

PROSPECTUS

## VERASTEM, INC.

### Up to 1,200,000 Shares of Series B Convertible Preferred Stock Up to 50,838,840 Shares of Common Stock Upon Conversion of Series B Convertible Preferred Stock Common Stock Preferred Stock

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This prospectus relates to the resale or other disposition from time to time of (i) 1,200,000 shares of our Series B convertible preferred stock, par value \$0.0001 per share (the “Series B Preferred Stock”), and (ii) up to 50,838,840 shares of our common stock par value \$0.0001 per share (the “common stock”), issuable from time to time upon conversion of shares of Series B Preferred Stock (the “Series B Conversion Shares”), by the selling stockholders identified in this prospectus, including their transferees, pledgees, donees or successors.

The selling stockholders may, from time to time, sell, transfer, or otherwise dispose of any or all of their securities on any stock exchange, market, or trading facility on which the securities are traded or in private transactions. These dispositions may be at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices. See “Plan of Distribution” which begins on page [11](#).

We are not offering any securities for sale under this prospectus. We will not receive any of the proceeds from the sale of securities by the selling stockholders. All expenses of registration incurred in connection with this offering are being borne by us. All selling and other expenses incurred by the selling stockholders will be borne by the selling stockholders.

Our common stock is listed on the Nasdaq Global Market under the symbol “VSTM.” On April 14, 2023, the last reported sale price of our common stock was \$0.39 per share.

We may amend or supplement this prospectus from time to time by filing amendments or supplements as required. You should read the entire prospectus and any amendments or supplements carefully before you make your investment decision.

**Investing in our securities involves risks. See “Risk Factors” on page [4](#), and any applicable prospectus supplement, and under similar headings in the other documents that are incorporated by reference into this prospectus.**

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

Prospectus dated April 24, 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”) using a “shelf” registration or continuous offering process.

You should read this prospectus and the information and documents incorporated by reference carefully. Such documents contain important information you should consider when making your investment decision. See “Where You Can Find More Information” and “Incorporation of Documents by Reference” in this prospectus.

This prospectus may be supplemented from time to time to add, to update or change information in this prospectus. Any statement contained in this prospectus will be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in such prospectus supplement modifies or supersedes such statement. Any statement so modified will be deemed to constitute a part of this prospectus only as so modified, and any statement so superseded will be deemed not to constitute a part of this prospectus. You should rely only on the information contained or incorporated by reference in this prospectus, any applicable prospectus supplement or any related free writing prospectus. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus. This prospectus is not an offer to sell securities, and it is not soliciting an offer to buy securities, in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus or any prospectus supplement, as well as information we have filed with the SEC that is incorporated by reference, is accurate as of the date on the front of those documents only, regardless of the time of delivery of this prospectus or any applicable prospectus supplement, or any sale of a security. 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.”

Unless otherwise stated or the context requires otherwise, references in this prospectus to “Verastem,” the “company” or the “Company,” “we,” “us,” or “our” refer to Verastem, Inc. and our subsidiaries on a consolidated basis, as appropriate, unless the context otherwise requires. Throughout this prospectus, unless the context otherwise requires, the term Series B Preferred Stock refers only to the securities issued in the first tranche of the Private Placement (defined herein) and Series B Conversion Shares refers to those shares of common stock issuable upon conversion of the Series B Preferred Stock issued in the first tranche of the Private Placement.

## ABOUT THE COMPANY

### Company Overview

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 kinase (“MEK”) inhibition and focal adhesion kinase (“FAK”) inhibition. Our most advanced product candidates, avutometinib (VS-6766) 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, 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 agents, 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. Defactinib is an oral small molecule inhibitor of FAK and proline-rich tyrosine kinase 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. The combination of avutometinib and defactinib has been found to be clinically active in some patients with Kirsten rat sarcoma viral oncogene homolog (“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.

