UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended June 30, 2023

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission file number: 001-35403

Verastem, Inc.
(Exact name of registrant as specified in its charter)

Delaware	**27-3269467**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)
117 Kendrick Street, Suite 500	
Needham, MA	**02494**
(Address of principal executive offices)	(Zip Code)

(781) 292-4200
(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Securities Exchange Act of 1934:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.0001 par value per share	VSTM	The Nasdaq Capital Market

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐	Accelerated filer ☐	Non-accelerated filer ☒	Smaller reporting company ☒	Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of August 7, 2023 there were 25,250,711 shares of Common Stock outstanding.

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FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains 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 this Quarterly Report on Form 10-Q, 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 (VS-6766) (rapidly accelerated fibrosarcoma ("RAF")/ mitogen-activated protein kinase kinase ("MEK") program) and defactinib (focal adhesion kinase ("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 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 in our Annual Report on Form 10-K for the year ended December 31, 2022, as filed with Securities and Exchange Commission ("SEC") on March 14, 2023, 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 Quarterly Report on Form 10-Q 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.

PART I—FINANCIAL INFORMATION

Item 1. Condensed Consolidated Financial Statements (unaudited).

Verastem, Inc.
CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands, except per share amounts)

	June 30, 2023	December 31, 2022
Assets		
Current assets:		
Cash and cash equivalents	$ 183,086	$ 74,933
Short-term investments	—	12,961
Accounts receivable, net	2	31
Prepaid expenses and other current assets	6,875	4,945
Total current assets	189,963	92,870
Property and equipment, net	40	92
Right-of-use asset, net	1,494	1,789
Restricted cash	241	241
Other assets	20	58
Total assets	$ 191,758	$ 95,050
Liabilities, convertible preferred stock and stockholders' equity		
Current liabilities:		
Accounts payable	$ 4,553	$ 4,901
Accrued expenses	13,756	14,983
Note Payable	579	—
Deferred liabilities	744	710
Lease liability, short-term	865	794
Convertible senior notes	290	275
Total current liabilities	20,787	21,663
Non-current liabilities:		
Long-term debt	39,739	24,526
Lease liability, long-term	1,022	1,470
Preferred stock tranche liability	7,460	—
Total liabilities	69,008	47,659
Convertible preferred stock:		
Series B Convertible Preferred Stock, $0.0001 par value; 2,144 and 0 shares designated at June 30, 2023 and December 31, 2022, respectively; 1,200 and 0 shares issued and outstanding at June 30, 2023 and December 31, 2022, respectively	21,159	—
Stockholders' equity:		
Preferred Stock, $0.0001 par value; 5,000 shares authorized:		
Series A Convertible Preferred Stock, $0.0001 par value; 1,000 shares designated, 1,000 shares issued and outstanding at June 30, 2023 and December 31, 2022	—	—
Common stock, $0.0001 par value; 300,000 shares authorized, 25,242 and 16,712 shares issued and outstanding at June 30, 2023 and December 31, 2022, respectively[(1)]	3	2
Additional paid-in capital[(1)]	879,105	784,912
Accumulated other comprehensive income	1	—
Accumulated deficit	(777,518)	(737,523)
Total stockholders' equity	101,591	47,391
Total liabilities, convertible preferred stock and stockholders' equity	$ 191,758	$ 95,050

(1) Amounts have been retroactively restated to reflect the 1-for-12 reverse stock split effected on May 31, 2023 (see *Note 1. Nature of business* of the accompanying notes to the condensed consolidated financial statements).
See accompanying notes to the condensed consolidated financial statements.

Verastem, Inc.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(unaudited)
(in thousands, except per share amounts)

	Three months ended June 30,		Six months ended June 30,	
	2023	2022	2023	2022
Revenue:				
Sale of COPIKTRA license and related assets	$ —	$ —	$ —	$ 2,596
Total revenue	—	—	—	2,596
Operating expenses:				
Research and development	12,893	14,888	24,908	28,530
Selling, general and administrative	7,399	6,514	14,728	12,448
Total operating expenses	20,292	21,402	39,636	40,978
Loss from operations	(20,292)	(21,402)	(39,636)	(38,382)
Other income (expense)	(40)	6	(47)	34
Interest income	1,122	84	2,098	130
Interest expense	(1,121)	(640)	(1,890)	(696)
Change in fair value of preferred stock tranche liability	(3,950)	—	(520)	—
Net loss	$ (24,281)	$ (21,952)	$ (39,995)	$ (38,914)
Net loss per share—basic and diluted[1]	$ (1.37)	$ (1.41)	$ (2.32)	$ (2.51)
Weighted average common shares outstanding used in computing net loss per share—basic and diluted[1]	17,732	15,539	17,231	15,530
Net loss	$ (24,281)	$ (21,952)	$ (39,995)	$ (38,914)
Unrealized gain (loss) on available-for-sale securities	(5)	(17)	1	(164)
Comprehensive loss	$ (24,286)	$ (21,969)	$ (39,994)	$ (39,078)

(1) Amounts have been retroactively restated to reflect the 1-for-12 reverse stock split effected on May 31, 2023 (see *Note 1. Nature of business* of the accompanying notes to the condensed consolidated financial statements).

See accompanying notes to the condensed consolidated financial statements.

Verastem, Inc.
CONDENSED CONSOLIDATED STATEMENTS OF CONVERTIBLE PREFERRED STOCK AND STOCKHOLDERS' EQUITY
(unaudited)
(in thousands, except share data)

	Series B Convertible Preferred Stock		Series A Convertible Preferred Stock		Common stock[1]		Additional paid-in capital[1]	Accumulated other comprehensive income	Accumulated deficit	Total stockholders' equity
	Shares	Amount	Shares	Amount	Shares	Amount				
Balance at December 31, 2022	—	$ —	1,000,000	$ —	16,711,761	$ 2	$ 784,912	$ —	$ (737,523)	$ 47,391
Net loss	—	—	—	—	—	—	—	—	(15,714)	(15,714)
Unrealized gain on available-for-sale marketable securities	—	—	—	—	—	—	—	6	—	6
Issuance of common stock resulting from vesting of restricted stock units	—	—	—	—	17,658	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	—	—	1,313	—	—	1,313
Issuance of common stock under Employee Stock Purchase Plan	—	—	—	—	6,874	—	29	—	—	29
Issuance of Series B Convertible Preferred Stock, net of issuance costs of $1,901 and preferred stock tranche liability of $6,940	1,200,000	21,159	—	—	—	—	—	—	—	—
Balance at March 31, 2023	1,200,000	$ 21,159	1,000,000	$ —	16,736,293	$ 2	$ 786,254	$ 6	$ (753,237)	$ 33,025
Net loss	—	—	—	—	—	—	—	—	(24,281)	(24,281)
Unrealized (loss) on available-for-sale marketable securities	—	—	—	—	—	—	—	(5)	—	(5)
Issuance of common stock resulting from vesting of restricted stock units	—	—	—	—	16,176	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	—	—	1,432	—	—	1,432
Issuance of common stock, and pre-funded warrants, net of issuance cost of $6,351	—	—	—	—	8,489,409	1	91,419	—	—	91,420
Balance at June 30, 2023	1,200,000	$ 21,159	1,000,000	$ —	25,241,878	$ 3	$ 879,105	$ 1	$ (777,518)	$ 101,591

	Common stock[1]		Additional paid-in capital[1]	Accumulated other comprehensive (loss) income	Accumulated deficit	Total stockholders' equity
	Shares	Amount				
Balance at December 31, 2021	15,440,830	$ 2	$ 751,234	$ 34	$ (663,711)	$ 87,559
Net loss	—	—	—	—	(16,962)	(16,962)
Unrealized (loss) on available-for-sale marketable securities	—	—	—	(147)	—	(147)
Issuance of common stock resulting from at-the-market transactions, net	23,824	—	575	—	—	575
Issuance of common stock resulting from vesting of restricted stock units	58,043	—	—	—	—	—
Stock-based compensation expense	—	—	1,646	—	—	1,646
Issuance of common stock under Employee Stock Purchase Plan	4,803	—	100	—	—	100
Balance at March 31, 2022	15,527,500	$ 2	$ 753,555	$ (113)	$ (680,673)	$ 72,771
Net loss	—	—	—	—	(21,952)	(21,952)
Unrealized (loss) on available-for-sale marketable securities	—	—	—	(17)	—	(17)
Issuance of common stock resulting from at-the-market transactions, net	83,870	—	1,240	—	—	1,240
Issuance of common stock resulting from exercise of stock options	6,378	—	92	—	—	92
Issuance of common stock resulting from vesting of restricted stock units	16,734	—	—	—	—	—
Stock-based compensation expense	—	—	1,758	—	—	1,758
Balance at June 30, 2022	15,634,482	$ 2	$ 756,645	$ (130)	$ (702,625)	$ 53,892

(1) Amounts have been retroactively restated to reflect the 1-for-12 reverse stock split effected on May 31, 2023 (see *Note 1. Nature of business* of the accompanying notes to the condensed consolidated financial statements).

See accompanying notes to the condensed consolidated financial statements.

Verastem, Inc.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(unaudited)
(in thousands)

	Six months ended June 30,	
	2023	2022
Operating activities		
Net loss	$ (39,995)	$ (38,914)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation	52	59
Amortization of right-of-use asset and lease liability	(82)	(72)
Stock-based compensation expense	2,745	3,404
Amortization of deferred financing costs, debt discounts and premiums and discounts on available-for-sale marketable securities	76	111
Change in fair value of preferred stock tranche liability	520	—
Changes in operating assets and liabilities:		
Accounts receivable, net	29	385
Prepaid expenses, other current assets and other assets	(1,508)	1,611
Accounts payable	(422)	(596)
Accrued expenses and other liabilities	(1,639)	2,037
Deferred liabilities	34	—
Net cash used in operating activities	(40,190)	(31,975)
Investing activities		
Purchases of investments	(13,804)	(4,987)
Maturities of investments	27,000	53,500
Net cash provided by investing activities	13,196	48,513
Financing activities		
Proceeds from issuance of Series B Convertible Preferred Stock, net	28,099	—
Proceeds from long-term debt, net	14,918	24,148
Proceeds from insurance premium financing	1,430	—
Payments on insurance premium financing	(851)	—
Proceeds from the exercise of stock options and employee stock purchase program	29	192
Proceeds from the issuance of common stock and pre-funded warrants, net	91,906	1,820
Net cash provided by financing activities	135,531	26,160
Increase in cash, cash equivalents and restricted cash	108,537	42,698
Cash, cash equivalents and restricted cash at beginning of period	75,789	21,493
Cash, cash equivalents and restricted cash at end of period	$ 184,326	$ 64,191
Supplemental disclosure of non-cash investing and financing activities		
Issuance of preferred stock tranche liability	$ 6,940	$ —
Issuance costs included in accounts payable and accrued expenses	$ 486	$ —

See accompanying notes to the condensed consolidated financial statements.

Verastem, Inc.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(unaudited)

1. Nature of business

Verastem, Inc. (the "Company") is a late-stage development biopharmaceutical company, with an ongoing registration directed trial, committed to advancing new medicines for patients battling cancer. The Company's pipeline is focused on novel anticancer agents that inhibit critical signaling pathways in cancer that promote cancer cell survival and tumor growth, particularly RAF/ MEK inhibition and FAK inhibition.

The Company's 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. The Company believes 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.

On September 24, 2018, the Company's first commercial product, COPIKTRA® (duvelisib), was approved by the U.S. Food and Drug Administration (the "FDA") for the treatment of adult patients with certain hematologic cancers including relapsed or refractory chronic lymphocytic leukemia/ small lymphocytic lymphoma after at least two prior therapies and relapsed or refractory follicular lymphoma after at least two prior systemic therapies. On August 10, 2020, the Company and Secura Bio, Inc. ("Secura") entered into an asset purchase agreement ("Secura APA"). Pursuant to the Secura APA, the Company sold to Secura its exclusive worldwide license, including certain related assets for the research, development, commercialization, and manufacture in oncology indications of products containing COPIKTRA (duvelisib). The transaction closed on September 30, 2020. Refer to *Note 14. License, collaboration, and commercial agreements* for a detailed discussion of the Secura APA.

The condensed consolidated financial statements include the accounts of Verastem Securities Company and Verastem Europe GmbH, wholly-owned subsidiaries of the Company. All financial information presented has been consolidated and includes the accounts of the Company and its wholly-owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation.

The Company is subject to the risks associated with other life science companies, including, but not limited to, possible failure of preclinical testing or clinical trials, competitors developing new technological innovations, inability to obtain marketing approval of the Company's product candidates, avutometinib and defactinib, market acceptance and commercial success of the Company's product candidates, avutometinib and defactinib, following receipt of regulatory approval, and, protection of proprietary technology and the continued ability to obtain adequate financing to fund the Company's future operations. If the Company does not obtain marketing approval and successfully commercialize its product candidates, avutometinib and defactinib, following regulatory approval, it will be unable to generate product revenue or achieve profitability and may need to raise additional capital.

The Company has historical losses from operations and anticipates that it may continue to incur operating losses as it continues the research and development of its product candidates. As of June 30, 2023, the Company had cash, cash equivalents, and investments of $183.1 million, and an accumulated deficit of $777.5 million. The Company expects its existing cash resources will be sufficient to fund its planned operations through at least 12 months from the date of issuance of these condensed consolidated financial statements.

The Company expects to finance the future development costs of its clinical product portfolio with its existing cash, cash equivalents, and investments, through potential future milestones and royalties received pursuant to the Secura APA, through the loan and security agreement with Oxford Finance LLC ("Oxford"), or through other strategic financing opportunities that could include, but are not limited to collaboration agreements, future offerings of its equity, or the incurrence of debt. However, there is no guarantee that any of these strategic or financing opportunities will be

executed or executed on favorable terms, and some could be dilutive to existing stockholders. If the Company fails to obtain additional future capital, it may be unable to complete its planned preclinical studies and clinical trials and obtain approval of certain investigational product candidates from the FDA or foreign regulatory authorities.

Reverse Stock Split

On May 30, 2023, the Company filed a Certificate of Amendment to the Company's Restated Certificate of Incorporation, as amended to date, with the Secretary of State of the State of Delaware to effect a reverse stock split of the Company's issued and outstanding common stock, par value $0.0001 at a ratio of 1-for-12 (the "Reverse Stock Split"), as authorized at the Company's 2023 annual meeting of stockholders held on May 15, 2023. The Company effected the Reverse Stock Split on May 31, 2023. No fractional shares were be issued in connection with the Reverse Stock Split. Stockholders who otherwise were entitled to a fractional share of common stock were entitled to receive a price equal to the closing price of the common stock on the Nasdaq Capital Market on the date immediately preceding the Reverse Stock Split, as adjusted by the ratio of one share of common stock for every 12 shares of common stock, multiplied by the applicable fraction of a share. The number of shares of common stock that the Company is authorized to issue remains at 300,000,000 shares and the par value of its common stock remains unchanged at $0.0001 per share.

The Company has retroactively restated the share and per share amounts in the unaudited condensed consolidated financial statements as of June 30, 2023 and December 31, 2022, and for the three and six months ended June 30, 2023 and 2022. Proportionate adjustments were made to the per share exercise price and number of shares of common stock issuable under all outstanding stock options, convertible notes and preferred stock. In addition, proportionate adjustments have been made to the number of shares of common stock issuable upon vesting of the restricted stock units and the number of shares of common stock reserved for the Company's equity incentive compensation plans. The condensed consolidated statements of convertible preferred stock and stockholders' equity and balance sheets reflect the impact of the Reverse Stock Split by reclassifying from "common stock" to "additional paid-in capital" in an amount equal to the par value of the decreased shares resulting from the Reverse Stock Split.

2. Summary of significant accounting policies

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements of the Company have been prepared in accordance with generally accepted accounting principles in the United States ("GAAP") for interim financial reporting and as required by Regulation S-X, Rule 10-01 under the assumption that the Company will continue as a going concern for the next twelve months. Accordingly, they do not include all of the information and footnotes required by GAAP for complete financial statements, or any adjustments that might result from the uncertainty related to the Company's ability to continue as a going concern. In the opinion of management, all adjustments (including those which are normal and recurring) considered necessary for a fair presentation of the interim financial information have been included. When preparing financial statements in conformity with GAAP, the Company must make estimates and assumptions that affect the reported amounts and related disclosures at the date of the financial statements. Actual results could differ from those estimates. Additionally, operating results for the three and six months ended June 30, 2023 are not necessarily indicative of the results that may be expected for any other interim period or for the year ending December 31, 2023. For further information, refer to the financial statements and footnotes included in the Company's Annual Report on Form 10-K for the year ended December 31, 2022, as filed with the Securities and Exchange Commission ("SEC") on March 14, 2023.

Significant Accounting Policies

The significant accounting policies are described in *Note 2. Significant accounting policies* in the Company's Annual Report on Form 10-K for the year ended December 31, 2022, except as outlined within "Recently Adopted Accounting Standards Updates" section immediately below.

Recently Adopted Accounting Standards Updates

In June 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standard Update ("ASU") No. 2016-13, Measurement of Credit Losses on Financial Instruments ("ASU 2016-13"). ASU 2016-13 will replace the incurred loss impairment methodology under current GAAP with a methodology that reflects expected credit losses and requires consideration of a broader range of reasonable and supportable information to inform credit loss estimates. Effective January 1, 2023, the Company adopted the provisions of ASU 2016-13. The adoption did not have a material impact on the Company's condensed consolidated financial statements or related financial statement disclosures.

In August 2020, the FASB issued No. ASU 2020-06, Debt – Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging – Contracts in Entity's Own Equity (Subtopic 815 – 40) ("ASU 2020-06"). ASU 2020-06 simplifies the complexity associated with applying U.S. GAAP for certain financial instruments with characteristics of liabilities and equity. More specifically, the amendments focus on the guidance for convertible instruments and derivative scope exception for contracts in an entity's own equity. The ASU also simplifies the diluted earnings per share calculation in certain areas. The Company elected to adopt this standard on January 1, 2023 under the modified retrospective transition method. The adoption did not have a material impact on the Company's condensed consolidated financial statements or related financial statement disclosures.

