X Convertible Preferred Stock, or the Certificate of Designation, we designated 91,380 shares of our authorized and unissued preferred stock as Series X convertible preferred stock, or Series X Preferred Stock, and established the rights, preferences and privileges of the Series X Preferred Stock, which are summarized below. As of March 31, 2023, we had 31,107 outstanding shares of Series X Preferred Stock.

Conversion. The Series X Preferred Stock is convertible at the option of the holder thereof into a number of registered shares of common stock determined by dividing the aggregate stated value of the Series X Preferred Stock being converted by the conversion price then in effect. Each share of Series X Preferred Stock is convertible into 166.67 shares of common stock. At March 31, 2023, the number of shares of common stock issuable upon conversion of the remaining outstanding shares of Series X Preferred Stock is 5,184,591. No holder may request a conversion of its Series X Preferred Stock to the extent such conversion would result in the holder and its affiliates beneficially owning more than a pre-set conversion blocker threshold, which was initially set at 9.99% of our common stock then outstanding (as of March 31, 2023, these percentages are set at 9.99% and can be adjusted by the holder to a number between 4.99% and 19.99%). The amount of beneficial ownership of a holder and its affiliates will be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations of that section.

Conversion Price Adjustment — Stock Dividends and Stock Splits. If we pay a stock dividend or otherwise make a distribution payable in common stock on our common stock or any common stock equivalents, subdivide or combine our outstanding common stock, or reclassify our common stock in such a way that we issue additional shares of our capital stock, the conversion price of the Series X Preferred Stock will be adjusted by multiplying the then-existing conversion price by a fraction, the numerator of which is the number of shares of common stock outstanding immediately before the distribution, dividend, adjustment or recapitalization and the denominator of which is the number of shares of common stock outstanding immediately after such action.

Fundamental Transaction. If we effect a “fundamental transaction” (as defined below), then upon any future conversion of the Series X Preferred Stock, a holder of our Series X Preferred Stock will have the right to receive, for each common share such holder would have received upon such conversion, the same kind

and amount of securities, cash or property as such holder would have been entitled to receive in the fundamental transaction had such holder been a holder of common stock immediately prior to the fundamental transaction.

The term “fundamental transaction” means any of the following:

- a merger or consolidation of us with or into another entity or any stock sale to, or other business combination in which we are not the surviving entity;
- the sale of all or substantially all of our assets in one transaction or a series of related transactions;
- any completed tender offer or exchange offer involving holders of common stock in which more than 50% of our common stock is converted or exchanged into other securities, cash or property, regardless of who makes such offer; or
- any reclassification of our common stock or any compulsory share exchange by which our common stock is effectively converted into or exchanged for other securities, cash or property (but not a reverse stock split).

If the holders of our common stock are given a choice as to the securities, cash or property to be received in a fundamental transaction, the holders of Series X Preferred Stock will be given the same choice on conversion of such holders’ shares.

Dividends. Holders of Series X Preferred Stock are entitled to receive dividends, subject to certain beneficial ownership limitations, on shares of Series X Preferred Stock equal, on an as-if-converted-to-common-stock basis, and in the same form as dividends actually paid on shares of the Company’s common stock.

Voting Rights. Except as otherwise required by law, the Series X Preferred Stock does not have voting rights. However, as long as any shares of Series X Preferred Stock are outstanding, the Company may not, without the affirmative vote of the holders of a majority of the then outstanding shares of the Series X Preferred Stock, (i) alter or change adversely the powers, preferences or rights given to the Series X Preferred Stock or alter or amend the Certificate of Designation that authorized the Series X Preferred Stock, amend or repeal any provision of, or add any provision to, the Company’s Certificate of Incorporation or bylaws, or file any articles of amendment, certificate of designations, preferences, limitations and relative rights of any series of preferred stock, if such action would adversely alter or change the preferences, rights, privileges or powers of, or restrictions provided for the benefit of the Series X Preferred Stock, (ii) issue further shares of Series X Preferred Stock or increase or decrease (other than by conversion) the number of authorized shares of Series X Preferred Stock, or (iii) enter into any agreement with respect to any of the foregoing.

Stock Options

As of March 31, 2023, options to purchase 2,562,234 shares of our common stock at a weighted-average exercise price of \$15.27 per share were outstanding, of which options to purchase 835,970 shares of our common stock were exercisable, at a weighted-average exercise price of \$23.94 per share.

Warrants

As of March 31, 2023, we had outstanding warrants to purchase shares of our common stock exercisable for an aggregate of 1,031,820 shares of our common stock at a weighted-average exercise price of \$60.90 per share.

