

PROSPECTUS SUPPLEMENT
(To Prospectus dated November 20, 2023)**13,333,334 Shares of Common Stock
Pre-Funded Warrants to Purchase up to 5,000,000 Shares of Common Stock
Warrants to Purchase up to 18,333,334 Shares of Common Stock**

We are offering 13,333,334 shares of our common stock, par value \$0.0001 per share, and accompanying warrants to purchase shares of our common stock. Each share of our common stock is being sold together with an accompanying warrant to purchase one share of our common stock (or, in certain limited circumstances in lieu of a share of common stock, a pre-funded warrant for one share of our common stock at the warrant exercise price less the exercise price of the pre-funded warrant purchased). The combined public offering price of each share of common stock offered together with one accompanying warrant is \$3.00. Each accompanying warrant will have an exercise price of \$3.50 per share, will become exercisable commencing on the date of issuance and will expire 18 months from the date of issuance.

We are also offering to certain purchasers the opportunity to purchase, if any such purchaser so chooses, pre-funded warrants in lieu of shares of our common stock. Each pre-funded warrant will be exercisable for the number of shares of our common stock stated therein and will be accompanied by warrants with the same terms as the those of the warrants described above. The combined public offering price of each pre-funded warrant together with one accompanying warrant will be equal to the price at which a share of our common stock is sold to the public in this offering, minus \$0.001, and the exercise price of each pre-funded warrant will be \$0.001 per share. The pre-funded warrants will be immediately exercisable and may be exercised at any time until all of the pre-funded warrants are exercised in full. Each of (i) the shares of common stock and the accompanying warrants and (ii) the pre-funded warrants and the accompanying warrants, in each case can only be purchased together in this offering but will be issued separately and will be immediately separable upon issuance.

This prospectus supplement also relates to the offer of the shares of our common stock issuable upon the exercise of such pre-funded warrants and common warrants. Our common stock is listed on The Nasdaq Capital Market under the symbol "VSTM." On July 23, 2024, the last reported sale price of our common stock on The Nasdaq Capital Market was \$3.59 per share. We do not intend to list the warrants or the pre-funded warrants on The Nasdaq Capital Market or any other securities exchange or nationally recognized trading system. The Company will initially serve as the warrant agent under the warrants and the pre-funded warrants and the warrants and pre-funded warrants will be issued in book-entry form.

Investing in our securities involves a high degree of risk. Before making an investment decision, you should carefully consider the information under the heading "Risk Factors" beginning on page S-7 of this prospectus supplement and under similar headings in the documents incorporated by reference into this prospectus supplement and the accompanying prospectus.

	Per Share and Accompanying Warrant ⁽¹⁾	Per Pre-Funded Warrant and Accompanying Warrant ⁽²⁾	Total
Combined public offering price	\$3.0000	\$2.9990	\$54,995,002.00
Underwriting discounts and commissions ⁽³⁾	\$0.1800	\$0.1799	\$ 3,299,500.12
Proceeds to Verastem, Inc., before expenses ⁽⁴⁾	\$2.8200	\$2.8191	\$51,695,501.88

- (1) The public offering price is \$3.00 per share of common stock and accompanying warrants.
- (2) The public offering price is \$2.999 per pre-funded warrant and accompanying warrants.
- (3) See "Underwriting" beginning on page S-22 of this prospectus supplement for additional information regarding total underwriter compensation.
- (4) The amount of the offering proceeds to us, before expenses, presented in this table does not give effect to any exercise of the warrants or the pre-funded warrants being sold in this offering.

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

Delivery of the securities offered hereby is expected to be made on or about July 25, 2024.

Joint Book-Running Managers

Guggenheim Securities

Cantor

Prospectus Supplement dated July 23, 2024

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PROSPECTUS

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of this offering and certain other matters relating to us and our business. The second part, the accompanying prospectus, contains and incorporates by reference important business and financial information about us, a description of our common stock and certain other information about us and this offering. This prospectus supplement and the accompanying prospectus are part of a registration statement that we filed with the Securities and Exchange Commission (the “SEC”), using a “shelf” registration process. Both this prospectus supplement and the accompanying prospectus include or incorporate by reference important information about us, our common stock and other information you should know before investing. You should read both this prospectus supplement and the accompanying prospectus, including all documents incorporated by reference herein and therein by reference, together with the additional information described under the heading “*Where You Can Find More Information*” herein and therein before making an investment decision.

You should rely only on the information contained or incorporated by reference in this prospectus supplement, the accompanying prospectus and in any free writing prospectuses we may provide to you in connection with this offering. We have not, and the underwriters have not, authorized any other person to provide you with any information that is different. If anyone provides you with different or inconsistent information, you should not rely on it. We are offering to sell, and seeking offers to buy, shares of our common stock, warrants and pre-funded warrants only in jurisdictions where offers and sales are permitted. The distribution of this prospectus supplement and the accompanying prospectus and the offering of the common stock, warrants and pre-funded warrants in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus supplement and the accompanying prospectus must inform themselves about, and observe any restrictions relating to, the offering of the common stock, warrants and pre-funded warrants and the distribution of this prospectus supplement and the accompanying prospectus outside the United States. This prospectus supplement and the accompanying prospectus do not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus supplement and the accompanying prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

This prospectus supplement may add to, update or change the information in the accompanying prospectus or the documents incorporated by reference herein. If information in this prospectus supplement is inconsistent with information in the accompanying prospectus or the documents incorporated by reference herein, this prospectus supplement will apply and will supersede that information in the accompanying prospectus or the documents incorporated by reference herein.

References in this prospectus supplement to “Verastem,” the “Company,” “we,” “us,” “our” and similar terms refer to Verastem, Inc. and our subsidiaries on a consolidated basis, as appropriate, unless we state otherwise or the context otherwise requires. Unless otherwise indicated, references to “U.S. dollars,” “dollars,” “USD” and “\$” in this prospectus are to the lawful currency of the United States of America.

The industry and market data and other statistical information contained in this prospectus supplement, the accompanying prospectus and the documents we incorporate by reference herein and therein are based on management’s own estimates, independent publications, government publications, reports by market research firms or other published independent sources, and, in each case, are believed by management to be reasonable estimates and sources, as applicable and as of the date hereof. Although we believe any such third-party sources are reliable as of the date hereof, we have not independently verified the information.

This prospectus supplement, the accompanying prospectus and the documents we incorporate by reference herein and therein contain references to our trademarks and to trademarks belonging to other entities. Solely for convenience, trademarks and trade names referred to in this prospectus supplement, the accompanying prospectus and the documents we incorporate by reference herein and therein, including logos, artwork and other visual displays, may appear without the ® or ™ symbols, but such references are not intended to indicate, in any way, that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto. We do not intend our use or display of other companies’ trademarks or trade names to imply a relationship with, or endorsement or sponsorship of us by, any other companies.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information included or incorporated by reference in this prospectus supplement and the accompanying prospectus and does not contain all of the information that may be important to you. You should carefully review this entire prospectus supplement, the accompanying prospectus and any free writing prospectus that we have authorized for use in connection with this offering, including the risk factors and financial statements included and incorporated by reference in this prospectus supplement and the accompanying prospectus.

Company Overview

We are a late-stage development biopharmaceutical company, with an ongoing registration directed trial, committed to advancing new medicines for people diagnosed with cancer. Our pipeline is focused on ras sarcoma (“RAS”)/mitogen activated pathway kinase (“MAPK”) driven cancers, specifically on novel drug candidates that inhibit signaling pathways critical to cancer cell survival and tumor growth, particularly rapidly accelerated fibrosarcoma (“RAF”)/mitogen-activated protein kinase kinase (“MEK”) inhibition and focal adhesion kinase (“FAK”) inhibition. Our most advanced product candidates, avutometinib and defactinib, are being investigated in both preclinical and clinical studies for the treatment of various solid tumors, including, but not limited to low-grade serous ovarian cancer (“LGSOC”), non-small cell lung cancer, pancreatic cancer, colorectal cancer and thyroid cancer. We believe that avutometinib may be beneficial as a therapeutic, as a single agent or when used together in combination with defactinib, other pathway inhibitors, or other current and emerging standard of care treatments in cancers that do not adequately respond to currently available therapies.

Avutometinib is an orally available, first-in-class small molecule RAF/MEK clamp that inhibits RAS/RAF/MEK, extracellular-signal-regulated-kinase (“ERK”) MAPK pathway which is involved in proliferation, migration, transformation, and survival of tumor cells. In contrast to other MEK-only inhibitors, avutometinib is a dual RAF/MEK clamp that blocks MEK kinase activity and induces the formation of dominant negative RAF-MEK complexes preventing phosphorylation of MEK by A-Raf proto-oncogene, serine/threonine kinase, B-Raf proto-oncogene serine/threonine kinase (“BRAF”) and C-raf proto-oncogene serine/threonine kinase. MEK-only inhibitors (e.g. trametinib) may have limited efficacy because they induce MEK phosphorylation (“pMEK”) by relieving dependent feedback inhibition of RAF. By inhibiting RAF-mediated phosphorylation of MEK, avutometinib has the potential advantage of not inducing pMEK. This unique mechanism of avutometinib enables it to inhibit ERK signaling more effectively and may confer enhanced therapeutic activity against MAPK pathway-driven cancers. We use the term “RAMP” to refer to our RAF and MEK Program.

Avutometinib inhibits MAPK pathway signaling and proliferation of tumor cell lines harboring MAPK pathway alterations including Kirsten rat sarcoma viral oncogene homolog (“KRAS”), neuroblastoma rat sarcoma viral oncogene homolog, and BRAF mutations, among others. Avutometinib has demonstrated strong antitumor activity as monotherapy and in combination with (i) agents targeting parallel pathways (e.g. inhibitors of FAK, CDK4/6 and mTOR), (ii) agents targeting other nodes in the MAPK pathway (e.g. anti-EGFR, SOS1, KRAS G12C, and KRAS G12D inhibitors), (iii) chemotherapy, and (iv) anti-PD-1.

Defactinib is an oral small molecule inhibitor of FAK and proline-rich tyrosine kinase (“PYK2”) that is currently being evaluated as a potential combination therapy for various solid tumors. FAK and PYK2 are members of the same family of nonreceptor protein tyrosine kinases that integrate signals from integrin and growth factor receptors to regulate cell proliferation, survival, migration, and invasion. Defactinib disrupts malignant cells both directly and through modulation of the tumor microenvironment. Preclinical research by our scientists and collaborators indicates that FAK inhibition delays tumor progression in cancer models, which was associated with reduced stromal density and immunosuppressive cell populations. Furthermore, activation of FAK is a putative adaptive resistance mechanism to MAPK pathway inhibition, supporting the clinical evaluation of avutometinib in combination with defactinib for treatment of cancers harboring MAPK pathway alterations. Defactinib has received orphan drug designation in ovarian cancer in the United States, the European Union, and Australia.

In May 2024, the Company announced that it has initiated the rolling submission of a New Drug Application (“NDA”) to the U.S. Food and Drug Administration (the “FDA”) seeking accelerated approval of the combination of avutometinib and defactinib for patients with recurrent KRAS mutant (“KRAS mt”) LGSOC who received at least one prior systemic therapy. The rolling review process allows Verastem to submit completed sections of an application for review by the FDA before all sections become available. The initial sections of the application will include the completed nonclinical and quality sections. The Company plans to seek the broadest label possible with mature RAMP 201 data to inform final indication. Previously, the FDA granted Orphan Drug Designation for the combination in LGSOC and Breakthrough Therapy Designation for the combination for treatment of patients with LGSOC with recurrent disease after one or more prior lines of therapy, including platinum-based chemotherapy. The Company plans to request a priority review of the NDA. Currently, there are no FDA-approved treatments specifically for recurrent LGSOC.

The Company estimates the total annual incident addressable market opportunity for this product candidate to be approximately \$300 million for KRAS mt and approximately \$270 million KRAS wild-type (“KRAS wt”) populations, respectively. The Company estimates the total prevalent addressable market opportunity to be approximately \$1.7 billion for KRAS mt and approximately \$1.1 billion for KRAS wt populations, respectively. The Company’s estimates of the patient population, pricing and revenue opportunities for its product candidates, including for KRAS mt and KRAS wt patients with LGSOC, are based on a number of internal and third-party estimates and assumptions, including, without limitation, internal forecasts, the median duration of treatment from initial interim clinical data and the assumed prices at which we can commercialize our product candidates. Specifically, the Company’s estimates of total addressable market opportunities are based on: (a) estimated annual incidence of KRAS mt and KRAS wt populations of approximately 500 and 1,000 patients, respectively, (b) estimated prevalence of KRAS mt and KRAS wt populations of approximately 2,800 and 4,200 patients, respectively, (c) the average duration of therapy as observed in Verastem clinical trials of 18 months and eight months for KRAS mt and KRAS wt populations, respectively, and (d) an estimated cost of therapy of \$34,000 per month consistent with other recent oncology drug launches.

The average duration of therapy included in this calculation is based, in part, on the estimated duration of therapy for patients dosed with the combination of avutometinib and defactinib for the combined Parts A, B, and C in RAMP 201 as of the latest data cutoff in February 2024. Amongst 115 patients, 58 enrolled with KRAS mutated LGSOC and 57 had wild-type, or non-mutated, KRAS. The estimated median duration of therapy for all patients is nine months and the estimated mean duration of therapy is 14 months. For KRAS mt, the estimated median duration of therapy is 14 months and the estimated mean duration of therapy is 18 months with 31 patients still on treatment as of the data cutoff date. For KRAS wt, the estimated median duration of therapy is seven months and the estimated mean duration of therapy is 11 months with 12 patients still on treatment as of the data cutoff date.

Estimated median duration of therapy was calculated using Kaplan-Meier methods. Estimated mean duration of therapy was calculated by projecting complete time on treatment for patients still on treatment by sampling from an exponential distribution conditional on the observed duration through the cutoff date.

In August 2023, the Company entered into a collaboration and option agreement (the “GenFleet Agreement”) with GenFleet Therapeutics (Shanghai), Inc. (“GenFleet”) pursuant to which GenFleet granted the Company options to obtain exclusive development and commercialization rights worldwide outside of mainland China, Hong Kong, Macau, and Taiwan (the “GenFleet Territory”) for up to three oncology programs targeting RAS pathway driven cancers (the “GenFleet Options”). The Company may exercise its GenFleet Options on a program-by-program basis. An investigational new drug application by GenFleet in China for GFH375/VS-7375, an oral KRAS G12D (ON/OFF) inhibitor, was cleared in June 2024, following which GenFleet initiated Phase 1/2 trial in solid tumors with KRAS G12D mutation for GFH375/VS-7375 in China in June 2024. In July 2024, the Company announced that the first patient had been dosed in a Phase 1/2 trial in China, conducted by GenFleet, evaluating GFH375/VS-7375, a KRAS G12D (ON/OFF) inhibitor. The Phase 1 study is being conducted in approximately 20 hospitals in China and will evaluate the safety and efficacy of GFH375/VS-7375 in patients with advanced KRAS G12D mutant solid tumors. The Phase 1 study will determine the recommended Phase 2 dose (RP2D) and then further evaluate in Phase 2 the efficacy and safety of GFH375/VS-7375 in patients with advanced solid tumors, such as pancreatic ductal adenocarcinoma, colorectal cancer and non-small cell lung cancer.

Corporate Information

We were incorporated under the laws of the State of Delaware in August 2010. We are headquartered in Needham, Massachusetts, and our principal offices are located at 117 Kendrick Street, Suite 500, Needham, Massachusetts and our telephone number is (781) 292-4200.

THE OFFERING

The following summary contains basic information about this offering. The summary is not intended to be complete. You should read the full text and more specific details contained elsewhere in this prospectus supplement and in the documents incorporated by reference herein.

Common stock offered by us	13,333,334 shares.
Pre-funded warrants offered by us	We are also offering, in lieu of shares of our common stock to certain investors, pre-funded warrants to purchase 5,000,000 shares of our common stock. The purchase price of each pre-funded warrant will equal the price per underlying share of our common stock at which the shares of our common stock are being sold to the public in this offering, minus \$0.001, and the exercise price of each share of our common stock underlying a pre-funded warrant will equal \$0.001 per share. Each pre-funded warrant will be exercisable from the date of issuance until fully exercised, subject to an ownership limitation. See “ <i>Description of Securities we are Offering — Pre-Funded Warrants.</i> ” This prospectus supplement also relates to the offering of the shares of our common stock issuable upon the exercise of such pre-funded warrants.
Warrants offered by us	Each share of our common stock and pre-funded warrant is being sold together with a warrant to purchase one share of our common stock (or, in certain limited circumstances in lieu of a share of common stock, a pre-funded warrant for one share of our common stock at the warrant exercise price less the exercise price of the pre-funded warrant purchased). Each warrant will have an exercise price of \$3.50 per share, will be exercisable commencing on the date of issuance and will expire 18 months from the date of issuance. See “ <i>Description of Securities we are Offering — Warrants.</i> ” The shares of common stock or the pre-funded warrants, as the case may be, and the accompanying warrants, can only be purchased together in this offering but will be issued separately and will be immediately separable upon issuance. This prospectus supplement also relates to the offering of the shares of common stock or the additional pre-funded warrants (and the common stock issuable upon exercise thereof) issuable upon exercise of such warrants, and the offering of the shares of common stock issuable upon exercise of such pre-funded warrants.
Public offering price per share of common stock and accompanying warrant	\$3.00
Public offering price per pre-funded warrant and accompanying warrant	\$2.999
Common stock to be outstanding immediately after this offering	38,641,003 shares assuming no exercise of the warrants or pre-funded warrants offered hereby.

Use of proceeds	We intend to use the net proceeds from this offering to fund the potential launch of avutometinib and defactinib in LGSOC, continued clinical research and development of product candidates, and for working capital and other general corporate purposes, which may include capital expenditures, research and development expenditures, clinical trial expenditures, potential commercial launch expenditures, milestone payments under collaboration and in-license agreements, and possible acquisitions. See “ <i>Use of Proceeds</i> .”
Risk factors	Investing in our securities involves significant risks. See “ <i>Risk Factors</i> ” and under similar headings in the documents incorporated by reference into this prospectus supplement for a discussion of factors you should read and consider before investing in our securities.
Nasdaq Capital Market symbol	“VSTM”
Market for the warrants and pre-funded warrants	We do not intend to list the warrants or the pre-funded warrants on The Nasdaq Capital Market or any securities exchange or nationally recognized trading system. There is currently no established trading market for the warrants or the pre-funded warrants. The Company will initially serve as the warrant agent under the warrants and the pre-funded warrants and the warrants and pre-funded warrants will be issued in book-entry form.