In September 2022, the FASB issued ASU 2022-04, Liabilities—Supplier Finance Programs (Subtopic 405-50): Disclosure of Supplier Finance Program Obligations ("ASU 2022-04"). ASU 2022-04 requires the buyer in a supplier finance program to disclose information about the key terms of the program, outstanding confirmed amounts as of the end of the period, a rollforward of such amounts during each annual period, and a description of where in the financial statements outstanding amounts are presented. This guidance is effective for fiscal years beginning after December 15, 2022. We adopted this guidance as of January 1, 2023, on a prospective basis. The adoption of the standard only resulted in new disclosures for amounts presented within Notes Payable and did not affect the Company's recognition, measurement, or financial statement presentation of supplier finance program obligations on the condensed consolidated financial statements. For additional information on the new disclosures, see Note 9. *Notes Payable*.

Concentrations of credit risk and off-balance sheet risk

Cash, cash equivalents, investments and trade accounts receivable are financial instruments that potentially subject the Company to concentrations of credit risk. The Company mitigates this risk by maintaining its cash and cash equivalents and investments with high quality, accredited financial institutions. The management of the Company's investments is not discretionary on the part of these financial institutions. As of June 30, 2023, the Company's cash, cash equivalents and investments were deposited at four financial institutions and it has no significant off-balance sheet concentrations of credit risk, such as foreign currency exchange contracts, option contracts or other hedging arrangements. For the three and six months ended June 30, 2023, the Company did not record any revenue.

Proceeds from Grants

In May 2022, the Company was awarded the "Therapeutic Accelerator Award" grant from Pancreatic Cancer Network ("PanCAN") for up to $3.8 million (the "PanCAN Grant"). In August 2022, PanCAN agreed to provide the Company with an additional $0.5 million for the collection and analysis of patient samples. The grant is expected to support a Phase 1b/2 clinical trial of GEMZAR (gemcitabine) and ABRAXANE (Nab-paclitaxel) in combination with avutometinib and defactinib entitled RAMP 205. The RAMP 205 trial will evaluate whether combining avutometinib (to target mutant Kirsten rat sarcoma viral oncogene homolog ("KRAS"), which is found in more than 90% of pancreatic adenocarcinomas) and defactinib (to reduce stromal density and adaptive resistance to avutometinib) to the standard GEMZAR/ABRAXANE regimen improves outcomes for patients with such pancreatic cancers. Through June 30, 2023,

the Company has received $1.8 million of cash proceeds in which was initially recorded as deferred liabilities on the balance sheet. The Company recognizes grants as contra research and development expense in the consolidated statement of operations and comprehensive loss on a systematic basis over the periods in which the entity recognizes as expenses the related costs for which the grants are intended to compensate. The Company recorded $0.7 million and $0.8 million of the proceeds as a reduction of research and development expense during the three and six months ended June 30, 2023, respectively. As of June 30, 2023 and December 31, 2022, the Company recorded $0.7 million as deferred liabilities related to the PanCAN Grant in the consolidated balance sheets.

3. Cash, cash equivalents and restricted cash

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the condensed consolidated balance sheets that sum to the total of the same such amounts shown in the condensed consolidated statements of cash flows (in thousands):

	June 30, 2023	December 31, 2022
Cash and cash equivalents	$ 183,086	$ 74,933
Restricted cash	1,240	856
Total cash, cash equivalents and restricted cash	**$ 184,326**	**$ 75,789**

Amounts included in restricted cash as of June 30, 2023, and December 31, 2022 represent (i) cash received pursuant to the PanCAN Grant restricted for future expenditures for specific research and development activities of $1.0 million and $0.6 million, respectively, and (ii) cash held to collateralize outstanding letters of credit provided as a security deposit for the Company's office space located in Needham, Massachusetts in the amount of $0.2 million. Cash received pursuant to the PanCAN Grant is included in prepaid expenses and other current assets on the condensed consolidated balance sheets as of June 30, 2023, and December 31, 2022. The letters of credit are included in non-current restricted cash on the condensed consolidated balance sheets as of June 30, 2023, and December 31, 2022.

4. Fair value of financial instruments

The Company determines the fair value of its financial instruments based upon the fair value hierarchy, which prioritizes valuation inputs based on the observable nature of those inputs. The fair value hierarchy applies only to the valuation inputs used in determining the reported fair value of the investments and is not a measure of the investment credit quality. The hierarchy defines three levels of valuation inputs:

Level 1 inputs	Quoted prices in active markets for identical assets or liabilities that the Company can access at the measurement date.
Level 2 inputs	Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.
Level 3 inputs	Unobservable inputs that reflect the Company's own assumptions about the assumptions market participants would use in pricing the asset or liability.

Items Measured at Fair Value on a Recurring Basis

The following table presents information about the Company's financial instruments that are measured at fair value on a recurring basis (in thousands):

	June 30, 2023			
Description	**Total**	**Level 1**	**Level 2**	**Level 3**
Financial assets				
Cash equivalents	$ 179,042	$ 176,544	$ 2,498	$ —
Total financial assets	**$ 179,042**	**$ 176,544**	**$ 2,498**	**$ —**
Preferred stock tranche liability	**$** 7,460	$ —	$ —	$ 7,460

	December 31, 2022			
Description	**Total**	**Level 1**	**Level 2**	**Level 3**
Financial assets				
Cash equivalents	$ 73,613	$ 72,617	$ 996	$ —
Short-term investments	12,961	—	12,961	—
Total financial assets	**$ 86,574**	**$ 72,617**	**$ 13,957**	**$ —**

The Company's cash equivalents and short-term investments consist of U.S. Government money market funds, corporate bonds, agency bonds and commercial paper of publicly traded companies. The investments and cash equivalents have been initially valued at the transaction price and subsequently valued, at the end of each reporting period, utilizing third party pricing services or other market observable data. The pricing services utilize industry standard valuation models, including both income and market-based approaches and observable market inputs to determine value. These observable market inputs include reportable trades, benchmark yields, credit spreads, broker/dealer quotes, bids, offers, current spot rates and other industry and economic events. The Company validates the prices provided by third party pricing services by reviewing their pricing methods and matrices, obtaining market values from other pricing sources, analyzing pricing data in certain instances and confirming that the relevant markets are active. After completing its validation procedures, the Company did not adjust or override any fair value measurements provided by the pricing services as of June 30, 2023 or December 31, 2022.

A preferred stock tranche liability was recorded as a result of the entry into the Securities Purchase Agreement (defined herein) (see *Note 11. Capital Stock)*. The fair value measurement of the preferred stock tranche liability is classified as Level 3 under the fair value hierarchy. The fair value of the preferred stock tranche liability was determined using a Monte-Carlo simulation. The inputs to the Monte-Carlo include the risk-free rate, stock price volatility, expected dividends and remaining term. Significant increases or decreases in any of those inputs in isolation could result in a significantly lower or higher fair value measurement.

Below are the inputs used to value the preferred stock tranche liability at January 24, 2023 and June 30, 2023:

	June 30, 2023	January 24, 2023
Risk-free interest rate	5.24-5.47 %	4.41-4.84 %
Volatility	110 %	90 %
Dividend yield	—	—
Remaining term (years)	1.1	1.5

The following table represents a reconciliation of the preferred stock right liability recorded in connection with the entry into the Securities Purchase Agreement:

January 1, 2023	**$ —**
Fair value recognized upon entering into Securities Purchase Agreement	6,940
Fair value adjustment	520
June 30, 2023	**$ 7,460**

Fair Value of Financial Instruments

The fair value of the Company's 2018 issued 5.00% Convertible Senior Notes due 2048 (the "2018 Notes") was approximately $0.3 million as of June 30, 2023, and December 31, 2022, which equals the carrying value of the 2018 Notes on each respective date. The fair value of the 2018 Notes is influenced by the Company's stock price, stock price volatility, and current market yields and was determined using Level 3 inputs.

The fair value of the Company's long-term debt was determined using a discounted cash flow analysis with current applicable rates for similar instruments as of the condensed consolidated balance sheet dates. The Company estimates that the fair value of its long-term debt was approximately $39.3 million as of June 30, 2023, which differs from the carrying value of $39.7 million. The Company estimates that the fair value of its long-term debt was approximately $24.9 million as of December 31, 2022, which differs from the carrying value of $24.5 million. The fair value of the Company's long-term debt was determined using Level 3 inputs.

5. Investments

Cash, cash equivalents, restricted cash and investments consist of the following (in thousands):

	June 30, 2023			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Cash, cash equivalents & restricted cash:				
Cash and money market accounts	$ 181,828	$ —	$ —	$ 181,828
Corporate bonds, agency bonds and commercial paper (due within 90 days)	2,497	1	—	2,498
Total cash, cash equivalents, restricted cash and investments	**$ 184,325**	**$ 1**	**$ —**	**$ 184,326**

	December 31, 2022			
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Fair Value
Cash, cash equivalents & restricted cash:				
Cash and money market accounts	$ 74,794	$ —	$ —	$ 74,794
Corporate bonds, agency bonds and commercial paper (due within 90 days)	995	—	$ —	995
Total cash, cash equivalents & restricted cash:	$ 75,789	$ —	$ —	$ 75,789
Investments:				
Corporate bonds, agency bonds and commercial paper (due within 1 year)	$ 12,961	$ 2	$ (2)	$ 12,961
Total investments	$ 12,961	$ 2	$ (2)	$ 12,961
Total cash, cash equivalents, restricted cash and investments	**$ 88,750**	**$ 2**	**$ (2)**	**$ 88,750**

There were no realized gains or losses on investments for the three or six months ended June 30, 2023, or 2022. Accrued interest receivable is excluded from the amortized cost and estimated fair value of the Company's investments. Accrued interest receivable of $0.2 million and $0.1 million is presented within the prepaid expenses and other current assets on the condensed consolidated balance sheets at June 30, 2023 and December 31, 2022, respectively. There were no investments in an unrealized loss position as of June 30, 2023. There were two debt securities in an unrealized loss position as of December 31, 2022. None of these investments had been in an unrealized loss position for more than 12 months as of December 31, 2022. The fair value of these securities as of December 31, 2022 was $6.0 million and the aggregate unrealized loss was immaterial. The Company considered the decline in the market value for these securities to be primarily attributable to current economic conditions and not credit related. At December 31, 2022, the Company had

the intent and ability to hold such securities until recovery. As a result, the Company did not record any charges for credit-related impairments for its investments as of December 31, 2022.

6. Accrued expenses

Accrued expenses consist of the following (in thousands):

	June 30, 2023	December 31, 2022
Research and development expenses	$ 7,702	$ 8,535
Compensation and related benefits	2,640	3,844
Professional fees	836	469
Consulting fees	1,066	902
Interest	308	192
Commercialization costs	176	148
Other	1,028	893
Total accrued expenses	**$ 13,756**	**$ 14,983**

7. Debt

On March 25, 2022 (the "Closing Date"), the Company entered into a loan and security agreement (the "Loan Agreement") with Oxford, as collateral agent and a lender, and Oxford Finance Credit Fund III LP, as a lender ("OFCF III" and together with Oxford, the "Lenders"), pursuant to which the Lenders have agreed to lend the Company up to an aggregate principal amount of $150.0 million in a series of term loans (the "Term Loans").

Pursuant to the Loan Agreement, the Company received an initial Term Loan of $25.0 million on the Closing Date and may borrow an additional $125.0 million of Term Loans at its option upon the satisfaction of certain conditions as follows:

i. $15.0 million (the "Term B Loan"), when the Company has either (a) received the Regulatory Milestone Payment (as defined in the Secura APA) from Secura of $35.0 million which is due upon receipt of regulatory approval of COPIKTRA in the United States for the treatment of peripheral T-cell lymphoma ("PTCL") or (b) received at least $50.0 million in unrestricted cash proceeds from the sale or issuance of equity securities after the Closing Date (the "Term B Milestones"). The Company may draw the Term B Loan within 60 days after the occurrence of one of the Term B Milestones, but no later than March 31, 2023.

ii. $25.0 million (the "Term C Loan"), when the Company has received accelerated or full approval from the FDA of avutometinib for the treatment of LGSOC (the "Term C Milestone"). The Company may draw the Term C Loan within 60 days after the occurrence of the Term C Milestone, but no later than March 31, 2024.

iii. $35.0 million (the "Term D Loan"), when the Company has achieved at least $50.0 million in gross product revenue calculated on a trailing six-month basis (the "Term D Milestone"). The Company may draw the Term D Loan within 30 days after the occurrence of the Term D Milestone, but no later than March 31, 2025.

iv. $50.0 million (the "Term E Loan"), at the sole discretion of the Lenders.

On March 22, 2023, the Company drew down the $15.0 million Term B Loan, having received at least $50.0 million in unrestricted cash proceeds from the sale or issuance of equity securities.

The Term Loans bear interest at a floating rate equal to (a) the greater of (i) the one-month CME Secured Overnight Financing Rate and (ii) 0.13% plus (b) 7.37%, which is subject to an overall floor and cap. Interest is payable monthly in arrears on the first calendar day of each calendar month. As a result of the Term B Loan drawdown, beginning (i) April 1, 2025, or (ii) April 1, 2026, if either (A) avutometinib has received FDA approval for the treatment of LGSOC or (B) COPIKTRA has received FDA approval for the treatment of PTCL, the Company shall repay the Term

Loans in consecutive equal monthly payments of principal, together with applicable interest, in arrears. All unpaid principal and accrued and unpaid interest with respect to each Term Loan is due and payable in full on March 1, 2027.

The Company is required to make a final payment of 5.0% of the original principal amount of the Term Loans that are drawn, payable at maturity or upon any earlier acceleration or prepayment of the Term Loans (the "Final Payment Fee"). The Company may prepay all, but not less than all, of the Term Loans, subject to a prepayment fee equal to (i) 3.0% of the principal amount of the applicable Term Loan if prepaid on or before the first anniversary date of the funding date of such Term Loan, (ii) 2.0% of the principal amount of the applicable Term Loan if prepaid after the first anniversary and on or before the second anniversary of the funding date of such Term Loan, and (iii) 1.0% of the principal amount of the applicable Term Loan if prepaid after the second anniversary of the applicable funding date of such Term Loan. All Term Loans are subject to a facility fee of 0.5% of the principal amount.

The Loan Agreement contains no financial covenants. The Loan Agreement includes customary events of default, including, among others, payment defaults, breach of representations and warrants, covenant defaults, judgment defaults, insolvency and bankruptcy defaults, and a material adverse change. The occurrence of an event of default could result in the acceleration of the obligations under the Loan Agreement, termination of the Term Loan commitments and the right to foreclose on the collateral securing the obligations. During the existence of an event of default, the Term Loans will accrue interest at a rate per annum equal to 5.0% above the otherwise applicable interest rate.

In connection with the Loan Agreement, the Company granted Oxford a security interest in all of the Company's personal property now owned or hereafter acquired, excluding intellectual property (but including the right to payments and proceeds of intellectual property), and a negative pledge on intellectual property.

The Company assessed all terms and features of the Loan Agreement in order to identify any potential embedded features that would require bifurcation. As part of this analysis, the Company assessed the economic characteristics and risks of the Loan Agreement, including put and call features. The Company determined that all features of the Loan Agreement were clearly and closely associated with a debt host and did not require bifurcation as a derivative liability, or the fair value of the feature was immaterial to the Company's financial statements. The Company reassesses the features on a quarterly basis to determine if they require separate accounting. There have been no changes to the Company's assessment through June 30, 2023.

The debt issuance costs and the Final Payment Fee have been recorded as a debt discount which are being accreted to interest expense through the maturity date of the Term Loan using the effective interest method. The components of the carrying value of the debt as of June 30, 2023, and December 31, 2022, are detailed below (in thousands):

	June 30, 2023	December 31, 2022
Principal loan balance	$ 40,000	$ 25,000
Final Payment Fee	419	225
Debt issuance costs, net of accretion	(680)	(699)
Long-term debt, net of discount	**$ 39,739**	**$ 24,526**

The following table sets forth total interest expense for the three and six month periods ended June 30, 2023 and 2022:

	Three months ended June 30,		Six months ended June 30,	
	2023	2022	2023	2022
Contractual Interest	$ 949	$ 515	$ 1,581	$ 556
Amortization of debt discount and issuance costs	57	54	115	64
Amortization of Final Payment Fee	115	71	194	76
Total	**$ 1,121**	**$ 640**	**$ 1,890**	**$ 696**

As of June 30, 2023, future principal payments due are as follows (in thousands):

2023	—
2024	—
2025	15,000
2026	20,000
2027	5,000
Total principal payments	**$ 40,000**

8. Leases

On April 15, 2014, the Company entered into a lease agreement for approximately 15,197 square feet of office and laboratory space in Needham, Massachusetts. Effective February 15, 2018, the Company amended its lease agreement to relocate within the facility to another location consisting of 27,810 square feet of office space (the “Amended Lease Agreement”). The Amended Lease Agreement extended the expiration date of the lease from September 2019 through June 2025. Pursuant to the Amended Lease Agreement, the initial annual base rent amount is approximately $0.7 million, which increases during the lease term to $1.1 million for the last twelve-month period.

The Company accounted for its Needham, Massachusetts office space as an operating lease. The Company’s lease contains an option to renew and extend the lease terms and an option to terminate the lease prior to the expiration date. The Company has not included the lease extension or the termination options within the right-of-use asset and lease liability on the condensed consolidated balance sheets as neither option is reasonably certain to be exercised. The Company’s lease includes variable non-lease components (e.g., common area maintenance, maintenance, consumables, etc.) that are not included in the right-of-use asset and lease liability and are reflected as an expense in the period incurred. The Company does not have any other operating or finance leases.