Provisions of Our Certificate of Incorporation and By-laws and Delaware Law That May Have Anti-Takeover Effects

Delaware law, our certificate of incorporation and our by-laws contain provisions that could have the effect of delaying, deferring or discouraging another party from acquiring control of us. These provisions, which are summarized below, are expected to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of us to first negotiate with our board of directors.

Staggered Board; Removal of Directors. Our certificate of incorporation and by-laws divide our board of directors into three classes with staggered three-year terms. In addition, a director is only able to be removed for cause and only by the affirmative vote of the holders of at least 75% of the votes that all of our stockholders would be entitled to cast in an annual election of directors. Any vacancy on our board of directors, including a vacancy resulting from an enlargement of our board of directors, is only able to be filled by vote of a majority of our directors then in office. The classification of our board of directors and the limitations on the removal of directors and filling of vacancies could make it more difficult for a third party to acquire, or discourage a third party from seeking to acquire, control of our company.

Stockholder Action by Written Consent; Special Meetings. Our certificate of incorporation provides that any action required or permitted to be taken by our stockholders must be effected at a duly called annual or special meeting of our stockholders and may not be effected by any consent in writing by our stockholders. Our certificate of incorporation and by-laws also provide that, except as otherwise required by law, special meetings of our stockholders can only be called by our chairman of the board, our chief executive officer or our board of directors.

Advance Notice Requirements for Stockholder Proposals. Our by-laws establish an advance notice procedure for stockholder proposals to be brought before an annual meeting of stockholders, including proposed nominations of persons for election to our board of directors. Stockholders at an annual meeting are only able to consider proposals or nominations specified in the notice of meeting or brought before the meeting by or at the direction of our board of directors or by a stockholder of record on the record date for the meeting who is entitled to vote at the meeting and who has delivered timely written notice in proper form to our secretary of the stockholder's intention to bring such business before the meeting. These provisions could have the effect of delaying until the next stockholder meeting stockholder actions that are favored by the holders of a majority of our outstanding voting securities.

Delaware Business Combination Statute. We are subject to Section 203 of the General Corporation Law of the State of Delaware. Subject to certain exceptions, Section 203 prevents a publicly held Delaware corporation from engaging in a "business combination" with any "interested stockholder" for three years following the date that the person became an interested stockholder, unless the interested stockholder attained such status with the approval of our board of directors or unless the business combination is approved in a prescribed manner. A "business combination" includes, among other things, a merger or consolidation involving us and the "interested stockholder" and the sale of more than 10% of our assets. In general, an "interested stockholder" is any entity or person beneficially owning 15% or more of our outstanding voting stock and any entity or person affiliated with or controlling or controlled by such entity or person.

Amendment of Certificate of Incorporation and By-laws. The General Corporation Law of the State of Delaware provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or by-laws, unless a corporation's certificate of incorporation or by-laws, as the case may be, requires a greater percentage. Our by-laws may be amended or repealed by a majority vote of our board of directors or by the affirmative vote of the holders of at least 75% of the votes that all of our stockholders would be entitled to cast in any annual election of directors. In addition, the affirmative vote of the holders of at least 75% of the votes that all of our stockholders would be entitled to cast in any annual election of directors is required to amend or repeal or to adopt any provisions inconsistent with any of the provisions of our certificate of incorporation described above under "*— Staggered Board; Removal of Directors*" and "*— Stockholder Action by Written Consent; Special Meetings.*"

Exclusive Forum Selection. Our 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 (or if the Court of Chancery does not have jurisdiction, the federal district court for the District of Delaware) shall be the sole and exclusive forum for (1) any derivative action or proceeding brought on behalf of our company, (2) any action asserting a claim of breach of a fiduciary duty owed by any of our directors, officers or employees to our company or our stockholders, (3) any action asserting a claim against our company arising pursuant to any provision of the General Corporation Law of the State of Delaware or our certificate of incorporation or by-laws, or (4) any action asserting a claim against our company governed by the internal affairs doctrine. This exclusive forum provision would not apply to suits brought to enforce any

liability or duty created by the Securities Act or the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction. To the extent that any such claims may be based upon federal law claims, Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. Furthermore, Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder. Although our restated certificate contains the choice of forum provision described above, it is possible that a court could rule that such a provision is inapplicable for a particular claim or action or that such provision is unenforceable. Although our certificate of incorporation contains the choice of forum provision described above, it is possible that a court could rule that such a provision is inapplicable for a particular claim or action or that such provision is unenforceable.