The number of shares of our common stock to be outstanding upon completion of this offering is based on 25,307,669 shares of our common stock outstanding as of March 31, 2024, and excludes the following, each as of March 31, 2024:

- 2,122,901 shares of our common stock issuable upon the exercise of stock options outstanding under our Amended and Restated 2012 Incentive Plan, our Amended and Restated 2021 Equity Incentive Plan (the “2021 Plan”), and our inducement award program (collectively, our “Equity Incentive Plans”), at a weighted average exercise price of \$13.18 per share;
- 426,392 shares of our common stock issuable upon the vesting of restricted stock units under our Equity Incentive Plans;
- 502,249 shares of our common stock reserved and available for future issuance under the 2021 Plan;
- 585,539 shares of our common stock reserved and available for future issuance under our inducement award program, of which 143,292 shares are issuable upon the exercise of stock options granted subsequent to March 31, 2024 under the inducement award program at a weighted-average exercise price of \$5.32 per share;
- 67,230 shares of our common stock reserved for future issuance under our Amended and Restated 2018 Employee Stock Purchase Plan;
- 833,333 shares of our common stock issuable upon conversion of our outstanding Series A convertible preferred stock, par value \$0.0001 per share (the “Series A Preferred Stock”);
- 4,236,570 shares of our common stock issuable upon conversion of our outstanding Series B convertible preferred stock, par value \$0.0001 per share (the “Series B Preferred Stock”); and
- 1,538,591 shares of our common stock issuable upon the exercise of our currently outstanding pre-funded warrants at an exercise price equal to \$0.001 per share.

Unless otherwise indicated, all information in this prospectus supplement reflects or assumes the following:

- no issuance or exercise of stock options or warrants after March 31, 2024;

- no conversions into common stock of our convertible securities or exercise of our outstanding pre-funded warrants after March 31, 2024; and
- no exercise of any of the warrants or pre-funded warrants to be offered and sold by us in this offering.

In addition, the information in the prospectus supplement assumes no additional issuance of Series B Preferred Stock pursuant to the Purchase Agreement and no conversion of any outstanding Series B Preferred Stock into common stock.

RISK FACTORS

An investment in our common stock, warrants or pre-funded warrants involves a high degree of risk, including the risk of a loss of your entire investment. You should carefully consider the following risk factors, as well as the risks described under “Risk Factors” in the accompanying prospectus and our [Annual Report on Form 10-K for the year ended December 31, 2023](#), as well as other information in this prospectus supplement and the documents incorporated by reference herein before deciding whether to invest in our common stock, warrants or pre-funded warrants. See “Where You Can Find More Information.” If any such risks actually occur, our business, financial condition or results of operations could be adversely affected. In such case, the trading price of our common stock could decline and you could lose all or part of your investment. Our actual results could differ materially from those anticipated in the forward-looking statements made throughout this prospectus supplement and in the documents incorporated by reference herein as a result of different factors, including the risks we face described below and in the documents incorporated by reference herein. The risks and uncertainties described below and incorporated by reference herein are not the only ones facing us and there may be additional matters that we are unaware of or that we currently consider immaterial.

Risks Related to the Development of Our Product Candidates.

The market opportunities for our product candidates can be smaller than we estimate or the approvals that we obtain may be based on a narrower definition of the patient population.

The potential market opportunity for our product candidates is difficult to estimate precisely. For example, the number of patients suffering from each of recurrent KRAS mutant LGSOC and KRAS wild-type LGSOC populations we are targeting is small and has not been established with precision. Due to the rarity of our target indications, there is no comprehensive patient registry or other method of establishing with precision the actual number of patients with KRAS mutant LGSOC and KRAS wild-type LGSOC. As a result, we have had to rely on other available sources to derive clinical prevalence estimates for our target indications. We make estimates regarding the incidence and prevalence of target patient populations, the rate of recurrence and the median survival for particular diseases, including with respect to LGSOC, based on various third-party sources and internally generated analysis and use such estimates in making decisions regarding our drug development strategy determining indications on which to focus in preclinical or clinical trials.

Our estimates of the patient population, pricing and revenue opportunities for our product candidates, including for KRAS mt and KRAS wt patients with LGSOC, are based on a number of internal and third-party estimates, including, without limitation, internal forecasts of potential market penetration, the median duration of treatment from initial interim clinical data and the assumed prices at which we can commercialize our product candidates. These estimates may be inaccurate or based on imprecise data. For example, if approved by the FDA, the market opportunity of our product candidates will depend on, among other things, acceptance by the medical community, patient access, drug pricing and reimbursement. The number of patients in the addressable market may turn out to be lower than we estimate, patients may not be otherwise amenable to treatment with our drugs, or new patients may become increasingly difficult to identify or gain access to, all of which may significantly harm our business, financial condition, results of operations, and prospects.

In addition, if any approval that we obtain is based on a narrower definition of patient populations than we had anticipated, the potential market for our product candidates will be smaller than our current estimates. A smaller patient population in our target indications would have a materially adverse effect on our ability to achieve commercialization and generate revenues.

Interim, initial “top-line” and preliminary data or statistical analyses and projections based thereon, may not be predictive of the results from final, more mature clinical data.

Interim, initial “top-line,” and preliminary data or statistical analyses from clinical trials, including the estimated and projected duration of therapy for RAMP 201 patients based on initial topline results with a minimum of five months follow up, may change as more mature patient data becomes available, may be more or less positive than the final data, and may be subject to audit and verification procedures that could

result in material changes in the mature data. Thus, such interim and projected data should be considered carefully and with caution and may not necessarily be predictive of the results from final, more mature clinical data.

The estimated mean and median duration of therapy of patients in our RAMP 201 trial are based on interim clinical data and estimates and projections extrapolated thereof. Such interim results and the estimated projections based thereon may not be reproduced in any current or potential future clinical trials, and thus should be considered carefully and with caution, and may not necessarily be predictive of the results from final, more mature clinical data. More mature data from the RAMP 201 trial may materially differ from and be less positive than the interim and initial topline data reported herein. Material adverse differences in final data, compared to preliminary or interim data, could severely and adversely affect our financial results, business and business prospects, including our estimates of the addressable market opportunity.

Risks Related to Achieving Regulatory Approval of Our Product Candidates and Other Legal Compliance Matters

The FDA and other comparable regulatory authorities could require clearance or approval of an in vitro diagnostic or companion diagnostic device as a condition of approval for any product candidates that require or would commercially benefit from such tests, including the combination of avumetinib and defactinib. If we are unable to successfully validate, develop and obtain regulatory approval for companion diagnostic tests for our product candidates that require or would commercially benefit from such tests, or experience significant delays in doing so, we may not realize the full commercial potential of these product candidates and our drug development strategy and operational results may be harmed.

If safe and effective use of any of our product candidates depends on an in vitro diagnostic, then the FDA generally will require approval or clearance of that test, known as a companion diagnostic, at the same time that the FDA approves our product candidates. Companion diagnostics, which provide information that is essential for the safe and effective use of a corresponding therapeutic product, are subject to regulation by the FDA and other comparable regulatory authorities as medical devices and require separate regulatory authorization from therapeutic approval prior to commercialization. The development programs for some of our product candidates contemplate working with developers or obtaining access to marketed companion diagnostic tests, which are assays or tests to identify an appropriate patient population. For example, in connection with our rolling NDA submission for the combination of avutometinib and defactinib for patients with recurrent KRAS mt LGSOC, we may be required to obtain FDA approval or clearance of a companion diagnostic.

If safe and effective use of any of our product candidates we may develop depends on a companion diagnostic, we may not receive marketing approval, or marketing approval may be delayed, if we are unable to or are delayed in developing, identifying, or obtaining regulatory approval or clearance for the companion diagnostic product for use with our product candidate. In addition, the process of obtaining or creating such companion diagnostics is time consuming and costly and we, and/or future collaborators, may encounter difficulties in developing and obtaining regulatory clearance or approval for the companion diagnostics.

Risks Related to This Offering

We will have broad discretion in the use of the net proceeds from this offering, and we may allocate the net proceeds from this offering in ways that you and other stockholders may not approve.

We currently intend to use the net proceeds of this offering to fund the potential launch of avutometinib and defactinib in LGSOC, continued clinical research and development of product candidates, and for working capital and other general corporate purposes, which may include capital expenditures, research and development expenditures, clinical trial expenditures, potential commercial launch expenditures, milestone payments under collaboration and in-license agreements, and possible acquisitions. This expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions. 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, as well as any collaborations that we may enter into with third parties for our product candidates, and any unforeseen cash needs. Because the number and variability of factors that will determine our use of the proceeds from this offering, their ultimate use may vary substantially from their currently intended use. As a result, our management will retain broad discretion over the allocation of the net proceeds from this offering and could spend the proceeds in ways that do not necessarily improve our operating results or enhance the value of our common stock. See “*Use of Proceeds.*”

If you purchase securities in this offering, you will suffer immediate and substantial dilution of your investment.

Because the price per share of our common stock being offered is substantially higher than the book value per share of our common stock, you will suffer substantial dilution in the net tangible book value of the common stock you purchase in this offering. If you purchase shares of common stock in this offering, you will suffer immediate and substantial dilution of \$0.48 per share based on the public offering price of \$3.00 per share of common stock. To the extent securities are issued under outstanding options, upon conversion of our Series A Preferred Stock, our Series B Preferred Stock or exercise of our outstanding pre-funded warrants or further sales are made pursuant to our sales agreement with Cantor Fitzgerald & Co., you will incur further dilution. In addition, future exercise of the warrants and pre-funded warrants to purchase shares of our common stock being sold in this offering may also result in further dilution of your investment. See “*Dilution*” for a more detailed discussion of the dilution you will incur if you purchase shares of our common stock in this offering.

Investors in this offering may experience future dilution.

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 in this offering. We cannot assure you that we will be able to sell shares of our common stock or other related securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering. If the price per share at which we sell additional shares of our common stock or related securities in future transactions is less than the price per share in this offering, investors who purchase our common stock in this offering will suffer a dilution in their investment.

Sales of a substantial number of shares of our common stock in the public market, or the perception that such sales may occur, could cause our stock price to decline.

Sales of a substantial number of shares of our common stock or other equity-related securities in the public market could cause the market price of our common stock to decline and impair our ability to raise capital through the sale of additional equity securities. Such sales, or the perception in the market that the holders of a large number of such shares intend to sell, could reduce the market price of our common stock significantly. In connection with this offering, we and our executive officers and directors have entered into lock-up agreements with Guggenheim Securities, LLC and Cantor Fitzgerald & Co., as representatives of the underwriters, that prohibit us and our executive officers and directors, subject to certain specified exceptions or receipt of the prior written consent of Guggenheim Securities, LLC and Cantor Fitzgerald & Co. from offering, selling, contracting to sell, pledging or otherwise disposing of, our common stock or securities convertible into or exchangeable for shares of our common stock for a period of 90 days after the date of this prospectus supplement. However, all of the securities sold in this offering and the remaining shares of our common stock outstanding immediately prior to this offering will not be subject to lock-up agreements with Guggenheim Securities, LLC and Cantor Fitzgerald & Co. and will be freely tradable without restriction. See “*Underwriting.*” If our executive officers or directors sell, or indicate an intention to sell, substantial amounts of our common stock in the public market, the market price of our common stock could decline.

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

There is no established public trading market for the warrants or pre-funded warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply to list these warrants or pre-funded warrants on any securities exchange or nationally recognized trading system, including

the Nasdaq Capital Market. Without an active market, the liquidity of these warrants and pre-funded warrants will be limited, and you may be unable to sell the pre-funded warrants or warrants at the prices desired or at all. The liquidity of the trading market in the pre-funded warrants and warrants and the sale price, if any, for the pre-funded warrants and warrants, may be adversely affected by, among other things: (i) changes in the overall market for the pre-funded warrants and warrants; (ii) changes in our financial performance or prospects; (iii) changes or perceived changes in our creditworthiness; (iv) the prospects for companies in the industry generally; (v) the number of holders of the pre-funded warrants and warrants; and (vi) the interest of securities dealers in making a market for the pre-funded warrants and warrants.

The warrants being offered hereby may not have value.

The warrants being offered by us in this offering have an exercise price of \$3.50 per share of common stock, subject to certain adjustments, and expire 18 months from the date of issuance, after which date any unexercised warrants will expire and have no further value. In the event that the market price of our common stock does not exceed the exercise price of the warrants during the period when they are exercisable, the warrants may not have any value.

We may not receive a significant amount, or any, additional funds upon the exercise of the pre-funded warrants or warrants being offered.

Each pre-funded warrant will be exercisable until it is fully exercised and by means of payment of the nominal cash purchase price upon exercise or by means of a “cashless exercise,” meaning that the holder may not pay a cash purchase price upon exercise, but instead would receive upon such exercise the net number of shares of our common stock determined according to a formula set forth in the pre-funded warrant. Accordingly, we will not receive any meaningful additional funds upon the exercise of the pre-funded warrants.

Each warrant will be exercisable until 18 months from the date of issuance. In certain limited circumstances, each warrant may also be exercised by way of a “cashless exercise.” Accordingly, in certain limited circumstances, we may not receive any additional funds upon the cashless exercise of the warrants or if the warrants altogether are not exercised at all. See “*Description of Securities we are Offering — Warrants.*”

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

Until holders of the warrants or pre-funded warrants acquire shares of our common stock upon exercise of such warrants and pre-funded warrants, as applicable, such holders will have no rights with respect to the shares of our common stock underlying such warrants and pre-funded warrants, except for the right to participate in certain dividends and distributions and as otherwise provided in the warrants or pre-funded warrants. Upon exercise of the warrants or pre-funded warrants, as the case may be, the holders will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

Significant holders or beneficial holders of our common stock may not be permitted to exercise warrants or pre-funded warrants that they hold.

Holders of the warrants or pre-funded warrants will not be entitled to exercise any portion of any such warrant or pre-funded warrant which, upon giving effect to such exercise, would cause the aggregate number of shares of our common stock beneficially owned by the holder (together with its affiliates) to exceed a specified percentage of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the warrants or pre-funded warrants, as the case may be. As a result, you may not be able to exercise your warrants or pre-funded warrants for shares of our common stock at a time when it would be financially beneficial for you to do so. In such circumstance you could seek to sell your warrants or pre-funded warrants to realize value, but you may be unable to do so in the absence of an established trading market for such securities. See “*Description of Securities we are Offering.*”

Warrant and pre-funded warrant holders may be subject to tax if we make or fail to make certain adjustments to the conversion rate of the warrants and pre-funded warrants even though warrant holders do not receive a corresponding cash distribution.

The terms of each warrant and pre-funded warrant provide for an adjustment to the number of shares of our common stock for which the warrant and pre-funded warrant may be exercised or to the exercise price of the warrant and pre-funded warrant in certain events. An adjustment which has the effect of preventing dilution is generally not a taxable event. Nevertheless, holders of warrants and pre-funded warrants may be treated as receiving a constructive distribution from us if, for example, the adjustment increases the holder's proportionate interest in our assets or earnings and profits (e.g., through an increase in the number of shares of our common stock that would be obtained upon exercise or through a decrease in the exercise price of the warrants and pre-funded warrants), including as a result of a distribution of cash or other property, such as other securities, to the holders of our common stock, or as a result of the issuance of a stock dividend to holders of our common stock, in each case which is taxable to such holders as a dividend to the extent of our current or accumulated earnings and profits. In addition, the failure to provide for an adjustment (or to adequately adjust) to prevent dilution may also result in a constructive distribution. See "*Material United States Federal Income Tax Considerations*." If you are a Non-U.S. Holder (as defined in "*Material United States Federal Income Tax Considerations*") of a warrant or pre-funded warrant, any deemed dividend would be subject to U.S. federal withholding tax at a 30% rate, or such lower rate as may be specified by an applicable treaty, which may be withheld from or set off against subsequent deliveries of stock on the exercise of the warrants by such Non-U.S. Holder or any proceeds of any subsequent sale, exchange or other disposition of such warrant by such Non-U.S. Holder or other funds or assets of such Non-U.S. Holder. See "*Material United States Federal Income Tax Considerations*."

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the other documents we have filed with the SEC that are incorporated herein and therein by reference, contain forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements related to present facts or current conditions or historical facts, contained in or incorporated by reference into this prospectus supplement, including statements regarding our strategy, future operations, future financial position, including our ability to continue as a going concern through one year from the date of the financial statements for the quarter ended March 31, 2024, future revenues, projected costs, prospects, plans and objectives of management, are forward-looking statements. Such statements relate to, among other things, the development and activity of our programs and product candidates, avutometinib (RAF/MEK program) and defactinib (FAK program), the timing, scope and progress of the rolling NDA submission for the avutometinib and defactinib combination in LGSOC, the structure of our planned and pending clinical trials, the potential clinical value of various of the Company's clinical trials, including the RAMP 201, RAMP 205 and RAMP 301 trials, the timing of commencing and completing trials, including topline data reports, interactions with regulators, the timeline and indications for clinical development, regulatory submissions and the potential for and timing of commercialization of product candidates and potential for additional development programs involving the Company's lead compound and the potential market opportunities, the expected outcome and benefits of our collaboration with GenFleet, plans to initiate development studies outside of China, and estimated addressable markets for, of our drug candidates. The words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "will," "would," "could," "should," "continue" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

Forward-looking statements are not guarantees of future performance and are to risks and uncertainties that could cause our actual results could differ materially from those expressed or implied in the forward-looking statements we make. Applicable risks and uncertainties include the risks and uncertainties, among other things, regarding: the success in the development and potential commercialization of our product candidates, including avutometinib in combination with other compounds, including defactinib, LUMAKRAS[®] and others; the uncertainties inherent in research and development, such as negative or unexpected results of clinical trials; the occurrence or timing of applications for our product candidates that may be filed with regulatory authorities in any jurisdictions; whether and when regulatory authorities in any jurisdictions may approve any such applications that may be filed for our product candidates and, if approved, whether our product candidates will be commercially successful in such jurisdictions; our ability to obtain, maintain and enforce patent and other intellectual property protection for our product candidates; the scope, timing, and outcome of any legal proceedings; decisions by regulatory authorities regarding trial design, labeling and other matters that could affect the timing, availability or commercial potential of our product candidates; whether preclinical testing of our product candidates and preliminary or interim data from clinical trials will be predictive of the results or success of ongoing or later clinical trials; that the timing, scope and rate of reimbursement for our product candidates is uncertain; the market opportunities of our drug candidates are based on internal and third-party estimates which may prove to be incorrect; that third-party payors (including government agencies) may not reimburse; that there may be competitive developments affecting our product candidates; that data may not be available when expected; that enrollment of clinical trials may take longer than expected which may delay our development programs, including delays in submission or review by the FDA of our NDA submission in recurrent KRAS mutant LGSOC if enrollment in our confirmatory trial is not well underway at the time of submission, or that the FDA may require the Company to have completed enrollment or to enroll additional patients in the Company's ongoing RAMP-301 confirmatory Phase 3 clinical trial prior to Verastem submitting or the FDA taking action on our NDA seeking accelerated approval; risks associated with preliminary and interim data, which may not be representative of more mature data, including with respect to interim duration of therapy data; that our product candidates will cause adverse safety events and/or unexpected concerns may arise from additional data or analysis, or result in unmanageable safety profiles as compared to their levels of efficacy; that we may be unable to successfully validate, develop and obtain regulatory approval for companion diagnostic tests for our product candidates that require or would commercially benefit from such tests, or experience significant delays in doing so; that the mature RAMP 201 data and associated discussions with the FDA may not support the scope of our rolling NDA submission for the avutometinib and defactinib combination in LGSOC, including with respect to KRAS wild type LGSOC; that our product candidates

may experience manufacturing or supply interruptions or failures; that any of our third party contract research organizations, contract manufacturing organizations, clinical sites, or contractors, among others, who we rely on fail to fully perform; that we face substantial competition, which may result in others developing or commercializing products before or more successfully than we do which could result in reduced market share or market potential for our product candidates; that we will be unable to successfully initiate or complete the clinical development and eventual commercialization of our product candidates; that the development and commercialization of our product candidates will take longer or cost more than planned, including as a result of conducting additional studies or our decisions regarding execution of such commercialization; that we may not have sufficient cash to fund our contemplated operations, including certain of our product development programs; that we may not attract and retain high quality personnel, that we or Chugai Pharmaceutical, Co. Ltd. (“Chugai”), will fail to fully perform under the avotometinib license agreement; that our total addressable and target markets for our product candidates might be smaller than we are presently estimating; that we or Secura Bio, Inc. (“Secura”) will fail to fully perform under the asset purchase agreement with Secura, including in relation to milestone payments; that we will not see a return on investment on the payments we have and may continue to make pursuant to the collaboration and option agreement with GenFleet or that GenFleet will fail to fully perform under the agreement; that we may not be able to establish new or expand on existing collaborations or partnerships, including with respect to in-licensing of our product candidates, on favorable terms, or at all; that we may be unable to obtain adequate financing in the future through product licensing, co-promotional arrangements, public or private equity, debt financing or otherwise; that we will not pursue or submit regulatory filings for our product candidates and that our product candidates will not receive regulatory approval, become commercially successful products, or result in new treatment options being offered to patients. Other risks and uncertainties include those identified under the heading “*Risk Factors*” in our Annual Report on Form 10-K for the year ended December 31, 2023, as filed with the SEC on March 14, 2024, and in any subsequent filings with the SEC.