As of June 30, 2023, a right-of-use asset of $1.5 million and lease liability of $1.9 million are reflected on the condensed consolidated balance sheets. The elements of lease expense were as follows (dollar amounts in thousands):

	Three months ended June 30,		Six months ended June 30,	
	2023	2022	2023	2022
Lease Expense				
Operating lease expense	$ 221	$ 221	$ 442	$ 442
Total Lease Expense	**$ 221**	**$ 221**	**$ 442**	**$ 442**
Other Information - Operating Leases				
Operating cash flows paid for amounts included in measurement of lease liabilities	$ 262	$ 257	$ 525	$ 514

	June 30, 2023
Other Balance Sheet Information - Operating Leases	
Weighted average remaining lease term (in years)	2.0
Weighted average discount rate	14.6%
Maturity Analysis	
2023	535
2024	1,081
2025	546
Total	**$ 2,162**
Less: Present value discount	(275)
Lease Liability	**$ 1,887**

9. Notes Payable

In February 2023, the Company entered into a finance agreement with AFCO Premium Credit LLC (“AFCO”). Pursuant to the terms of the agreement, AFCO loaned the Company the principal amount of $1.4 million, which accrues interest at 7.4% per annum, to fund a portion of the Company’s insurance policies. The Company is required to make monthly payments of $0.1 million through October 2023 including principal and interest. The agreement assigns AFCO a security interest in (i) all unearned premiums and dividends which may become payable under the insurance policies financed pursuant to this agreement, (ii) loss payments which reduce the unearned premiums, and (iii) the Company’s interest in any state insurance guarantee fund related to any of the insurance policies financed pursuant to this agreement. The outstanding balance at June 30, 2023 was $0.6 million recorded as note payable on the condensed consolidated balance sheets.

10. Convertible Senior Notes

2018 Notes

On October 17, 2018, the Company closed a registered direct public offering of $150.0 million aggregate principal amount of 2018 Notes for net proceeds of approximately $145.3 million. The 2018 Notes are governed by the terms of a base indenture for senior debt securities (the “2018 Base Indenture”), as supplemented by the first supplemental indenture thereto (the “2018 Notes Supplemental Indenture” and together with the 2018 Base Indenture, the “2018 Indenture”), each dated October 17, 2018, by and between the Company and Wilmington Trust, National Association (“Wilmington”), as trustee. The 2018 Notes are senior unsecured obligations of the Company and bear interest at a rate of 5.00% per annum, payable semi-annually in arrears on May 1 and November 1 of each year, beginning on May 1, 2019. The 2018 Notes will mature on November 1, 2048, unless earlier repurchased, redeemed or converted in accordance with their terms.

The 2018 Notes are convertible into shares of the Company's common stock, par value $0.0001 per share, together, if applicable, with cash in lieu of any fractional share, at a conversion rate of 11.6314 shares of common stock per $1,000 principal amount of the 2018 Notes, such conversion rate reflects an adjustment to account for the Reverse Stock Split. Upon conversion, converting noteholders will be entitled to receive accrued interest on their converted 2018 Notes.

The Company has the right, exercisable at its option, to cause all 2018 Notes then outstanding to be converted automatically if the "Daily VWAP" (as defined in the 2018 Indenture) per share of the Company's common stock equals or exceeds 130% of the conversion price on each of at least 20 VWAP Trading Days (as defined in the 2018 Indenture), whether or not consecutive, during any 30 consecutive VWAP Trading Day period commencing on or after the date the Company first issued the 2018 Notes.

The conversion rate is subject to adjustment from time to time upon the occurrence of certain events, including, but not limited to, the issuance of stock dividends and payment of cash dividends, but will not be adjusted for any accrued and unpaid interest.

Prior to November 1, 2022, the Company did not have the right to redeem the 2018 Notes. After November 1, 2022, the Company may elect to redeem the 2018 Notes, in whole or in part, at a cash redemption price equal to the principal amount of the 2018 Notes to be redeemed, plus accrued and unpaid interest, if any.

Unless the Company has previously called all outstanding 2018 Notes for redemption, the 2018 Notes will be subject to repurchase by the Company at the holders' option on each of November 1, 2023, November 1, 2028, November 1, 2033, November 1, 2038 and November 1, 2043 (or, if any such date is not a business day, on the next business day) at a cash repurchase price equal to the principal amount of the 2018 Notes to be repurchased, plus accrued and unpaid interest, if any.

If a "Fundamental Change" (as defined in the 2018 Indenture) occurs at any time, subject to certain conditions, holders may require the Company to purchase all or any portion of their 2018 Notes at a purchase price equal to 100% of the principal amount of the 2018 Notes to be purchased, plus accrued and unpaid interest.

The 2018 Indenture includes customary covenants and set forth certain events of default after which the 2018 Notes may be declared immediately due and payable and set forth certain types of bankruptcy or insolvency events of default involving the Company or certain of its subsidiaries after which the 2018 Notes become automatically due and payable.

The Company determined that the expected life of the 2018 Notes was equal to the period through November 1, 2023, as this represents the point at which the 2018 Notes are subject to repurchase by the Company at the option of the holders. Accordingly, for the 2018 Notes, the total debt discount, inclusive of the fair value of the embedded conversion feature derivative at issuance is being amortized using the effective interest method through November 1, 2023 at the effective interest rate of 15.65%.

The Company assessed all terms and features of the 2018 Notes in order to identify any potential embedded features that would require bifurcation. As part of this analysis, the Company assessed the economic characteristics and risks of the 2018 Notes, including the conversion, put and call features. The conversion feature was initially bifurcated as an embedded derivative but subsequently qualified for a scope exception to derivative accounting upon the Company's stockholders approving an increase in the number of authorized shares of common stock in December 2018. The Company determined that all other features of the 2018 Notes were clearly and closely associated with the debt host and did not require bifurcation as a derivative liability, or the fair value of the feature was immaterial to the Company's condensed consolidated financial statements. The Company reassesses the features on a quarterly basis to determine if they require separate accounting. There have been no changes to the Company's original assessment through June 30, 2023.

The components of the carrying value of the 2018 Notes as of June 30, 2023 and December 31, 2022 are detailed below (in thousands):

	June 30, 2023	December 31, 2022
2018 Notes principal balance	$ 300	$ 300
Debt issuance costs, net of accretion	(10)	(25)
2018 Notes, net	**$ 290**	**$ 275**

2019 Notes

In the fourth quarter of 2019, the Company entered into privately negotiated agreements to exchange approximately $121.7 million aggregate principal amount of the 2018 Notes for (i) approximately $66.9 million aggregate principal amount of 5.00% Convertible Senior Second Lien Notes due 2048 (the "2019 Notes"), (ii) an aggregate of approximately $12.1 million in 2018 Notes principal repayment and (iii) accrued interest on the 2018 Notes through the exchange date. As of March 31, 2020, all 2019 Notes had converted into shares of common stock and are no longer outstanding.

2020 Notes

On November 6, 2020, the Company entered into a privately negotiated agreement with an investor who was a holder of the Company's 2018 Notes to exchange approximately $28.0 million aggregate principal amount of 2018 Notes for approximately $28.0 million aggregate principal amount of newly issued 5.00% Convertible Senior Notes due 2048 (the "2020 Notes"). The issuance of the 2020 Notes closed on November 13, 2020. In the third quarter of 2021, all 2020 Notes have converted into shares of common stock and are no longer outstanding.

11. Capital stock

Under the amended and restated certificate of incorporation, the Company's board of directors has the authority, without further action by the stockholders, to issue up to 5,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the rights, preferences and privileges of the shares of each wholly unissued series and any qualifications, limitations or restrictions thereon and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

June 2023 Public Offering

On June 15, 2023, the Company entered into an underwriting agreement (the "Underwriting Agreement") with RBC Capital Markets, LLC and Cantor Fitzgerald & Co. ("Cantor"), as representatives of several underwriters (the "Underwriters") to offer 7,181,409 shares of the Company's common stock, at a price to the public of $9.75 per share, less the underwriting discounts and commissions, and, in lieu of shares of common stock to certain investors, pre-funded warrants to purchase up to an aggregate of 1,538,591 shares of common stock at a price to the public of $9.749 (the "Pre-Funded Warrants") per Pre-Funded Warrant, which represents the per share public offering price for the shares of common stock less the $0.001 per share exercise price for each such Pre-Funded Warrant (the "June 2023 Offering"). In addition, the Company granted the Underwriters an option to purchase, at the public offering price less any underwriting discounts and commissions, an additional 1,308,000 shares of common stock, exercisable for 30 days from the date of the Underwriting Agreement, which the Underwriters exercised in full on June 16, 2023. The June 2023 Offering closed on June 21, 2023.

The Company 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 if, upon giving effect to such exercise, the aggregate number of shares of common stock beneficially owned by the holder (together with its affiliates) would exceed 9.99% of the number of shares of common stock outstanding immediately after giving effect to the exercise, which percentage may be increased

or decreased at the holder's election upon 61 days' notice to the Company subject to the terms of such Pre-Funded Warrants, provided that such percentage may in no event exceed 19.99%.

Each Pre-Funded Warrant has an exercise price equal to $0.001 per share of common stock. The exercise price and the number of shares of common stock issuable upon exercise of each Pre-Funded Warrant is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting the Company's common stock as well as upon any distribution of assets, including cash, stock or other property, to the Company's stockholders. The Pre-Funded Warrants are expirable as of June 21, 2023, do not expire and are exercisable in cash or by means of a cashless exercise. In addition, upon the consummation of an acquisition (as described in the Pre-Funded Warrant agreements), each Pre-Funded Warrant will automatically be converted into the right of the holder of such Pre-Funded Warrant to receive the kind and amount of securities, cash or other property that such holders would have received had they exercised such Pre-Funded Warrant immediately prior to such acquisition, without regard to any limitations on exercise contained in the Pre-Funded Warrants

The Pre-Funded Warrants cannot not require cash settlement, are freestanding financial instruments that are legally detachable and separately exercisable from the shares of common stock with which they were issued, are immediately exercisable, and do not embody an obligation for the Company to repurchase its common stock shares and permit the holders to receive a fixed number of shares of common stock upon exercise. Additionally, the Pre-Funded Warrants do not provide any guarantee of value or return. Accordingly, the Pre-Funded Warrants are classified as a component of permanent equity. After deducting for commissions and other offering expenses, the Company received net proceeds of approximately $91.4 million from the sale of 8,489,409 shares of common stock and 1,538,591 Pre-Funded Warrants, of which approximately $0.5 million of offering expenses is within accounts payable and accrued expenses as of June 30, 2023.

Series B Convertible Preferred Stock

On January 24, 2023, the Company entered into a Securities Purchase Agreement (the "Securities Purchase Agreement") with certain purchasers pursuant to which the Company agreed to sell and issue to the purchasers in a private placement (the "Private Placement") up to 2,144,160 shares of its Series B convertible preferred stock, par value $0.0001 per share (the "Series B Convertible Preferred Stock"), in two tranches. On January 24, 2023, the Company filed the Certificate of Designation of the Preferences, Rights and Limitations of the Series B Convertible Preferred Stock (the "Series B Convertible Preferred Stock Certificate of Designation") setting forth the preferences, rights and limitations of the Series B Convertible Preferred Stock with the Secretary of State of the State of Delaware. The Series B Convertible Preferred Stock Certificate of Designation became effective upon filing.

Each share of the Series B Convertible Preferred Shares is convertible into 3.5305 shares of the Company's common stock, such conversion rate reflects an adjustment to account for the Reverse Stock Split, at the option of the holders at any time, subject to certain limitations, including that the holder will be prohibited from converting Series B Convertible Preferred Stock into common stock if, as a result of such conversion, the holder, together with its affiliates, would beneficially own a number of shares of common stock above a conversion blocker, which is initially set at 9.99% (the "Conversion Blocker") of the total common stock then issued and outstanding immediately following the conversion of such shares of Series B Convertible Preferred Stock. Holders of the Series B Convertible Preferred Stock are permitted to increase the Conversion Blocker to an amount not to exceed 19.99% upon 60 days' notice.

The Company agreed to sell and issue in the first tranche of the Private Placement 1,200,000 shares of Series B Convertible Preferred Stock at a purchase price of $25.00 per share of Series B Convertible Preferred Stock (equivalent to $7.0812 per share of common stock on a post-Reverse Stock Split basis). 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 ("Series B Convertible Preferred Stock Proceeds").

In addition, the Company agreed to sell and issue in the second tranche of the Private Placement 944,160 shares of Series B Convertible Preferred Stock at a purchase price of $31.77 per share of Series B Convertible Preferred Stock (equivalent to $9.00 per share of common stock on a post-Reverse Stock Split basis) 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 $13.50 per share, such threshold reflects an adjustment to account for the Reverse Stock Split (which may be further 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 Right"). 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 Right 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.

The Series B Convertible Preferred Stock ranks (i) senior to the common stock; (ii) senior to all other classes and series of equity securities of the Company that by their terms do not rank senior to the Series B Convertible Preferred Stock; (iii) senior to all shares of the Company's Series A Convertible Preferred Stock the equity securities described in (i)-(iii), the "Junior Stock"); (iv) on parity with any class or series of capital stock of the Company hereafter created specifically ranking by its terms on parity with the Series B Convertible Preferred Stock (the "Parity Stock"); (v) junior to any class or series of capital stock of the Company hereafter created specifically ranking by its terms senior to any Series B Convertible Preferred Stock ("Senior Stock"); and (vi) junior to all of the Company's existing and future debt obligations, including convertible or exchangeable debt securities, in each case, as to distributions of assets upon liquidation, dissolution or winding up of the Company, whether voluntarily or involuntarily and as to the right to receive dividends.

In the event of the liquidation, dissolution or winding up of the affairs of the Company, whether voluntary or involuntary, after payment or provision for payment of the debts and other liabilities of the Company, and subject to the prior and superior rights of any Senior Stock, each holder of shares of Series B Convertible Preferred Stock will be entitled to receive, in preference to any distributions of any of the assets or surplus funds of the Company to the holders of the common stock and any of the Company's securities that are Junior Stock and pari passu with any distribution to the holders of any Parity Stock, an amount equal to $1.00 per share of Series B Convertible Preferred Stock, plus an additional amount equal to any dividends declared but unpaid on such shares, before any payments shall be made or any assets distributed to holders of the common stock or any of our securities that Junior Stock.

So long as any shares of the Series B Convertible Preferred Stock remain outstanding, the Company cannot without the affirmative vote or consent of the holders of majority of the shares of the Series B Convertible Preferred Stock then-outstanding, in which the holders of the Series B Convertible Preferred Stock vote separately as a class: (a) amend, alter, modify or repeal (whether by merger, consolidation or otherwise) the Series B Convertible Preferred Stock Certificate of Designation, the Company's certificate of incorporation, or the Company's bylaws in any manner that adversely affects the rights, preferences, privileges or the restrictions provided for the benefit of, the Series B Convertible Preferred Stock; (b) issue further shares of Series B Convertible Preferred Stock or increase or decrease (other than by conversion) the number of authorized shares of Series B Convertible Preferred Stock; (c) authorize or issue any Senior Stock; or (d) enter into any agreement to do any of the foregoing that is not expressly made conditional on obtaining the affirmative vote or written consent of the majority of then-outstanding Series B Convertible Preferred Stock. Holders of Series B Convertible Preferred Stock are entitled to receive when, as and if dividends are declared and paid on the common stock, an equivalent dividend, calculated on an as-converted basis. Shares of Series B Convertible Preferred Stock are otherwise not entitled to dividends.

The Company classified the first tranche of the Series B Convertible Preferred Stock as temporary equity in the condensed consolidated balance sheets as the Company could be required to redeem the Series B Convertible Preferred Stock if the Company cannot convert the Series B Convertible Preferred Stock into shares of common stock for any reason including due to any applicable laws or by the rules or regulations of any stock exchange, interdealer quotation system, or other self-regulatory organization with jurisdiction over the Company which is not solely in the control of the Company. If the Company were required to redeem the Series B Convertible Preferred Stock, it would be based upon the volume-weighted-average price of common stock on an as converted basis on the date the holders provided a conversion notice to the Company. As of June 30, 2023, the Company did not adjust the carrying value of the Series B Convertible Preferred Stock since it was not probable the holders would be unable to convert the Series B Convertible Preferred

Stock into shares of common stock due to any reason including due to any applicable laws or by the rules or regulations of any stock exchange, interdealer quotation system, or other self-regulatory organization with jurisdiction over the Company.

The Company evaluated the Second Tranche Right under ASC 480 and determined that it met the requirements for separate accounting from the initial issuance of Series B Convertible Preferred Stock as a freestanding financial instrument. The Company then determined the Second Tranche Right should be liability classified pursuant to ASC 480. As a result, the Company classified the Second Tranche Right as a non-current liability within the condensed consolidated balance sheets and the Second Tranche Right was initially recorded at fair value and is subsequently re-measured at fair value at the end of each reporting period. The fair value of the Second Tranche Right on the date of issuance was determined to be $6.9 million based on a Monte-Carlo valuation and the Company allocated $6.9 million of the Series B Convertible Preferred Stock Proceeds to this liability and recorded this amount as preferred stock tranche liability. On June 30, 2023, the fair value of the Second Tranche Right was determined to be $7.5 million, and the Company recorded this amount as preferred stock tranche liability on the condensed consolidated balance sheets. The Company recorded the mark-to-market adjustment of $4.0 million and $0.5 million, for the three and six months ended June 30, 2023, respectively, under change in fair value of preferred stock tranche liability within the condensed consolidated statements of operations and loss.

The Company determined that all other features of the securities offered pursuant to the Securities Purchase Agreement were clearly and closely associated with the equity host and did not require bifurcation or the fair value of the feature was immaterial to the Company's condensed consolidated financial statements. The Company reassesses the features on a quarterly basis to determine if they require separate accounting. There have been no changes to the Company’s original assessment through June 30, 2023.

Series A Convertible Preferred Stock

On November 4, 2022, the Company entered into an exchange agreement (the “Exchange Agreement”) with Biotechnology Value Fund, L.P., Biotechnology Value Fund II, L.P., Biotechnology Value Trading Fund OS LP and MSI BVF SPV, LLC (collectively referred to as “BVF”), pursuant to which BVF exchanged 833,333 shares of the Company’s common stock (as adjusted to account for the Reverse Stock Split) for 1,000,000 shares of newly designated Series A convertible preferred stock, par value $0.0001 per share (the “Series A Convertible Preferred Stock”) (the “Exchange”).