In the fourth quarter of 2020, we commenced two registration-directed trials investigating avutometinib as a monotherapy and in combination with defactinib. The registration-directed trials are entitled RAMP 201 and RAMP 202. RAMP 201 is an adaptive two-part multicenter, parallel cohort, randomized, open label trial to evaluate the efficacy and safety of avutometinib alone and in combination with defactinib in patients with recurrent LGSOC. RAMP 202 is a Phase 2, adaptive two-part multicenter, parallel cohort, randomized, open-label trial to evaluate the efficacy and safety of avutometinib alone and in combination with defactinib in patients with KRAS G12V NSCLC, following treatment with a platinum-based regimen and immune checkpoint inhibitor. Additionally, and based on preclinical rationale, we added additional cohorts to the RAMP 202 study including KRAS non-G12V NSCLC and B-Raf proto-oncogene serine/threonine kinase mutant (V600E and non-V600E) NSCLC.

In January 2023, we reported data from a planned interim analysis of Part A of the ongoing RAMP 201 trial among patients with LGSOC treated with avutometinib alone and in combination with defactinib. The combination of avutometinib and defactinib has been declared the go-forward treatment regimen based on a higher rate of confirmed objective responses in a planned interim analysis with prespecified criteria. We will continue future enrollment of RAMP 201 in the combination arm only in all patients with recurrent LGSOC regardless of their KRAS status. Target enrollment for the combination arm has been achieved.

In the fourth quarter of 2022, a type B meeting with the FDA was held to discuss the results to date of the ongoing RAMP 201 trial, confirm the go-forward treatment regimen selection and discuss the regulatory path forward. We are in ongoing discussions with the FDA on the confirmatory study and plan to provide an update after agreement with the FDA. Continued enrollment in the combination arm of RAMP 201 is planned to expand the clinical experience in anticipation of initiation of a confirmatory study.

In October 2022, we reported data from a planned interim analysis of Part A from the RAMP 202 trial among patients with KRAS G12V NSCLC treated with avutometinib or the combination of avutometinib and defactinib. The results did not meet the pre-defined criteria to continue to the trial expansion phase. Among patients with KRAS non-G12V NSCLC, no KRAS subtype was identified for further clinical evaluation of avutometinib with defactinib in this trial.

Avutometinib and defactinib are currently being investigated in combination with immunotherapeutic and other agents through investigator sponsored trials.

Our principal executive offices are located at 117 Kendrick Street, Suite 500, Needham, MA 02494, and our telephone number is (781) 292-4200. Our website address is: [www.verastem.com](http://www.verastem.com). We have included our website address as a factual reference and do not intend it to be an active link to our website. The information that can be accessed through our website is not part of this prospectus, and investors should not rely on any such information in deciding whether to purchase our common stock.

## **RISK FACTORS**

*An investment in our common stock involves risks. Prior to making a decision about investing in our common stock, you should consider carefully the risks together with all of the other information contained or incorporated by reference in this prospectus, including any risks described in the section entitled “Risk Factors” contained in any supplements to this prospectus, in our [Annual Report on Form 10-K for the year ended December 31, 2022](#), and in our subsequent filings with the SEC. Each of the referenced risks and uncertainties could adversely affect our business, prospects, operating results and financial condition, as well as adversely affect the value of an investment in our securities. Additional risks not known to us or that we believe are immaterial may also adversely affect our business, operating results and financial condition and the value of an investment in our securities.*

## DESCRIPTION OF PRIVATE PLACEMENT

On January 24, 2023, the Company entered into a private placement (the “Private Placement”) of up to 2,144,160 shares of its Series B Preferred Stock, through a securities purchase agreement (the “Purchase Agreement”). The Series B Preferred Stock will be convertible into the Company’s common stock, par value \$0.0001 per share, at the option of the holders at any time, subject to certain limitations, at a conversion rate equal to \$0.5901 per share.

The Company agreed to sell and issue in the first tranche of the Private Placement 1,200,000 shares of Series B Preferred Stock at a purchase price of \$25.00 per share of Series B Preferred Stock (equivalent to \$0.5901 per share of common stock). The first tranche of the Private Placement closed on January 27, 2023. The Company received gross proceeds from the first tranche of the Private Placement of approximately \$30.0 million, before deducting fees to the placement agent and other offering expenses payable by the Company.