As a result of these and other factors, we may not achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make. The forward-looking statements contained in this prospectus supplement reflect our views as of the date hereof. We do not assume and specifically disclaim any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

USE OF PROCEEDS

We estimate that the net proceeds received by us from this offering, after deducting estimated underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately \$51.1 million. This excludes any proceeds we may receive upon exercise of the warrants or pre-funded warrants being sold in this offering. We cannot predict when or if these warrants and pre-funded warrants will be exercised. It is possible that these warrants and pre-funded warrants may expire and may never be exercised.

We intend to use the net proceeds from this offering to fund the potential launch of avutometinib and defactinib in LGSOC, continued clinical research and development of product candidates, and for working capital and other general corporate purposes, which may include capital expenditures, research and development expenditures, clinical trial expenditures, potential commercial launch expenditures, milestone payments under collaboration and in-license agreements, and possible acquisitions.

We believe that the net proceeds from this offering, together with our existing cash and cash equivalents and investments, will be sufficient to fund our projected operating expenses and capital expenditures for at least the next twelve months. Our expected use of the net proceeds from this offering represents our intentions based upon our current plans and business conditions. 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, 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, our management will retain broad discretion over the allocation of the net proceeds from this offering.

Pending our use of the net proceeds from this offering, we intend to invest the net proceeds in a variety of capital preservation investments, including short-term, investment-grade, interest-bearing instruments and U.S. government securities.

DESCRIPTION OF SECURITIES WE ARE OFFERING

Common Stock

We are offering shares of our common stock in this offering. See “*Description of Capital Stock*” in the accompanying prospectus for more information regarding our shares of common stock.

Common Warrants

The following is a brief summary of certain terms and conditions of the common warrants being offered in this offering. The following description is subject in all respects to the provisions contained in the warrants, which will be provided to the investors in this offering and a form of which will be filed with the SEC as an exhibit to a Current Report on Form 8-K in connection with this offering.

Form

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

Exercisability

The warrants will be immediately exercisable at any time until 18 months from the date of issuance. The warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and by payment in full of the exercise price in immediately available funds for the number of shares of common stock purchased upon such exercise. If, at the time a holder exercises its warrants, a registration statement registering the issuance of the shares of common stock underlying the warrants under the Securities Act of 1933, as amended (the “Securities Act”) is not then effective or available, then in lieu of making the cash payment otherwise contemplated to be made to us upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the warrants.

Exercise Limitations

We may not effect the exercise of any warrant, and a holder will not be entitled to exercise any portion of any warrant that, upon giving effect to such exercise, would cause: (i) the aggregate number of shares of our common stock beneficially owned by such holder (together with its affiliates and other attribution parties) to exceed 4.99% (or such higher percentage up to 19.99%, at the election of the holder) of the number of shares of our common stock outstanding immediately after giving effect to the exercise; or (ii) the combined voting power of our securities beneficially owned by such holder (together with its affiliates and other attribution parties) to exceed 4.99% (or such higher percentage up to 19.99%, at the election of the holder) of the combined voting power of all of our securities outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the warrants. However, any holder of a warrant may increase or decrease such percentage to any other percentage not in excess of 19.99% provided that any such increase or decrease will not be effective until the sixty-first (61st) day after such notice is delivered to us subject to the terms of the warrant. In the event that the exercise of a warrant would cause the holder to beneficially own in excess of 4.99% (or such higher percentage up to 19.99%, at the election of the holder) of the total number shares of our common stock outstanding immediately after giving effect to such exercise, the holder of a warrant may elect to purchase a pre-funded warrant for one share of our common stock, rather than a share of common stock, at the warrant exercise price less the exercise price of the pre-funded warrant purchased.

Exercise Price

The exercise price per whole share of our common stock purchasable upon exercise of the warrants is \$3.50 per share. The exercise price of the warrants and the number of shares of common stock issuable upon exercise of the warrants is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our shares of common stock, as well as upon any distribution of assets, including cash, stock or other property, to our stockholders.

Buy-in Right

If we fail to issue shares of common stock to the holder of a warrant within one trading day of our receipt of a duly executed exercise notice from a holder of a warrant, then the holder may, for such holder's account, purchase in an open market transaction or otherwise, shares of common stock to deliver in satisfaction of a sale by the holder of shares of common stock issuable upon such exercise that the holder anticipated receiving from us. We must then, at the election of the holder, either: (i) pay in cash to the holder the holder's total purchase price (including brokerage commissions, if any) for the shares of common stock so purchased; or (ii) promptly honor our obligation to deliver the shares of common stock issuable on the exercise of the warrant and pay cash to the holder in an amount equal to the excess (if any) of holder's total purchase price (including brokerage commissions, if any) for the shares of common stock so purchased, less the product of (A) the number of shares of common stock purchased, times (B) the closing sale price of a share of common stock on the exercise date.

Fractional Shares

No fractional shares shall be issued upon the exercise of the warrants, and the number of shares of common stock to be issued upon the exercise of such warrants shall be rounded down to the nearest whole share. If a fractional share interest arises upon any exercise of a warrant, the Company shall eliminate such fractional share interest by paying the holder in cash the amount computed by multiplying the fractional interest by (i) the fair market value (as determined in accordance with the terms of the warrants) of a full share, less (ii) the then-effective exercise price.

Transferability

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

No Listing

There is no established public trading market for the warrants, and we do not expect a market to develop. We do not intend to list the warrants on the Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system. Without an active market, the liquidity of the warrants will be limited.

Acquisitions

Upon the consummation of an acquisition (as described in the warrants, and generally including any reorganization, recapitalization or reclassification of our shares of common stock, the sale, lease, exclusive license or other disposition of all or substantially all of our assets, our merger or consolidation with or into another person, or any other corporate reorganization in which our stockholders immediately following such transaction own less than fifty percent of the voting power of our (or the surviving entity's) outstanding shares of common stock, or if we are not the surviving entity, or if our stockholders sell or transfer shares representing greater than fifty percent of our then-total outstanding combined voting power), the holders of the warrants will be entitled to receive, upon exercise of the warrants, the kind and amount of securities, cash or other property that such holders would have received had they exercised the warrants immediately prior to such acquisition, without regard to any limitations on exercise contained in the warrants.

No Rights as a Stockholder

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

Waivers and Amendments

The warrants and any term thereof may only be amended or otherwise changed, waived, discharged or terminated in writing, signed by the party against which enforcement of such amendment or other change, waiver, discharge or termination is sought.

Pre-Funded Warrants

The following is a brief summary of certain terms and conditions of the pre-funded warrants being offered in this offering. The following description is subject in all respects to the provisions contained in the pre-funded warrants, a form of which will be provided to the investors in this offering and will be filed with the SEC as an exhibit to a Current Report on Form 8-K in connection with this offering.

Form

The pre-funded warrants will be issued as individual pre-funded warrant agreements to the purchasers. The form of pre-funded warrant will be provided to the investors in this offering and will be filed with the SEC as an exhibit to a Current Report on Form 8-K in connection with this offering.

Term

The pre-funded warrants will not expire until they are fully exercised.

Exercisability

The pre-funded warrants will be immediately exercisable at any time until they are fully exercised. The pre-funded warrants will be exercisable, at the option of each holder, in whole or in part by delivering to us a duly executed exercise notice and by payment in full of the exercise price in immediately available funds for the number of shares of common stock purchased upon such exercise. A holder of the pre-funded warrants may also satisfy its obligation to pay the exercise price through a "cashless exercise," in which the holder receives the net value of the pre-funded warrant in shares of common stock determined according to the formula set forth in the pre-funded warrant.

Exercise Limitations

We may not effect the exercise of any pre-funded warrant, and a holder will not be entitled to exercise any portion of any pre-funded warrant that, upon giving effect to such exercise, would cause: (i) the aggregate number of shares of our common stock beneficially owned by such holder (together with its affiliates and other attribution parties) to exceed 4.99% (or such higher percentage up to 19.99%, at the election of the holder) of the number of shares of our common stock outstanding immediately after giving effect to the exercise; or (ii) the combined voting power of our securities beneficially owned by such holder (together with its affiliates and other attribution parties) to exceed 4.99% (or such higher percentage up to 19.99%, at the election of the holder) of the combined voting power of all of our securities outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the pre-funded warrants. However, any holder of a pre-funded warrant may increase or decrease such percentage to any other percentage not in excess of 19.99% provided that any such increase or decrease will not be effective until the sixty-first (61st) day after such notice is delivered to us subject to the terms of the pre-funded warrant.

Exercise Price

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

Buy-in Right

If we fail to issue shares of common stock to the holder of a pre-funded warrant within one trading day of our receipt of a duly executed exercise notice from a holder of a pre-funded warrant, then the holder may, for such holder's account, purchase in an open market transaction or otherwise, shares of common stock to deliver in satisfaction of a sale by the holder of shares of common stock issuable upon such exercise that the holder anticipated receiving from us. We must then, at the election of the holder, either: (i) pay in cash to the holder the holder's total purchase price (including brokerage commissions, if any) for the shares of common stock so purchased; or (ii) promptly honor our obligation to deliver the shares of common stock issuable on the exercise of the pre-funded warrant and pay cash to the holder in an amount equal to the excess (if any) of holder's total purchase price (including brokerage commissions, if any) for the shares of common stock so purchased, less the product of (A) the number of shares of common stock purchased, times (B) the closing sale price of a share of common stock on the exercise date.

Fractional Shares

No fractional shares shall be issued upon the exercise of the pre-funded warrants, and the number of shares of common stock to be issued upon the exercise of such pre-funded warrants shall be rounded down to the nearest whole share. If a fractional share interest arises upon any exercise of a pre-funded warrant, the Company shall eliminate such fractional share interest by paying the holder in cash the amount computed by multiplying the fractional interest by (i) the fair market value (as determined in accordance with the terms of the pre-funded warrants) of a full share, less (ii) the then-effective exercise price.

Transferability

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

No Listing

There is no established public trading market for the pre-funded warrants, and we do not expect a market to develop. We do not intend to list the pre-funded warrants on the Nasdaq Capital Market, any other national securities exchange or any other nationally recognized trading system. Without an active market, the liquidity of the pre-funded warrants will be limited.

Acquisitions

Upon the consummation of an acquisition (as described in the pre-funded warrants, and generally including any reorganization, recapitalization or reclassification of our shares of common stock, the sale, lease, exclusive license or other disposition of all or substantially all of our assets, our merger or consolidation with or into another person, or any other corporate reorganization in which our stockholders immediately following such transaction own less than fifty percent of the voting power of our (or the surviving entity's) outstanding shares of common stock, or if we are not the surviving entity, or if our stockholders sell or transfer shares representing greater than fifty percent of our then-total outstanding combined voting power), the holders of the pre-funded warrants will be entitled to receive, upon exercise of the pre-funded warrants, the kind and amount of securities, cash or other property that such holders would have received had they exercised the pre-funded warrants immediately prior to such acquisition, without regard to any limitations on exercise contained in the pre-funded warrants.

No Rights as a Stockholder

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

Waivers and Amendments

The pre-funded warrants and any term thereof may only be amended or otherwise changed, waived, discharged or terminated in writing, signed by the party against which enforcement of such amendment or other change, waiver, discharge or termination is sought.

DILUTION

If you invest in our securities in this offering, your ownership interest will be diluted immediately to the extent of the difference between the public offering price per share of our common stock or pre-funded warrant and, in each case, the accompanying warrant in this offering, and the pro forma net tangible book value per share of our common stock after giving effect to this offering.

Our historical net tangible book value as of March 31, 2024 was \$46.2 million, or \$1.83 per share of our common stock. Historical net tangible book value per share represents the amount of our total tangible assets less total liabilities, divided by 25,307,669 shares of our common stock outstanding as of March 31, 2024.

After giving effect to the sale of 13,334,334 shares of our common stock and accompanying warrants to purchase shares of our common stock in this offering at the public offering price of \$3.00 per share and accompanying warrant, and the sale of pre-funded warrants to purchase up to 5,000,000 shares of common stock and accompanying warrants to purchase shares of our common stock in this offering at the public offering price of \$2.999 per pre-funded warrant and accompanying warrant to purchase our common stock, and after deducting the underwriting discounts and commissions and the estimated offering expenses payable by us, our pro forma net tangible book value as of March 31, 2024 would have been approximately \$97.3 million, or approximately \$2.52 per share of common stock. This represents an immediate increase in pro forma net tangible book value per share of \$0.69 to existing stockholders and immediate dilution of \$0.48 in pro forma net tangible book value per share to new investors participating in this offering.

Dilution per share to new investors is determined by subtracting as adjusted net tangible book value per share after this offering from the public offering price per share paid by new investors. The following table illustrates this calculation on a per share basis.

Public offering price per share of common stock and accompanying warrant	\$3.00
Net tangible book value per share as of March 31, 2024	\$1.83
Increase in net tangible book value per share attributable to new investors	\$0.69
Pro forma net tangible book value per share after this offering	\$2.52
Dilution per share of common stock and accompanying warrant to new investors participating in the offering	\$0.48

If holders of the pre-funded warrants and accompanying warrants exercise the pre-funded warrants and accompanying warrants for shares of common stock, the as adjusted net tangible book value per share of our common stock after giving effect to this offering would be \$2.61 per share, and the dilution in net tangible book value per share to investors purchasing our securities in this offering would be \$0.39 per share.

Unless otherwise indicated, the above discussion and table are based on 25,307,669 shares outstanding as of March 31, 2024, and excludes the following, each as of March 31, 2024:

- 2,122,901 shares of our common stock issuable upon the exercise of stock options outstanding under our Equity Incentive Plans, at a weighted average exercise price of \$13.18 per share;
- 426,392 shares of our common stock issuable upon the vesting of restricted stock units under our Equity Incentive Plans;
- 502,249 shares of our common stock reserved and available for future issuance under the 2021 Plan;
- 585,539 shares of our common stock reserved and available for future issuance under our inducement award program, of which 143,292 shares are issuable upon the exercise of stock options granted subsequent to March 31, 2024 through the date hereof under the inducement award program at a weighted-average exercise price of \$5.32 per share;
- 67,230 shares of our common stock reserved for future issuance under our Amended and Restated 2018 Employee Stock Purchase Plan;
- 833,333 shares of our common stock issuable upon conversion of our outstanding Series A Preferred Stock;

- 4,236,570 shares of our common stock issuable upon conversion of our outstanding Series B Preferred Stock; and
- 1,538,591 shares of our common stock issuable upon the exercise of our currently outstanding pre-funded warrants at an exercise price equal to \$0.001 per share.

This discussion of dilution, and the table quantifying it, assumes (i) except as noted above, no issuance or exercise of stock options or warrants after March 31, 2024, (ii) no conversions into common stock of our convertible securities or exercise of our outstanding pre-funded warrants after March 31, 2024 and (iii) no exercise of any of the warrants or pre-funded warrants to be offered and sold by us in this offering. The exercise of outstanding options to purchase shares of our common stock having an exercise price less than the public offering price would increase the dilutive effect to new investors.

In addition, the information in the prospectus supplement assumes no additional issuance of Series B Preferred Stock pursuant to the Purchase Agreement and no conversion of any outstanding Series B Preferred Stock into common stock.

In addition, we may choose to raise additional capital because of market conditions or strategic considerations, even if we believe that we have sufficient funds for our current or future operating plans. If we raise additional capital through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

UNDERWRITING

Underwriting

Guggenheim Securities, LLC. and Cantor Fitzgerald & Co. are acting as joint book-running managers of the offering and as representatives of the several underwriters named below. Subject to the terms and conditions stated in the underwriting agreement dated the date of this prospectus supplement, each underwriter has severally and not jointly agreed to purchase, and we have agreed to sell to that underwriter, and each underwriter has agreed to purchase from us, the number of shares of common stock and shares underlying pre-funded warrants, in each case with accompanying warrants, set forth opposite the underwriter's name.

Underwriter	Number of Shares of Common Stock and Accompanying Warrants	Number of Pre-Funded Warrants and Accompanying Warrants
Guggenheim Securities, LLC	7,333,334	2,750,000
Cantor Fitzgerald & Co.	6,000,000	2,250,000
Total:	<u>13,333,334</u>	<u>5,000,000</u>

The underwriting agreement provides that the obligations of the underwriters to purchase the shares of common stock and pre-funded warrants, in each case with accompanying warrants, included in this offering are subject to approval of legal matters by counsel and to other conditions. The underwriters have agreed to purchase all the shares of common stock or pre-funded warrants, in each case with accompanying warrants, if they purchase any of the securities.

The underwriters have advised us that they propose to offer the shares of common stock (or pre-funded warrants) and accompanying warrants to the public at the combined public offering price set forth on the cover page of this prospectus supplement and to certain dealers, which may include the underwriters, at a price less a concession not in excess of \$0.1080 per share of common stock (or pre-funded warrant) and accompanying warrant. After the offering, the combined public offering price, concession and reallowance to dealers may be reduced by the underwriter. 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.

Underwriting discounts and commissions

The following table shows the underwriting discounts and commissions that we are to pay to the underwriters in connection with this offering.