Each share of the Series A Convertible Preferred Stock is convertible into 0.833 shares of the Company’s common stock (as adjusted to account for the Reverse Stock Split) at the option of the holder at any time, subject to certain limitations, including that the holder will be prohibited from converting Preferred Stock into common stock if, as a result of such conversion, the holder, together with its affiliates, would beneficially own a number of shares of common stock above a conversion blocker, which is initially set at 9.99% (the “Conversion Blocker”) of the total common stock then issued and outstanding immediately following the conversion of such shares of Preferred Stock. Holders of the Series A Preferred Stock are permitted to increase the Conversion Blocker to an amount not to exceed 19.99% upon 60 days’ notice.

Shares of Series A Convertible Preferred Stock will generally have no voting rights, except as required by law and except that the consent of a majority of the holders of the outstanding Series A Convertible Preferred Stock will be required to amend the terms of the Series A Convertible Preferred Stock. In the event of the Company’s liquidation, dissolution or winding up, holders of Series A Convertible Preferred Stock will participate pari passu with any distribution of proceeds to holders of common stock. Holders of Series A Preferred Stock are entitled to receive when, as and if dividends are declared and paid on the common stock, an equivalent dividend, calculated on an as-converted basis. Shares of Series A Convertible Preferred Stock are otherwise not entitled to dividends.

The Series A Convertible Preferred Stock (i) senior to any class or series of capital stock of the Company hereafter created specifically ranking by its terms junior to the Series A Convertible Preferred Stock; (ii) on parity with the common stock and any class or series of capital stock of the Company created specifically ranking by its terms on parity with the Series A Convertible Preferred Stock; and (iii) junior to the Series B Convertible Preferred Stock and to any class or series of capital stock of the Company created specifically ranking by its terms senior to any Series A Convertible Preferred

Stock, in each case, as to distributions of assets upon liquidation, dissolution or winding up of the Company, whether voluntarily or involuntarily.

At-the-market equity offering program

In August 2021, the Company entered into a sales agreement with Cantor pursuant to which the Company can offer and sell up to $100.0 million of its common stock at the current market prices from time to time through Cantor as sales agent (the "August 2021 ATM"). During the three and six months ended June 30, 2022, the Company sold 83,870 shares and 107,694 shares (each as adjusted to account for the Reverse Stock Split), respectively, under the August 2021 ATM for net proceeds of approximately $1.2 million and $1.8 million, respectively, (after deducting commissions and other offering expenses). There were no sales under the August 2021 ATM for the six months ended June 30, 2023.

12. Stock-based compensation

Stock options

A summary of the Company's stock option activity and related information for the six months ended June 30, 2023 is as follows:

	Shares	Weighted-average exercise price per share	Weighted-average remaining contractual term (years)	Aggregate intrinsic value (in thousands)
Outstanding at December 31, 2022	1,168,105	$ 33.63	7.1	$ 18
Granted	884,749	7.77		
Forfeited/cancelled	(33,416)	49.17		
Expired	(12,415)	116.92		
Outstanding at June 30, 2023	2,007,023	$ 21.45	8.0	$ 257
Vested at June 30, 2023	786,462	$ 35.28	6.1	$ 36

The fair value of each stock option granted during the six months ended June 30, 2023 and 2022 was estimated on the grant date using the Black-Scholes option-pricing model using the following weighted-average assumptions:

	Six months ended June 30,	
	2023	2022
Risk-free interest rate	3.56 %	2.82 %
Volatility	90 %	87 %
Dividend yield	—	—
Expected term (years)	6.1	5.6

Restricted stock units

A summary of the Company's restricted stock unit activity and related information for the six months ended June 30, 2023 is as follows:

	Shares	Weighted-average grant date fair value per share
Outstanding at December 31, 2022	172,909	$ 25.82
Granted	8,058	$ 6.52
Vested	(34,183)	$ 26.15
Forfeited/cancelled	(4,451)	$ 16.31
Outstanding at June 30, 2023	142,333	$ 24.95

Employee stock purchase plan

At the Special Meeting of Stockholders, held on December 18, 2018, the stockholders approved the 2018 Employee Stock Purchase Plan ("2018 ESPP"). On June 21, 2019, the board of directors of the Company amended and restated the 2018 ESPP, to account for certain non-material changes to the plan's administration and, effective May 30, 2023, in connection with the Reverse Stock Split, the board of directors amended and restated the 2018 ESPP to account for the adjustments to the share reserves (the "Amended and Restated 2018 ESPP"). The Amended and Restated 2018 ESPP provides eligible employees with the opportunity, through regular payroll deductions, to purchase shares of the Company's common stock at 85% of the lesser of the fair market value of the common stock on (a) the date the option is granted, which is the first day of the purchase period, and (b) the exercise date, which is the last business day of the purchase period. The Amended and Restated 2018 ESPP generally allows for two six-month purchase periods per year beginning in January and July, or such other periods as determined by the compensation committee of the Company's board of directors. The fair value of shares expected to be purchased under the Amended and Restated 2018 ESPP was calculated using the following weighted-average assumptions:

	Six months ended June 30,	
	2023	2022
Risk-free interest rate	4.77 %	0.22 %
Volatility	106 %	50 %
Dividend yield	—	—
Expected term (years)	0.5	0.5

For the six months ended June 30, 2023 and 2022, the Company recognized less than $0.1 million in each period of stock-based compensation expense under the Amended and Restated 2018 ESPP. During the six months ended June 30, 2023, the Company issued 6,874 shares of common stock (as adjusted to account for the Reverse Stock Split) for proceeds of less than $0.1 million under the Amended and Restated 2018 ESPP.

13. Net loss per share

Basic loss per common share is calculated by dividing net loss applicable to common stockholders by the weighted-average number of common shares outstanding during the period. For purposes of calculating net loss per share, weighted-average number of common shares outstanding includes the weighted average effect of the Pre-Funded Warrants issued in June 2023, the exercise of which requires little or no consideration for the delivery of shares of common stock. Diluted net loss per common share is calculated by increasing the denominator by the weighted-average number of additional shares that could have been outstanding from securities convertible into common stock, such as stock options, restricted stock units, and employee stock purchase plan shares (using the "treasury stock" method), and the 2018 Notes, Series A Convertible Preferred Stock, and Series B Convertible Preferred Stock (using the "if-converted" method), unless their effect on net loss per share is anti-dilutive.

The following potentially dilutive securities (each as adjusted to reflect the Reverse Stock Split) were excluded from the calculation of diluted net loss per share for the periods indicated because including them would have had an anti-dilutive effect:

	Three months ended June 30,		Six months ended June 30,	
	2023	2022	2023	2022
Outstanding stock options	2,007,023	1,378,172	2,007,023	1,378,172
Outstanding restricted stock units	142,333	216,797	142,333	216,797
2018 Notes	3,489	3,489	3,489	3,489
Employee stock purchase plan	7,396	5,391	7,396	5,391
Series A Convertible Preferred Stock	833,333	—	833,333	—
Series B Convertible Preferred Stock	4,236,570	—	4,236,570	—
Total potentially dilutive securities	**7,230,144**	**1,603,849**	**7,230,144**	**1,603,849**

14. License, collaboration and commercial agreements

Secura

On August 10, 2020, the Company and Secura signed the Secura APA and on September 30, 2020, the transaction closed.

Pursuant to the Secura APA, the Company sold to Secura its exclusive worldwide license, including related assets, for the research, development, commercialization, and manufacture in oncology indications of products containing duvelisib. The sale included certain intellectual property related to duvelisib in oncology indications, certain existing duvelisib inventory, claims and rights under certain contracts pertaining to duvelisib. Pursuant to the Secura APA, Secura assumed all operational and financial responsibility for activities that were part of the Company's duvelisib oncology program, including all commercialization efforts related to duvelisib in the United States and Europe, as well as the Company's ongoing duvelisib clinical trials. Further, Secura assumed all obligations with existing collaboration partners developing and commercializing duvelisib, which include Yakult Honsha Co., Ltd. ("Yakult"), CSPC Pharmaceutical Group Limited ("CSPC"), and Sanofi. Additionally, Secura assumed all royalty payment obligations due under the amended and restated license agreement with Infinity Pharmaceuticals, Inc.

Pursuant to the terms of the Secura APA, Secura paid the Company an up-front payment of $70.0 million in September 2020 and has agreed to pay the Company (i) regulatory milestone payments up to $45.0 million, consisting of a payment of $35.0 million upon receipt of regulatory approval of COPIKTRA in the United States for the treatment of PTCL and a payment of $10.0 million upon receipt of the first regulatory approval for the commercial sale of COPIKTRA in the European Union for the treatment of PTCL, (ii) sales milestone payments of up to $50.0 million, consisting of $10.0 million when total worldwide net sales of COPIKTRA exceed $100.0 million, $15.0 million when total worldwide net sales of COPIKTRA exceed $200.0 million and $25.0 million when total worldwide net sales of COPIKTRA exceed $300.0 million, (iii) low double-digit royalties on the annual aggregate net sales above $100.0 million in the United States, European Union, and the United Kingdom of Great Britain and Northern Ireland and

(iv) 50% of all royalty, milestone and sublicense revenue payments payable to Secura under the Company's existing license agreements with Sanofi, Yakult, and CSPC, and 50% of all royalty and milestone payments payable to Secura under any license or sublicense agreement entered into by Secura in certain jurisdictions.

The Company evaluated the Secura APA in accordance with ASC 606 as the Company concluded that the counterparty, Secura, is a customer. The Company identified the following bundled performance obligation under the Secura APA:

- a bundled performance obligation consisting of delivery of the duvelisib global license and intellectual property, certain existing duvelisib inventory, certain duvelisib contracts and clinical trials, certain regulatory approvals, and certain regulatory documentation and books and records (the "Bundled Secura Performance Obligation").

The Company concluded that the duvelisib global license and intellectual property were not distinct within the context of the contract (i.e. separately identifiable) because the other assets including certain existing duvelisib inventory, certain duvelisib contracts and clinical trials, certain regulatory approval, and certain regulatory documentation and books and records do not have stand-alone value from other duvelisib global license and intellectual property and Secura could not benefit from them without the duvelisib global license and intellectual property. Consistent with the guidance under ASC 606-10-25-16A, the Company disregarded immaterial promised goods and services when determining performance obligations.

The Company has determined that the upfront payment of $70.0 million, future potential milestone payments and royalties including from Secura's sublicensees should be allocated to the delivery of the Bundled Secura Performance Obligation.

The Company determined $0.1 million of future potential royalties the Company expects to receive pursuant to the Secura APA were not constrained as of June 30, 2023. When estimating the amount of royalties to be received that were not constrained, the Company used the expected value method as there are a range of possible outcomes. When estimating royalties to be received, the Company used a combination of internal projections and forecasts and data from external sources. The Company determined that all other future potential royalties were constrained under the guidance as of June 30, 2023. As part of the Company's evaluation of the constraint on future royalties, the Company considered a number of factors in determining whether there is significant uncertainty associated with future events that would result in royalty payments. Those factors include: the likelihood and magnitude of revenue reversals related to future royalties, the amount of variable consideration is highly susceptible to factors outside of the Company's influence, the amount of time to resolve the uncertainty, and lack of significant history of selling COPIKTRA outside of the United States.

As the consideration for future royalties is conditional, the Company recorded a corresponding contract asset for the expected royalties. Portions of the contract asset are reclassified to accounts receivable when the right to consideration becomes unconditional. As of June 30, 2023 and December 31, 2022, the contract asset has been recorded within prepaid and other current assets on the condensed consolidated balance sheets.

The following table presents changes in the Company's contract asset for the six months ended June 30, 2023 (in thousands):

Contract Asset:	December 31, 2022	Additions	Reclassification to receivable	June 30, 2023
Contract asset - Secura	$ 96	$ —	$ (34)	$ 62
Total	$ 96	$ —	$ (34)	$ 62

During three and six months ended June 30, 2023, the Company determined all future potential milestones were excluded from the transaction price, as all other milestone amounts were fully constrained under the guidance as of June 30, 2023. As part of the Company's evaluation of the constraint, the Company considered a number of factors in determining whether there is significant uncertainty associated with the future events that would result in the milestone payments. Those factors included: the likelihood and magnitude of revenue reversals related to future milestones, the amount of variable consideration that is highly susceptible to factors outside of the Company's influence and the uncertainty about the consideration is not expected to be resolved for an extended period of time. All future potential milestone payments were fully constrained as the risk of significant revenue reversal related to these amounts has not yet been resolved.

During the three and six months ended June 30, 2022, the Company recognized $0.0 million and $2.6 million, respectively, of sale of COPIKTRA license and related assets revenue within the statements of operations and comprehensive loss. The sale of COPIKTRA license and related assets revenue for the six months ended June 30, 2022 primarily related to one regulatory milestone for $2.5 million achieved by Secura's sublicensee, CSPC, and $0.1 million related to royalties on COPIKTRA sales in the six months ended June 30, 2022, and future royalties expected to be received pursuant to the Secura APA that were not constrained.

15. Income taxes

The Company did not record a federal or state income tax provision or benefit for the three and six months ended June 30, 2023 and 2022, respectively, due to the expected loss before income taxes to be incurred for the years ended December 31, 2023 and 2022, as well as the Company's continued maintenance of a full valuation allowance against its net deferred tax assets.

16. Commitments and contingencies

The Company has no other commitments other than minimum lease payments as disclosed in *Note 8. Leases.*

17. Subsequent events

The Company reviews all activity subsequent to the end of the quarter but prior to issuance of the condensed consolidated financial statements for events that could require disclosure or that could impact the carrying value of assets or liabilities as of the balance sheet date. The Company is not aware of any material subsequent events.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

You should read the following discussion and analysis of our financial condition and results of operations together with our condensed consolidated financial statements and related notes appearing elsewhere in this Quarterly Report on Form 10-Q. The following discussion contains forward-looking statements that involve risks and uncertainties. Our actual results and the timing of certain events could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including those discussed below and elsewhere in this Quarterly Report on Form 10-Q and in our Annual Report on Form 10-K for our fiscal year ended December 31, 2022. Please also refer to the sections under headings "Forward-Looking Statements" and "Risk Factors" in this Quarterly Report on Form 10-Q and in our Annual Report on Form 10-K for our fiscal year ended December 31, 2022.

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 RAF/ MEK inhibition and 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.

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 (RAF and MEK Program) 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, additional cohorts were added to the RAMP 202 study including KRAS non-G12V NSCLC and BRAF mutant (V600E and non-V600E) NSCLC.

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. The combination of avutometinib with defactinib has been selected versus monotherapy as the go-forward treatment in all recurrent LGSOC regardless of KRAS status, acknowledging the demonstrated contribution of defactinib.

Updated Results of Avutometinib and Defactinib Combination in RAMP 201 Part A

In Part A of the RAMP 201 study, 31 patients with recurrent LGSOC were treated with the combination of avutometinib and defactinib, of which 29 were evaluable for efficacy with a minimum follow-up of 12 months and 13 patients remain on study treatment.

Overall, patients were heavily pretreated with a median of 4 prior systemic regimens (up to 11), including prior platinum-based chemotherapy, endocrine therapy and bevacizumab in most patients and prior MEK inhibitor therapy in about 13% of patients. Confirmed objective response rates ("ORR") by blinded independent central review of 45% (13/29; 95% CI: 26%-64%) were observed. Tumor shrinkage was observed in the majority of patients, 86% (25/29). Further, 3 out of 4 patients who received prior MEK inhibitors responded to the combination.

Among the patients with KRAS mutant LGSOC, the ORR was 60% (9/15) in the combination arm. Among the patients with KRAS wild type LGSOC, the ORR was 29% (4/14). The median time to response was 5.5 months (range 1.6-14.7 months). The median duration of response and median progression free survival have not been reached.

An abstract highlighting these updated interim results from Part A of RAMP 201 has been presented in a Poster Discussion Session at the American Society of Clinical Oncology (ASCO) annual meeting that took place June 2-6, 2023 in Chicago, Illinois.

We intend to include mature data from the RAMP 201 study and the FRAME study, an investigator-sponsored Phase 1/2 study, to potentially support filing for accelerated approval in patients with recurrent LGSOC. Both studies are evaluating avutometinib and defactinib in patients with recurrent LGSOC. In July 2023, we announced that we have finalized the design of our confirmatory Phase 3 trial with the FDA to evaluate the efficacy and safety of avutometinib and defactinib versus statement of care chemotherapy and hormonal therapy in patients with recurrent LGSOC. The trial is entitled RAMP 301 and is expected to begin enrollment in the second half of 2023.

Target enrollment of the primary cohort (n=72) in the combination arm of RAMP 201 has been completed. Continued enrollment in the combination arm of RAMP 201 is ongoing to expand the clinical experience in anticipation of RAMP 301.

In September 2021, we entered into a clinical collaboration agreement with Amgen, Inc. ("Amgen") to evaluate the combination of avutometinib with Amgen's KRAS G12C inhibitor LUMAKRAS® (sotorasib) in a Phase 1/2 trial

entitled RAMP 203. The Phase 1/2 trial will evaluate the safety, tolerability and efficacy of avutometinib in combination with LUMAKRAS in patients with KRAS G12C NSCLC who have not been previously treated with a KRAS G12C inhibitor, as well as in patients who have progressed on a KRAS-G12C inhibitor. The study will investigate the potential benefits of a more complete vertical blockade of the MAPK pathway with the combination of avutometinib (RAF/MEK inhibition) with LUMAKRAS (KRAS G12C inhibition) in KRAS G12C locally advanced or metastatic NSCLC. The RAMP 203 trial has progressed to the recommended Phase 2 dose of 4 mg avutometinib in combination with 960 mg of LUMAKRAS and initiation of Part B dose expansion in patients who are G12C inhibitor treatment naïve and in patients who experienced disease progression on prior G12C monotherapy.