Authorized but Unissued Shares. Our authorized but unissued shares of common stock and preferred stock are available for future issuance without stockholder approval, subject to any limitations imposed by the listing requirements of The Nasdaq Global Market. These additional shares may be used for a variety of corporate finance transactions, acquisitions and employee benefit plans. The existence of authorized but unissued and unreserved common stock and preferred stock could make it more difficult or discourage an attempt to obtain control of us by means of a proxy contest, tender offer, merger or otherwise.

DESCRIPTION OF DEPOSITARY SHARES

General

We may, at our option, elect to offer fractional shares of preferred stock, which we call depositary shares, rather than full shares of preferred stock. If we do, we will issue to the public receipts, called depositary receipts, for depositary shares, each of which will represent a fraction, to be described in the applicable prospectus supplement, of a share of a particular series of preferred stock. Unless otherwise provided in the prospectus supplement, each owner of a depositary share will be entitled, in proportion to the applicable fractional interest in a share of preferred stock represented by the depositary share, to all the rights and preferences of the preferred stock represented by the depositary share. Those rights include dividend, voting, redemption, conversion and liquidation rights.

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

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

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

Dividends and Other Distributions

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

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

Liquidation Preference

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

Withdrawal of Stock

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

Redemption of Depositary Shares

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

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

Voting the Preferred Stock

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

Charges of Depositary

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

Amendment and Termination of the Deposit Agreement

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

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

Resignation and Removal of Depositary

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

Notices

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

Limitation of Liability

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

DESCRIPTION OF UNITS

We may issue units comprised of one or more of the other securities that may be offered under this prospectus, in any combination. The following, together with the additional information we may include in the applicable prospectus supplement, summarizes the material terms and provisions of the units that we may offer under this prospectus. While the terms summarized below will apply generally to any units we may offer, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement.

Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately at any time, or at any time before a specified date.

Any applicable prospectus supplement will describe:

- the material terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any material provisions relating to the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and
- any material provisions of the governing unit agreement that differ from those described above.

DESCRIPTION OF WARRANTS

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

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

FORMS OF SECURITIES

Each depositary share, unit and warrant will be represented either by a certificate issued in definitive form to a particular investor or by one or more global securities representing the entire issuance of securities. Unless the applicable prospectus supplement provides otherwise, certificated securities in definitive form and global securities will be issued in registered form. Definitive securities name you or your nominee as the owner of the security, and in order to transfer or exchange these securities or to receive payments other than interest or other interim payments, you or your nominee must physically deliver the securities to the trustee, registrar, paying agent or other agent, as applicable. Global securities name a depositary or its nominee as the owner of the depositary shares, units or warrants represented by these global securities. The depositary maintains a computerized system that will reflect each investor's beneficial ownership of the securities through an account maintained by the investor with its broker/dealer, bank, trust company or other representative, as we explain more fully below.

Global Securities

We may issue the depositary shares, units and warrants in the form of one or more fully registered global securities that will be deposited with a depositary or its nominee identified in the applicable prospectus supplement and registered in the name of that depositary or nominee. In those cases, one or more global securities will be issued in a denomination or aggregate denominations equal to the portion of the aggregate principal or face amount of the securities to be represented by global securities. Unless and until it is exchanged in whole for securities in definitive registered form, a global security may not be transferred except as a whole by and among the depositary for the global security, the nominees of the depositary or any successors of the depositary or those nominees.

If not described below, any specific terms of the depositary arrangement with respect to any securities to be represented by a global security will be described in the prospectus supplement relating to those securities. We anticipate that the following provisions will apply to all depositary arrangements.

Ownership of beneficial interests in a global security will be limited to persons, called participants, that have accounts with the depositary or persons that may hold interests through participants. Upon the issuance of a global security, the depositary will credit, on its book-entry registration and transfer system, the participants' accounts with the respective principal or face amounts of the securities beneficially owned by the participants. Any dealers, underwriters or agents participating in the distribution of the securities will designate the accounts to be credited. Ownership of beneficial interests in a global security will be shown on, and the transfer of ownership interests will be effected only through, records maintained by the depositary, with respect to interests of participants, and on the records of participants, with respect to interests of persons holding through participants. The laws of some states may require that some purchasers of securities take physical delivery of these securities in definitive form. These laws may impair your ability to own, transfer or pledge beneficial interests in global securities.

