

PROSPECTUS SUPPLEMENT
(To Prospectus Dated May 23, 2022)**ASTRIA THERAPEUTICS, INC.****9,082,653 Shares**
Common Stock

We are offering 9,082,653 shares of our common stock.

Our common stock is listed on The Nasdaq Global Market under the symbol "ATXS." On December 14, 2022, the last reported sale price of our common stock on The Nasdaq Global Market was \$11.01 per share.

Investing in our securities involves risks. See the "Risk Factors" on page S-8 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	TOTAL
Public offering price	\$ 11.0100	\$100,000,009.53
Underwriting discounts and commissions ⁽¹⁾	\$ 0.6606	\$ 6,000,000.57
Proceeds to us before expenses	\$ 10.3494	\$ 94,000,008.96

⁽¹⁾ See the section titled "Underwriting" beginning on page S-15 for a description of the compensation payable to the underwriters.

The underwriters expect to deliver the shares on or about December 19, 2022. We have granted the underwriters an option to purchase up to an additional 1,362,397 shares of common stock from us, at the public offering price, less the underwriting discounts and commissions, for 30 days after the date of this prospectus supplement. If the underwriters exercise the option in full, the total underwriting discounts and commissions payable by us will be \$6,900,000.03, and the total proceeds to us, before expenses, will be \$108,100,000.47.

Joint Book-Running Managers

Jefferies

Evercore ISI

Co-Lead Managers

LifeSci Capital

Oppenheimer & Co.

Co-Manager

H.C. Wainwright & Co.

Prospectus Supplement dated December 15, 2022.

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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 of the common stock 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 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, 2021, filed with the SEC on March 10, 2022](#), including the information specifically incorporated by reference into our Annual Report on [Form 10-K for the year ended December 31, 2021](#) from our [Definitive Proxy Statement on Schedule 14A filed with the SEC on April 27, 2022](#);
- our Quarterly Reports on Form 10-Q for the quarterly periods ended March 31, 2022, June 30, 2022, and September 30, 2022, filed with the SEC on [May 12, 2022](#), [August 9, 2022](#), and [November 10, 2022](#), respectively;
- our Current Reports on Form 8-K filed with the SEC on [February 2, 2022](#), [February 22, 2022](#), [June 10, 2022](#), [September 16, 2022](#), [November 10, 2022](#) and [December 15, 2022](#); 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 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 or incorporated by reference in this prospectus, 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, and the timing of availability of final results from such trial;
- our expectations regarding the timing, plans, goals and results of our planned Phase 1b/2 clinical trial of STAR-0215;
- our expectations about the unmet medical need for hereditary angioedema, or 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 and the most patient friendly treatment for HAE, and the nature and anticipated growth of the global HAE market and HAE therapies;
- our expectations that we have identified a stable cell line for STAR-0215 and the ability of such cell line to generate sufficient material of suitable and appropriate quality for our Phase 1a clinical trial of STAR-0215 and our planned STAR-0215 preclinical and clinical studies, including our planned Phase 1b/2 clinical trial, in a timely manner;
- our expectations regarding our ability to expand our pipeline;
- the potential benefits of any future acquisition, in-license, collaboration or pre-clinical development activities;
- our manufacturing plans, capabilities and strategy;
- our intellectual property position and strategy;
- our estimates regarding our cash runway, expenses, future revenues, 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
- our use of 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 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-8 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. 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 preclinical and clinical data generated to date and the existing HAE treatment landscape.