	Per Share of Common Stock and Accompanying Warrant	Per Pre-Funded Warrant and Accompanying Warrant	Total
Combined public offering price	\$3.0000	\$2.9990	\$54,995,002.00
Underwriting discounts and commissions paid by us	\$0.1800	\$0.1799	\$ 3,299,500.12
Proceeds to us, before expenses	\$2.8200	\$2.8191	\$51,695,501.88

Indemnification

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

Lock-Up Agreements

We and our officers and directors have agreed that we will not offer, sell, contract to sell, pledge or otherwise dispose of (or enter into any transaction which is designed to, or might reasonably be expected to, result in the disposition (whether by actual disposition or effective economic disposition due to cash

settlement or otherwise) by the securityholder or any affiliate of the securityholder or any person in privity with the securityholder or any affiliate of the securityholder, directly or indirectly, including the filing (or participation in the filing) of a registration statement (except for the filing of any resale registration statement which the Company may be contractually obligated to file pursuant to agreements in effect on the date hereof and incorporated by reference in the Registration Statement, as such term is defined in the Underwriting Agreement) with the SEC in respect of, or establish or increase a put equivalent position or liquidate or decrease a call equivalent position within the meaning of Section 16 of the Securities Exchange Act of 1934, as amended, and the rules and regulations of the SEC promulgated thereunder (the “Exchange Act”) with respect to, any shares of capital stock of the Company or any securities convertible into, or exercisable or exchangeable for such capital stock, or publicly announce an intention to effect any such transaction, without the prior written consent of Guggenheim Securities, LLC and Cantor Fitzgerald & Co., for a period of 90 days after the date of this prospectus supplement.

The restrictions described in the immediately preceding paragraph do not apply to:

- a) transactions relating to shares of our common stock or other securities acquired in this offering or in open market transactions after the completion of this offering; provided that no filing under Section 16(a) of the Exchange Act shall be required or shall be voluntarily made in connection with subsequent sales of our common stock or other securities acquired in such transactions (other than as otherwise permitted pursuant to the other exceptions outlined below);
- b) transfers to the Company pursuant to a “net” or “cashless” exercise by the securityholder of outstanding equity awards pursuant to an employee benefit plan of the Company as in effect and disclosed herein, including to satisfy the exercise price or withholding tax or remittance obligations; provided that (i) any shares of our common stock received upon such exercise shall be subject to all of the restrictions set forth in this letter agreement and (ii) no filing under Section 16(a) of the Exchange Act, reporting a reduction in beneficial ownership of shares of our common stock, shall be required or shall be voluntarily made during the restricted period, unless such filing indicates in the footnotes thereto that the filing relates to the exercise of equity awards, that no shares were sold to the public by the reporting person and the shares of our common stock received upon exercise of such securities are subject to a lock-up agreement with the underwriters of this offering;
- c) the exercise of options, stock appreciation rights or warrants to purchase shares of our common stock pursuant to an employee benefit plan disclosed herein; provided that (i) any shares of our common stock received upon such exercise shall be subject to all of the restrictions set forth in this letter agreement and (ii) no filing under Section 16(a) of the Exchange Act, reporting a reduction in beneficial ownership of shares of our common stock, shall be required or shall be voluntarily made during the restricted period, unless such filing shall indicate in the footnotes thereto that such filing relates to the exercise of options, stock appreciation rights or warrants to purchase shares of our common stock and the shares of our common stock received upon exercise of such securities are subject to a lock-up agreement with the underwriters of this offering;
- d) transfers of shares of our common stock or any security convertible into our common stock as a bona fide gift; provided that (i) no filing under Section 16(a) of the Exchange Act, reporting a reduction in beneficial ownership of shares of our common stock, shall be required or shall be voluntarily made during the restricted period, unless such filing indicates in the footnotes thereto that such transfer was made in connection with a bona fide gift and the shares of common stock or securities convertible into our common stock, as applicable, received pursuant to the bona fide gift are subject to a lock-up agreement with the underwriters of this offering, and (ii) each donee, distributee or transferee shall sign and deliver a lock-up agreement substantially in the form of the letter agreements signed in connection with this offering;
- e) distributions of shares of our common stock or any security convertible into our common stock to partners, limited partners, members, managers, affiliates (within the meaning set forth in Rule 405 under the Securities Act, as amended, and including the subsidiaries of the securityholder), stockholders or holders of similar equity interests of the securityholder or to any investment fund or other entity that directly or indirectly controls or manages, is under common control with, or is controlled or managed by, the securityholder or affiliates of the securityholder (including, for the

avoidance of doubt, where the securityholder is a partnership, to its general partner or a successor partnership or fund, or any other funds controlled or managed by such partnership) (including upon the liquidation or dissolution of the securityholder pursuant to a plan of liquidation approved by the securityholder's equity holders) or in the case of a trust, to a grantor or beneficiary of the trust, and such transfer does not involve a disposition for value; provided that (i) each donee, distributee or transferee shall sign and deliver a lock-up agreement substantially in the form of the letter agreements signed in connection with this offering and (ii) no filing under Section 16(a) of the Exchange Act, reporting a reduction in beneficial ownership of shares of our common stock, shall be required or shall be voluntarily made during the restricted period, unless such filing indicates in the footnotes thereto that such transfer is a distribution to limited partners, members, stockholders or holders of similar equity interests, that no shares of our common stock or securities convertible into our common stock, as applicable, were sold to the public by the reporting person and the shares of our common stock or securities convertible into our common stock, as applicable, distributed are subject to a lock-up agreement with the underwriters of this offering;

- f) transfers of shares of our common stock, (i) to any immediate family member, trusts for the direct or indirect benefit of the securityholder or the immediate family members of the securityholder or any of their successors upon death, or any partnership or limited liability company, the partners or members of which consist of the securityholder and/or immediate family members or other dependents of the securityholder, and in each case such transfer does not involve a disposition for value, or (ii) to a nominee or custodian of a person or entity to whom disposition or transfer would be permitted under clause (f)(i) above (for purposes of this letter agreement, "immediate family" means any relationship by blood, marriage or adoption, not more remote than first cousin); provided that in the case of any transfer pursuant to this clause (f), (i) each donee, distributee or transferee shall sign and deliver a lock-up agreement substantially in the form of the letter agreements signed in connection with this offering and (ii) no filing by any party (donor, donee, transferor or transferee) under the Exchange Act (other than any required filing on a Form 5 made after the expiration of the restricted period or, if a Form 5 filing is required to be made prior to the expiration of the restricted period, such Form 5 filing is made on the latest date permitted under the Exchange Act) or other public announcement reporting a reduction in beneficial ownership of our common stock shall be required or shall be made voluntarily in connection with such transfer or distribution;
- g) transfers of shares of our common stock or any other options or warrants or other rights to acquire our common stock or any securities exchangeable or exercisable for or convertible into our common stock by will or intestacy or pursuant to a domestic order divorce settlement, divorce decree or separation agreement; provided that in the case of any transfer pursuant to (g), unless prohibited by an order of a court, (i) each donee or distributee shall sign and deliver a lock-up agreement substantially in the form of the letter agreements signed in connection with this offering and (ii) no filing under Section 16(a) of the Exchange Act, reporting a reduction in beneficial ownership of shares of our common stock, shall be required or shall be voluntarily made during the restricted period, unless such filing indicates in the footnotes thereto the nature of the transfer or disposition;
- h) transfers or dispositions of our common stock or any security convertible into or exercisable or exchangeable for our common stock to the Company (i) pursuant to any contractual arrangement in effect on the date hereof and described in the final prospectus used for this offering that provides for the repurchase of the securityholder's common stock or other securities by the Company or (ii) in connection with the termination of the securityholder's employment with or service to the Company; provided that in each case no filing under Section 16(a) of the Exchange Act, reporting a reduction in beneficial ownership of shares of our common stock, shall be required or shall be voluntarily made during the restricted period, unless such filing indicates in the footnotes thereto the nature of the transfer or disposition;
- i) the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act (a "Rule 10b5-1 Trading Plan") for the transfer of shares of our common stock, provided that (x) such plan does not provide for the transfer of our common stock during the restricted period,

- (y) no public announcement or filing under the Exchange Act shall be voluntarily made by or on behalf of the securityholder or the Company during the restricted period regarding the establishment of such plan; and (z) to the extent a public announcement or filing under the Exchange Act, if any, is required by or on behalf of the securityholder or the Company regarding its regarding the establishment of such plan, and (z); to the extent a public announcement or filing under the Exchange Act, if any, is required by or on behalf of the undersigned or the Company regarding the establishment of a Rule 10b5-1 Trading Plan during the restricted period, such announcement or filing shall include a statement to the effect that no transfer of common stock of the Company may be made under such Rule 10b5-1 Trading Plan during the restricted period;
- j) (i) the transfer of shares of our common stock or any security convertible into or exercisable or exchangeable for our common stock pursuant to a bona fide third party tender offer, merger, consolidation or other similar transaction made to all holders of common stock and approved by the Company's board of directors involving a Change of Control (as defined below) and (ii) entry into any lock-up, voting or similar agreement pursuant to which the securityholder may agree to transfer, sell, tender or otherwise dispose of our common stock or such other securities in connection with a transaction described in (i) above, provided, that in the event that the tender offer, merger, consolidation or other such transaction is not completed, the securityholders' common stock or any security convertible into or exercisable or exchangeable for our common stock shall remain subject to the terms of the letter agreements signed in connection with this offering;
- k) transfers pursuant to an order of a court or regulatory agency; provided that in the case of any transfer pursuant to (k), (i) unless prohibited by an order of a court or regulatory agency, the securityholder must request that each transferee sign and deliver a lock-up agreement substantially in the form of the letter agreements signed in connection with this offering and (ii) any filing under Section 16(a) of the Exchange Act reporting a reduction in beneficial ownership of shares of our common stock required to be made during the restricted period shall state that such transfer is pursuant to an order of a court or regulatory agency;
- l) transfers to the Company for the purpose of satisfying any tax or other governmental withholding obligation with respect to, or in connection with, a vesting event of the Company's securities, upon the exercise of the Company's securities or upon expiration of the Company's securities, in each case held by the securityholder; *provided* that no filing under Section 16(a) of the Exchange Act, reporting a reduction in beneficial ownership of shares of our common stock, shall be required or shall be voluntarily made during the restricted period, unless such filing indicates in the footnotes thereto that the shares were transferred to the Company in order to satisfy tax or other governmental withholding obligations of the reporting person and that no shares were sold to the public by the reporting person;
- m) sales of our common stock for the purpose of satisfying any tax or other governmental withholding obligation with respect to, or in connection with, a vesting event of the Company's securities, upon the exercise of the Company's securities or upon expiration of the Company's securities, in each case held by the securityholder; provided that no filing under Section 16(a) of the Exchange Act, reporting a reduction in beneficial ownership of shares of our common stock, shall be required or shall be voluntarily made during the restricted period, unless such filing indicates in the footnotes thereto that the shares were sold in order to satisfy tax or other governmental withholding obligations of the reporting person; or
- n) in connection with sales of our common stock made pursuant to a Rule 10b5-1 Trading Plan that has been entered into by the securityholder prior to the date of this letter agreement; provided that (i) such Rule 10b5-1 Trading Plan was established by the securityholder prior to the execution of this letter agreement, the existence and a copy of such Rule 10b5-1 Trading Plan as provided to the underwriters prior to the execution of this letter agreement, (ii) such Rule 10b5-1 Trading Plan will not be amended or otherwise modified during the restricted period, and (iii) no filing under Section 16(a) of the Exchange Act, reporting a reduction in beneficial ownership of shares of our common stock, shall be required or shall be voluntarily made during the restricted period, unless such filing indicates in the footnotes thereto that the shares were sold pursuant to such Rule 10b5-1 Trading Plan.

For purposes of clause (j) above, “Change of Control” means any bona fide third party tender offer, merger, consolidation or other similar transaction, in one transaction or a series of related transactions, the result of which is that any “person” (as defined in Section 13(d)(3) of the Exchange Act) or group of persons, other than the Company, becomes the beneficial owner (as defined Rule 13d-3 and 13d-5 of the Exchange Act) of more than 50% of total voting power of the voting stock of the Company (or the surviving entity).

Nasdaq Capital Market Listing

Our common stock is listed on the Nasdaq Capital Market under the symbol “VSTM.” We do not intend to list the warrants or the pre-funded warrants on the Nasdaq Capital Market or any securities exchange or nationally recognized trading system.

Expenses and Reimbursements

We estimate that the total expenses of this offering will be \$585,000. We have agreed to reimburse the underwriters for certain expenses in an amount up to \$20,000.

Price Stabilization, Short Positions and Penalty Bids

In connection with the offering, the underwriters may purchase and sell shares in the open market. Purchases and sales in the open market may include short sales, purchases to cover short positions, and stabilizing purchases.

- Short sales involve secondary market sales by the underwriters of a greater number of shares than they are required to purchase in the offering.
- Covering transactions involve purchases of shares in the open market in order to cover short positions.
 - To close a naked short position, the underwriters must purchase 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 the shares in the open market after pricing that could adversely affect investors who purchase in the offering.
 - To close a covered short position, the underwriters must purchase shares in the open market. In determining the source of shares to close the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market.
- Stabilizing transactions involve bids to purchase shares so long as the stabilizing bids do not exceed a specified maximum.

Purchases to cover short positions and stabilizing purchases, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of the shares. They may also cause the price of the shares to be higher than the price that would otherwise exist in the open market in the absence of these transactions. The underwriters may conduct these transactions on the Nasdaq Capital Market, in the over-the-counter market or otherwise. If the underwriters commence any of these transactions, they may discontinue them at any time.

In addition, in connection with this offering, some of the underwriters (and selling group members) may engage in passive market making transactions in the shares on the Nasdaq Capital Market, prior to the pricing and completion of the offering. Passive market making consists of displaying bids on the Nasdaq Capital Market no higher than the bid prices of independent market makers and making purchases at prices no higher than those independent bids and effected in response to order flow. Net purchases by a passive market maker on each day are limited to a specified percentage of the passive market maker’s average daily trading volume in the shares during a specified period and must be discontinued when that limit is reached. Passive market making may cause the price of the shares to be higher than the price that otherwise would exist in the open market in the absence of those transactions. If the underwriters commence passive market making transactions, they may discontinue them at any time.

Electronic Distribution

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

Other Relationships

The underwriters are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, principal investment, hedging, financing and brokerage activities. The underwriters and their respective affiliates have in the past performed commercial banking, investment banking and advisory services for us from time to time for which they have received customary fees and reimbursement of expenses and may, from time to time, engage in transactions with and perform services for us in the ordinary course of their business for which they may receive customary fees and reimbursement of expenses. In the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (which may include bank loans and/or credit default swaps) for their own account and for the accounts of their customers and may at any time hold long and short positions in such securities and instruments. Such investments and securities activities may involve securities and/or instruments of ours or our affiliates. The underwriters and their affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or financial instruments and may hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments. Cantor Fitzgerald & Co. is the sales agent for our at-the-market offering program pursuant to a Controlled Equity OfferingSM Sales Agreement, dated August 2, 2021 between us and Cantor Fitzgerald & Co.

Sales Outside the United States

No action has been taken in any jurisdiction (except in the United States) that would permit a public offering of our common stock, or the possession, circulation or distribution of this prospectus supplement or any other material relating to us or our common stock in any jurisdiction where action for that purpose is required. Accordingly, the shares of common stock may not be offered or sold, directly or indirectly, and neither this prospectus supplement nor any other offering material or advertisements in connection with our common stock may be distributed or published, in or from any country or jurisdiction, except in compliance with any applicable rules and regulations of any such country or jurisdiction.

The underwriters may arrange to sell the common stock offered hereby in certain jurisdictions outside the United States, either directly or through affiliates, where it is permitted to do so.

European Economic Area

In relation to each Member State of the European Economic Area (each, a “Relevant Member State”), no shares of our common stock have been offered or will be offered pursuant to this offering to the public in that Relevant State prior to the publication of a prospectus in relation to the shares of our common stock which has been approved by the competent authority in that Relevant State or, where appropriate, approved in another Relevant State and notified to the competent authority in that Relevant State, all in accordance with the Prospectus Regulation, except that offers of shares of our common stock may be made to the public in that Relevant State at any time under the following exemptions under the Prospectus Regulation:

- (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 in the Prospectus Regulation), subject to obtaining the prior consent of the representative 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 shares of our common stock shall result in a requirement for the publication by us or any underwriter of a prospectus pursuant to Article 23 of the Prospectus Directive and each

person who initially acquires any shares of our common stock or to whom any offer is made will be deemed to have represented, acknowledged and agreed to and with each of the underwriters and the Company that it is a “qualified investor” within the meaning of Article 2(e) of the Prospectus Regulation. In the case of any shares of our common stock being offered to a financial intermediary as that term is used in the Prospectus Regulation, each such financial intermediary will be deemed to have represented, acknowledged and agreed that the shares acquired by it in the offer have not been acquired on a non-discretionary basis on behalf of, nor have they been acquired with a view to their offer or resale to, persons in circumstances which may give rise to an offer of any shares of our common stock to the public other than their offer or resale in a Relevant State to qualified investors as so defined or in circumstances in which the prior consent of the underwriters have been obtained to each such proposed offer or resale.

For the purposes of this provision, the expression an “offer to the public” in relation to our common shares in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and our common shares to be offered so as to enable an investor to decide to purchase our common shares, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression “Prospectus Directive” means Directive 2003/71/EC (as amended), including by Directive 2010/73/EU, and includes any relevant implementing measure in the Relevant Member State.

United Kingdom

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

- (i) to any legal entity which is a qualified investor as defined under Article 2 of the UK Prospectus Regulation;
- (ii) to fewer than 150 natural or legal persons (other than qualified investors as defined under Article 2 of the UK Prospectus Regulation), subject to obtaining the prior consent of the representatives for any such offer; or
- (iii) in any other circumstances falling within Section 86 of the FSMA.

provided that no such offer of the shares of our common stock shall require us or any underwriter 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 shares of our common stock 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 shares of our common stock to be offered so as to enable an investor to decide to purchase or subscribe for any shares of our common stock 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

The shares of our common stock have not been offered or sold and will not be offered or sold in Hong Kong, by means of any document, other than (a) to “professional investors” as defined in the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) (the “SFO”), of Hong Kong and any rules made thereunder; or (b) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32) of Hong Kong (the “CO”), or which do not constitute an offer to the public within the meaning of the CO. No advertisement, invitation or document relating to the shares of our common stock has been or may be issued or has been or may be in the possession of any person for the purposes of issue, whether in Hong Kong or elsewhere, which is directed at, or the contents of which are likely to be accessed or read by, the public of Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to the shares of our common stock which 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 thereunder. The shares may

not be offered or sold in Hong Kong by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies (Winding Up and Miscellaneous Provisions) Ordinance (Cap. 32 of the Laws of Hong Kong) (“Companies (Winding Up and Miscellaneous Provisions) Ordinance”) or which do not constitute an invitation to the public within the meaning of the Securities and Futures Ordinance (Cap. 571 of the Laws of Hong Kong) (“Securities and Futures Ordinance”), or (ii) to “professional investors” as defined in the Securities and Futures Ordinance and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a “prospectus” as defined in the Companies (Winding Up and Miscellaneous Provisions) Ordinance, and no advertisement, invitation or document relating to the shares 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), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the securities laws of Hong Kong) other than with respect to shares which are or are intended to be disposed of only to persons outside Hong Kong or only to “professional investors” in Hong Kong as defined in the Securities and Futures Ordinance and any rules made thereunder.