In November 2021, we entered into a clinical collaboration agreement with Mirati Therapeutics, Inc. ("Mirati") to evaluate the combination of avutometinib with Mirati's KRAS G12C inhibitor KRAZATI® (adagrasib) in a Phase 1/2 trial entitled RAMP 204. The Phase 1/2 trial will evaluate the safety, tolerability and efficacy of avutometinib in combination with KRAZATI in patients with KRAS G12C NSCLC who have progressed on a KRAS G12C inhibitor. The trial will build on preclinical data showing a deeper blockade of MAPK pathway signaling resulting in enhanced anti-tumor efficacy with the combination of KRAZATI (KRAS G12C inhibition) and avutometinib (RAF/MEK inhibition) relative to either agent alone. The RAMP 204 trial is open and enrolling. Dose escalation is ongoing.

In May 2022, we received the first "Therapeutic Accelerator Award" from the Pancreatic Cancer Network ("PanCAN") for up to $3.8 million. The grant is expected to support a Phase 1b/2 clinical trial of avutometinib in combination with defactinib entitled RAMP 205. This Phase 1b/2 trial will evaluate the safety, tolerability and efficacy of GEMZAR® (gemcitabine) and ABRAXANE® (Nab-paclitaxel) in combination with avutometinib and defactinib in patients with previously untreated metastatic adenocarcinoma of the pancreas. The RAMP 205 trial will evaluate whether combining avutometinib (to target mutant KRAS which is mutated in more than 90% of pancreatic adenocarcinomas) and defactinib (to reduce stromal density and adaptive resistance to avutometinib) to the standard GEMZAR/ABRAXANE regimen improves outcomes for patients with this type of pancreatic cancer. In August 2022, PanCAN agreed to provide us with an additional $0.5 million for the collection and analysis of patient samples. We opened and began enrollment in the RAMP 205 study.

Our operations to date have been organizing and staffing our company, business planning, raising capital, identifying and acquiring potential product candidates, undertaking preclinical studies and clinical trials for our product candidates and initiating U.S. commercial operations following the approval of COPIKTRA through our ownership period ending in September 2020. We have financed our operations to date primarily through public offerings of our common stock and pre-funded warrants, sales of common stock under our at-the-market equity offering programs, our loan and security agreement executed with Hercules Capital, Inc. ("Hercules") in March 2017, as amended, the upfront payments and milestone payments under our license and collaboration agreements with Sanofi, CSPC Pharmaceutical Group Limited ("CSPC"), and Yakult Honsha Co., Ltd. ("Yakult"), the upfront payment and milestone payments received under the Secura APA, the issuance of the 2018 Notes (defined herein) in October 2018, the proceeds in connection with the private investment in public equity (the "PIPE"), our loan and security agreement executed with Oxford Finance LLC ("Oxford") in March 2022, and sales of Series B Convertible Preferred Stock (as defined below). Additionally, from our U.S. commercial launch of COPIKTRA on September 24, 2018 through our ownership period ending in September 2020, we financed a portion of our operations through product revenue.

As of June 30, 2023, we had an accumulated deficit of $777.5 million. Our net loss was $24.3 million, $40.0 million, $22.0 million and $38.9 million for the three and six months ended June 30, 2023 and 2022, respectively. We expect to incur significant expenses and may continue to incur operating losses for the foreseeable future as a result of the continued research and development of avutometinib and defactinib. As of June 30, 2023, we had cash, cash equivalents and investments of $183.1 million. We expect our existing cash resources will be sufficient to fund our planned operations through at least 12 months from the date of issuance of these condensed consolidated financial statements.

We expect to finance the future development costs of our clinical product portfolio with our existing cash, cash equivalents and investments, through future milestones and royalties received pursuant to the Secura APA, through our loan and security agreement with Oxford, or through other strategic financing opportunities that could include, but are not limited to, collaboration agreements, future offerings of our equity, or the incurrence of debt. However, there is no

guarantee that any of these strategic or financing opportunities will be executed or executed on favorable terms, and some could be dilutive to existing stockholders. If we fail to obtain additional future capital, we may be unable to complete our planned preclinical studies and clinical trials and obtain approval of certain investigational product candidates from the FDA or foreign regulatory authorities.

CRITICAL ACCOUNTING POLICIES AND SIGNIFICANT JUDGMENTS AND ESTIMATES

Our discussion and analysis of our financial condition and results of operations is based upon our condensed consolidated financial statements prepared in accordance with U.S. generally accepted accounting principles. The preparation of these condensed consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of certain assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities in our financial statements, and the amounts of revenues and expenses during the reported periods.

We believe that several accounting policies are important to understanding our historical and future performance. We refer to these policies as “critical” because these specific areas generally require us to make judgments and estimates about matters that are uncertain at the time we make the estimate, and different estimates—which also would have been reasonable—could have been used, which would have resulted in different financial results.

The critical accounting policies we identified in our most recent Annual Report on Form 10-K for the fiscal year ended December 31, 2022, related to revenue recognition, collaborative agreements, accrued and prepaid research and development expenses, stock-based compensation, and leases. During the six months ended June 30, 2023, there were no material changes to our critical accounting policies.

RESULTS OF OPERATIONS

Comparison of the three months ended June 30, 2023 and 2022

	Three months ended June 30, (dollar amounts in thousands)			
	2023	2022	Change	% Change
Operating expenses:				
Research and development	12,893	14,888	(1,995)	(13)%
Selling, general and administrative	7,399	6,514	885	14%
Total operating expenses	20,292	21,402	(1,110)	(5)%
Loss from operations	(20,292)	(21,402)	1,110	(5)%
Other income (expense)	(40)	6	(46)	(767)%
Interest income	1,122	84	1,038	1236%
Interest expense	(1,121)	(640)	(481)	75%
Change in fair value of preferred stock tranche liability	(3,950)	—	(3,950)	100%
Net loss	$ (24,281)	$ (21,952)	$ (2,329)	11%

Research and development expense. Research and development expense for the three months ended June 30, 2023 (the "2023 Quarter") was $12.9 million compared to $14.9 million for the three months ended June 30, 2022 (the "2022 Quarter"). The $2.0 million decrease from the 2022 Quarter to the 2023 Quarter was primarily driven by a decrease of $2.0 million of drug substance and drug product costs, a decrease of $1.3 million of contract research organization ("CRO") costs, partially offset by an increase of $0.4 million in investigator sponsored trial ("IST") costs, an increase of $0.4 million in investigator fee costs, an increase of $0.3 million of personnel costs, including non-cash stock compensation, and $0.2 million in pre-clinical trial costs.

Research and development expenses consist of costs associated with our research activities, including the development of our product candidates. Research and development expenses include product/ product candidate and/or project-specific costs, as well as unallocated costs. We allocate the expenses related to external research and development services, such as CROs, clinical sites, manufacturing organizations and consultants, by project and/or product candidate. We use our employee and infrastructure resources in a cross-functional manner across multiple research and development projects. Our project costing methodology does not allocate personnel, infrastructure and other indirect costs to specific clinical programs or projects.

Product/ product candidate/ project specific costs include:

- direct third-party costs, which include expenses incurred under agreements with CROs, the cost of consultants who assist with the development of our product candidates on a program-specific basis, clinical site costs, and any other third-party expenses directly attributable to the development of the product candidates;
- costs related to contract manufacturing operations including manufacturing costs in connection with producing product candidates for use in conducting preclinical and clinical studies. Costs associated with manufacturing avutometinib are included in "Avutometinib manufacturing and non-clinical trial specific" category below as these costs relate to both the "Avutometinib + defactinib" and "Avutometinib + other combinations" categories and are not specifically allocated to any particular project. Costs to produce defactinib are included in "Avutometinib + defactinib" below; and
- license fees.

Unallocated costs include:

- research and development employee-related expenses, including salaries, benefits, travel, and stock-based compensation expense;
- cost of consultants, including our scientific advisory board, who assist with our research and development but are not allocated to a specific program; and

- facilities, depreciation, and other allocated expenses, which include direct and allocated expenses for rent and maintenance of facilities, and laboratory supplies.

The table below summarizes our direct research and development expenses for our product/ product candidates/ projects and our unallocated research and development costs for the 2023 Quarter and the 2022 Quarter.

	Three months ended June 30,		
	2023	2022	Change
	(in thousands)		
Product/ product candidate / project specific costs			
Avutometinib ± defactinib	$ 5,462	$ 8,024	$ (2,562)
Avutometinib + other combinations	1,453	651	802
Avutometinib manufacturing and non-clinical trial specific	1,122	1,714	(592)
COPIKTRA	49	14	35
Unallocated costs			
Personnel costs, excluding stock-based compensation	2,979	2,768	211
Stock-based compensation expense	503	470	33
Other unallocated expenses	1,325	1,247	78
Total research and development expense	$ 12,893	$ 14,888	$ (1,995)

The $2.6 million decrease in avutometinib ± defactinib costs from the 2022 Quarter to the 2023 Quarter is primarily driven by a decrease in RAMP 202 trial costs, and drug substance and drug product costs for defactinib, partially offset by an increase in pre-clinical costs for avutometinib and defactinib. The $0.8 million increase of avutometinib + other combinations costs from the 2022 Quarter to the 2023 Quarter is primarily driven by an increase in RAMP 203 trial costs, RAMP 204 trial costs, and IST costs. The $0.6 million decrease in avutometinib manufacturing and non-clinical trial specific costs from the 2022 Quarter to the 2023 Quarter is primarily driven a decrease in drug substance and drug product costs for avutometinib, and pre-clinical collaboration costs for avutometinib.

Selling, general and administrative expense. Selling, general and administrative expense for the 2023 Quarter was $7.4 million compared to $6.5 million for the 2022 Quarter. The increase of $0.9 million from the 2022 Quarter to the 2023 Quarter primarily resulted from an increase of $0.4 million of consulting and professional fees, an increase of $0.1 million of additional costs in anticipation of potential launch of avutometinib and defactinib in LGSOC, and an increase of $0.4 million in travel and other costs.

Other Income (expense). Other expense for the 2023 Quarter was less than $0.1 million compared to other income of less than $0.1 million in the 2022 Quarter. Other expense for the 2023 Quarter and other income for the 2022 Quarter was comprised of changes in foreign currency exchange rates.

Interest income. Interest income for the 2023 Quarter was $1.1 million compared to $0.1 million for the 2022 Quarter. The increase of $1.0 million from the 2022 Quarter to the 2023 Quarter in interest income is primarily driven by an increase in interest rates on debt securities.

Interest expense. Interest expense for the 2023 Quarter was $1.1 million compared to $0.6 million for the 2022 Quarter. The increase of $0.5 million from the 2022 Quarter to the 2023 Quarter was primarily driven by the interest expense pursuant to the loan and security agreement entered into with Oxford on March 25, 2022 including an additional $15.0 million debt drawdown on March 22, 2023.

Change in fair value of preferred stock tranche liability. The change in fair value of the preferred stock tranche liability of $4.0 million for the 2023 Quarter was comprised of the mark-to-market adjustment related to the second tranche right issued as part of the Securities Purchase Agreement (defined herein). There was no preferred stock tranche liability outstanding during the 2022 Quarter.

Comparison of the six months ended June 30, 2023 and 2022

	Six months ended June 30, (dollar amounts in thousands)			
	2023	2022	Change	% Change
Revenue:				
Sale of COPIKTRA license and related assets	$ —	$ 2,596	$ (2,596)	(100)%
Total revenue	—	2,596	(2,596)	(100)%
Operating expenses:				
Research and development	24,908	28,530	(3,622)	(13)%
Selling, general and administrative	14,728	12,448	2,280	18%
Total operating expenses	39,636	40,978	(1,342)	(3)%
Loss from operations	(39,636)	(38,382)	(1,254)	3%
Other income (expense)	(47)	34	(81)	(238)%
Interest income	2,098	130	1,968	1514%
Interest expense	(1,890)	(696)	(1,194)	172%
Change in fair value of preferred stock tranche liability	(520)	—	(520)	100%
Net loss	$ (39,995)	$ (38,914)	$ (1,081)	3%

Sale of COPIKTRA license and related assets revenue. Sale of COPIKTRA license and related assets revenue for the six months ended June 30, 2023 (the "2023 Period") was $0.0 million compared to $2.6 million for the six months ended June 30, 2022 (the "2022 Period"). Sale of COPIKTRA license and related assets revenue for the 2022 Period was comprised of one regulatory milestone for $2.5 million achieved by Secura's sublicensee, CSPC, and $0.1 million related to royalties on COPIKTRA sales in the 2022 Period and future royalties expected to be received pursuant to the Secura APA that were not constrained.

Research and development expense. Research and development expense for the 2023 Period was $24.9 million compared to $28.5 million for the 2022 Period. The $3.6 million decrease from the 2022 Period to the 2023 Period was primarily driven by a decrease of $2.7 million of drug substance and drug product costs, a decrease of $1.9 million of CRO costs, partially offset by an increase of $0.6 million in IST costs and an increase of $0.4 million of personnel costs, including non-cash stock compensation.

The table below summarizes our direct research and development expenses for our product/ product candidates/ projects and our unallocated research and development costs for the 2023 Period and the 2022 Period.

	Six months ended June 30,		
	2023	2022	Change
	(in thousands)		
Product/ product candidate / project specific costs			
Avutometinib + defactinib	$ 10,196	$ 13,929	$ (3,733)
Avutometinib + other combinations	2,571	933	1,638
Avutometinib manufacturing and non-clinical trial specific	2,777	4,884	(2,107)
COPIKTRA	79	85	(6)
Unallocated costs			
Personnel costs, excluding stock-based compensation	5,891	5,523	368
Stock-based compensation expense	964	920	44
Other unallocated expenses	2,430	2,256	174
Total research and development expense	$ 24,908	$ 28,530	$ (3,622)

The $3.7 million decrease in avutometinib + defactinib costs from the 2022 Period to the 2023 Period is primarily driven by a decrease in RAMP 202 trial costs, and RAMP 201 trial costs. The $1.6 million increase of avutometinib + other combinations costs from the 2022 Period to the 2023 Period is primarily driven by an increase in RAMP 203 trial costs, RAMP 204 trial costs and IST Costs. The $2.1 million decrease in avutometinib manufacturing

and non-clinical trial specific costs from the 2022 Period to the 2023 Period is primarily driven a decrease in drug substance and drug product costs for avutometinib, CRO costs, and pre-clinical collaborations.

Selling, general and administrative expense. Selling, general and administrative expense for the 2023 Period was $14.7 million compared to $12.4 million for the 2022 Period. The increase of $2.3 million from the 2022 Period to the 2023 Period primarily resulted from an increase $0.8 million in consulting and professional fees, an increase of $0.7 million of additional costs in anticipation of potential launch of avutometinib and defactinib in LGSOC, an increase of $0.6 million of costs associated with financing activities, and an increase $0.2 million in travel and other costs.

Other Income (expense). Other expense for the 2023 Period was less than $0.1 million compared to other income of less than $0.1 million in the 2022 Period. Other expense for the 2023 Period was comprised of changes in foreign currency exchange rates. Other income for the 2022 Period was comprised of a gain on the sale of fixed assets and changes in foreign currency exchange rates.

Interest income. Interest income for the 2023 Period was $2.1 million compared to $0.1 million for the 2022 Period. The increase of $2.0 million from the 2022 Period to the 2023 Period in interest income is primarily driven by an increase in interest rates on debt securities.

Interest expense. Interest expense for the 2023 Period was $1.9 million compared to $0.7 million for the 2022 Period. The increase of $1.2 million from the 2022 Period to the 2023 Period was primarily driven by the interest expense pursuant to the loan and security agreement entered into with Oxford on March 25, 2022 including an additional $15.0 million debt drawdown on March 22, 2023.

Change in fair value of preferred stock tranche liability. The change in fair value of the preferred stock tranche liability of $0.5 million for the 2023 Period was comprised of the mark-to-market adjustment related to the second tranche right issued as part of the Securities Purchase Agreement (defined herein). There was no preferred stock tranche liability outstanding during the 2022 Period.

LIQUIDITY AND CAPITAL RESOURCES

Sources of liquidity

We have financed our operations to date primarily through public and private offerings of our common stock and pre-funded warrants, sales of common stock under our at-the-market equity offering programs, our loan and security agreement executed with Hercules in March 2017, as amended, the upfront payments and under our license and collaboration agreements with Sanofi, Yakult, and CSPC, the upfront payment under the Secura APA, the issuance of 2018 Notes in October 2018, the proceeds in connection with the PIPE, the Loan Agreement with Oxford, and the issuance of Series B Convertible Preferred Stock. With the commercial launch of COPIKTRA in the United States in September 2018 through our ownership period ending in September 2020, we financed a portion of our operations through product revenue. As of September 30, 2020, we have sold our COPIKTRA license and no longer sell COPIKTRA in the United States. We expect to finance a portion of our business through future potential milestones and royalties received pursuant to the Secura APA.

As of June 30, 2023, we had $183.1 million of cash, cash equivalents, and investments. We primarily invest our cash, cash equivalents and investments in U.S. Government money market funds, agency bonds, corporate bonds and commercial paper of publicly traded companies.

Risks and uncertainties include those identified under *Item 1A. 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.

Cash flows

The following table sets forth the primary sources and uses of cash for the 2023 Period and the 2022 Period (in thousands):

	Six months ended June 30,	
	2023	2022
Net cash (used in) provided by:		
Operating activities	$ (40,190)	$ (31,975)
Investing activities	13,196	48,513
Financing activities	135,531	26,160
Increase in cash, cash equivalents and restricted cash	$ 108,537	$ 42,698

Operating activities. The use of cash in both periods resulted primarily from our net losses adjusted for non-cash charges and changes in the components of working capital. Our cash outflow from net losses adjusted for non-cash charges and adjustments was $36.7 million and $35.4 million for the 2023 Period and the 2022 Period, respectively. Non-cash charges and adjustments were primarily related to change in fair value of the preferred stock tranche liability and stock-based compensation expense in the 2023 Period and stock-based compensation expense in the 2022 Period. Our cash outflow from operating activities due to changes in operating assets and liabilities was $3.5 million for the 2023 Period. Our cash inflow from operating activities due to changes in operating assets and liabilities was $3.4 million for the 2022 Period. Cash outflow due to changes in operating assets and liabilities for the 2023 Period was primarily driven by a decrease of $1.6 million in accrued expenses and other liabilities, and an increase of $1.5 million in prepaid expenses, other current assets and other assets. The increase in prepaid expenses, other current assets, and other assets is exclusive of cash received from PanCAN and used on the RAMP 205 study. Cash inflow due to changes in operating assets and liabilities for the 2022 Period was primarily driven by an increase of $2.0 million in accrued expenses and other liabilities and a decrease of $1.6 million in prepaid expenses, other current assets, and other assets. Cash used in operating activities was $40.2 million and $32.0 million for the 2023 Period and the 2022 Period, respectively.