The treatment options for patients with HAE have improved, however, there is remaining unmet medical need and the global market for HAE therapy is strong and growing. We estimate that the global HAE therapy market was approximately \$2.3 billion in 2021 and that it has the potential to grow to \$4.5 billion by 2027 due to earlier diagnosis of patients, an increase in patients taking preventative treatments and geographic expansion for currently available therapies. Our vision 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 with dosing once every three months or longer. Targeted plasma kallikrein inhibition can prevent HAE attacks by suppressing the pathway that generates bradykinin and causes excessive swelling. In an *in vitro* preclinical study, we observed that STAR-0215 is at least as potent as lanadelumab, a plasma kallikrein inhibitor that has been approved by the U.S. Food and Drug Administration, or FDA, for the treatment of HAE, in inhibiting the generation bradykinin. In an *in vivo* preclinical study in non-human primates we observed that STAR-0215 has a half-life that is approximately three time longer than lanadelumab. We submitted an Investigational New Drug application, or IND, for STAR-0215 in June 2022 and the FDA cleared the IND for STAR-0215 in July 2022. We initiated a Phase 1a clinical trial for STAR-0215 in August 2022. The Phase 1a randomized, double blind, placebo controlled single ascending dose clinical trial is evaluating the safety, pharmacokinetics, or PK, and pharmacodynamics, or PD, of STAR-0215 at a single U.S. center. We have enrolled 25 healthy subjects who have received a single dose of STAR-0215 or placebo in three cohorts of 100mg, 300mg, and 600mg administered subcutaneously, with subjects in each cohort randomized 3:1 to receive active drug vs. placebo. Subjects in the trial are being followed for safety, PK and PD for a total of up to 224 days.

Recent Developments

On December 15, 2022, we reported preliminary data from our Phase 1a clinical trial of STAR-0215. The preliminary data were based on a data cut-off date of December 5, 2022 and include safety data with respect to all enrolled subjects for 84 days following administration and PK and PD data with respect to the subjects enrolled in the 100mg and 300mg cohorts for 84 days following administration and 56 days following administration for the subjects enrolled in the 600mg cohort.

Key findings as of the data cut-off date include:

- STAR-0215 was well-tolerated at all dose levels. The most common treatment-related adverse event was mild (Grade 1) self-resolving injection site reaction, which most commonly was site redness. There were no clinically relevant changes in liver enzymes or coagulation parameters, serious adverse events or discontinuations.
- Administration of STAR-0215 resulted in rapid and sustained achievement of drug levels consistent with levels associated with clinical benefit, with the observed concentrations of STAR-0215 being proportional to dose levels.

- PK and PD results in the 300mg and 600mg cohorts were consistent with levels associated with clinical benefit for up to three months.
- The estimated half-life of STAR-0215 was up to 110 days, which supports dosing once every 3 months or potentially less frequently.
- Modeling of the PK results suggests that an initial 600mg dose of STAR-0215 followed by 300mg doses every three months thereafter would potentially be capable of maintaining drug concentration levels above the threshold associated with clinical benefit.
- PD results showed rapid and robust target engagement with plasma kallikrein inhibition through at least three months following a single dose of STAR-0215. Administration of STAR-0215 resulted in statistically significant reductions in factor XIIa-activated cleaved high molecular weight kininogen, or cHMKW, through 84 days in the 300mg cohort and through the latest measurement date in the 600mg cohort, which was day 56, with levels of inhibition of cHMKW consistent with levels shown to prevent HAE attacks.

Based on these preliminary data, we plan to initiate a Phase 1b/2 proof of concept trial called ALPHA-STAR, or Astria Long-Acting Prophylaxis for Hereditary Angioedema: STAR-0215, in participants with HAE in the first quarter of 2023. This Phase 1b/2 trial will be a global, multi-center, open-label, single and multiple dose proof-of-concept clinical trial in people with HAE and will evaluate safety, tolerability, HAE attack rate, PK, PD and quality of life in patients. Each qualifying participant will receive at least one dose of STAR-0215 and may be eligible to roll into a long-term open label trial. With the ALPHA-STAR clinical trial, we aim to demonstrate durable activity compatible with robust clinical benefit in people living with HAE and to use the results to inform dose selection for a Phase 3 pivotal trial. We expect to report initial results from the single and multiple dose cohorts in mid-2024.