Singapore

Each underwriter has acknowledged that this prospectus supplement has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, each underwriter has represented and agreed that it has not offered or sold any shares of our common stock or caused the shares of our common stock to be made the subject of an invitation for subscription or purchase and will not offer or sell any shares of our common stock or cause the shares of our common stock to be made the subject of an invitation for subscription or purchase, and has not circulated or distributed, nor will it circulate or distribute, this prospectus supplement or any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the shares of our common stock, whether directly or indirectly, to any person in Singapore other than:

- (i) to an institutional investor (as defined in Section 4A of the Securities and Futures Act (Chapter 289) of Singapore, as modified or amended from time to time (the “SFA”)) pursuant to Section 274 of the SFA;
- (ii) to a relevant person (as defined in Section 275(2) of the SFA) pursuant to Section 275(1) of the SFA, or any person pursuant to Section 275(1A) of the SFA, 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 shares of our common stock are subscribed or purchased under Section 275 of the SFA by a relevant person which is:

- (i) 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
- (ii) 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 or securities-based derivatives contracts (each term as defined in Section 2(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 shares of our common stock pursuant to an offer made under Section 275 of the SFA except:

- (i) to an institutional investor or to a relevant person, or to any person arising from an offer referred to in Section 275(1A) or Section 276(4)(i)(B) of the SFA;
- (ii) where no consideration is or will be given for the transfer;
- (iii) where the transfer is by operation of law;

- (iv) as specified in Section 276(7) of the SFA; or
- (v) as specified in Regulation 37A of the Securities and Futures (Offers of Investments) (Securities and Securities-based Derivatives Contracts) Regulations 2018.

Japan

The shares of our common stock have not been and will not be registered pursuant to Article 4, Paragraph 1 of the Financial Instruments and Exchange Act. Accordingly, none of the shares of our common stock nor any interest therein may be offered or sold, directly or indirectly, in Japan or to, or for the benefit of, any “resident” of Japan (which 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 a resident of Japan, except pursuant to an exemption from the registration requirements of, and otherwise in compliance with, the Financial Instruments and Exchange Act and any other applicable laws, regulations and ministerial guidelines of Japan in effect at the relevant time.

Canada

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

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

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

Israel

This document does not constitute a prospectus under the Israeli Securities Law, 5728-1968, or the Securities Law, and has not been filed with or approved by the Israel Securities Authority. In the State of Israel, this document is being distributed only to, and is directed only at, and any offer of securities is directed only at, investors listed in the first addendum to the Israeli Securities Law (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 (as it may be amended from time to time), 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 will be required to submit written confirmation that they fall within the scope of the Addendum, are aware of the meaning of same and agree to it.

MATERIAL UNITED STATES FEDERAL INCOME TAX CONSIDERATIONS

The following discussion is a summary of the material U.S. federal income tax consequences to U.S. Holders and Non-U.S. Holders (each, as defined below, and together, “Holders”) of the purchase, ownership, and disposition of our common stock or pre-funded warrants issued pursuant to this offering and accompanying warrants, which we refer to collectively as our securities, but does not purport to be a complete analysis of all potential tax effects. The effects of other U.S. federal tax laws, such as estate and gift tax laws, and any applicable state, local, or non-U.S. tax laws are not discussed. This discussion is based on the U.S. Internal Revenue Code of 1986, as amended (the “Code”), Treasury Regulations promulgated thereunder, judicial decisions, and published rulings and administrative pronouncements of the U.S. Internal Revenue Service (the “IRS”), in each case in effect as of the date hereof. These authorities may change or be subject to differing interpretations. Any such change or differing interpretation may be applied retroactively in a manner that could adversely affect a Holder. We have not sought and will not seek any rulings from the IRS regarding the matters discussed below. There can be no assurance the IRS or a court will not take a contrary position to that discussed below regarding the tax consequences of the purchase, ownership, and disposition of our securities.

This discussion is limited to Holders that hold our securities as a “capital asset” within the meaning of Section 1221 of the Code (generally, property held for investment). This discussion does not address all U.S. federal income tax consequences relevant to a Holder’s particular circumstances, including the impact of the Medicare contribution tax on net investment income and the alternative minimum tax. In addition, it does not address consequences relevant to Holders subject to special rules, including, without limitation:

- U.S. expatriates and former citizens or long-term residents of the United States;
- persons holding our securities as part of a hedge, straddle, or other risk reduction strategy or as part of a conversion transaction or other integrated investment;
- banks, insurance companies, and other financial institutions;
- brokers, dealers, or traders in securities;
- “controlled foreign corporations,” “passive foreign investment companies,” and corporations that accumulate earnings to avoid U.S. federal income tax;
- partnerships or other entities or arrangements treated as partnerships for U.S. federal income tax purposes (and investors therein);
- tax-exempt organizations or governmental organizations;
- persons deemed to sell our securities under the constructive sale provisions of the Code;
- persons who hold or receive our securities pursuant to the exercise of any employee stock option or otherwise as compensation;
- tax-qualified retirement plans; and
- “qualified foreign pension funds” as defined in Section 897(1)(2) of the Code and entities all of the interests of which are held by qualified foreign pension funds.

If a partnership or an entity or arrangement treated as a partnership for U.S. federal income tax purposes holds our securities, the tax treatment of a partner in the partnership will depend on the status of the partner, the activities of the partnership, and certain determinations made at the partner level. Accordingly, partnerships holding our securities and the partners in such partnerships should consult their tax advisors regarding the U.S. federal income tax consequences to them.

THIS DISCUSSION IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT TAX ADVICE. INVESTORS SHOULD CONSULT THEIR TAX ADVISORS WITH RESPECT TO THE APPLICATION OF THE U.S. FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATIONS AS WELL AS ANY TAX CONSEQUENCES OF THE PURCHASE, OWNERSHIP, AND DISPOSITION OF OUR SECURITIES ARISING UNDER THE U.S. FEDERAL ESTATE OR GIFT TAX LAWS OR UNDER THE LAWS OF ANY STATE, LOCAL, OR NON-U.S. TAXING JURISDICTION OR UNDER ANY APPLICABLE INCOME TAX TREATY.

Definition of U.S. Holder and Non-U.S. Holder

For purposes of this discussion, a “U.S. Holder” is any beneficial owner of our securities that, for U.S. federal income tax purposes, is or is treated as any of the following:

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

For purposes of this discussion, a “Non-U.S. Holder” is any beneficial owner of our securities that is neither a U.S. Holder nor an entity or arrangement treated as a partnership for U.S. federal income tax purposes.

Allocation of Purchase Price

Each share of common stock or pre-funded warrant, as applicable, and accompanying warrant is expected to be treated for U.S. federal income tax purposes as an investment unit consisting of one share of our common stock or pre-funded warrant, as applicable, and a warrant to purchase one share of our common stock. For U.S. federal income tax purposes, each holder must allocate the purchase price paid by such holder for a share of our common stock or pre-funded warrant, as applicable, and accompanying warrant based on the relative fair market value of each at the time of issuance. Under U.S. federal income tax law, each investor must make its own determination of such value based on all the relevant facts and circumstances. Therefore, we strongly urge each investor to consult with its tax advisor regarding the determination of value for these purposes. The price allocated to each share of our common stock or pre-funded warrant, as applicable, and each warrant should be the stockholder’s initial tax basis in such share or pre-funded warrant, as applicable, or warrant, as the case may be.

A holder’s purchase price allocation is not binding on the IRS or the courts. Each prospective investor is urged to consult with its tax advisors regarding the U.S. federal, state, local and non-U.S. tax consequences of an investment in our securities.

Treatment of Pre-Funded Warrants

Although not free from doubt, a pre-funded warrant should be treated as a share of our common stock for U.S. federal income tax purposes, and a holder of pre-funded warrants should generally be taxed in the same manner as a holder of common stock, as described below. Accordingly, no gain or loss should be recognized (other than with respect to cash paid in lieu of a fractional share) upon the exercise of a pre-funded warrant (except in the case of a cashless exercise, the treatment of which for U.S. federal income tax purposes is not clear) and, upon exercise, the holding period of a pre-funded warrant should carry over to the share of common stock received. Similarly, the tax basis of the pre-funded warrant should carry over to the share of common stock received upon exercise, increased by the exercise price of \$. The discussion below assumes the characterization described above is respected for U.S. federal income tax purposes. Holders should consult their tax advisors regarding the risks associated with the acquisition of pre-funded warrants pursuant to this offering (including alternative characterizations).

U.S. Holders

Distribution with Respect to Our Common Stock

We do not anticipate declaring or paying cash dividends to holders of our common stock in the foreseeable future. However, if we do make distributions of cash or property on our common stock, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Distributions

in excess of current and accumulated earnings and profits will constitute a return of capital to the extent of a U.S. Holder's adjusted tax basis in our common stock that will be applied against and reduce (but not below zero) such tax basis. Any remaining excess will be treated as gain realized on the sale or other disposition of our common stock and will be treated as described under "*U.S. Holders — Sale or Other Taxable Disposition of Our Securities*" below.

Dividends we pay to a U.S. Holder that is a taxable corporation generally will qualify for the dividends received deduction if the requisite holding period is satisfied. With certain exceptions, and provided certain holding period requirements are met, dividends we pay to a non-corporate U.S. Holder will generally constitute "qualified dividends" that will be subject to U.S. federal income tax at preferential long-term capital gains rates. U.S. Holders should consult with their tax advisors regarding the availability of the dividends received deduction or the lower preferential rate for qualified dividend income, as the case may be, for any dividends paid with respect to our common stock.

In the event we make distributions of cash or property on our common stock and Holders of the warrants or pre-funded warrants receive corresponding distributions, while not clear, a U.S. Holder of the warrants or pre-funded warrants may be subject to the same tax consequences in respect of such distributions as described in the preceding two paragraphs.

Sale or Other Taxable Disposition of Our Securities

Subject to the discussions below regarding the exercise of warrants, a U.S. Holder will recognize gain or loss on the sale (including in an open market transaction), taxable exchange or other taxable disposition of our common stock, pre-funded warrants or warrants. Any such gain or loss will be capital gain or loss, and will generally be long-term capital gain or loss if the U.S. Holder's holding period for our common stock, pre-funded warrants or warrants so disposed of (as applicable) exceeds one year. Long-term capital gains recognized by non-corporate U.S. Holders will generally be eligible to be taxed at reduced rates.

The amount of gain or loss recognized will generally be equal to the difference between (1) the sum of the amount of cash and the fair market value of any property received in such disposition and (2) the U.S. Holder's adjusted tax basis in its common stock, pre-funded warrants or warrants so disposed of. A U.S. Holder's adjusted tax basis in its common stock or warrants will generally equal the U.S. Holder's acquisition cost (that is, as discussed above, the portion of the purchase price allocated to a share of our common stock, pre-funded warrants or one warrant or, as discussed below, the U.S. Holder's initial basis for our common stock received upon exercise of a warrant) less, any prior distributions treated as a return of capital, and in the case of pre-funded warrants or warrants, increased by any constructive distributions treated as dividends. The deductibility of capital losses is subject to limitations.

In the event of an acquisition, the holders of the warrants and pre-funded warrants will be entitled to receive, upon exercise of the warrants, the kind and amount of securities, cash or other property that such holders would have received had they exercised the warrants immediately prior to such acquisition, without regard to any limitations on exercise contained in the warrants. The tax treatment of the receipt of such consideration would depend on the relevant facts at the time of the receipt.

Exercise of the Warrants

Except as discussed below with respect to a cashless exercise of a warrant, a U.S. Holder will not recognize gain or loss upon the exercise of a warrant (except to the extent a U.S. Holder receives a cash payment for any fractional share that would otherwise have been issuable upon exercise of the warrant, which will be treated as a sale as described above under "*— Sale or Other Taxable Disposition of Our Securities*"). The U.S. Holder's tax basis in the share of our common stock received upon exercise of the warrant will be an amount equal to the sum of the U.S. Holder's adjusted tax basis in the warrant (i.e., generally the portion of the U.S. Holder's purchase price that is allocated to the warrant, as described above, under "*— Allocation of Purchase Price*") and the exercise price of such warrant. In the case of an exercise of a warrant for cash, it is unclear whether a U.S. Holder's holding period for the common stock received will commence on the date of exercise of the warrant or the day following the date of exercise of the warrant.

The tax consequences of a cashless exercise of a warrant are not clear under current tax law. A cashless exercise may be nontaxable, either because the exercise is not a realization event or, if it is treated as a

realization event, because the exercise is treated as a recapitalization for U.S. federal income tax purposes. In either situation, a U.S. Holder's initial tax basis in the common stock received would generally equal the holder's adjusted tax basis in the warrant. If the cashless exercise were treated as not being a realization event, it is unclear whether a U.S. Holder's holding period for the common stock received would commence on the date of exercise of the warrant or the day following the date of exercise of the warrant; however, in either case, the holding period would not include the period during which the U.S. Holder held the warrant. If, however, the cashless exercise were treated as a recapitalization, the holding period of our common stock received would include the holding period of the warrant.

It is also possible that a cashless exercise could be treated in whole or in part as a taxable exchange in which gain or loss would be recognized. For example, a portion of the warrants to be exercised on a cashless basis could, for U.S. federal income tax purposes, be deemed to have been surrendered in payment of the exercise price of the remaining portion of such warrants, which would be deemed to be exercised. In such event, a U.S. Holder could be deemed to have surrendered a number of warrants having an aggregate fair market value equal to the exercise price for the total number of warrants deemed exercised. The U.S. Holder would recognize capital gain or loss in an amount equal to the difference between the fair market value of the warrants deemed surrendered and the U.S. Holder's tax basis in such warrants. Such gain or loss would be long-term or short-term depending on the U.S. Holder's holding period in the warrants deemed surrendered. In this case, a U.S. Holder's tax basis in the common stock received would equal the sum of the U.S. Holder's adjusted tax basis in the warrants deemed exercised (i.e., generally the portion of the U.S. Holder's purchase price that is allocated to such warrants, as described above, under "*— Allocation of Purchase Price*") and the exercise price of such warrants. It is unclear whether a U.S. Holder's holding period for the common stock would commence on the date of exercise of the warrant or the day following the date of exercise of the warrant; in either case, the holding period would not include the period during which the U.S. Holder held the warrant.

Due to the absence of authority on the U.S. federal income tax treatment of a cashless exercise, including when a U.S. Holder's holding period would commence with respect to the common stock received, there can be no assurance which, if any, of the alternative tax consequences and holding periods described above would be adopted by the IRS or a court of law. Accordingly, U.S. Holders are urged to consult with their tax advisors regarding the tax consequences of a cashless exercise.

Expiration of the Warrants

If a warrant is allowed to lapse unexercised, a U.S. Holder generally will recognize a capital loss equal to such holder's adjusted tax basis in the warrant (i.e., generally the portion of the U.S. Holder's purchase price that is allocated to such warrant, as described above, under "*— Allocation of Purchase Price*"). Such loss will generally be treated as long-term capital loss if the warrant is held by the U.S. Holder for more than one year at the time of such disposition or expiration. The deductibility of capital losses is subject to certain limitations.

Possible Constructive Distribution with Respect to the Warrants or Pre-Funded Warrants

The terms of each warrant and pre-funded warrant provide for an adjustment to the number of shares of our common stock for which the warrant or pre-funded warrant may be exercised or to the exercise price of the warrant or pre-funded warrant in certain events, as discussed in this prospectus supplement under the section entitled "*Description of Securities we are Offering*." An adjustment which has the effect of preventing dilution is generally not a taxable event. Nevertheless, a U.S. Holder of warrants or pre-funded warrants may be treated as receiving a constructive distribution from us if, for example, the adjustment increases the holder's proportionate interest in our assets or earnings and profits (e.g., through an increase in the number of shares of our common stock that would be obtained upon exercise or through a decrease in the exercise price of the warrants or pre-funded warrants), including as a result of a distribution of cash or other property, such as other securities, to the holders of our common stock, or as a result of the issuance of a stock dividend to holders of our common stock. In addition, the failure to provide for an adjustment (or to adequately adjust) to prevent dilution may also result in a constructive distribution. Any constructive distribution received by a U.S. Holder would be subject to tax in the same manner as if such U.S. Holder received a cash distribution (as described above under "*U.S. Holders — Distribution with Respect to Our*

Common Stock”) from us equal to the fair market value of such increased proportionate interest. Generally, a U.S. Holder’s adjusted tax basis in its warrant would be increased to the extent any such constructive distribution is treated as a dividend. For certain informational reporting purposes, we are required to determine the date and amount of any such constructive distributions and publicly report such information or report such information to the IRS and holders of warrants not exempt from information reporting. Proposed U.S. Treasury regulations, which we may rely on prior to the issuance of final regulations, specify how the date and amount of constructive distributions, and withholding obligations with respect thereto, are determined.

Information Reporting and Backup Withholding

Dividend payments or other distributions with respect to our securities paid, and constructive dividends with respect to a warrant or pre-funded warrant deemed paid, in each case to a U.S. Holder and proceeds from the sale, exchange or other taxable disposition of our securities by a U.S. Holder generally are subject to information reporting to the IRS and possible U.S. backup withholding, unless the U.S. Holder is an exempt recipient and certifies to such exempt status. Backup withholding may apply to such payments if a U.S. Holder fails to furnish a correct taxpayer identification number or a certification of exempt status or has been notified by the IRS that it is subject to backup withholding (and such notification has not been withdrawn). Backup withholding is not an additional tax. Amounts withheld as backup withholding may be credited against a U.S. Holder’s U.S. federal income tax liability, and such holder may obtain a refund of any excess amounts withheld under the backup withholding rules by timely filing the appropriate claim for refund with the IRS and furnishing any required information.

Non-U.S. Holders

Distributions with Respect to Our Common Stock

We do not anticipate declaring or paying cash dividends to holders of our common stock in the foreseeable future. However, if we do make distributions of cash or property on our common stock, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts not treated as dividends for U.S. federal income tax purposes will constitute a return of capital and first be applied against and reduce a Non-U.S. Holder’s adjusted tax basis in its common stock, but not below zero. Any excess will be treated as capital gain and will be treated as described below under “*Non-U.S. Holders — Sale or Other Taxable Disposition of Securities.*” In the event we make distributions of cash or property on our common stock and Holders of the warrants or pre-funded warrants receive corresponding distributions, while not clear, a Non-U.S. Holder of the warrants may be subject to the same treatment in respect of such distributions.

Subject to the discussion below on effectively connected income, dividends paid to a Non-U.S. Holder will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends (or such lower rate specified by an applicable income tax treaty, provided the Non-U.S. Holder furnishes a valid IRS Form W-8BEN or W-8BEN-E (or other applicable documentation) certifying qualification for the lower treaty rate). A Non-U.S. Holder that does not timely furnish the required documentation, but that qualifies for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS. Non-U.S. Holders should consult their tax advisors regarding their entitlement to benefits under any applicable income tax treaty.