Investing activities. The cash provided by investing activities for the 2023 Period relates to the net purchases of investments of $13.2 million. The cash provided by investing activities for the 2022 Period relates to the net maturities of investments of $48.5 million.

Financing activities. The cash provided by financing activities for the 2023 Period primarily represents $91.9 million of proceeds from our previously disclosed public offering in June 2023 of common stock and pre-funded warrants to purchase shares of our common stock, net of issuance costs, $28.1 million of proceeds received from issuance of Series B Convertible Preferred Stock, net of issuance costs, $14.9 million of proceeds received pursuant to the loan and security agreement with Oxford, $1.4 million of proceeds received from insurance premium financing and less than $0.1 million of proceeds received related to our employee stock purchase plan, partially offset by $0.9 million of payments on insurance premium financing. The cash provided by financing activities for the 2022 Period primarily represents $24.1 million of net proceeds received from the loan and security agreement with Oxford, $1.8 million of net proceeds received under our at-the market equity offering program, and $0.2 million of proceeds received related to exercise of stock options and employee stock purchase plan. Refer to *Note 11. Capital Stock* to our unaudited condensed consolidated financial statements included in this quarterly report for additional details on the January 2023 offering of our Series B Convertible Preferred Stock, the June 2023 offering of our common stock and pre-funded warrants to purchase shares of our common stock, and our at-the-market equity offering program; *Note 7. Debt* to our unaudited condensed consolidated financial statements included in this quarterly report for additional details on the loan and security agreement with Oxford; *Note 9. Notes Payable* to our unaudited condensed consolidated financial statements included in this quarterly report for additional details on the finance agreement with AFCO Premium Credit LLC related to insurance premium financing and the monthly payments of principal and interest related thereto; and *Note 10. Convertible Senior Notes* to our unaudited condensed consolidated financial statements included in this quarterly report for details on our 5.00% Convertible Senior Notes due 2048.

CONTRACTUAL OBLIGATIONS AND COMMITMENTS

The disclosure of our contractual obligations and commitments was reported in our Annual Report on Form 10-K for the year ended December 31, 2022. There have not been any material changes from the contractual obligations and commitments previously disclosed in such report.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

We are exposed to market risk related to changes in interest rates. We had cash, cash equivalents and investments of $183.1 million as of June 30, 2023, consisting of cash, U.S. Government money market funds, agency bonds, corporate bonds and commercial paper of publicly traded companies. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates, particularly because most of our investments are interest bearing. Our available for sale securities are subject to interest rate risk and will fall in value if market interest rates increase. Due to the short-term duration most of our investment portfolio and the low risk profile of our investments, an immediate 100 basis point change in interest rates would not have a material effect on the fair market value of our portfolio.

We contract with CROs and contract manufacturers globally which may be denominated in foreign currencies. We may be subject to fluctuations in foreign currency rates in connection with these agreements. Transactions denominated in currencies other than the functional currency are recorded based on exchange rates at the time such transactions arise. As of June 30, 2023, an immaterial amount of our total liabilities were denominated in currencies other than the functional currency.

On March 25, 2022, we entered into the Loan Agreement, under which we borrowed $25.0 million in March 2022 and $15.0 million in March 2023, for a total of $40.0 million. The Term Loans under the Loan Agreement bear interest at a floating rate equal to (a) the greater of (i) the one-month CME Secured Overnight Financing Rate and (ii) 0.13% plus (b) 7.37%, which is subject to an overall floor and cap. Changes in interest rates will cause interest charges to fluctuate under the Loan Agreement. A 10% increase in current interest rates would have resulted in an immaterial increase in the amount of cash interest expense for the three and six months ended June 30, 2023 due to the overall interest rate floor and cap.

Item 4. Controls and Procedures.

Evaluation of disclosure controls and procedures

Our management, with the participation of our President and Chief Executive Officer (principal executive officer) and our Vice President of Finance (principal financial and accounting officer), evaluated the effectiveness of our disclosure controls and procedures as of June 30, 2023. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act of 1934 (Exchange Act), means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC’s rules and forms. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of June 30, 2023, our President and Chief Executive Officer and our Vice President of Finance concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in internal control over financial reporting

There have been no changes in our internal control over financial reporting during the three months ended June 30, 2023, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings.

None.

Item 1A. Risk Factors.

You should carefully review and consider the information regarding certain factors that could materially affect our business, financial condition or future results set forth under *Item 1A. Risk Factors* in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022 as filed with the SEC on March 14, 2023.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

RECENT SALES OF UNREGISTERED SECURITIES

None.

PURCHASE OF EQUITY SECURITIES

We did not purchase any of our equity securities during the period covered by this Quarterly Report on Form 10-Q.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

None.

Item 5. Other Information.

None.

Item 6. Exhibits.

The exhibits filed as part of this Quarterly Report on Form 10-Q are set forth on the Exhibit Index, which Exhibit Index is incorporated herein by reference.

EXHIBIT INDEX

3.1	Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Annual Report on Form 10-K for the fiscal year ended December 31, 2018, filed by the Registrant on March 12, 2019).
3.2	Certificate of Amendment to the Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.2 to the Annual Report on Form 10-K for the fiscal year ended December 31, 2018, filed by the Registrant on March 12, 2019).
3.3	Amended and Restated Bylaws of the Registrant (incorporated by reference to Exhibit 3.4 to Amendment No. 3 to the Registration Statement on Form S-1 (File No. 333-177677) filed by the Registrant on January 13, 2012).
3.4	Certificate of Amendment to the Restated Certificate of Incorporation of Verastem, Inc. (incorporated by reference to Exhibit 3.1 to the Form 8-K filed by the Registrant with the Securities and Exchange Commission on May 21, 2020).
3.5	Certificate of Designation of Preferences, Rights and Limitations of Series A Convertible Preferred Stock (incorporated by reference to Exhibit 3.1 to the Form 8-K filed by the Registrant with the Securities and Exchange Commission on November 7, 2022)
3.6	Certificate of Designation of Preferences, Rights and Limitations of Series B Convertible Preferred Stock (incorporated by reference to Exhibit 3.1 to the Form 8-K filed by the Registrant with the Securities and Exchange Commission on January 25, 2023)
3.7	Certificate of Amendment to the Restated Certificate of Incorporation of Verastem, Inc. (incorporated by reference to Exhibit 3.1 to the Form 8-K filed by the Registrant with the Securities and Exchange Commission on May 31, 2023).
4.1	Form of Pre-Funded Warrant. (incorporated by reference to Exhibit 4.1 to the Form 8-K filed by the Registrant with the Securities and Exchange Commission on June 21, 2023).
10.1*	Amended and Restated 2018 Employee Stock Purchase Plan
10.2*	Amended and Restated 2012 Incentive Plan
10.3*	Amended and Restated 2021 Equity Incentive Plan
31.1*	Certification of Principal Executive Officer pursuant to Rules 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Principal Financial and Accounting Officer pursuant to Rules 13a-14(a) or 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1*	Certification of Principal Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2*	Certification of Principal Financial and Accounting Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
99.1*	Press Release issued by Verastem, Inc. on August 8, 2023 (furnished herewith).
101.INS*	Inline XBRL Instance Document
101.SCH*	Inline XBRL Taxonomy Extension Schema Document
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	The cover page from this Current Report on form 10-Q, formatted in Inline XBRL

* Filed or furnished herewith.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

VERASTEM, INC.

Date: August 8, 2023 By: /s/ DANIEL W. PATERSON

Daniel W. Paterson
President and Chief Executive Officer
(Principal executive officer)

Date: August 8, 2023 By: /s/ DANIEL CALKINS

Daniel Calkins
Vice President, Finance
(Principal financial and accounting officer)

Exhibit 10.1

VERASTEM, INC.
AMENDED AND RESTATED
2018 EMPLOYEE STOCK PURCHASE PLAN

1. **Defined Terms**

Exhibit A, which is incorporated by reference, defines certain terms used in the Plan and sets forth certain operational rules related to those terms.

2. **Purpose of Plan**

The Plan is intended to enable Eligible Employees to use payroll deductions to purchase shares of Stock in offerings under the Plan and thereby acquire an interest in the future of the Company. The Plan is intended to qualify as an "employee stock purchase plan" under Section 423 and to be exempt from the application and requirements of Section 409A of the Code and is to be construed accordingly.

3. **Options to Purchase Stock**

Subject to adjustment pursuant to Section 16 of the Plan, the maximum aggregate number of shares of Stock available for purchase under the Plan to Eligible Employees will be 166,666 shares. The shares of Stock to be delivered upon exercise of Options under the Plan may be either shares of authorized but unissued Stock, treasury Stock, or Stock acquired in an open-market transaction. If any Option granted under the Plan expires or terminates for any reason without having been exercised in full or ceases for any reason to be exercisable in whole or in part, the unpurchased shares of Stock subject to such Option will again be available for purchase pursuant to the exercise of Options under the Plan. If, on an Exercise Date, the total number of shares of Stock that would otherwise be subject to Options granted under the Plan exceeds the number of shares then available under the Plan (after deduction of all shares for which Options have been exercised or are then outstanding), the Administrator shall make a pro rata allocation of the shares remaining available for purchase under the Plan in as uniform a manner as shall be practicable and as it shall determine to be equitable. In such event, the Administrator shall notify each Participant of such reduction and of the effect on the Participant's Options and may reduce the rate of payroll deductions, if necessary.

4. **Eligibility**

(a) *Eligibility Requirements.* Subject to Section 13 of the Plan and the exceptions and limitations set forth in Sections 4(b), 4(c) and 6 of the Plan, or as may be provided elsewhere in the Plan, each Employee (i) who has been continuously employed by the Company or a Designated Subsidiary, as applicable, for a period of at least thirty (30) days as of the first day of an Option Period, (ii) whose customary Employment with the Company or a Designated Subsidiary, as applicable, is for more than five (5) months per calendar year and (iii) who customarily works twenty (20) hours or more per week shall be considered an Eligible Employee.

(b) *Five Percent Shareholders.* No Employee may be granted an Option under the Plan if, immediately after the Option is granted, the Employee would own (or pursuant to Section 424(d) of the Code would be deemed to own) stock possessing five percent (5%) or more of the total

combined voting power or value of all classes of Stock of the Company or of its Parent or Subsidiaries, if any.

(c) *Additional Requirements.* The Administrator may, for Option Periods that have not yet commenced, establish additional or different eligibility requirements not inconsistent with Section 423.

5. **Option Periods**

The Plan will generally be implemented by a series of separate offerings referred to as "**Option Periods**." Unless otherwise determined by the Administrator, the Option Periods will be successive periods of approximately six (6) months commencing on the first Business Day in January and July of each year, anticipated to be on or around January 1 and July 1, and ending approximately six (6) months later on the last Business Day in June or December, as applicable, of each year, anticipated to be on or around June 30 and December 31. The last Business Day of each Option Period will be an "**Exercise Date**." The Administrator may change the Exercise Date, the commencement date, the ending date and the duration of each Option Period to the extent permitted by Section 423; *provided, however,* that no Option may be exercised after 27 months from its grant date.

6. **Option Grant**

Subject to the limitations set forth in Sections 4 and 10 of the Plan and the Maximum Share Limit, on the first day of an Option Period, each Participant automatically will be granted an Option to purchase shares of Stock on the Exercise Date; *provided*, *however*, that no Participant will be granted an Option under the Plan that permits the Participant's right to purchase shares of Stock under the Plan and under all other employee stock purchase plans of the Company and its Parent and Subsidiaries, if any, to accrue at a rate that exceeds $25,000 in Fair Market Value (or such other maximum as may be prescribed from time to time by the Code) for each calendar year during which any Option granted to such Participant is outstanding at any time, as determined in accordance with Section 423 of the Code.

7. **Method of Participation**

(a) *Payroll Deduction and Participation Authorization*. To participate in an Option Period, an Eligible Employee must execute and deliver to the Administrator a payroll deduction and participation authorization form in accordance with the procedures prescribed by, and in a form acceptable to, the Administrator and, in so doing, the Eligible Employee will thereby become a Participant as of the first day of such Option Period. Such an Eligible Employee will remain a Participant with respect to subsequent Option Periods until his or her participation in the Plan is terminated as provided herein. Such payroll deduction and participation authorization must be delivered not later than ten (10) Business Days prior to the first day of an Option Period, or such other time as specified by the Administrator.

(b) *Changes to Payroll Deduction Authorization for Subsequent Option Periods*. A Participant's payroll deduction authorization will remain in effect for subsequent Option Periods unless the Participant files a new authorization not later than ten (10) Business Days prior to the

first day of the subsequent Option Period (or such other time as specified by the Administrator) or the Participant's Option is cancelled pursuant to Section 13 or 14 of the Plan.

(c) *Changes to Payroll Deduction Authorization for Current Option Period.* During an Option Period, a Participant's payroll deduction authorization may not be increased or decreased, except that a Participant may terminate his or her payroll deduction authorization by canceling his or her Option in accordance with Section 13 of the Plan.

(d) *Payroll Deduction Percentage.* Each payroll deduction authorization will authorize payroll deductions as a whole percentage from one (1) to ten (10) percent of the employee's Eligible Compensation per payroll period.

(e) *Payroll Deduction Account.* All payroll deductions made pursuant to this Section 7 will be credited to the Participant's Account. Amounts credited to a Participant's Account will not be required to be set aside in trust or otherwise segregated from the Company's general assets.

8. **Method of Payment**

A Participant must pay for shares of Stock purchased under the Plan with accumulated payroll deductions credited to the Participant's Account, unless otherwise provided by the Administrator under a sub-plan or separate offering for a non-U.S. Designated Subsidiary.

9. **Purchase Price**

The Purchase Price of shares of Stock issued pursuant to the exercise of an Option on each Exercise Date will be eighty-five percent (85%) (or such greater percentage specified by the Administrator to the extent permitted under Section 423) of the lesser of (a) the Fair Market Value of a share of Stock on the date on which the Option was granted pursuant to Section 6 of the Plan (*i.e.*, the first day of the Option Period) and (b) the Fair Market Value of a share of Stock on the date on which the Option is deemed exercised pursuant to Section 10 of the Plan (*i.e.*, the Exercise Date).

10. **Exercise of Options**

(a) *Purchase of Shares.* Subject to the limitations set forth in Section 6 of the Plan and this Section 10, with respect to each Option Period, on the applicable Exercise Date, each Participant will be deemed to have exercised his or her Option and the accumulated payroll deductions in the Participant's Account will be applied to purchase the greatest number of shares of Stock (rounded down to the nearest whole share) that can be purchased with such Account balance at the applicable Purchase Price; *provided, however,* that no more than 277 shares of Stock may be purchased by a Participant on any Exercise Date, or such lesser number as the Administrator may prescribe in accordance with Section 423 (the "**Maximum Share Limit**"). As soon as practicable thereafter, shares of Stock so purchased will be placed, in book-entry form, into a record keeping account in the name of the Participant. No fractional shares will be purchased pursuant to the exercise of an Option under the Plan; any accumulated payroll deductions in a Participant's Account that are not sufficient to purchase a whole share will be retained in the Participant's Account for the subsequent Option Period, subject to earlier withdrawal by the Participant as provided in Section 13 hereof.

(b) *Return of Account Balance.* Except as provided in Section 10(a) with respect to fractional shares, any amount of payroll deductions in a Participant's Account that are not used for the purchase of shares of Stock, whether because of the Participant's withdrawal from participation in an Option Period or for any other reason, will be returned to the Participant (or his or her designated beneficiary or legal representative, as applicable), without interest, as soon as administratively practicable after such withdrawal or other event, as applicable. If the Participant's accumulated payroll deductions on the Exercise Date of an Option Period would otherwise enable the Participant to purchase shares of Stock in excess of the Maximum Share Limit or the maximum Fair Market Value set forth in Section 6 of the Plan, the excess of the amount of the accumulated payroll deductions over the aggregate Purchase Price of the shares of Stock actually purchased will be returned to the Participant, without interest, as soon as administratively practicable after such Exercise Date.

11. **Interest**

No interest will be payable on any amount held in the Account of any Participant.

12. **Taxes**

Payroll deductions will be made on an after-tax basis. The Administrator will have the right to make such provision as it deems necessary for, and may condition the exercise of an Option on, the satisfaction of its obligations to withhold federal, state, local income or other taxes incurred by reason of the purchase or disposition of shares of Stock under the Plan. In the Administrator's discretion and subject to applicable law, such tax obligations may be paid in whole or in part by delivery of shares of Stock to the Company, including shares of Stock purchased under the Plan, valued at Fair Market Value, but not in excess of the minimum statutory amounts required to be withheld.

13. **Cancellation and Withdrawal**

(a) *Cancellation of Payroll Deduction Authorization and Withdrawal from Plan.* A Participant who holds an Option under the Plan may cancel all (but not less than all) of his or her Options and terminate his or her payroll deduction authorization by notice delivered to the Administrator in accordance with the procedures prescribed by, and in a form acceptable to, the Administrator. To be effective with respect to an upcoming Exercise Date, such cancellation notice must be delivered not later than ten (10) Business Days prior to such Exercise Date (or such other time as specified by the Administrator). Upon such termination and cancellation, the balance in the Participant's Account will be returned to the Participant, without interest, as soon as administratively practicable thereafter. For the avoidance of doubt, a Participant who reduces to 0% his or her withholding rate for a future Option Period pursuant to Section 7 of the Plan, will be deemed to have terminated his or her payroll deduction authorization and canceled his or her participation in future Option Periods, unless the Participant delivers a new payroll deduction authorization for a subsequent Option Period in accordance with the rules of Section 7(b) of the Plan.