The preliminary data from the Phase 1a trial also suggest that there could be an opportunity to dose STAR-0215 less frequently than every three months. As a result, we plan to evaluate the potential for 6-month dosing with additional healthy subject cohorts in the Phase 1a trial starting in the first quarter of 2023 with initial results expected in the fourth quarter of 2023.

THE OFFERING

Common stock offered by us	9,082,653 shares.
Common stock to be outstanding after this offering	24,830,976 shares. If the underwriters' option to purchase additional shares of common stock is exercised in full, there will be 26,193,373 shares outstanding immediately after this offering.
Option to purchase additional shares of common stock	The underwriters have a 30-day option to purchase up to 1,362,397 additional shares of common stock.
Use of Proceeds	We plan to use the net proceeds from this offering for research and development activities, including potential clinical trials, 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-9 of this prospectus supplement.
Risk Factors	See "Risk Factors" beginning on page S-8 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.
The Nasdaq Global Market symbol	"ATXS"

The number of shares of our common stock to be outstanding after this offering is based on 15,748,323 shares of our common stock outstanding as of September 30, 2022, which excludes:

- 2,237,948 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2022 at a weighted-average exercise price of \$15.47 per share;
- 914,715 shares of our common stock available for future issuance as of September 30, 2022 under our amended and restated 2015 stock incentive plan;
- 126,500 shares of our common stock available for future issuance as of September 30, 2022 under our 2022 inducement stock incentive plan;
- 1,530,176 shares of our common stock that had been reserved for issuance in connection with warrants outstanding as of September 30, 2022 at a weighted-average exercise price of \$41.75 per share;
- 36,982 shares of our common stock available for future issuance as of September 30, 2022 under our 2015 employee stock purchase plan;
- 5,242,501 shares of our common stock issuable upon the conversion of shares of Series X Preferred Stock outstanding as of September 30, 2022; and
- 1,296,836 shares of our common stock issued and sold pursuant to our "at the market offering" program with Jefferies LLC subsequent to September 30, 2022.

Unless otherwise indicated, all information in this prospectus supplement assumes (i) no exercise of the underwriters' option to purchase additional shares of common stock and (ii) no exercise of stock options or warrants or conversion of Series X Preferred Stock outstanding as of September 30, 2022.

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 most recent Annual Report on Form 10-K 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 the Discovery, Development and Commercialization of Our Product Candidates

Interim topline and preliminary data from our clinical trials that we announce or publish from time to time may change as more patient data become available and are subject to audit and verification procedures that could result in material changes in the final data.

From time to time, we may publish interim topline or preliminary data from our clinical trials. Interim data from clinical trials that we may complete are subject to the risk that one or more of the clinical outcomes may materially change as patient enrollment continues and more patient data become available. Preliminary or topline results also remain subject to audit and verification procedures that may result in the final data being materially different from the preliminary data we previously published. As a result, interim and preliminary data should be viewed with caution until the final data are available. Adverse differences between preliminary or interim data and final data could significantly harm our reputation and business prospects.

Risks Related to This Offering and Ownership of Shares of Our Common Stock

If you purchase shares of our common stock in this offering, you will suffer immediate dilution of your investment.

If you purchase shares of our common stock in this offering, you will incur immediate and substantial dilution in the amount of \$4.15 per share, assuming the conversion of all outstanding shares of our Series X Preferred Stock without regard to the beneficial ownership limitations applicable to the Series X Preferred Stock. You will incur this dilution because the offering price of our common stock in this offering is substantially higher than the net tangible book value per share of our common stock. 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. 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.

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.

USE OF PROCEEDS

We estimate that we will receive net proceeds from this offering of approximately \$93.6 million (or approximately \$107.7 million if the underwriters' option to purchase up to 1,362,397 additional shares of common stock is exercised in full), based on the public offering price of \$11.01 per share and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

We plan to use the net proceeds from this offering for research and development activities, including potential clinical trials, 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.