If dividends paid to a Non-U.S. Holder are effectively connected with the Non-U.S. Holder’s conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-U.S. Holder maintains a permanent establishment in the United States to which such dividends are attributable), the Non-U.S. Holder will be exempt from the U.S. federal withholding tax described above. To claim the exemption from withholding, the Non-U.S. Holder must furnish to the applicable withholding agent a valid IRS Form W-8ECI, certifying that the dividends are effectively connected with the Non-U.S. Holder’s conduct of a trade or business within the United States.

Any such effectively connected dividends will be subject to U.S. federal income tax on a net income basis at the regular rates. A Non-U.S. Holder that is a corporation also may be subject to a branch profits

tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected dividends, as adjusted for certain items. Non-U.S. Holders should consult their tax advisors regarding any applicable tax treaties that may provide for different rules.

Exercise or Expiration of the Warrants

The characterization for U.S. federal income tax purposes of the exercise of warrants held by a Non-U.S. Holder generally will correspond to the characterization described under “*U.S. Holders — Exercise of the Warrants*.” To the extent a cashless exercise results in a taxable exchange, the tax consequences to the Non-U.S. Holder generally would be similar to those described below in “*Non-U.S. Holders — Sale or Other Taxable Disposition of Our Securities*.”

If a Non-U.S. Holder allows a warrant to expire unexercised, such Non-U.S. Holder will recognize a capital loss in an amount equal to such holder’s tax basis in the warrant. See “*U.S. Holders — Expiration of the Warrants*” above.

Sale or Other Taxable Disposition of Our Securities

A Non-U.S. Holder will not be subject to U.S. federal income tax on any gain realized upon the sale or other taxable disposition of our securities unless:

- the gain is effectively connected with the Non-U.S. Holder’s conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, the Non-U.S. Holder maintains a permanent establishment in the United States to which such gain is attributable);
- the Non-U.S. Holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition and certain other requirements are met; or
- our securities constitute a U.S. real property interest (“USRPI”) by reason of our status as a U.S. real property holding corporation (“USRPHC”) for U.S. federal income tax purposes.

Gain described in the first bullet point above generally will be subject to U.S. federal income tax on a net income basis at the regular rates. A Non-U.S. Holder that is a corporation also may be subject to a branch profits tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on such effectively connected gain, as adjusted for certain items.

A Non-U.S. Holder described in the second bullet point above will be subject to U.S. federal income tax at a rate of 30% (or such lower rate specified by an applicable income tax treaty) on gain realized upon the sale or other taxable disposition of our securities, which may be offset by U.S. source capital losses of the Non-U.S. Holder (even though the individual is not considered a resident of the United States), provided the Non-U.S. Holder has timely filed U.S. federal income tax returns with respect to such losses.

With respect to the third bullet point above, we believe we currently are not, and do not anticipate becoming, a USRPHC. Because the determination of whether we are a USRPHC depends, however, on the fair market value of our USRPIs relative to the fair market value of our non-U.S. real property interests and our other business assets, there can be no assurance we currently are not a USRPHC or will not become one in the future.

Non-U.S. Holders should consult their tax advisors regarding potentially applicable income tax treaties that may provide for different rules.

Possible Constructive Distribution with Respect to Warrants or Pre-Funded Warrant

The terms of each warrant and pre-funded warrant provide for an adjustment to the number of shares of our common stock for which the warrant or pre-funded warrant may be exercised or to the exercise price of the warrant or pre-funded warrant in certain events, as discussed in the section of this prospectus supplement captioned “*Description of Securities we are Offering*.” An adjustment which has the effect of preventing dilution is generally not a taxable event. Nevertheless, a Non-U.S. Holder of warrants or pre-funded warrants may be treated as receiving a constructive distribution from us if, for example, the adjustment increases the holder’s proportionate interest in our assets or earnings and profits (e.g., through an increase

in the number of shares of our common stock that would be obtained upon exercise or through a decrease in the exercise price of the warrants or pre-funded warrants), including as a result of a distribution of cash or other property, such as other securities, to the holders of our common stock, or as a result of the issuance of a stock dividend to holders of our common stock. In addition, the failure to provide for an adjustment (or to adequately adjust) to prevent dilution may also result in a constructive distribution. Any constructive distribution received by a Non-U.S. Holder would be subject to U.S. federal income tax (including any applicable withholding) in the same manner as if such Non-U.S. Holder received a cash distribution (as described above under “*Non-U.S. Holders — Distribution with Respect to Our Common Stock*”) from us equal to the fair market value of such increased proportionate interest. It is possible that any withholding tax on such a constructive distribution might be satisfied by us or the applicable withholding agent from other distributions to the Non-U.S. Holder, or from proceeds subsequently paid or credited to such holder. Generally, a Non-U.S. Holder’s adjusted tax basis in its warrant or pre-funded warrant would be increased to the extent any such constructive distribution is treated as a dividend. For certain informational reporting purposes, we are required to determine the date and amount of any such constructive distributions and publicly report such information or report such information to the IRS and holders of warrants or pre-funded warrants not exempt from information reporting. Proposed U.S. Treasury regulations, which we may rely on prior to the issuance of final regulations, specify how the date and amount of constructive distributions, and withholding obligations with respect thereto, are determined.

Information Reporting and Backup Withholding

Payments of dividends or other distributions on our securities (including any constructive dividends with respect to warrants or pre-funded warrants described in “*Non-U.S. Holders — Possible Constructive Distribution with Respect to Warrants or Pre-Funded Warrants*” above) will not be subject to backup withholding, provided the applicable withholding agent does not have actual knowledge or reason to know the holder is a United States person and the holder either certifies its non-U.S. status, such as by furnishing a valid IRS Form W-8BEN, W-8BEN-E, or W-8ECI, or otherwise establishes an exemption. However, information returns are required to be filed with the IRS in connection with any distributions (including constructive distributions) on our securities paid to the Non-U.S. Holder, regardless of whether such distributions constitute dividends or whether any tax was actually withheld. In addition, proceeds of the sale or other taxable disposition of our securities within the United States or conducted through certain U.S.-related brokers generally will not be subject to backup withholding or information reporting if the applicable withholding agent receives the certification described above and does not have actual knowledge or reason to know that such holder is a United States person or the holder otherwise establishes an exemption. Proceeds of a disposition of our securities conducted through a non-U.S. office of a non-U.S. broker generally will not be subject to backup withholding or information reporting.

Copies of information returns that are filed with the IRS may also be made available under the provisions of an applicable treaty or agreement to the tax authorities of the country in which the Non-U.S. Holder resides or is established.

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

Additional Withholding Tax on Payments Made to Foreign Accounts

Withholding taxes may be imposed under Sections 1471 to 1474 of the Code (such Sections commonly referred to as the Foreign Account Tax Compliance Act (“FATCA”)) on certain types of payments made to non-U.S. financial institutions and certain other non-U.S. entities. Specifically, a 30% withholding tax may be imposed on dividends (including constructive dividends) on, or (subject to the proposed Treasury Regulations discussed below) gross proceeds from the sale or other disposition of, our securities paid to a “foreign financial institution” or a “non-financial foreign entity” (each as defined in the Code), unless (1) the foreign financial institution undertakes certain diligence and reporting obligations, (2) the non-financial foreign entity either certifies it does not have any “substantial United States owners” (as defined in the Code) or furnishes identifying information regarding each substantial United States owner, or (3) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. If

the payee is a foreign financial institution and is subject to the diligence and reporting requirements in (1) above, it must enter into an agreement with the U.S. Department of the Treasury requiring, among other things, that it undertake to identify accounts held by certain “specified United States persons” or “United States owned foreign entities” (each as defined in the Code), annually report certain information about such accounts, and withhold 30% on certain payments to non-compliant foreign financial institutions and certain other account holders. Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States governing FATCA may be subject to different rules.

Under the applicable Treasury Regulations and administrative guidance, withholding under FATCA generally applies to payments of dividends (including constructive dividends) on our securities. While withholding under FATCA would have applied also to payments of gross proceeds from the sale or other disposition of stock, proposed Treasury Regulations eliminate FATCA withholding on payments of gross proceeds entirely. Taxpayers generally may rely on these proposed Treasury Regulations until final Treasury Regulations are issued.

Prospective investors should consult their tax advisors regarding the potential application of withholding under FATCA to their investment in our securities.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement we filed with the SEC. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website that contains reports, proxy statements and other information regarding issuers that file electronically with the SEC, including us. The address of the SEC website is www.sec.gov.

We maintain a website at www.verastem.com. Information contained in, or accessible through, our website is not a part of, and is not incorporated into, this prospectus, and you should not consider it part of this prospectus.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to “incorporate by reference” into this prospectus supplement the information we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus supplement, and information in documents that we later file with the SEC will automatically update and supersede information in this prospectus supplement. We incorporate by reference into this prospectus supplement the documents listed below and any future filings made by us with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act, except for information “furnished” under Items 2.02, 7.01 or 9.01 on Form 8-K or other information “furnished” to the SEC which is not deemed filed and not incorporated in this prospectus supplement, until the termination of the offering of securities described in this prospectus supplement. We hereby incorporate by reference the following documents:

- [our Annual Report on Form 10-K for the year ended December 31, 2023, as filed with the SEC on March 14, 2024](#);
- [our Quarterly Report on Form 10-Q for the three months ended March 31, 2024, as filed with the SEC on May 9, 2024](#);
- the information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended March 14, 2024 from our [definitive proxy statement on Schedule 14A](#), as filed with the SEC on April 12, 2024;
- our Current Reports on Form 8-K filed with the SEC on [January 8, 2024](#), [January 19, 2024](#), [May 23, 2024](#), [May 24, 2024](#) and [July 23, 2024](#); and
- the description of our common stock, which is in our Registration Statement on [Form 8-A](#), dated January 23, 2012, as supplemented by the description of our common stock and preferred stock contained in [Exhibit 4.5](#) to our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, filed with the SEC on March 14, 2023.

Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus will be deemed modified, superseded or replaced for purposes of this prospectus to the extent that a statement contained in this prospectus modifies, supersedes or replaces such statement.

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

Investor Relations
Verastem, Inc.
117 Kendrick Street, Suite 500
Needham, Massachusetts 02494
(781) 292-4200
investors@verastem.com

Copies of these filings are also available, without charge, on the SEC's website at www.sec.gov and on our website at www.verastem.com as soon as reasonably practicable after they are filed electronically with the SEC. The information contained on our website is not a part of this prospectus supplement or the accompanying prospectus.

LEGAL MATTERS

The validity of the shares of common stock, warrants and pre-funded warrants offered hereby is being passed upon for us by Ropes & Gray LLP, Boston, Massachusetts. Latham & Watkins LLP, San Diego, CA is counsel for the underwriters in connection with this offering.

EXPERTS

The consolidated financial statements of Verastem, Inc. appearing in Verastem, Inc.'s [Annual Report \(Form 10-K\) for the year ended December 31, 2023](#) have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

PROSPECTUS



\$300,000,000

**Common Stock
Preferred Stock
Warrants
Debt Securities**

We may offer and sell from time to time, in one or more series or issuances and in an amount and on terms that we will determine at the time of the respective offering, any combination, up to \$300,000,000 in the aggregate, of the securities described in this prospectus.

We will provide specific terms of any offering in a supplement to this prospectus. Any prospectus supplement may also add, update, or change information contained in this prospectus. You should carefully read this prospectus and the applicable prospectus supplement as well as the documents incorporated or deemed to be incorporated by reference in this prospectus before you purchase any of the securities offered hereby.

These securities may be offered and sold in the same offering or in separate offerings; to or through underwriters, dealers, and agents; or directly to purchasers. The names of any underwriters, dealers, or agents involved in the sale of our securities and their compensation will be described in the applicable prospectus supplement.

Investing in our securities involves a high degree of risk. Before making an investment decision, please read the information under the heading “Risk Factors” beginning on page 3 of this prospectus, in any applicable prospectus supplement, and under similar headings in the other documents that are incorporated by reference into this prospectus.

Our common stock is listed on The Nasdaq Capital Market under the symbol “VSTM.” On November 7, 2023, the last reported sale price of our common stock was \$7.06 per share.

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.

Prospectus dated November 20, 2023

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the “SEC”), under the Securities Act of 1933, as amended (the “Securities Act”), using a “shelf” registration process. Under this shelf registration process, we may from time to time offer to sell any combination of the securities described in this prospectus in one or more offerings for an aggregate offering amount of up to \$300,000,000. Each time we sell securities under this prospectus, we will provide a prospectus supplement and, if necessary, a free writing prospectus, that will contain specific information about the terms of that offering. The prospectus supplement and, if necessary, a free writing prospectus, may also add to, update or change information contained in this prospectus. Accordingly, to the extent inconsistent, the information in this prospectus will be deemed to be modified or superseded by any inconsistent information contained in a prospectus supplement or a free writing prospectus. You should read this prospectus and the applicable prospectus supplement and any free writing prospectus carefully, including all documents incorporated herein and therein by reference, together with the additional information described below under “Where You Can Find More Information” before making an investment in our securities.

This prospectus does not include all of the information that is in the registration statement. We omitted certain parts of the registration statement from this prospectus as permitted by the SEC. We refer you to the registration statement and its exhibits for additional information about us and the securities that may be sold under this prospectus.

We have not authorized any dealer, agent or other person to give any information or to make any representation other than those contained or incorporated by reference in this prospectus and any accompanying prospectus supplement or any free writing prospectus provided in connection with an offering. You must not rely upon any information or representation not contained or incorporated by reference in this prospectus or an accompanying prospectus supplement. This prospectus and the accompanying prospectus supplement, if any, do not constitute an offer to sell or the solicitation of an offer to buy any securities other than the registered securities to which they relate, nor do this prospectus and the accompanying prospectus supplement constitute an offer to sell or the solicitation of an offer to buy securities in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction. You should not assume that the information contained in this prospectus and any accompanying prospectus supplement, if any, is accurate on any date subsequent to the date set forth on the front of the document or that any information we have incorporated by reference is correct on any date subsequent to the date of the document incorporated by reference, even though this prospectus and any accompanying prospectus supplement is delivered or securities are sold on a later date. Our business, financial condition, results of operations and prospects may have changed since those dates.

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

References in this prospectus to “Verastem,” the “Company,” “we,” “us,” “our” and similar terms refer to Verastem, Inc. and our subsidiaries on a consolidated basis, as appropriate, unless we state otherwise or the context otherwise requires. The phrase “this prospectus” refers to this prospectus and any applicable prospectus supplement, unless the context otherwise requires.

Trademarks and Tradenames

The Verastem name and logo are our trademarks. This prospectus and any applicable prospectus supplement and documents incorporated by reference herein and therein contain references to our trademarks and to trademarks belonging to other entities. Each of the other trademarks, trade names and service marks included in this prospectus belongs to its respective holder. Solely for convenience, trademarks, trade names and service marks referred to in this prospectus, including logos, artwork and other visual displays, may appear without the ® or ™ 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 or the rights of the applicable licensor to these trademarks, trade names and service marks. We do not intend our use or display of other entities’ trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, any other entity.

ABOUT THE COMPANY

We are a late-stage development biopharmaceutical company, with an ongoing registration directed trial, committed to advancing new medicines for patients battling cancer. Our pipeline is focused on novel anticancer agents that inhibit critical signaling pathways in cancer that promote cancer cell survival and tumor growth, particularly rapidly accelerated fibrosarcoma (“RAF”)/mitogen-activated protein kinase (“MEK”) inhibition and focal adhesion kinase (“FAK”) inhibition.

Our most advanced product candidates, avutometinib and defactinib, are being investigated in both preclinical and clinical studies for the treatment of various solid tumors, including but not limited to, low-grade serous ovarian cancer (“LGSOC”), non-small cell lung cancer (“NSCLC”), colorectal cancer (“CRC”), pancreatic cancer and melanoma. We believe that avutometinib may be beneficial as a therapeutic as a single agent or when used together in combination with defactinib, other pathway inhibitors or other current and emerging standard of care treatments in cancers that do not adequately respond to currently available therapies.

Avutometinib is an orally available first-in-class unique small molecule RAF/MEK clamp. In contrast to other MEK inhibitors that are commercially available and in development, avutometinib is a dual RAF/MEK clamp that blocks MEK kinase activity and induces the formation of dominant negative RAF-MEK complexes preventing phosphorylation of MEK by A-Raf proto-oncogene, serine/threonine kinase (“ARAF”), B-Raf proto-oncogene serine/threonine kinase (“BRAF”) and C-raf proto-oncogene serine/threonine kinase (“CRAF”). MEK-only inhibitors (e.g. trametinib) may have limited efficacy because they induce MEK phosphorylation (“pMEK”) by relieving extracellular-signal-regulated-kinase (“ERK”)-dependent feedback inhibition of RAF. By inhibiting RAF-mediated phosphorylation of MEK, avutometinib has the advantage of not inducing pMEK. This unique mechanism of avutometinib enables it to inhibit ERK signaling more effectively and may confer enhanced therapeutic activity against mitogen-activated pathway kinase (“MAPK”) pathway-driven cancers.

Avutometinib has been shown to inhibit signaling and proliferation of tumor cell lines with a variety of MAPK pathway alterations including Kirsten rat sarcoma viral oncogene homolog (“KRAS”), neuroblastoma rat sarcoma viral oncogene homolog (“NRAS”), and BRAF mutations, among others. Avutometinib has demonstrated strong antitumor activity in combination with (i) agents targeting parallel pathways (e.g. inhibitors of FAK, CDK4/6 and mTOR), (ii) agents targeting other nodes in the MAPK pathway (e.g. anti-EGFR, SOS1, KRAS G12C, and KRAS G12D inhibitors), (iii) chemotherapy, and (iv) anti-PD-1.

Defactinib is an oral small molecule inhibitor of FAK and proline-rich tyrosine kinase (“PYK2”) that is currently being evaluated as a potential combination therapy for various solid tumors. FAK is a non-receptor tyrosine kinase encoded by the protein tyrosine kinase-2 (“PTK-2”) gene that is involved in cellular adhesion and, in cancer, metastatic capability. Defactinib targets malignant cells both directly and through modulation of the tumor microenvironment. Defactinib has received orphan drug designation in ovarian cancer in the United States, the European Union, and Australia. Preclinical research by our scientists and collaborators at world-renowned research institutions has described the effect of FAK inhibition as enhancing immune response by decreasing immuno-suppressive cells, increasing cytotoxic T cells, and reducing stromal density, which allows tumor-killing immune cells to enter the tumor. Furthermore, it has been shown that FAK activation in response to MAPK inhibitor therapy may bypass MAPK pathway blockade by driving tumor growth through activation of downstream pathways such as RhoA and YAP, supporting the clinical evaluation of avutometinib in combination with defactinib for treatment of cancers harboring MAPK alterations.