(b) *401(k) Hardship Withdrawal.* To the extent a suspension of contributions is required by a 401(k) Plan, a Participant who makes a hardship withdrawal from such 401(k) Plan

will be deemed to have terminated his or her payroll deduction authorization for subsequent payroll dates relating to the then current Option Period as of the date of such hardship withdrawal and amounts accumulated in the Participant's Account as of such date will be returned to the Participant, without interest, as soon as administratively practicable thereafter. An Employee who has made a hardship withdrawal from a 401(k) Plan will not be permitted to participate in the Plan until the first Option Period commencing after the suspension of contributions ceases to apply to the Employee.

14. **Termination of Employment; Death of Participant**

Upon the termination of a Participant's employment with the Company or a Designated Subsidiary, as applicable, for any reason (including the death of a Participant during an Option Period prior to an Exercise Date) or in the event the Participant ceases to qualify as an Eligible Employee, the Participant will cease to be a Participant, any Option held by the Participant under the Plan will be canceled, the balance in the Participant's Account will be returned to the Participant (or his or her estate or designated beneficiary in the event of the Participant's death), without interest, as soon as administratively practicable thereafter, and the Participant will have no further rights under the Plan.

15. **Equal Rights; Participant's Rights Not Transferable**

All Participants granted Options in an offering under the Plan will have the same rights and privileges, consistent with the requirements set forth in Section 423. Any Option granted under the Plan will be exercisable during the Participant's lifetime only by him or her and may not be sold, pledged, assigned, or transferred in any manner. In the event any Participant violates or attempts to violate the terms of this Section 15, as determined by the Administrator in its sole discretion, any Options held by the Participant under the Plan may be terminated by the Company and, upon the return to the Participant of the balance of his or her Account, without interest, all of the Participant's rights under the Plan will terminate.

16. **Change in Capitalization; Corporate Transaction**

(a) *Change in Capitalization*. In the event of any change in the outstanding Stock by reason of a stock dividend, stock split, reverse stock split, split-up, recapitalization, merger, consolidation, reorganization, or other capital change, the aggregate number and type of shares of Stock available under the Plan, the number and type of shares of Stock granted under any outstanding Options, the Maximum Share Limit and the purchase price per share of Stock under any outstanding Option will be appropriately adjusted; *provided*, that any such adjustment shall be made in a manner that complies with Section 423.

(b) *Corporate Transaction.* In the event of a sale of all or substantially all of the Stock or a sale of all or substantially all of the assets of the Company, or a merger or similar transaction in which the Company is not the surviving corporation or that results in the acquisition of the Company by another person, the Administrator may, in its discretion, (i) if the Company is merged with or acquired by another corporation, provide that each outstanding Option will be assumed or exchanged for a substitute Option granted by the acquiror or successor corporation or by a parent or subsidiary of the acquiror or successor corporation, (ii) cancel each outstanding Option and

return the balances in Participants' Accounts to the Participants, and/or (iii) pursuant to Section 18 of the Plan, terminate the Option Period on or before the date of the proposed sale, merger or similar transaction.

17. **Administration of Plan**

The Plan will be administered by the Administrator, which will have the authority to interpret the Plan, determine eligibility under the Plan, prescribe forms, rules and procedures relating to the Plan and otherwise do all things necessary or appropriate to carry out the purposes of the Plan. All determinations and decisions by the Administrator regarding the interpretation or application of the Plan will be final and binding on all Participants and all persons.

The Administrator may specify the manner in which the Company and/or Employees are to provide notices and forms under the Plan and may require that such notices and forms be submitted electronically.

18. **Amendment and Termination of Plan; Separate Offerings; Sub-Plans**

(a) *Amendment.* The Board reserves the right at any time or times to amend the Plan to any extent and in any manner it may deem advisable; *provided*, *however*, that any amendment that would be treated as the adoption of a new plan for purposes of Section 423 will have no force or effect unless approved by the shareholders of the Company within twelve (12) months before or after its adoption.

(b) *Termination.* The Board reserves the right at any time or times to suspend or terminate the Plan. In connection therewith, the Board may provide, in its sole discretion, either that outstanding Options will be exercisable either on the Exercise Date for the applicable Option Period or on such earlier date as the Board may specify (in which case such earlier date will be treated as the Exercise Date for the applicable Option Period), or that the balance of each Participant's Account will be returned to the Participant, without interest.

(c) *Separate Offerings; Sub-Plans*. Notwithstanding the foregoing or any provision of this Plan to the contrary, consistent with the requirements of Section 423, the Administrator may, in its sole discretion, amend the terms of the Plan, or an offering, and/or provide for separate offerings under this Plan in order to, among other things, reflect the impact of local law outside of the United States as applied to one or more Eligible Employees of a Designated Subsidiary and may, where appropriate, establish one or more sub-plans to reflect such amended provisions.

19. **Approvals**

Shareholder approval of the Plan was obtained prior to the date that is twelve (12) months after the date of Board approval.

Notwithstanding anything herein to the contrary, the obligation of the Company to issue and deliver shares of Stock under the Plan will be subject to the approval required of any governmental authority in connection with the authorization, issuance, sale or transfer of such shares of Stock and to any requirements of any national securities exchange applicable thereto,

and to compliance by the Company with other applicable legal requirements in effect from time to time.

20. **Participants' Rights as Shareholders and Employees**

A Participant will have no rights or privileges as a shareholder of the Company and will not receive any dividends in respect of any shares of Stock covered by an Option granted hereunder until such Option has been exercised, full payment has been made for such shares, and the shares have been issued to the Participant.

Nothing contained in the provisions of the Plan will be construed as giving to any Employee the right to be retained in the employ of the Company or any Designated Subsidiary or as interfering with the right of the Company or any Designated Subsidiary to discharge, promote, demote or otherwise re-assign any Employee from one position to another within the Company or any Designated Subsidiary at any time.

21. **Information Regarding Disqualifying Dispositions**

By electing to participate in the Plan, each Participant agrees to provide such information about any transfer of Stock acquired under the Plan that occurs within two years after the first day of the Option Period in which such Stock was acquired and within one year after the day such Stock was purchased as may be requested by the Company or any Designated Subsidiary in order to assist it in complying with applicable tax laws.

22. **Governing Law**

The Plan will be governed by and administered in accordance with the laws of the State of Delaware, and with the applicable requirements of the stock exchanges or other trading systems on which the Stock is listed or entered for trading and the Code, in each case as determined by the Administrator. Except as otherwise provided under a sub-plan described in Section 18(c) of the Plan or as provided in the first sentence of this Section 22, the domestic substantive laws of Delaware govern the provisions of the Plan or any Options under the Plan or relating to the subject matter hereof or thereof without giving effect to any choice or conflict of laws provision or rule that would cause the application of the domestic substantive laws of any other jurisdiction.

23. **Effective Date and Term**

The Plan, as amended and restated, will became effective as of May 31, 2023 and no rights will be granted hereunder after the earliest to occur of (a) the Plan's termination by the Company, (b) the issuance of all shares of Stock available for issuance under the Plan or (c) November 8, 2028.

EXHIBIT A
Definition of Terms

The following terms, when used in the Plan, will have the meanings and be subject to the provisions set forth below:

"401(k) Plan": A savings plan qualifying under Section 401(k) of the Code that is sponsored by the Company or one of its Subsidiaries for the benefit of its employees.

"Account": A payroll deduction account maintained in the Participant's name on the books of the Company.

"Administrator": The Compensation Committee of the Board, except that the Compensation Committee may delegate (i) to one or more of its members (or one or more other members of the Board, including the full Board) such of its duties, powers and responsibilities as it may determine and (ii) to such Employees or other persons as it determines such ministerial tasks as it deems appropriate. In the event of any delegation described in the preceding sentence, the term "Administrator" will include the person or persons so delegated to the extent of such delegation.

"Board": The Board of Directors of the Company.

"Business Day": Any day on which the established national exchange or trading system (including the Nasdaq Global Market) on which the Stock is traded is available and open for trading.

"Code": The U.S. Internal Revenue Code of 1986, as from time to time amended and in effect, or any successor statute as from time to time in effect.

"Company": Verastem, Inc., a Delaware corporation.

"Designated Subsidiary": A Subsidiary of the Company that has been designated by the Board or the Compensation Committee of the Board from time to time as eligible to participate in the Plan. Any such Designated Subsidiary shall be listed by the Administrator on an exhibit to the Plan. For the avoidance of doubt, any Subsidiary of the Company shall be eligible to be designated as a Designated Subsidiary hereunder.

"Eligible Compensation": Regular base salary, regular base wages and overtime payments (excluding, for the avoidance of doubt, any annual bonuses, commissions and other sales incentives, and long-term incentive payments or awards). Eligible Compensation will not be reduced by any income or employment tax withholdings or any contributions by the Employee to a 401(k) Plan or a plan under Section 125 of the Code, but will be reduced by any contributions made on the Employee's behalf by the Company or any Subsidiary to any deferred compensation plan or welfare benefit program now or hereafter established.

"Eligible Employee": Any Employee who meets the eligibility requirements set forth in Section 4 of the Plan.

"Employee": Any person who is employed by the Company or a Designated Subsidiary. For the avoidance of doubt, independent contractors and consultants are not "Employees".

"Exercise Date": The date set forth in Section 5 of the Plan or otherwise designated by the Administrator with respect to a particular Option Period on which a Participant will be deemed to have exercised the Option granted to him or her for such Option Period.

"Fair Market Value": As of a particular date, (i) the closing price for a share of Stock reported on the Nasdaq Global Market (or any other national securities exchange on which the shares are then listed) for that date or, if no closing price is reported for that date, the closing price on the immediately preceding date on which a closing price was reported or (ii) in the event that the Stock is not traded on a national securities exchange, the fair market value of a share of Stock determined by the Administrator consistent with the rules of Section 422 and Section 409A of the Code to the extent applicable.

"Maximum Share Limit": The meaning set forth in Section 10 of the Plan.

"Option": An option granted pursuant to the Plan entitling the holder to acquire shares of Stock upon payment of the Purchase Price per share of Stock.

"Option Period": An offering period established in accordance with Section 5 of the Plan.

"Parent": A "parent corporation" as defined in Section 424(e) of the Code.

"Participant": An Eligible Employee who elects to enroll in the Plan.

"Plan": The Verastem, Inc. Amended and Restated 2018 Employee Stock Purchase Plan, as from time to time amended and in effect.

"Purchase Price": The price per share of Stock with respect to an Option Period determined in accordance with Section 9 of the Plan.

"Section 423": Section 423 of the Code and the regulations thereunder.

"Stock": Common stock of the Company, par value $0.0001 per share.

"Subsidiary": A "subsidiary corporation" as defined in Section 424(f) of the Code.

Exhibit 10.2

VERASTEM, INC.
AMENDED AND RESTATED
2012 INCENTIVE PLAN

1. Purpose

The purpose of this 2012 Incentive Plan (the "***Plan***") of Verastem, Inc., a Delaware corporation (the "***Company***"), is to advance the interests of the Company's stockholders by enhancing the Company's ability to attract, retain and motivate persons who are expected to make important contributions to the Company and by providing such persons with equity ownership opportunities and performance-based incentives that are intended to better align the interests of such persons with those of the Company's stockholders. Except where the context otherwise requires, the term "***Company***" shall include any of the Company's present or future parent or subsidiary corporations as defined in Sections 424(e) or (f) of the Internal Revenue Code of 1986, as amended, and any regulations thereunder (the "***Code***") and any other business venture (including, without limitation, joint venture or limited liability company) in which the Company has a controlling interest, as determined by the Board of Directors of the Company (the "***Board***").

2. Eligibility

All of the Company's employees, officers and directors, as well as consultants and advisors to the Company (as such terms consultants and advisors are defined and interpreted for purposes of Form S-8 under the Securities Act of 1933, as amended (the "***Securities Act***"), or any successor form) are eligible to be granted Awards under the Plan. Each person who is granted an Award under the Plan is deemed a "***Participant***." "***Award***" means Options (as defined in Section 5), SARs (as defined in Section 6), Restricted Stock (as defined in Section 7), Restricted Stock Units (as defined in Section 7) and Other Stock-Based Awards (as defined in Section 8) and Cash-Based Awards (as defined in Section 8).

3. Administration and Delegation

(a) Administration by Board of Directors. The Plan will be administered by the Board. The Board shall have authority to grant Awards and to adopt, amend and repeal such administrative rules, guidelines and practices relating to the Plan as it shall deem advisable. The Board may construe and interpret the terms of the Plan and any Award agreements entered into under the Plan. The Board may correct any defect, supply any omission or reconcile any inconsistency in the Plan or any Award in the manner and to the extent it shall deem expedient and it shall be the sole and final judge of such expediency. All decisions by the Board shall be made in the Board's sole discretion and shall be final and binding on all persons having or claiming any interest in the Plan or in any Award.

(b) Appointment of Committees. To the extent permitted by applicable law, the Board may delegate any or all of its powers under the Plan to one or more committees or subcommittees of the Board (a "***Committee***"). All references in the Plan to the "***Board***" shall mean the Board or a Committee of the Board or the officers referred to in Section 3(c) to the extent that the Board's powers or authority under the Plan have been delegated to such Committee or officers.

(c) Delegation to Officers. To the extent permitted by applicable law, the Board may delegate to one or more officers of the Company the power to grant Options and other Awards that constitute rights under Delaware law (subject to any limitations under the Plan) to employees or officers of the Company and to exercise such other powers under the Plan as the Board may determine, *provided* that the Board shall fix the terms of such Awards to be granted by such officers (including the exercise price of such Awards, which may include a formula by which the exercise price will be determined) and the maximum number of shares subject to such Awards that the officers may grant; *provided further*, however, that no officer shall be authorized to grant such Awards to any "executive officer" of the Company (as defined by Rule 3b-7 under the Securities Exchange Act of 1934, as amended (the "***Exchange Act***")) or to any "officer" of the Company (as defined by Rule 16a-1 under the Exchange Act). The Board may not delegate authority under this Section 3(c) to grant Restricted Stock, unless Delaware law then permits such delegation.

4. Stock Available for Awards

(a) Number of Shares; Share Counting.

(1) Authorized Number of Shares. Subject to adjustment under Section 9, Awards may be made under the

Plan (any or all of which Awards may be in the form of Incentive Stock Options, as defined in Section 5(b)) for up to 2,469,035 shares of common stock, $0.0001 par value per share, of the Company (the "***Common Stock***").

(2) Share Counting. For purposes of counting the number of shares available for the grant of Awards under the Plan:

(A) all shares of Common Stock covered by SARs shall be counted against the number of shares available for the grant of Awards under the Plan; *provided, however*, that (i) SARs that may be settled only in cash shall not be so counted and (ii) if the Company grants an SAR in tandem with an Option for the same number of shares of Common Stock and provides that only one such Award may be exercised (a "***Tandem SAR***"), only the shares covered by the Option, and not the shares covered by the Tandem SAR, shall be so counted, and the expiration of one in connection with the other's exercise will not restore shares to the Plan;

(B) if any Award (i) expires or is terminated, surrendered or canceled without having been fully exercised or is forfeited in whole or in part (including as the result of shares of Common Stock subject to such Award being repurchased by the Company at the original issuance price pursuant to a contractual repurchase right) or (ii) results in any Common Stock not being issued (including as a result of an SAR that was settleable either in cash or in stock actually being settled in cash), the unused Common Stock covered by such Award shall again be available for the grant of Awards; *provided, however*, that (1) in the case of Incentive Stock Options, the foregoing shall be subject to any limitations under the Code, (2) in the case of the exercise of an SAR, the number of shares counted against the shares available under the Plan shall be the full number of shares subject to the SAR multiplied by the percentage of the SAR actually exercised, regardless of the number of shares actually used to settle such SAR upon exercise and (3) the shares covered by a tandem SAR shall not again become available for grant upon the expiration or termination of such tandem SAR; and

(C) shares of Common Stock delivered (either by actual delivery, attestation, or net exercise) to the Company by a Participant to (i) purchase shares of Common Stock upon the exercise of an Award or (ii) satisfy tax withholding obligations (including shares retained from the Award creating the tax obligation) shall not be added back to the number of shares available for the future grant of Awards.

(b) Per-Participant Limit. Subject to adjustment under Section 9, the maximum number of shares of Common Stock with respect to which Awards may be granted to any Participant under the Plan shall be 95,238 per calendar year. For purposes of the foregoing limit, the combination of an Option in tandem with an SAR shall be treated as a single Award.

(c) Substitute Awards. In connection with a merger or consolidation of an entity with the Company or the acquisition by the Company of property or stock of an entity, the Board may grant Awards in substitution for any options or other stock or stock-based awards granted by such entity or an affiliate thereof. Substitute Awards may be granted on such terms as the Board deems appropriate in the circumstances, notwithstanding any limitations on Awards contained in the Plan. Substitute Awards shall not count against the overall share limit set forth in Section 4(a)(1) or any sublimit contained in the Plan, except as may be required by reason of Section 422 and related provisions of the Code.

5. Stock Options

(a) General. The Board may grant options to purchase Common Stock (each, an "***Option***") and determine the number of shares of Common Stock to be covered by each Option, the exercise price of each Option and the conditions and limitations applicable to the exercise of each Option, including conditions relating to applicable federal or state securities laws, as it considers necessary or advisable.

(b) Incentive Stock Options. An Option that the Board intends to be an "incentive stock option" as defined in Section 422 of the Code (an "***Incentive Stock Option***") shall only be granted to employees of Verastem, Inc., any of Verastem, Inc.'s present or future parent or subsidiary corporations as defined in Sections 424(e) or (f) of the Code, and any other entities the employees of which are eligible to receive Incentive Stock Options under the Code, and shall be subject to and shall be construed consistently with the requirements of Section 422 of the Code. An Option that is not intended to be an Incentive Stock Option shall be designated a "***Nonstatutory Stock Option***." The Company shall have no liability to a Participant, or any other party, if an Option (or any part thereof) that is intended to be an Incentive Stock Option is not an Incentive Stock Option or if the Company converts an Incentive Stock Option to a Nonstatutory Stock Option.