In addition, the Company agreed to sell and issue in the second tranche of the Private Placement 944,160 shares of Series B Preferred Stock at a purchase price of \$31.77 per share of Series B Preferred Stock (equivalent to \$0.75 per share of common stock) if at any time within 18 months following the closing of the first tranche the 10-day volume weighted average price of the Company’s common stock (as quoted on Nasdaq and as calculated by Bloomberg) should reach at least \$1.125 per share (adjusted for any reorganization, recapitalization, non-cash dividend, stock split, reverse stock split or other similar transaction as needed) with aggregate trading volume during the same 10-day period of at least \$25 million within 18 months from the closing date of the initial tranche. The second tranche of the Private Placement is expected to close within seven trading days of meeting the second tranche conditions and will be subject to additional, customary closing conditions. If the second tranche conditions are satisfied, the Company anticipates receiving gross proceeds from the second tranche of the Private Placement of approximately \$30.0 million, before deducting fees to the placement agent and other offering expenses payable by the Company.

## DESCRIPTION OF CAPITAL STOCK

The description of our common stock and our preferred stock, including the 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](#).

## DISCLOSURE REGARDING 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 uncertainties inherent in research and development of avutometinib and defactinib, such as negative or unexpected results of clinical trials; whether and when any applications for avutometinib and defactinib may be filed with regulatory authorities in any jurisdictions; whether and when regulatory authorities in any jurisdictions may approve any such other applications that may be filed for avutometinib and defactinib, which will depend on the assessment by such regulatory authorities of the benefit-risk profile suggested by the totality of the efficacy and safety information submitted and, if approved, whether avutometinib or defactinib will be commercially successful in such jurisdictions; our ability to obtain, maintain and enforce patent and other intellectual property protection for avutometinib and defactinib; 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 avutometinib and defactinib; 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 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 avutometinib or defactinib will cause unexpected safety events, experience manufacturing or supply interruptions or failures, or result in unmanageable safety profiles as compared to their levels of efficacy; 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 avutometinib or defactinib; that we will be unable to in-license additional compounds or 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; 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 license agreement; that our target market for our product candidates might be smaller than we are presently estimating; that we or Secura Bio, Inc. will fail to fully perform under the asset purchase agreement; that we may be unable to make additional draws under our debt facility or 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, that our product candidates will not receive regulatory approval, become commercially successful products, or result in new treatment options being offered to patients; and that the duration and impact of COVID-19 may affect, precipitate or exacerbate one or more of the foregoing risks and uncertainties. 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, 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 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**

We are registering the Series B Preferred Stock and Series B Conversion Shares for resale by the selling stockholders. We will not receive any proceeds from the sale or other disposition of the Series B Preferred Stock or Series B Conversion Shares offered by this prospectus.

## SELLING STOCKHOLDERS

Pursuant to the Purchase Agreement, we agreed to file the registration statement, of which this prospectus is a part, to cover the resale of up to 1,200,000 shares of Series B Preferred Stock, which the selling stockholders acquired, or may acquire, pursuant to the Purchase Agreement and 50,838,840 shares of our common stock issuable upon conversion of the 1,200,000 shares of Series B Preferred Stock, the Series B Conversion Shares, which the selling stockholders acquired, or may acquire, pursuant to the Certificate of Designation of Preferences, Rights and Limitations of Series B Convertible Preferred Stock (the “Series B Certificate of Designation”), and to keep such registration statement effective with respect to each selling stockholder until the date on which all of the Series B Preferred Stock and the Series B Conversion Shares registered for resale under the registration statement have been disposed of in accordance with such registration statement, disposed of pursuant to Rule 144 under the Securities Act, or can be resold pursuant to Rule 144 without restriction or limitation (including without any limitation as to volume of sales and without the selling stockholder complying with any method of sale requirements or notice requirements under Rule 144).