The combination of avutometinib and defactinib has been found to be clinically active in some patients with KRAS mutant and KRAS wild-type LGSOC and has received breakthrough designation from the U.S. Food & Drug Administration (the “FDA”) for the treatment of all patients with recurrent LGSOC, regardless of KRAS status after one or more prior lines of therapy, including platinum-based chemotherapy.

We are headquartered in Needham, Massachusetts, and our principal executive offices are located at 117 Kendrick Street, Suite 500, Needham, Massachusetts. Our telephone number is (781) 292-4200.

RISK FACTORS

Investing in our securities involves a high degree of risk. See “Item 1A — Risk Factors” in our most recent Annual Report on Form 10-K incorporated by reference in this prospectus and in any subsequent Quarterly Report on Form 10-Q and the “Risk Factors” section in the applicable prospectus supplement for a discussion of the factors you should carefully consider before deciding to purchase our securities. Before making a decision about investing in our securities, you should carefully consider these risks as well as other information we include or incorporate by reference into this prospectus and the applicable prospectus supplement. The risks and uncertainties we have described are not the only ones facing our Company. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business operations, operating results and financial condition. The occurrence of any of these risks might cause you to lose all or part of your investment in the offered securities. The discussion of risks includes or refers to forward-looking statements; you should read the explanation of the qualifications and limitations on such forward-looking statements discussed elsewhere in this prospectus.

FORWARD-LOOKING STATEMENTS

This prospectus, any prospectus supplement and the other documents we have filed with the SEC that are incorporated herein by reference contain forward-looking statements that involve substantial risks and uncertainties. All statements, other than statements related to present facts or current conditions or historical facts contained in or incorporated by reference into this prospectus, including statements regarding our strategy, future operations, future financial position, future revenues, projected costs, prospects, plans and objectives of management, are forward-looking statements. Such statements relate to, among other things, the development and activity of our programs and product candidates, avutometinib (RAF/MEK program) and defactinib (FAK program), the structure of our planned and pending clinical trials and the timeline and indications for clinical development, regulatory submissions and commercialization of activities. The words “anticipate,” “believe,” “estimate,” “expect,” “intend,” “may,” “plan,” “predict,” “project,” “target,” “potential,” “will,” “would,” “could,” “should,” “continue,” and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words.

Forward-looking statements are not guarantees of future performance and our actual results could differ materially from the results discussed in the forward-looking statements we make. Applicable risks and uncertainties include the risks and uncertainties, among other things, regarding: the success in the development and potential commercialization of our product candidates, including avutometinib in combination with other compounds, including defactinib, LUMAKRAS[®] and others; the uncertainties inherent in research and development, such as negative or unexpected results of clinical trials; the occurrence or timing of applications for our product candidates that may be filed with regulatory authorities in any jurisdictions; whether and when regulatory authorities in any jurisdictions may approve any such applications that may be filed for our product candidates and, if approved, whether our product candidates will be commercially successful in such jurisdictions; our ability to obtain, maintain and enforce patent and other intellectual property protection for our product candidates; the scope, timing, and outcome of any legal proceedings; decisions by regulatory authorities regarding labeling and other matters that could affect the availability or commercial potential of our product candidates; whether preclinical testing of our product candidates and preliminary or interim data from clinical trials will be predictive of the results or success of ongoing or later clinical trials; that the timing, scope and rate of reimbursement for our product candidates is uncertain; that third-party payors (including government agencies) may not reimburse; that there may be competitive developments affecting our product candidates; that data may not be available when expected; that enrollment of clinical trials may take longer than expected; that our product candidates will cause adverse safety events and/or unexpected concerns may arise from additional data or analysis, or result in unmanageable safety profiles as compared to their levels of efficacy; that our product candidates may experience manufacturing or supply interruptions or failures; that any of our third party contract research organizations, contract manufacturing organizations, clinical sites, or contractors, among others, who we rely on fail to fully perform; that we face substantial competition, which may result in others developing or commercializing products before or more successfully than we do which could result in reduced market share or market potential for our product candidates; that we will be unable to successfully initiate or complete the clinical development and eventual commercialization of our product candidates; that the development and commercialization of our product candidates will take longer or cost more than planned, including as a result of conducting additional studies; that we may not have sufficient cash to fund our contemplated operations; that we may not attract and retain high quality personnel; that we or Chugai Pharmaceutical, Co. Ltd. will fail to fully perform under the avutometinib license agreement; that our target market for our product candidates might be smaller than we are presently estimating; that Secura Bio, Inc. will fail to fully perform under the asset purchase agreement with Secura Bio, Inc., including in relation to milestone payments; that we will not see a return on investment on the payments we have and may continue to make pursuant to the collaboration and option agreement with Genfleet Therapeutics (Shanghai), Inc. (“Genfleet”) or that Genfleet will fail to fully perform under the agreement; that we may be unable to obtain adequate financing in the future through product licensing, co-promotional arrangements, public or private equity, debt financing or otherwise; that we will not pursue or submit regulatory filings for our product candidates; and that our product candidates will not receive regulatory approval, become commercially successful products, or result in new treatment options being offered to patients. Other risks and uncertainties include those identified under the heading “Risk Factors” in our [Annual Report on Form 10-K for the year ended December 31, 2022, as filed with the SEC on March 14, 2023](#), and any subsequent Quarterly Reports on Form 10-Q and Annual Reports on Form 10-K (as updated by our subsequent filings under the Securities

Exchange Act of 1934, as amended (the “Exchange Act”), each incorporated by reference in this prospectus, in any subsequent filings with the SEC, and in the “Risk Factors” section in the applicable prospectus supplement. See “Where You Can Find More Information.”

As a result of these and other factors, we may not achieve the plans, intentions or expectations disclosed in our forward-looking statements, and you should not place undue reliance on our forward-looking statements. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make. The forward-looking statements contained in this prospectus reflect our views as of the date hereof. We do not assume, and specifically disclaim, any obligation to update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

USE OF PROCEEDS

Except as otherwise provided in the applicable prospectus supplement, in connection with an offering of securities pursuant to this prospectus, we currently intend to use the net proceeds we receive from the sale of any securities offered by us under this prospectus primarily for general corporate purposes, which may include working capital, capital expenditures, research and development expenditures, clinical trial expenditures, commercial expenditures, milestone payments under in-license agreements, and possible acquisitions. Additional information on the use of net proceeds we receive from the sale of securities covered by this prospectus may be set forth in the prospectus supplement relating to the specific offering.

PLAN OF DISTRIBUTION

We are registering securities, with an aggregate offering price not to exceed \$300,000,000, to be sold by us under a “shelf” registration process.

If we offer any securities under this prospectus, we will amend or supplement this prospectus by means of an accompanying prospectus supplement setting forth the specific terms and conditions and other information about that offering as is required or necessary.

We may sell the securities in any of the following ways (or in any combination thereof) from time to time:

- to or through one or more underwriters;
- through dealers, who may act as agents or principal (including a block trade in which a broker or dealer so engaged will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction);
- through one or more agents;
- through registered direct offerings;
- as part of a collaboration with a third party;
- as part of an acquisition or merger with a third party;
- through at-the-market issuances;
- in privately negotiated transactions; or
- directly to purchasers or to a single purchaser.

The distribution of the securities by us 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 will describe the terms of the offering of the securities, including the following, as applicable:

- the terms of the securities being offered, including the public offering price of the securities and the proceeds to us;
- the name or names of any underwriters, dealers or agents and the amounts of securities underwritten or purchased by each of them;
- any underwriting discounts and commissions or agency fees and other items constituting underwriters’ or agents’ compensation;
- any options under which underwriters may purchase additional securities from us;
- any discounts or concessions allowed or reallocated or paid to dealers; and
- any securities exchanges on which the securities may be listed.

Only the agents or underwriters named in each prospectus supplement are agents or underwriters in connection with the securities being offered thereby.

We may authorize underwriters, dealers 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 a specified date in the future. 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 each applicable 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 be subject only to those conditions set forth in each applicable prospectus supplement, and each prospectus supplement will set forth any commissions we pay for solicitation of these contracts.

We may indemnify agents, underwriters, dealers, their affiliates, or other third parties who participate in the distribution of securities against certain liabilities, including liabilities under the Securities Act, and agree to contribute to payments which these agents, underwriters, dealers, or other third parties may be required to make. Agents, underwriters, dealers and such other third parties may be customers of, engage in transactions with, or perform services for us in the ordinary course of business. We may also use underwriters or such other third parties with whom we have a material relationship. We will describe the nature of any such relationship in the applicable prospectus supplement.

One or more firms, referred to as “remarketing firms,” may also offer or sell the securities, if a prospectus supplement so indicates, in connection with a remarketing arrangement upon their purchase. Remarketing firms will act as principals for their own accounts or as our agents. These remarketing firms will offer or sell the securities in accordance with the terms of the securities. Each prospectus supplement will identify and describe any remarketing firm and the terms of its agreement, if any, with us and will describe the remarketing firm’s compensation. Remarketing firms may be deemed to be underwriters in connection with the securities they remarket. Remarketing firms may be entitled under agreements that may be entered into with us to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, and may engage in transactions with or perform services for us in the ordinary course of business.

Certain underwriters may use this prospectus and any accompanying prospectus supplement for offers and sales related to market-making transactions in the securities. These underwriters may act as principal or agent in these transactions, and the sales will be made at prices related to prevailing market prices at the time of sale. Any underwriters involved in the sale of the securities may qualify as “underwriters” within the meaning of Section 2(a)(11) of the Securities Act. In addition, the underwriters’ commissions, discounts or concessions may qualify as underwriters’ compensation under the Securities Act and the rules of the Financial Industry Regulatory Authority.

Our common stock is listed on The Nasdaq Capital Market. Underwriters may make a market in our common stock, but will not be obligated to do so and may discontinue any market making at any time without notice. We can make no assurance as to the development, maintenance or liquidity of any trading market for the securities.

Certain persons participating in an offering may engage in overallotment, stabilizing transactions, short covering transactions and penalty bids in accordance with rules and regulations under the Exchange Act. Overallotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the securities in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a short covering transaction to cover short positions. Those activities may cause the price of the securities to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

We are subject to the applicable provisions of the Exchange Act and the rules and regulations under the Exchange Act, including Regulation M, which may limit the timing of purchases and sales of any of the securities offered in this prospectus by any other person. The anti-manipulation rules under the Exchange Act may apply to sales of securities in the market and to the actions of the Company.

To the extent required, this prospectus may be amended and/or supplemented from time to time to describe a specific plan of distribution.

DESCRIPTION OF COMMON STOCK

The description of our common stock is incorporated by reference to [Exhibit 4.5](#) of our Annual Report on Form 10-K for the year ended December 31, 2022, as filed with the SEC on March 14, 2023, including any amendments or reports filed for the purpose of updating such description.

DESCRIPTION OF PREFERRED STOCK

Under the terms of our amended and restated certificate of incorporation, our board of directors is authorized to issue up to 5,000,000 shares of our preferred stock, par value \$0.0001 per share, in one or more series without stockholder approval. Our board of directors has the discretion to determine the rights, preferences, privileges and restrictions, including voting rights, dividend rights, conversion rights, redemption privileges and liquidation preferences, of each series of preferred stock. It is not possible to state the actual effect of the issuance of any shares of preferred stock upon the rights of the holders of common stock until the board of directors determines the specific rights of the holders of preferred stock. However, effects of the issuance of preferred stock include restricting dividends on common stock, diluting the voting power of common stock, impairing the liquidation rights of common stock, and making it more difficult for a third party to acquire us, which could have the effect of discouraging a third party from acquiring, or deterring a third party from paying a premium to acquire, a majority of our outstanding voting stock.

The description of our Series A Preferred Stock and Series B Preferred Stock is incorporated by reference to [Exhibit 4.5](#) of our Annual Report on Form 10-K for the year ended December 31, 2022, as filed with the SEC on March 14, 2023, including any amendments or reports filed for the purpose of updating such description. As of September 30, 2023, we had: (i) 2,144,160 shares of Series B Preferred Stock designated, of which 1,200,000 were issued and outstanding; and (ii) 1,000,000 shares of Series A Preferred Stock designated, all of which were issued and outstanding.

If we offer any additional specific class or series of preferred stock under this prospectus, we will describe the terms of the preferred stock in the prospectus supplement for such offering and will file a copy of the certificate establishing the terms of the preferred stock with the SEC. To the extent required, this description will include:

- the title and stated value;
- the number of shares offered, the liquidation preference per share and the purchase price;
- the dividend rate(s), period(s) and/or payment date(s), or method(s) of calculation for such dividends;
- whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
- the procedures for any auction and remarketing, if any;
- the provisions for a sinking fund, if any;
- the provisions for redemption, if applicable;
- any listing of the preferred stock on any securities exchange or market;
- whether the preferred stock will be convertible into our common stock, and, if applicable, the conversion price (or how it will be calculated) and conversion period;
- whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange price (or how it will be calculated) and exchange period;
- voting rights, if any, of the preferred stock;
- a discussion of any material U.S. federal income tax considerations applicable to the preferred stock;
- the relative ranking and preferences of the preferred stock as to dividend rights and rights upon liquidation, dissolution or winding up of the affairs of the Company; and
- any material limitations on issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights upon liquidation, dissolution or winding up of the Company.

The preferred stock offered by this prospectus, when issued, will not have, or be subject to, any preemptive or similar rights.

DESCRIPTION OF WARRANTS

We may issue warrants to purchase shares of our common stock, preferred stock and/or debt securities in one or more series together with other securities or separately, as described in each applicable prospectus supplement. Below is a description of certain general terms and provisions of the warrants that we may offer. Particular terms of the warrants will be described in the applicable warrant agreements and the applicable prospectus supplement for the warrants.

The applicable prospectus supplement will contain, where applicable, the following terms of and other information relating to the warrants:

- the specific designation and aggregate number of, and the 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 designation, amount and terms of the securities purchasable upon exercise of the warrants;
- if applicable, the exercise price for shares of our common stock and the number of shares of common stock to be received upon exercise of the warrants;
- if applicable, the exercise price for shares of our preferred stock, the number of shares of preferred stock to be received upon exercise, and a description of that class or series of our preferred stock;
- if applicable, the exercise price for our debt securities, the amount of our debt securities to be received upon exercise, and a description of that series of debt securities;
- the date on which the right to exercise the warrants will begin and the date on which that right will expire or, if the warrants may not be continuously exercised throughout that period, the specific date or dates on which the warrants may be exercised;
- whether the warrants will be issued in fully registered form or bearer form, 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;
- if applicable, the date from and after which the warrants and the common stock, preferred stock and/or debt securities will be separately transferable;
- 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 the warrants, if any;
- any redemption or call provisions;
- whether the warrants are to be sold separately or with other securities as parts of units; and
- any additional terms of the warrants, including terms, procedures and limitations relating to the exchange and exercise of the warrants.

DESCRIPTION OF DEBT SECURITIES

We may issue the debt securities offered by this prospectus and any accompanying prospectus supplement under an indenture to be entered into between us and the trustee identified in the applicable prospectus supplement. The terms of the debt securities will include those stated in the indenture and those made part of the indenture by reference to the Trust Indenture Act of 1939, as in effect on the date of the indenture. We have filed a copy of the form of indenture as an exhibit to the registration statement in which this prospectus is included. The indenture will be subject to and governed by the terms of the Trust Indenture Act of 1939.

We may offer debt securities as described in this prospectus that, unless otherwise specified in the applicable prospectus supplement, will represent direct, unsecured obligations of the Company and will rank equally with all of our other unsecured indebtedness.

The applicable prospectus supplement will describe the terms and features of any debt securities which we may offer, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. The following description and any description of debt securities in the applicable prospectus supplement may not be complete and is subject to, and are qualified in their entirety by reference to, the indenture, any supplemental indentures or forms of debt securities, in each case that we will file with the SEC in connection with a public offering of debt securities.

General

We may issue the debt securities in one or more series with the same or various maturities, at par, at a premium, or at a discount. We will describe the particular terms of each series of debt securities in the applicable prospectus supplement relating to that series, which we will file with the SEC.

The prospectus supplement will set forth, to the extent required, the following terms of the debt securities in respect of which the prospectus supplement is delivered:

- the title of the series (which shall distinguish the debt securities of that particular series from the debt securities of any other series);
- any limit upon the aggregate principal amount of the debt securities of the series which may be authenticated and delivered under the indenture;
- the price or prices (expressed as a percentage of the principal amount thereof) at which the series of debt securities will be issued;
- the date or dates on which principal of the securities of the series is payable;
- the rate or rates (which may be fixed or variable) per annum or, if applicable, the method used to determine such rate or rates (including, but not limited to, any commodity, commodity index, stock exchange index or financial index) at which the debt securities of the series shall bear interest, if any, the date or dates from which such interest, if any, shall accrue, the date or dates on which such interest, if any, shall commence and be payable and any regular record date for the interest payable on any interest payment date;
- the place or places where the principal, interest and premium, if any, on the debt securities of the series are payable, or the method of such payment, if by wire transfer, mail or other means;
- if applicable, the period or periods within which, the price or prices at which and the terms and conditions upon which the debt securities of the series may be redeemed, in whole or in part, at our option;
- our obligation, if any, to redeem or purchase the debt securities of the series pursuant to any sinking fund or analogous provisions or at the option of a holder thereof, and the period or periods within which, the price or prices at which and the terms and conditions upon which debt securities of the series shall be redeemed or purchased, in whole or in part, pursuant to such obligation;
- the dates, if any, on which and the price or prices at which the debt securities of the series will be repurchased by us at the option of the holders thereof, and other detailed terms and provisions of such repurchase obligations;

- if other than denominations of \$1,000 and any integral multiple thereof, the denominations in which the debt securities of the series shall be issuable;
- the forms of the debt securities of the series in bearer (if to be issued outside of the United States of America) or fully registered form (and, if in fully registered form whether the debt securities will be issuable as global securities);
- if other than the principal amount thereof, the portion of the principal amount of the debt securities of the series that shall be payable upon declaration of acceleration of the maturity thereof;
- the currency of denomination of the debt securities of the series, which may be dollars or any foreign currency, and the agency or organization, if any, responsible for overseeing such composite currency;
- the designation of the currency, currencies or currency units in which payment of the principal of, and interest and premium, if any, on the debt securities of the series will be made;
- if payments of principal of, or interest or premium, if any, on the debt securities of the series are to be made in one or more currencies or currency units other than the that or those in which such securities are denominated are, the manner in which the exchange rate with respect to such payments will be determined;
- the manner in which the amounts of payment of principal of, or interest and premium, if any, on the debt securities of the series will be determined if such amounts may be determined by reference to an index based on a currency or currencies or by reference to a commodity, commodity index, stock exchange index or financial index;
- the provisions, if any, relating to any collateral provided for the debt securities of the series;
- any addition to or change in the covenants in the indenture which applies to the debt securities of the series;
- any addition to or change in the events of default which applies to any debt securities of the series, and any change in the right of the trustee or the requisite holders of such debt securities to declare the principal amount thereof due and payable;
- the terms and conditions, if any, for conversion of the debt securities into or exchange of the debt securities for shares of common stock or preferred stock of the Company that apply to debt securities of the series;
- any depositaries, interest rate calculation agents, exchange rate calculation agents or other agents with respect to debt securities of such series;
- the terms and conditions, if any, upon which the debt securities shall be subordinated in right of payment to other indebtedness of the Company;
- if applicable, that the debt securities of the series, in whole or any specified part, shall be defeasible; and
- any other terms of the debt securities of the series (which terms shall not be inconsistent with the provisions of the indenture, except as permitted by the indenture, but which may modify or delete any provision of the indenture insofar as it applies to such series).