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 mid-2025. 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.

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 September 30, 2022:

- on an actual basis; and
- on an as adjusted basis to reflect the issuance and sale by us of 9,082,653 shares of our common stock in this offering at the public offering price of \$11.01 per share, after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

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 September 30, 2022, 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 SEPTEMBER 30, 2022	
	ACTUAL	AS ADJUSTED
	(in thousands, except share and per share data) (unaudited)	
Cash, cash equivalents and short-term investments	\$ 116,571	\$ 210,136
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, 31,455 shares issued and outstanding	96,398	96,398
Common stock, \$0.001 par value per share, 150,000,000 shares authorized; 15,748,323 shares issued and outstanding, actual; 24,830,976 shares issued and outstanding as adjusted	16	25
Additional paid-in capital	511,053	604,609
Accumulated other comprehensive loss	(215)	(215)
Accumulated deficit	(494,380)	(494,380)
Total stockholders' equity	112,872	206,437
Total capitalization	\$ 112,872	\$ 206,437

The number of shares of common stock issued and outstanding as of September 30, 2022 as reported in the table above excludes:

- 2,237,948 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2022 at a weighted-average exercise price of \$15.47 per share;
- 914,715 shares of our common stock available for future issuance as of September 30, 2022 under our amended and restated 2015 stock incentive plan;
- 126,500 shares of our common stock available for future issuance as of September 30, 2022 under our 2022 inducement stock incentive plan;
- 1,530,176 shares of our common stock that had been reserved for issuance in connection with warrants outstanding as of September 30, 2022 at a weighted-average exercise price of \$41.75 per share;
- 36,982 shares of our common stock available for future issuance as of September 30, 2022 under our 2015 employee stock purchase plan;

- 5,242,501 shares of our common stock issuable upon the conversion of shares of Series X Preferred Stock outstanding as of September 30, 2022; and
- 1,296,836 shares of our common stock issued and sold pursuant to our “at the market offering” program with Jefferies LLC subsequent to September 30, 2022.

DILUTION

Dilution represents the difference between the amount per share of common stock paid by purchasers 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 September 30, 2022.

As of September 30, 2022, our historical net tangible book value as of September 30, 2022 was \$112.9 million, or \$7.17 per share of common stock, based on 15,748,323 shares of our common stock outstanding as of September 30, 2022. 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 September 30, 2022, 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 September 30, 2022 would have been \$5.38 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 of shares of our common stock in this offering, based on the public offering price of \$11.01 per share and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us. On a pro forma as adjusted basis, our net tangible book value as of September 30, 2022 would have been \$206.4 million, or \$6.86 per share of common stock. This represents an immediate increase in pro forma as adjusted net tangible book value to existing stockholders of \$1.48 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 \$4.15 per share of common stock. The following table illustrates this dilution per share of common stock:

Public offering price per share of common stock	\$ 11.01
Historical net tangible book value per share of common stock as of September 30, 2022	\$ 7.17
Pro forma net tangible book value per share as of September 30, 2022	\$ 5.38
Increase in pro forma net tangible book value per share of common stock attributable to new investors participating in this offering	\$ 1.48
Pro forma as adjusted net tangible book value per share of common stock immediately after this offering	\$ 6.86
Dilution per share of common stock to new investors participating in this offering	\$ 4.15

If the underwriters fully exercise their option to purchase additional shares of common stock, the pro forma as adjusted net tangible book value after this offering would increase by approximately \$1.56 per share of common stock, and there would be an immediate dilution of approximately \$2.59 per share of common stock to new investors participating in this offering.