We are registering the resale of the above-referenced securities to permit each of the selling stockholders identified below, or their permitted transferees or other successors-in-interest that may be identified in a supplement to this prospectus or, if required, a post-effective amendment to the registration statement, of which this prospectus is a part, to resell or otherwise dispose of the securities in the manner contemplated under “Plan of Distribution” in this prospectus (as may be supplemented and amended). This prospectus covers the sale or other disposition by the selling stockholders of the total number of Series B Preferred Stock that were issued to the selling stockholders in the first tranche of the Private Placement, and the total number of Series B Conversion Shares that has been or may be issued upon conversion of such Series B Preferred Stock to the selling stockholders pursuant to the Series B Certificate of Designation. Throughout this prospectus, when we refer to the securities being registered on behalf of the selling stockholders, we are referring to the Series B Preferred Stock issued in the first tranche of the Private Placement and the Series B Conversion Shares issued or to be issued upon conversion of such Series B Preferred Stock, in each case, pursuant to the Purchase Agreement or the Series B Certificate of Designation, as applicable. When we refer to “selling stockholders” in this prospectus, we mean those persons listed in the table below, as well as their transferees, pledgees or donees or other successors-in-interest that may be identified in a supplement to this prospectus or, if required, a post-effective amendment to the registration statement, of which this prospectus is a part.

The selling stockholders may sell some, all or none of their securities. We do not know how long the selling stockholders will hold the securities before selling them, and we currently have no agreements, arrangements or understandings with the selling stockholders regarding the sale or other disposition of any of the securities. The securities covered hereby may be offered from time to time by the selling stockholders.

The information regarding securities beneficially owned after the offering assumes the sale of all securities offered by the selling stockholders. To our knowledge, subject to community property laws where applicable, each selling stockholder named in the table has sole voting and investment power with respect to the securities set forth opposite such selling stockholder’s name.

The following table sets forth the name of each selling stockholder, the number of shares of our common stock beneficially owned by the selling stockholders as of March 20, 2023, the number of shares of our Series B Preferred Stock beneficially owned by the selling stockholders as of March 20, 2023, the number of shares of our common stock and our Series B Preferred Stock that may be offered under this prospectus, and the number and percentage of each of our common stock and Series B Preferred Stock beneficially owned by the selling stockholders assuming all of the shares of our common stock and Series B Preferred Stock registered hereunder are sold. As of March 20, 2023, a total of 200,752,352 shares of our common stock and a total of 1,200,000 of our Series B Preferred Stock were outstanding. Beneficial ownership is determined in accordance with the rules of the SEC and includes voting or investment power with respect to our common stock or our Series B Preferred Stock, as applicable. Generally, a person “beneficially owns” shares of our securities if the person has or shares with others the right to vote those securities or to dispose of them, or if the person has the right to acquire voting or disposition rights within 60 days. The number of shares of our common stock in the column “Number of Shares of Common Stock Offered” and the number of shares of our Series B Preferred Stock in the column “Number of Shares of Series B

Preferred Stock Offered” represents all of the shares of our common stock or Series B Preferred Stock, respectively, that a selling stockholder may offer and sell from time to time under this prospectus.

Name and Address	Number of Shares of Common Stock Beneficially Owned Prior to Offering	Number of Shares of Series B Preferred Stock Beneficially Owned Prior to Offering	Number of Shares of Common Stock Offered	Number of Shares of Series B Preferred Stock Offered	Number of Shares of Common Stock Beneficially Owned After Offering	Percentage of Shares of Common Stock Beneficially Owned After Offering	Number of Shares of Series B Preferred Stock Beneficially Owned After Offering	Percentage of Shares of Series B Preferred Stock Beneficially Owned After Offering
<b>Entities Associated with BVF Partners L.P.</b> 44 Montgomery Street, 40 <sup>th</sup> Floor San Francisco, CA 94104	79,861,496 <sup>(1)</sup>	1,200,000 <sup>(1)</sup>	50,838,840 <sup>(2)</sup>	1,200,000	29,022,656	14.5%	—	—