We may issue discount debt securities that provide for an amount less than the stated principal amount to be due and payable upon acceleration of the maturity of such debt securities in accordance with the terms of the indenture. We may also issue debt securities in bearer form, with or without coupons. If we issue discount debt securities or debt securities in bearer form, we will describe material U.S. federal income tax considerations and other material special considerations which apply to these debt securities in the applicable prospectus supplement.

We may issue debt securities denominated in or payable in a foreign currency or currencies or a foreign currency unit or units. If we do, we will describe the restrictions, elections, and general tax considerations relating to the debt securities and the foreign currency or currencies or foreign currency unit or units in the applicable prospectus supplement.

Exchange and/or Conversion Rights

We may issue debt securities which can be exchanged for or converted into shares of our common stock or preferred stock. If we do, we will describe the terms of exchange or conversion in the applicable prospectus supplement relating to these debt securities.

Transfer and Exchange

We may issue debt securities that will be represented by either:

- “book-entry,” which means that there will be one or more global securities registered in the name of a depository or a nominee of a depository; or
- “certificated securities,” which means that they will be represented by a certificate issued in definitive registered form.

We will specify in the prospectus supplement applicable to a particular offering whether the debt securities offered will be book-entry or certificated securities.

Certificated Debt Securities

If we issue certificated debt securities, a holder may transfer or exchange such debt securities at the trustee’s office or at the paying agent’s office or agency in accordance with the terms of the indenture. A holder will not be charged a service charge for any transfer or exchange of certificated debt securities but may be required to pay an amount sufficient to cover any tax or other governmental charge payable in connection with such transfer or exchange.

A holder may effect the transfer of certificated debt securities and of the right to receive the principal of, premium, and/or interest, if any, on the certificated debt securities only by surrendering the certificate representing the certificated debt securities and having us or the trustee issue a new certificate to the new holder.

Global Securities

If we decide to issue debt securities in the form of one or more global securities, then we will register the global securities in the name of the depository for the global securities or the nominee of the depository, and the global securities will be delivered by the trustee to the depository for credit to the accounts of the holders of beneficial interests in the debt securities.

The prospectus supplement will describe the specific terms of the depository arrangement for debt securities of a series that are issued in global form. None of our Company, the trustee, any payment agent or the security registrar will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests in a global debt security or for maintaining, supervising or reviewing any records relating to these beneficial ownership interests.

No Protection in the Event of Change of Control

Unless we indicate otherwise in a prospectus supplement with respect to a particular series of debt securities, the debt securities will not contain any provisions that may afford holders of debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control).

Covenants

We will set forth in the applicable prospectus supplement any restrictive covenants applicable to any issue of debt securities.

Consolidation, Merger and Sale of Assets

Unless we indicate otherwise in a prospectus supplement, we will not in any transaction or series of transactions, merge or consolidate with or into, or sell, assign, convey or transfer, lease or otherwise dispose of all or substantially all of our properties and assets, unless:

- either (A) if the transaction or series of transactions is a merger or consolidation, the Company shall be the surviving person of such merger or consolidation, or (B) the person formed by such consolidation or into which the Company is merged or to which the properties and assets of the Company are transferred shall be a corporation or entity treated as a corporation for U.S. federal income tax purposes organized and existing under the laws of the United States of America, any state thereof or the District of Columbia, or a corporation or comparable legal entity treated as a corporation for U.S. federal income tax purposes organized under the laws of a foreign jurisdiction and shall expressly assume by a supplemental indenture executed and delivered to the trustee, in form reasonably satisfactory to the trustee, all of the obligations of the Company (including, without limitation, the obligation to pay the principal of, and premium and interest, if any, on, the securities and the performance of the other covenants) under the indenture as supplemented, and in each case, the indenture shall remain in full force and effect; and
- immediately before and immediately after giving effect to such transaction or series of transactions on a pro forma basis (including, without limitation, any indebtedness incurred or anticipated to be incurred in connection with or in respect of such transaction or series of transactions), no default or event of default shall have occurred and be continuing.

Events of Default

Unless otherwise specified in the applicable prospectus supplement, the following events will be events of default under the indenture with respect to debt securities of any series:

- we default in the payment of any principal of, or premium, if any, on, the debt securities when it becomes due and payable at maturity, upon acceleration, redemption or otherwise;
- we default in the payment of any interest on any debt security of a series when the same becomes due and payable, and the default continues for a period of 30 days;
- we default in observance or performance of any other covenant in the debt securities of a series or the indenture for 60 days after written notice from the trustee or the holders of not less than 25% in the aggregate principal amount of the debt securities of such series then outstanding which notice must specify the default, demand that it be remedied and state that the notice is a “Notice of Default”;
- certain events involving bankruptcy, insolvency or reorganization of Verastem or any of our significant subsidiaries; and
- any other event of default provided for in such series of debt securities as may be specified in the applicable prospectus supplement.

Holders of a majority in principal amount of the debt securities of any series then outstanding have the right to waive any existing default or event of default with respect to such series or compliance with any provision of the indenture (with respect to such series) or the debt securities of such series with written notice to the trustee. Upon any such waiver, such default with respect to such series shall cease to exist, and any event of default with respect to such series arising therefrom shall be deemed to have been cured for every purpose of the indenture; but no such waiver shall extend to any subsequent or other default or event of default or impair any right consequent thereto. If an event of default (other than an event of default resulting from certain events of bankruptcy, insolvency or reorganization with respect to the Company) occurs, and is continuing, then the trustee, by written notice, or the holders of not less than 25% in aggregate principal amount of the outstanding debt securities of that series may declare that the entire principal amount, plus the premium, if any, of all the debt securities of that series then outstanding plus accrued and unpaid interest to the date of acceleration are immediately due and payable. At any time after the acceleration, but before a judgment or decree based on such acceleration is obtained by the trustee, the holders of a majority in aggregate principal amount of outstanding debt securities of such series may rescind and annul such acceleration if:

- all existing events of default (other than nonpayment of accelerated principal, premium or interest) have been cured or waived;
- all lawful interest on overdue installments of interest and overdue principal have been paid; and

- the rescission would not conflict with any judgment or decree.

In addition, if the acceleration occurs at any time when we have outstanding indebtedness which is senior to the debt securities, the payment of the principal amount of outstanding debt securities may be subordinated in right of payment to the prior payment of any amounts due under the senior indebtedness, in which case the holders of debt securities will be entitled to payment under the terms prescribed in the instruments evidencing the senior indebtedness and the indenture.

If an event of default resulting from certain events of bankruptcy, insolvency or reorganization with respect to the Company occurs, such principal, premium, if any, and interest amount with respect to all the debt securities of that series shall be due and payable immediately without any declaration or other act on the part of the trustee or the holders of the debt securities of that series.

The holders of a majority in principal amount of the outstanding debt securities of a series will have the right to waive any existing default or compliance with any provision of the indenture or the debt securities of that series and to direct the time, method and place of conducting any proceeding for any remedy available to the trustee, subject to certain limitations specified in the indenture.

No holder of any debt security of a series will have any right to institute any proceeding with respect to the indenture or for any remedy under the indenture, unless:

- the holder gives to the trustee written notice of a continuing event of default with respect to the debt securities of that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of the affected series make a written request to the trustee;
- the holder or holders offer to the trustee indemnity satisfactory to the trustee against any loss, liability or expense to be incurred in compliance with such request;
- the trustee does not comply with the request within 60 days after such request; and
- the holders of a majority in aggregate principal amount of the outstanding debt securities of the affected series do not give the trustee a direction inconsistent with such request during such 60-day period.

Modification and Waiver

From time to time, we and the trustee may, without the consent of holders of the debt securities of one or more series, amend the indenture or the debt securities of one or more series, or supplement the indenture, for certain specified purposes, including:

- to provide that the surviving entity following a change of control of Verastem permitted under the indenture will assume all of our obligations under the indenture and debt securities;
- to provide for certificated debt securities in addition to uncertificated debt securities;
- to comply with any requirements of the SEC under the Trust Indenture Act of 1939;
- to cure any mistake, ambiguity, defect or inconsistency, or make any other change that does not materially and adversely affect the rights of any holder;
- to provide for the issuance of and establish the form and terms and conditions of debt securities of any series as permitted by the indenture; and
- to evidence and provide for the acceptance of the appointment of a successor trustee under the indenture with respect to one or more series and to add to or change any of the provisions of the indenture as shall be necessary to provide for or facilitate the administration of the trusts by more than one trustee.

From time to time we and the trustee may, with the consent of holders of not less than a majority of the aggregate principal amount of an outstanding series of debt securities, amend or supplement the indenture or the debt securities series, or waive compliance in a particular instance by us with any provision

of the indenture or the debt securities. We may not, however, without the consent of each holder affected by such action, modify or supplement the indenture or the debt securities or waive compliance with any provision of the indenture or the debt securities in order to:

- reduce the amount of debt securities whose holders must consent to an amendment, supplement, or waiver to the indenture or such debt security;
- reduce the rate of or change the time for payment of interest on any of the debt securities
- reduce the principal of or change the stated maturity of the debt securities, or reduce the amount of, or postpone the date fixed for, the payment of any sinking fund or analogous obligation;
- make any debt security payable in money other than that stated in the debt security;
- change the amount or time of any payment required by the debt securities or reduce the premium payable upon any redemption of the debt securities, or change the time before which no such redemption may be made;
- waive a default or event of default in the payment of the principal of, or interest or premium, if any, on any debt securities (except a rescission of acceleration of the debt securities of any series by the holders of at least a majority in principal amount of the outstanding debt securities of such series and a waiver of the payment default that resulted from such acceleration);
- waive a redemption payment with respect to any debt securities or change any provision with respect to redemption of debt securities;
- take any other action otherwise prohibited by the indenture to be taken without the consent of each holder affected by the action; or
- make any changes to the above provisions or the acceleration provisions of the indenture, except to increase any percentage of debt securities the holders of which must consent to any matter.

Defeasance of Debt Securities and Certain Covenants in Certain Circumstances

The indenture permits us, at any time, to elect to discharge our obligations with respect to one or more series of debt securities by following certain procedures described in the indenture. These procedures will allow us either:

- to defease and be discharged from any and all of our obligations with respect to any debt securities except for the following obligations (which discharge is referred to as “legal defeasance”):
 - (1) to replace temporary or mutilated, destroyed, lost or stolen debt securities;
 - (2) the rights, powers, trusts, duties and immunities of the trustee; or
 - (3) to maintain an office or agency in respect of the debt securities and to hold monies for payment in trust; or
- to be released from our obligations with respect to the debt securities under certain covenants contained in the indenture, as well as any additional covenants which may be contained in an applicable supplemental indenture (which release is referred to as “covenant defeasance”).

In order to exercise either defeasance option, we must irrevocably deposit with the trustee or other qualifying trustee, in trust for that purpose:

- money;
- U.S. Government Obligations (as described below) or Foreign Government Obligations (as described below) which through the scheduled payment of principal and interest in accordance with their terms will provide, not later than the due date of any payment, money; or
- a combination of money and/or U.S. Government Obligations and/or Foreign Government Obligations sufficient in the written opinion of a nationally-recognized firm of independent accountants to provide money;

which in each case specified above, provides an amount sufficient to pay the principal of, premium, if any, and interest, if any, on the debt securities of the series, on the scheduled due dates or on a selected date of redemption in accordance with the terms of the indenture.

In addition, defeasance may be effected only if, among other things:

- in the case of either legal or covenant defeasance, we deliver to the trustee an opinion of counsel, as specified in the indenture;
- in the case of legal defeasance, we deliver to the trustee an opinion of counsel stating that we have received from, or there has been published by, the Internal Revenue Service a ruling to the effect that, or there has been a change in any applicable federal income tax law with the effect that or there has been a change in any applicable U.S. Federal income tax law with the effect that, and such opinion shall confirm that, the holders of the outstanding debt securities of such series or persons will not recognize income, gain or loss for U.S. federal income tax purposes solely as a result of such legal defeasance and will be subject to U.S. federal income tax on the same amounts, in the same manner, including as a result of prepayment, and at the same times as would have been the case if legal defeasance had not occurred;
- in the case of covenant defeasance, we deliver to the trustee an opinion of counsel to the effect that the holders of the outstanding debt securities will not recognize income, gain or loss for U.S. federal income tax purposes as a result of covenant defeasance and will be subject to U.S. federal income tax on the same amounts, in the same manner and at the same times as would have been the case if covenant defeasance had not occurred; and
- certain other conditions described in the indenture are satisfied.

If we fail to comply with our remaining obligations under the indenture and any applicable supplemental indenture after a covenant defeasance of the indenture and any applicable supplemental indenture, and the debt securities are declared due and payable because of the occurrence of any undefeased event of default, the amount of money and/or U.S. Government Obligations and/or Foreign Government Obligations on deposit with the trustee could be insufficient to pay amounts due under the debt securities of the affected series at the time of acceleration. We will, however, remain liable in respect of these payments.

The term “U.S. Government Obligations” as used in the above discussion means direct non-callable obligations of or non-callable obligations guaranteed by the United States of America for the payment of which obligation or guarantee the full faith and credit of the United States of America is pledged.

The term “Foreign Government Obligations” as used in the above discussion means, with respect to Securities that are denominated in a foreign currency (i) direct obligations of the government that issued or caused to be issued such currency for the payment of which obligations its full faith and credit is pledged or (ii) obligations of a person controlled or supervised by or acting as an agency or instrumentality of such government the timely payment of which is unconditionally guaranteed as a full faith and credit obligation by such government, which in either case under clauses (i) and (ii), are not callable or redeemable at the option of the issuer thereof.

Regarding the Trustee

We will identify the trustee with respect to any series of debt securities in the prospectus supplement relating to the applicable debt securities. You should note that if the trustee becomes a creditor of Verastem, the indenture and the Trust Indenture Act of 1939 limit the rights of the trustee to obtain payment of claims in certain cases, or to realize on certain property received in respect of any such claim, as security or otherwise. The trustee and its affiliates may engage in, and will be permitted to continue to engage in, other transactions with us and our affiliates. If, however, the trustee acquires any “conflicting interest” within the meaning of the Trust Indenture Act of 1939, it must eliminate such conflict or resign.

The holders of a majority in principal amount of the then outstanding debt securities of any series may direct the time, method and place of conducting any proceeding for exercising any remedy available to the trustee. If an event of default occurs and is continuing, the trustee, in the exercise of its rights and powers, must use the degree of care and skill of a prudent person under the same circumstances in the conduct of

his or her own affairs. Subject to that provision, the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request of any of the holders of the debt securities, unless they have offered to the trustee indemnity or security against the costs, expenses and liabilities which may be incurred therein or thereby.

Governing Law

The indenture and the debt securities, including any claim or controversy arising out of or relating to the indenture or the securities, will be governed by the laws of the State of New York.

WHERE YOU CAN FIND MORE INFORMATION

This prospectus is part of a registration statement we filed with the SEC. This prospectus does not contain all of the information set forth in the registration statement and the exhibits to the registration statement. For further information, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. The SEC maintains a website that contains reports, proxy statements and other information regarding issuers that file electronically with the SEC, including us. The address of the SEC website is www.sec.gov.

We maintain a website at www.verastem.com. Information contained in, or accessible through, our website is not a part of, and is not incorporated into, this prospectus, and you should not consider it part of this prospectus.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to “incorporate by reference” into this prospectus certain information we file with it, which means that we can disclose important information about us by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus, and information in documents that we file later with the SEC will automatically update and supersede information in this prospectus. We incorporate by reference into this prospectus the documents listed below and any future filings, including all filings made after the date of the filing of the registration statement of which this prospectus is part and prior to the effectiveness of such registration statement, made by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, except for information “furnished” under Items 2.02, 7.01 or 9.01 on Form 8-K or other information “furnished” to the SEC which is not deemed filed and not incorporated in this prospectus, until the termination of the offering of securities described in the applicable prospectus supplement. We hereby incorporate by reference the following documents:

- [our Annual Report on Form 10-K for the year ended December 31, 2021, as filed with the SEC on March 14, 2023;](#)
- [our Quarterly Report on Form 10-Q for the three months ended March 31, 2023, as filed with the SEC on May 9, 2023;](#)
- [our Quarterly Report on Form 10-Q for the three months ended June 30, 2023, as filed with the SEC on August 8, 2023;](#)
- [our Quarterly Report on Form 10-Q for the three months ended September 30, 2023, as filed with the SEC on November 8, 2023;](#)
- our Current Reports on Form 8-K filed with the SEC on [January 25, 2023](#), [March 27, 2023](#), [May 16, 2023](#), [May 25, 2023](#), [May 31, 2023](#), [June 21, 2023](#), [July 12, 2023](#), [August 4, 2023](#) and [October 27, 2023](#) (except for portions of such reports which were furnished and not filed);
- the information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2022 from our [Definitive Proxy Statement on Schedule 14A for the 2023 Annual Meeting of Stockholders, as filed with the SEC on April 5, 2023](#); and
- the description of our common stock, which is in our Registration Statement on [Form 8-A, dated January 23, 2012](#), as supplemented by the description of our common stock and preferred stock

contained in [Exhibit 4.5](#) to our Annual Report on Form 10-K for the fiscal year ended December 31, 2022, filed with the SEC on March 14, 2023.

Any statement contained in a document incorporated or deemed to be incorporated by reference in this prospectus will be deemed modified, superseded or replaced for purposes of this prospectus to the extent that a statement contained in this prospectus modifies, supersedes or replaces such statement.

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

Investor Relations
Verastem, Inc.
117 Kendrick Street, Suite 500
Needham, Massachusetts 02494
(781) 292-4279
email address: info@verastem.com

Copies of these filings are also available, without charge, on the SEC's website at www.sec.gov and on our website at www.verastem.com as soon as reasonably practicable after they are filed electronically with the SEC. The information contained on our website is not a part of this prospectus.

LEGAL MATTERS

The validity of the issuance of the securities offered pursuant to this prospectus will be passed upon for us by Ropes & Gray LLP, Boston, Massachusetts. The validity of any securities will be passed upon for any underwriters or agents by counsel that we will name in the applicable prospectus supplement.

EXPERTS

The consolidated financial statements of Verastem, Inc. appearing in Verastem, Inc.'s [Annual Report on Form 10-K for the year ended December 31, 2022](#), have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

13,333,334 Shares of Common Stock
Pre-Funded Warrants to Purchase up to 5,000,000 Shares of Common Stock
Warrants to Purchase up to 18,333,334 Shares of Common Stock



PROSPECTUS SUPPLEMENT

Joint Book-Running Managers

Guggenheim Securities

Cantor