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

- 2,237,948 shares of our common stock issuable upon the exercise of stock options outstanding as of September 30, 2022 at a weighted-average exercise price of \$15.47 per share;
- 914,715 shares of our common stock available for future issuance as of September 30, 2022 under our amended and restated 2015 stock incentive plan;
- 126,500 shares of our common stock available for future issuance as of September 30, 2022 under our 2022 inducement stock incentive plan;
- 1,530,176 shares of our common stock that had been reserved for issuance in connection with warrants outstanding as of September 30, 2022 at a weighted-average exercise price of \$41.75 per share;

- 36,982 shares of our common stock available for future issuance as of September 30, 2022 under our 2015 employee stock purchase plan;
- 5,242,501 shares of our common stock issuable upon the conversion of shares of Series X Preferred Stock outstanding as of September 30, 2022; and
- 1,296,836 shares of our common stock issued and sold pursuant to our “at the market offering” program with Jefferies LLC subsequent to September 30, 2022.

UNDERWRITING

Subject to the terms and conditions set forth in the underwriting agreement, dated December 15, 2022, 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 shown opposite its name below.

UNDERWRITERS	NUMBER OF SHARES OF COMMON STOCK
Jefferies LLC	3,633,061
Evercore Group L.L.C.	2,724,796
LifeSci Capital LLC	1,135,332
Oppenheimer & Co. Inc.	1,135,332
H.C. Wainwright & Co., LLC	454,132
Total	<u>9,082,653</u>

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 if any of them 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 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 subject to their acceptance of the shares 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 shares to the public at the public offering price 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 \$0.39636 per share. 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. Such amounts are shown assuming both no exercise and full exercise by the underwriters of their option to purchase additional shares of common stock.

	PER SHARE OF COMMON STOCK		TOTAL	
	WITHOUT OPTION TO PURCHASE ADDITIONAL SHARES	WITH OPTION TO PURCHASE ADDITIONAL SHARES	WITHOUT OPTION TO PURCHASE ADDITIONAL SHARES	WITH OPTION TO PURCHASE ADDITIONAL SHARES
Public offering price	\$ 11.0100	\$ 11.0100	\$100,000,009.53	\$ 115,000,000.50
Underwriting discounts and commissions	\$ 0.6606	\$ 0.6606	\$ 6,000,000.57	\$ 6,900,000.03
Proceeds to us, before expenses	\$ 10.3494	\$ 10.3494	\$ 94,000,008.96	\$108,100,000.47

We estimate expenses payable by us in connection with this offering, other than the underwriting discounts and commissions, referred to above, will be approximately \$0.4 million. 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."

Option to Purchase Additional Shares

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus supplement, to purchase, from time to time, in whole or in part, up to an aggregate of 1,362,397 shares of common stock from us at the public offering price set forth on the cover page of this prospectus supplement, less underwriting discounts and commissions. If the underwriters exercise this option, each underwriter will be obligated, subject to specified conditions, to purchase a number of additional shares of common stock proportionate to that underwriter's initial purchase commitment as indicated in the table above.

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 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, 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, and certain persons participating in the offering 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. Establishing short sales positions may involve either "covered" short sales or "naked" short sales.

“Covered” short sales are sales made in an amount not greater than the underwriters’ option to purchase additional shares of our common stock in this offering. The underwriters may close out any covered short position by either exercising their option to purchase additional shares of our common stock or purchasing shares of our common stock in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the option to purchase additional shares.

“Naked” short sales are sales in excess of the option to purchase additional shares of our common stock. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of our common stock in the open market after pricing that could adversely affect investors who purchase in this offering.

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, sharesSM 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.

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 shares of common stock 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, 2021](#), 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 Select Market under the symbol "ATXS". Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell our common stock in a public primary offering with a value exceeding more than one-third of our public float in any 12-month period so long as our public float remains below \$75.0 million. As of May 12, 2022, the aggregate market value of our outstanding common stock held by non-affiliates, or public float, was approximately \$59,311,478, based on 8,485,190 shares of our outstanding common stock that were held by non-affiliates on such date and a price of \$6.99 per share, which was the price at which our common stock was last sold on The Nasdaq Global Market on March 29, 2022, calculated in accordance with General Instruction I.B.6 of Form S-3. During the 12 calendar months prior to and including the date of this prospectus, we have not offered and sold any of our securities pursuant to General Instruction I.B.6 of Form S-3.