- (1) Consists of: (i) 19,022,656 shares of common stock held in the aggregate by Biotechnology Value Fund, L.P. (“BVF”), Biotechnology Value Fund II, L.P. (“BVF2”), Biotechnology Value Trading Fund OS LP (“Trading Fund OS”), and MSI BVF SPV, LLC (“MSI BVF”) and together with BVF, BVF2 and Trading Fund OS, the “BVF Funds”), (ii) 10,000,000 shares of common stock potentially issuable upon the conversion of shares of Series A Preferred Stock held by the BVF Funds, which shares are subject to a conversion limit to the extent that the holder would beneficially own in excess of 9.99% of the Company’s issued and outstanding common stock after the conversion (a “Beneficial Ownership Blocker”) which may be increased to an amount not to exceed 19.99% upon 60 days’ notice, and (iii) 50,838,840 shares of Common Stock issuable upon conversion of the Company’s Series B Preferred Stock. The Series B Preferred shares are also subject to a Beneficial Ownership Blocker. The number of shares reflected above as beneficially owned does not give effect to the Beneficial Ownership Blocker. Accordingly, the number of shares deemed beneficially owned by the BVF Funds under Regulation 13D-G of the Securities Exchange Act of 1934 is lower than what is reflected above in the selling stockholder table. BVF I GP LLC (“BVF GP”), as the general partner of BVF, may be deemed to beneficially own the shares beneficially owned by BVF. BVF II GP LLC (“BVF2 GP”), as the general partner of BVF2, may be deemed to beneficially own the shares beneficially owned by BVF2. BVF Partners OS Ltd. (“Partners OS”), as the general partner of Trading Fund OS, may be deemed to beneficially own the shares beneficially owned by Trading Fund OS. BVF GP Holdings LLC (“BVF GPH”), as the sole member of each of BVF GP and BVF2 GP, may be deemed to beneficially own the shares beneficially owned in the aggregate by BVF and BVF2. BVF Partners L.P. (“Partners”), as the investment manager of BVF, BVF2, Trading Fund OS and MSI BVF, and the sole member of Partners OS, may be deemed to beneficially own the shares beneficially owned in the aggregate by BVF, BVF2, Trading Fund OS, and MSI BVF. BVF Inc., as the general partner of Partners, may be deemed to beneficially own the shares beneficially owned by Partners. Mark N. Lampert (“Mr. Lampert”), as a director and officer of BVF Inc., may be deemed to beneficially own the shares beneficially owned by BVF Inc. BVF GP disclaims beneficial ownership of the shares beneficially owned by BVF. BVF2 GP disclaims beneficial ownership of the shares beneficially owned by BVF2. Partners OS disclaims beneficial ownership of the shares beneficially owned by Trading Fund OS. BVF GPH disclaims beneficial ownership of the shares beneficially owned by BVF and BVF2. Each of Partners, BVF Inc. and Mr. Lampert disclaims beneficial ownership of the shares beneficially owned by BVF, BVF2, Trading Fund OS, and MSI BVF.
- (2) Consists of 50,838,840 shares of common stock issuable upon conversion of the 1,200,000 shares of Series B Preferred Stock held by the BVF Funds.

## PLAN OF DISTRIBUTION

The selling stockholders, which as used herein includes donees, pledgees, transferees or other successors-in-interest selling Series B Preferred Stock and Series B Conversion Shares previously issued or interests in Series B Preferred Stock and Series B Conversion Shares received after the date of this prospectus from a selling stockholder as a gift, pledge, partnership distribution or other transfer, may, from time to time, sell, transfer or otherwise dispose of any or all of their Series B Preferred Stock and Series B Conversion Shares or interests in Series B Preferred Stock and Series B Conversion Shares on any stock exchange, market or trading facility on which the shares are traded or in private transactions. The selling stockholders may sell their Series B Preferred Stock and Series B Conversion Shares pursuant to this prospectus at fixed prices, at prevailing market prices at the time of sale, at prices related to the prevailing market price, at varying prices determined at the time of sale, or at negotiated prices.