So long as the depositary, or its nominee, is the registered owner of a global security, that depositary or its nominee, as the case may be, will be considered the sole owner or holder of the securities represented by the global security for all purposes under the applicable deposit agreement, unit agreement or warrant agreement. Except as described below, owners of beneficial interests in a global security will not be entitled to have the securities represented by the global security registered in their names, will not receive or be entitled to receive physical delivery of the securities in definitive form and will not be considered the owners or holders of the securities under the applicable deposit agreement, unit agreement or warrant agreement. Accordingly, each person owning a beneficial interest in a global security must rely on the procedures of the depositary for that global security and, if that person is not a participant, on the procedures of the participant through which the person owns its interest, to exercise any rights of a holder under the applicable deposit agreement, unit agreement or warrant agreement. We understand that under existing industry practices, if we request any action of holders or if an owner of a beneficial interest in a global security desires to give or take any action that a holder is entitled to give or take under the applicable deposit agreement, unit agreement or warrant agreement, the depositary for the global security would authorize the participants holding the relevant beneficial interests to give or take that action, and the participants would authorize beneficial owners owning through them to give or take that action or would otherwise act upon the instructions of beneficial owners holding through them.

Any payments to holders with respect to depositary shares, units or warrants represented by a global security registered in the name of a depositary or its nominee will be made to the depositary or its nominee, as the case may be, as the registered owner of the global security. None of us, or any warrant agent, unit agent or other agent of ours, or any agent of any warrant agent or unit agent will have any responsibility or liability for any aspect of the records relating to payments made on account of beneficial ownership interests in the global security or for maintaining, supervising or reviewing any records relating to those beneficial ownership interests.

We expect that the depositary for any of the securities represented by a global security, upon receipt of any payment to holders or other distribution of underlying securities or other property on that registered global security, will immediately credit participants' accounts in amounts proportionate to their respective beneficial interests in that global security as shown on the records of the depositary. We also expect that payments by participants to owners of beneficial interests in a global security held through participants will be governed by standing customer instructions and customary practices, as is now the case with the securities held for the accounts of customers or registered in "street name," and will be the responsibility of those participants.

If the depositary for any of the securities represented by a global security is at any time unwilling or unable to continue as depositary or ceases to be a clearing agency registered under the Exchange Act, and a successor depositary registered as a clearing agency under the Exchange Act is not appointed by us within 90 days, we will issue securities in definitive form in exchange for the global security that had been held by the depositary. Any securities issued in definitive form in exchange for a global security will be registered in the name or names that the depositary gives to the relevant warrant agent, unit agent or other relevant agent of ours or theirs. It is expected that the depositary's instructions will be based upon directions received by the depositary from participants with respect to ownership of beneficial interests in the global security that had been held by the depositary.

PLAN OF DISTRIBUTION

We may sell securities:

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

In addition, we may issue the securities as a dividend or distribution or in a subscription rights offering to our existing security holders. This prospectus may be used in connection with any offering of our securities through any of these methods or other methods described in the applicable prospectus supplement.

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

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

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

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

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

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

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

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

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

Remarketing firms, agents, underwriters, dealers and other persons may be entitled under agreements which they may enter into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, and may be customers of, engage in transactions with or perform services for us in the ordinary course of business.

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

- the purchase by an institution of the securities covered under that contract shall not at the time of delivery be prohibited under the laws of the jurisdiction to which that institution is subject; and
- if the securities are also being sold to underwriters acting as principals for their own account, the underwriters shall have purchased such securities not sold for delayed delivery. The underwriters and other persons acting as our agents will not have any responsibility in respect of the validity or performance of delayed delivery contracts.

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

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

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

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

LEGAL MATTERS

Unless the applicable prospectus supplement indicates otherwise, the validity of the securities in respect of which this prospectus is being delivered will be passed upon by Wilmer Cutler Pickering Hale and Dorr LLP. Additional legal matters may be passed upon for us or any underwriters, dealer or agents, by counsel that we will name in the applicable prospectus supplement.

EXPERTS

Ernst & Young, LLP, independent registered public accounting firm, has audited our consolidated financial statements included in our [Annual Report on Form 10-K for the year ended December 31, 2022](#), as set forth in their report, which 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.

ASTRIA THERAPEUTICS, INC.

**8,253,895 Shares of Common Stock
Pre-Funded Warrants to Purchase 1,571,093 Shares of
Common Stock
Common Stock Warrants to Purchase 7,368,738 Shares of
Common Stock**

PROSPECTUS SUPPLEMENT

Joint Book-Running Managers

Jefferies

Evercore ISI

Co-Lead Managers

LifeSci Capital

Oppenheimer & Co.

October 11, 2023