Investing in these securities involves certain risks. See "Risk Factors" on page 0 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, 2022

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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 subsidiary. 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 subsidiary 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 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, 2021](#), 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 27, 2022](#);
- [Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2022](#);
- Current Reports on Form 8-K filed [February 2, 2022](#) and [February 22, 2022](#); 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.
100 High Street, Floor 28
Boston, MA 02110
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 our STAR-0215 program;
- 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 and the most patient friendly treatment for HAE, and the nature and anticipated growth of the global HAE market and HAE therapies;
- 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 0 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 (formerly known as QLS-215), a potential best-in-class monoclonal antibody inhibitor of plasma kallikrein in preclinical 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, based on the data generated to date and the existing HAE treatment landscape.

HAE is a rare, debilitating and potentially life-threatening disease. The treatment options for patients with HAE have improved, however, there is remaining unmet medical need and the global market for HAE therapy is strong and growing. The vision for our lead program, 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 with dosing once every three months or longer. Targeted plasma kallikrein inhibition can prevent HAE attacks by suppressing the pathway that generates bradykinin and causes excessive swelling. We expect to submit an Investigational New Drug application, or IND, for STAR-0215 in mid-2022 and plan to initiate a Phase 1a clinical trial shortly thereafter. We believe that this clinical trial has the opportunity to establish proof of concept for the differentiated profile of STAR-0215. The primary goals for our clinical trial development in HAE patients are to demonstrate safety and tolerability, establish prolonged half-life, demonstrate inhibition of plasma kallikrein activity, and provide an initial assessment of the impact of STAR-0215 on HAE attack rate.

On August 4, 2021, our Board of Directors approved a reverse stock split of our outstanding shares of common stock at a ratio of one-for-six (1:6). The reverse stock split became effective on August 19, 2021. The reverse stock split was approved by our stockholders at our Annual Meeting of Stockholders on June 2, 2021. Unless otherwise noted, the share and per share information in this prospectus reflects the reverse stock split.

In September 2021, we formally changed our name to Astria Therapeutics, Inc. from Catabasis Pharmaceuticals, Inc. The name “Astria” originates from the Greek word for star, demonstrating our commitment to patients who serve as our guiding stars.

Our principal executive offices are located at 100 High Street, Floor 28, Boston, Massachusetts 02110, 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 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, 2022, 13,016,955 shares of common stock were outstanding and 31,455 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 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 30 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 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 the 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. We currently have 31,455 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, 2022, the number of shares of common stock issuable upon conversion of the remaining outstanding shares of Series X Preferred Stock is 5,242,501. 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, 2022, these percentages are set at 4.99% to 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, 2022, options to purchase 1,962,650 shares of our common stock at a weighted-average exercise price of \$17.11 per share were outstanding, of which options to purchase 175,632 shares of our common stock were exercisable, at a weighted-average exercise price of \$58.41 per share.

Warrants

As of March 31, 2022, we had outstanding warrants, including the Warrants, to purchase shares of our common stock exercisable for an aggregate of 1,530,176 shares of our common stock at a weighted-average exercise price of \$41.75 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 and paying certain charges.

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

Amendment and Termination of the Deposit Agreement

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

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

Resignation and Removal of Depositary

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

Notices

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

Limitation of Liability

Neither we nor the depositary will be liable if either 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, 2021](#), 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.

**9,082,653 Shares
Common Stock**

PROSPECTUS SUPPLEMENT

Joint Book-Running Managers

Jefferies

Evercore ISI

Co-Lead Managers

LifeSci Capital

Oppenheimer & Co.

Co-Manager

H.C. Wainwright & Co.

December 15, 2022