The selling stockholders may use any one or more of the following methods when disposing of shares or interests therein:

- ordinary brokerage transactions and transactions in which the broker-dealer solicits purchasers;
- block trades in which the broker-dealer will attempt to sell the shares as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- purchases by a broker-dealer as principal and resale by the broker-dealer for its account;
- an exchange distribution in accordance with the rules of the applicable exchange;
- privately negotiated transactions;
- short sales effected after the date the registration statement of which this prospectus is a part is declared effective by the SEC;
- through the writing or settlement of options or other hedging transactions, whether through an options exchange or otherwise;
- broker-dealers may agree with the selling stockholders to sell a specified number of such shares at a stipulated price per share;
- a combination of any such methods of sale; and
- any other method permitted by applicable law.

If the selling stockholders effect such transactions by selling Series B Preferred Stock and Series B Conversion Shares to or through underwriters, broker-dealers or agents, such underwriters, broker-dealers or agents may receive commissions in the form of discounts, concessions or commissions from the selling stockholders or commissions from purchasers of the Series B Preferred Stock and Series B Conversion Shares for whom they may act as agent or to whom they may sell as principal (which discounts, concessions or commissions as to particular underwriters, broker-dealers or agents may be in excess of those customary in the types of transactions involved).

Broker-dealers engaged by the selling stockholders may arrange for other brokers-dealers to participate in sales. Broker-dealers may receive commissions or discounts from the selling stockholders (or, if any broker-dealer acts as agent for the purchaser of securities, from the purchaser) in amounts to be negotiated.

The selling stockholders may, from time to time, pledge or grant a security interest in some or all of the Series B Preferred Stock and Series B Conversion Shares owned by them and, if they default in the performance of their secured obligations, the pledgees or secured parties may offer and sell the Series B Preferred Stock and Series B Conversion Shares, from time to time, under this prospectus, or under an amendment to this prospectus under Rule 424(b)(3) or other applicable provision of the Securities Act amending the list of selling stockholders to include the pledgee, transferee or other successors in interest as selling stockholders under this prospectus. The selling stockholders also may transfer the Series B Preferred Stock and Series B Conversion Shares in other circumstances, in which case the transferees, pledgees or other successors in interest will be the selling beneficial owners for purposes of this prospectus.

In connection with the Series B Preferred Stock and Series B Conversion Shares or interests therein, the selling stockholders may enter into hedging transactions with broker-dealers or other financial institutions, which may in turn engage in short sales of our Series B Preferred Stock and Series B Conversion Shares in the course of hedging the positions they assume. The selling stockholders may also sell Series B Preferred Stock and Series B Conversion Shares short and deliver these securities to close out their short positions, or loan or pledge our common stock to broker-dealers that in turn may sell these securities. The selling stockholders may also enter into option or other transactions with broker-dealers or other financial institutions or the creation of one or more derivative securities which require the delivery to such broker-dealer or other financial institution of shares offered by this prospectus, which shares such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction).

The aggregate proceeds to the selling stockholders from the sale of the Series B Preferred Stock and Series B Conversion Shares offered by them will be the purchase price of the Series B Preferred Stock and Series B Conversion Shares less discounts or commissions, if any. Each of the selling stockholders reserves the right to accept and, together with their agents from time to time, to reject, in whole or in part, any proposed purchase of Series B Preferred Stock and Series B Conversion Shares to be made directly or through agents. We will not receive any of the proceeds from this offering.

The selling stockholders also may resell all or a portion of the Series B Preferred Stock and Series B Conversion Shares in open market transactions in reliance upon Rule 144 under the Securities Act, provided that they meet the criteria and conform to the requirements of that rule. In addition, the selling stockholders may transfer the Series B Preferred Stock and Series B Conversion Shares by other means not described in this prospectus.

The selling stockholders and any underwriters, broker-dealers or agents that participate in the sale of the Series B Preferred Stock and Series B Conversion Shares or interests therein may be “underwriters” within the meaning of Section 2(11) of the Securities Act. Any discounts, commissions, concessions or profit they earn on any resale of the shares may be underwriting discounts and commissions under the Securities Act. Selling stockholders who are “underwriters” within the meaning of Section 2(11) of the Securities Act will be subject to the prospectus delivery requirements of the Securities Act.

To the extent required, the Series B Preferred Stock and Series B Conversion Shares to be sold, the names of the selling stockholders, the respective purchase prices and public offering prices, the names of any agents, dealer or underwriter, any applicable commissions or discounts with respect to a particular offer will be set forth in an accompanying prospectus supplement or, if appropriate, a post-effective amendment to the registration statement that includes this prospectus.

In order to comply with the securities laws of some states, if applicable, the Series B Preferred Stock and Series B Conversion Shares may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the Series B Preferred Stock and Series B Conversion Shares may not be sold unless it has been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

We have advised the selling stockholders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of shares in the market and to the activities of the selling stockholders and their affiliates. In addition, to the extent applicable we will make copies of this prospectus (as it may be supplemented or amended from time to time) available to the selling stockholders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling stockholders may indemnify any broker-dealer that participates in transactions involving the sale of the shares against certain liabilities, including liabilities arising under the Securities Act.

Once sold under the registration statement of which this prospectus forms a part, the Series B Preferred Stock and Series B Conversion Shares will be freely tradable in the hands of persons other than our affiliates.

We have agreed to indemnify the selling stockholders against liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares offered by this prospectus.

We will pay all expenses of the registration of the Series B Preferred Stock and Series B Conversion Shares, including, without limitation, SEC filing fees. We have agreed with the selling stockholders to keep the registration statement of which this prospectus constitutes a part effective until such time as the shares offered by the selling stockholders have been effectively registered under the Securities Act and disposed of in accordance with such registration statement, the shares offered by the selling stockholders have been disposed of pursuant to Rule 144 under the Securities Act or the shares offered by the selling stockholders may be resold pursuant to Rule 144 without restriction or limitation (including without any limitation as to volume of sales and without the selling stockholder complying with any method of sale requirements or notice requirements under Rule 144).

## LEGAL MATTERS

The validity of the issuance of the securities offered hereby will be passed upon for us by Ropes & Gray LLP, Boston, Massachusetts.

## EXPERTS

The consolidated financial statements of Verastem, Inc. appearing in Verastem, Inc.'s [Annual Report \(Form 10-K\) 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 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.

## 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 with respect to us and the Series B Preferred Stock and Series B Conversion Shares we are offering under this prospectus, we refer you to the registration statement and the exhibits and schedules filed as a part of the registration statement. Neither we nor any agent, underwriter or dealer has authorized any person to provide you with different information. We are not making an offer of Series B Preferred Stock and Series B Conversion Shares in any state where the offer is not permitted. You should not assume that the information in this prospectus is accurate as of any date other than the date on the front page of this prospectus, regardless of the time of delivery of this prospectus or any sale of Series B Preferred Stock and Series B Conversion Shares offered by this prospectus.

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](http://www.sec.gov).

We maintain a website at [www.verastem.com](http://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 DOCUMENTS BY REFERENCE

The SEC allows us to “incorporate by reference” into this prospectus 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, 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 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, 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, 2022, as filed with the SEC on March 14, 2023;](#)
- our Current Reports on Form 8-K filed with the SEC on [January 25, 2023](#) and [March 27, 2023;](#)
- 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 filed with the SEC on April 5, 2023;](#) and
- the description of our common stock, which is contained in the Registration Statement on Form 8-A, as filed with the SEC on 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  
117 Kendrick Street, Suite 500  
Needham, Massachusetts 02494  
(781) 292-4279  
email address: [info@verastem.com](mailto:info@verastem.com)

Copies of these filings are also available, without charge, on the SEC’s website at [www.sec.gov](http://www.sec.gov) and on our website at [www.verastem.com](http://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.

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**VERASTEM, INC.**

**Up to 1,200,000 Shares of Series B Convertible Preferred Stock  
Up to 50,838,840 Shares of Common Stock Upon Conversion of Series B  
Convertible Preferred Stock  
Common Stock  
Preferred Stock**

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**Prospectus**

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**April 24, 2023**

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