(c) Exercise Price. The Board shall establish the exercise price of each Option and specify the exercise price in the applicable Option agreement. The exercise price shall be not less than 100% of the fair market value per share of Common Stock as determined by (or in a manner approved by) the Board ("***Fair Market Value***") on the date the Option is granted;

provided that if the Board approves the grant of an Option with an exercise price to be determined on a future date, the exercise price shall be not less than 100% of the Fair Market Value on such future date.

(d) Duration of Options. Each Option shall be exercisable at such times and subject to such terms and conditions as the Board may specify in the applicable option agreement; *provided, however*, that no Option will be granted with a term in excess of 10 years.

(e) Exercise of Options. Options may be exercised by delivery to the Company of a notice of exercise in a form (which may be electronic) approved by the Company, together with payment in full (in the manner specified in Section 5(f)) of the exercise price for the number of shares for which the Option is exercised. Shares of Common Stock subject to the Option will be delivered by the Company as soon as practicable following exercise.

(f) Payment Upon Exercise. Common Stock purchased upon the exercise of an Option granted under the Plan shall be paid for as follows:

(1) in cash or by check, payable to the order of the Company;

(2) except as may otherwise be provided in the applicable Option agreement or approved by the Board, in its sole discretion, by (i) delivery of an irrevocable and unconditional undertaking by a creditworthy broker to deliver promptly to the Company sufficient funds to pay the exercise price and any required tax withholding or (ii) delivery by the Participant to the Company of a copy of irrevocable and unconditional instructions to a creditworthy broker to deliver promptly to the Company cash or a check sufficient to pay the exercise price and any required tax withholding;

(3) to the extent provided for in the applicable Option agreement or approved by the Board, in its sole discretion, by delivery (either by actual delivery or attestation) of shares of Common Stock owned by the Participant valued at their Fair Market Value, provided (i) such method of payment is then permitted under applicable law, (ii) such Common Stock, if acquired directly from the Company, was owned by the Participant for such minimum period of time, if any, as may be established by the Board in its discretion and (iii) such Common Stock is not subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements;

(4) to the extent provided for in the applicable Nonstatutory Stock Option agreement or approved by the Board in its sole discretion, by delivery of a notice of "net exercise" to the Company, as a result of which the Participant would receive (i) the number of shares underlying the portion of the Option being exercised, less (ii) such number of shares as is equal to (A) the aggregate exercise price for the portion of the Option being exercised divided by (B) the Fair Market Value on the date of exercise;

(5) to the extent permitted by applicable law and provided for in the applicable Option agreement or approved by the Board, in its sole discretion, by payment of such other lawful consideration as the Board may determine; or

(6) by any combination of the above permitted forms of payment.

(g) Limitation on Repricing. Unless such action is approved by the Company's stockholders, the Company may not (except as provided for under Section 9): (1) amend any outstanding Option granted under the Plan to provide an exercise price per share that is lower than the then-current exercise price per share of such outstanding Option, (2) cancel any outstanding option (whether or not granted under the Plan) and grant in substitution therefor new Awards under the Plan (other than Awards granted pursuant to Section 4(c)) covering the same or a different number of shares of Common Stock and having an exercise price per share lower than the then-current exercise price per share of the cancelled option, (3) cancel in exchange for a cash payment any outstanding Option with an exercise price per share above the then-current Fair Market Value, other than pursuant to Section 9, or (4) take any other action under the Plan that constitutes a "repricing" within the meaning of the rules of the NASDAQ Stock Market.

6. Stock Appreciation Rights

(a) General. The Board may grant Awards consisting of stock appreciation rights ("***SARs***") entitling the holder, upon exercise, to receive an amount of Common Stock or cash or a combination thereof (such form to be determined by the Board) determined by reference to appreciation, from and after the date of grant, in the Fair Market Value of a share of Common Stock over the measurement price established pursuant to Section 6(b). The date as of which such appreciation is determined shall be the exercise date.

(b) Measurement Price. The Board shall establish the measurement price of each SAR and specify it in the applicable SAR agreement. The measurement price shall not be less than 100% of the Fair Market Value on the date the SAR is granted; *provided* that if the Board approves the grant of an SAR effective as of a future date, the measurement price shall be not less than 100% of the Fair Market Value on such future date.

(c) Duration of SARs. Each SAR shall be exercisable at such times and subject to such terms and conditions as the Board may specify in the applicable SAR agreement; *provided, however*, that no SAR will be granted with a term in excess of 10 years.

(d) Exercise of SARs. SARs may be exercised by delivery to the Company of a notice of exercise in a form (which may be electronic) approved by the Company, together with any other documents required by the Board.

(e) Limitation on Repricing. Unless such action is approved by the Company's stockholders, the Company may not (except as provided for under Section 9): (1) amend any outstanding SAR granted under the Plan to provide a measurement price per share that is lower than the then-current measurement price per share of such outstanding SAR, (2) cancel any outstanding SAR (whether or not granted under the Plan) and grant in substitution therefor new Awards under the Plan (other than Awards granted pursuant to Section 4(c)) covering the same or a different number of shares of Common Stock and having an exercise or measurement price per share lower than the then-current measurement price per share of the cancelled SAR, (3) cancel in exchange for a cash payment any outstanding SAR with a measurement price per share above the then-current Fair Market Value, other than pursuant to Section 9, or (4) take any other action under the Plan that constitutes a "repricing" within the meaning of the rules of the NASDAQ Stock Market.

7. Restricted Stock; Restricted Stock Units

(a) General. The Board may grant Awards entitling recipients to acquire shares of Common Stock ("***Restricted Stock***"), subject to the right of the Company to repurchase all or part of such shares at their issue price or other stated or formula price (or to require forfeiture of such shares if issued at no cost) from the recipient in the event that conditions specified by the Board in the applicable Award are not satisfied prior to the end of the applicable restriction period or periods established by the Board for such Award. The Board may also grant Awards entitling the recipient to receive shares of Common Stock or cash to be delivered at the time such Award vests ("***Restricted Stock Units***") (Restricted Stock and Restricted Stock Units are each referred to herein as a "***Restricted Stock Award***").

(b) Terms and Conditions for All Restricted Stock Awards. The Board shall determine the terms and conditions of a Restricted Stock Award, including the conditions for vesting and repurchase (or forfeiture) and the issue price, if any.

(c) Additional Provisions Relating to Restricted Stock.

(1) Dividends. Unless otherwise provided in the applicable Award agreement, any dividends (whether paid in cash, stock or property) declared and paid by the Company with respect to shares of Restricted Stock ("***Accrued Dividends***") shall be paid to the Participant only if and when such shares become free from the restrictions on transferability and forfeitability that apply to such shares. Each payment of Accrued Dividends will be made no later than the end of the calendar year in which the dividends are paid to stockholders of that class of stock or, if later, the 15th day of the third month following the lapsing of the restrictions on transferability and the forfeitability provisions applicable to the underlying shares of Restricted Stock.

(2) Stock Certificates. The Company may require that any stock certificates issued in respect of shares of Restricted Stock, as well as dividends or distributions paid on such Restricted Stock, shall be deposited in escrow by the Participant, together with a stock power endorsed in blank, with the Company (or its designee). At the expiration of the applicable restriction periods, the Company (or such designee) shall deliver the certificates no longer subject to such restrictions to the Participant or if the Participant has died, to his or her Designated Beneficiary. "***Designated Beneficiary***" means (i) the beneficiary designated, in a manner determined by the Board, by a Participant to receive amounts due or exercise rights of the Participant in the event of the Participant's death or (ii) in the absence of an effective designation by a Participant, the Participant's estate.

(d) Additional Provisions Relating to Restricted Stock Units.

(1) Settlement. Upon the vesting of and/or lapsing of any other restrictions (i.e., settlement) with respect to each Restricted Stock Unit, the Participant shall be entitled to receive from the Company one share of Common Stock or (if

so provided in the applicable Award agreement) an amount of cash equal to the Fair Market Value of one share of Common Stock. The Board may, in its discretion, provide that settlement of Restricted Stock Units shall be deferred, on a mandatory basis or at the election of the Participant in a manner that complies with Section 409A of the Code.

(2) Voting Rights. A Participant shall have no voting rights with respect to any Restricted Stock Units.

(3) Dividend Equivalents. The Award agreement for Restricted Stock Units may provide Participants with the right to receive an amount equal to any dividends or other distributions declared and paid on an equal number of outstanding shares of Common Stock ("***Dividend Equivalents***"). Dividend Equivalents may be paid currently or credited to an account for the Participant, may be settled in cash and/or shares of Common Stock and may be subject to the same restrictions on transfer and forfeitability as the Restricted Stock Units with respect to which paid, in each case to the extent provided in the Award agreement.

8. Other Stock-Based and Cash-Based Awards

(a) General. Other Awards of shares of Common Stock, and other Awards that are valued in whole or in part by reference to, or are otherwise based on, shares of Common Stock or other property, may be granted hereunder to Participants ("***Other Stock-Based-Awards***"). Such Other Stock-Based Awards shall also be available as a form of payment in the settlement of other Awards granted under the Plan or as payment in lieu of compensation to which a Participant is otherwise entitled. Other Stock-Based Awards may be paid in shares of Common Stock or cash, as the Board shall determine. The Company may also grant Performance Awards or other Awards denominated in cash rather than shares of Common Stock ("***Cash-Based Awards***").

(b) Terms and Conditions. Subject to the provisions of the Plan, the Board shall determine the terms and conditions of each Other Stock-Based Award or Cash-Based Award, including any purchase price applicable thereto.

9. Adjustments for Changes in Common Stock and Certain Other Events

(a) Changes in Capitalization. In the event of any stock split, reverse stock split, stock dividend, recapitalization, combination of shares, reclassification of shares, spin-off or other similar change in capitalization or event, or any dividend or distribution to holders of Common Stock other than an ordinary cash dividend, (i) the number and class of securities available under the Plan, (ii) the share counting rules and sublimit set forth in Sections 4(a) and 4(b), (iii) the number and class of securities and exercise price per share of each outstanding Option, (iv) the share and per-share provisions and the measurement price of each outstanding SAR, (v) the number of shares subject to and the repurchase price per share subject to each outstanding Restricted Stock Award and (vi) the share and per-share-related provisions and the purchase price, if any, of each outstanding Other Stock-Based Award, shall be equitably adjusted by the Company (or substituted Awards may be made, if applicable) in the manner determined by the Board. Without limiting the generality of the foregoing, in the event the Company effects a split of the Common Stock by means of a stock dividend and the exercise price of and the number of shares subject to an outstanding Option are adjusted as of the date of the distribution of the dividend (rather than as of the record date for such dividend), then an optionee who exercises an Option between the record date and the distribution date for such stock dividend shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Common Stock acquired upon such Option exercise, notwithstanding the fact that such shares were not outstanding as of the close of business on the record date for such stock dividend.

(b) Reorganization Events.

(1) Definition. A "***Reorganization Event***" shall mean: (a) any merger or consolidation of the Company with or into another entity as a result of which all of the Common Stock of the Company is converted into or exchanged for the right to receive cash, securities or other property or is cancelled, (b) any transfer or disposition of all of the Common Stock of the Company for cash, securities or other property pursuant to a share exchange or other transaction or (c) any liquidation or dissolution of the Company.

(2) Consequences of a Reorganization Event on Awards Other than Restricted Stock.

(A) In connection with a Reorganization Event, the Board may take any one or more of the following actions as to all or any (or any portion of) outstanding Awards other than Restricted Stock on such terms as the Board determines (except to the extent specifically provided otherwise in an applicable Award agreement or another agreement between the Company and the Participant): (i) provide that such Awards shall be assumed, or substantially equivalent Awards shall be substituted, by the acquiring or succeeding corporation (or an affiliate thereof), (ii) upon written

notice to a Participant, provide that all of the Participant's unexercised Awards will terminate immediately prior to the consummation of such Reorganization Event unless exercised by the Participant (to the extent then exercisable) within a specified period following the date of such notice, (iii) provide that outstanding Awards shall become exercisable, realizable, or deliverable, or restrictions applicable to an Award shall lapse, in whole or in part prior to or upon such Reorganization Event, (iv) in the event of a Reorganization Event under the terms of which holders of Common Stock will receive upon consummation thereof a cash payment for each share surrendered in the Reorganization Event (the "***Acquisition Price***"), make or provide for a cash payment to Participants with respect to each Award held by a Participant equal to (A) the number of shares of Common Stock subject to the vested portion of the Award (after giving effect to any acceleration of vesting that occurs upon or immediately prior to such Reorganization Event) multiplied by (B) the excess, if any, of (I) the Acquisition Price over (II) the exercise, measurement or purchase price of such Award and any applicable tax withholdings, in exchange for the termination of such Award, (v) provide that, in connection with a liquidation or dissolution of the Company, Awards shall convert into the right to receive liquidation proceeds (if applicable, net of the exercise, measurement or purchase price thereof and any applicable tax withholdings) and (vi) any combination of the foregoing. In taking any of the actions permitted under this Section 9(b)(2), the Board shall not be obligated by the Plan to treat all Awards, all Awards held by a Participant, or all Awards of the same type, identically.

(B) Notwithstanding the terms of Section 9(b)(2)(A), in the case of outstanding Restricted Stock Units that are subject to Section 409A of the Code: (i) if the applicable Restricted Stock Unit agreement provides that the Restricted Stock Units shall be settled upon a "change in control event" within the meaning of Treasury Regulation Section 1.409A-3(i)(5)(i), and the Reorganization Event constitutes such a "change in control event", then no assumption or substitution shall be permitted pursuant to Section 9(b)(2)(A)(i) and the Restricted Stock Units shall instead be settled in accordance with the terms of the applicable Restricted Stock Unit agreement; and (ii) the Board may only undertake the actions set forth in clauses (iii), (iv) or (v) of Section 9(b)(2)(A) if the Reorganization Event constitutes a "change in control event" as defined under Treasury Regulation Section 1.409A-3(i)(5)(i) and such action is permitted or required by Section 409A of the Code; if the Reorganization Event is not a "change in control event" as so defined or such action is not permitted or required by Section 409A of the Code, and the acquiring or succeeding corporation does not assume or substitute the Restricted Stock Units pursuant to clause (i) of Section 9 (b)(2)(A), then the unvested Restricted Stock Units shall terminate immediately prior to the consummation of the Reorganization Event without any payment in exchange therefor.

(C) For purposes of Section 9(b)(2)(A)(i), an Award (other than Restricted Stock) shall be considered assumed if, following consummation of the Reorganization Event, such Award confers the right to purchase or receive pursuant to the terms of such Award, for each share of Common Stock subject to the Award immediately prior to the consummation of the Reorganization Event, the consideration (whether cash, securities or other property) received as a result of the Reorganization Event by holders of Common Stock for each share of Common Stock held immediately prior to the consummation of the Reorganization Event (and if holders were offered a choice of consideration, the type of consideration chosen by the holders of a majority of the outstanding shares of Common Stock); *provided*, *however*, that if the consideration received as a result of the Reorganization Event is not solely common stock of the acquiring or succeeding corporation (or an affiliate thereof), the Company may, with the consent of the acquiring or succeeding corporation, provide for the consideration to be received upon the exercise or settlement of the Award to consist solely of such number of shares of common stock of the acquiring or succeeding corporation (or an affiliate thereof) that the Board determined to be equivalent in value (as of the date of such determination or another date specified by the Board) to the per share consideration received by holders of outstanding shares of Common Stock as a result of the Reorganization Event.

(3) Consequences of a Reorganization Event on Restricted Stock. Upon the occurrence of a Reorganization Event other than a liquidation or dissolution of the Company, the repurchase and other rights of the Company with respect to outstanding Restricted Stock shall inure to the benefit of the Company's successor and shall, unless the Board determines otherwise, apply to the cash, securities or other property which the Common Stock was converted into or exchanged for pursuant to such Reorganization Event in the same manner and to the same extent as they applied to such Restricted Stock; *provided*, *however*, that the Board may provide for termination or deemed satisfaction of such repurchase or other rights under the instrument evidencing any Restricted Stock or any other agreement between a Participant and the Company, either initially or by amendment. Upon the occurrence of a Reorganization Event involving the liquidation or dissolution of the Company, except to the extent specifically provided to the contrary in the instrument evidencing any Restricted Stock or any other agreement between a Participant and the Company, all restrictions and conditions on all Restricted Stock then outstanding shall automatically be deemed terminated or satisfied.

10. General Provisions Applicable to Awards

(a) Transferability of Awards. Awards shall not be sold, assigned, transferred, pledged or otherwise encumbered by the person to whom they are granted, either voluntarily or by operation of law, except by will or the laws of descent and

distribution or, other than in the case of an Incentive Stock Option or Awards subject to Section 409A of the Code, pursuant to a qualified domestic relations order, and, during the life of the Participant, shall be exercisable only by the Participant; *provided, however*, except with respect to Awards subject to Section 409A of the Code, that the Board may permit or provide in an Award for the gratuitous transfer of the Award by the Participant to or for the benefit of any immediate family member, family trust or other entity established for the benefit of the Participant and/or an immediate family member thereof if the Company would be eligible to use a Form S-8 under the Securities Act for the registration of the sale of the Common Stock subject to such Award to such proposed transferee; *provided further*, that the Company shall not be required to recognize any such permitted transfer until such time as such permitted transferee shall, as a condition to such transfer, deliver to the Company a written instrument in form and substance satisfactory to the Company confirming that such transferee shall be bound by all of the terms and conditions of the Award. References to a Participant, to the extent relevant in the context, shall include references to authorized transferees. For the avoidance of doubt, nothing contained in this Section 10(a) shall be deemed to restrict a transfer to the Company.

(b) Documentation. Each Award shall be evidenced in such form (written, electronic or otherwise) as the Board shall determine. Each Award may contain terms and conditions in addition to those set forth in the Plan.

(c) Board Discretion. Except as otherwise provided by the Plan, each Award may be made alone or in addition or in relation to any other Award. The terms of each Award need not be identical, and the Board need not treat Participants uniformly.

(d) Termination of Status. The Board shall determine the effect on an Award of the disability, death, termination or other cessation of employment, authorized leave of absence or other change in the employment or other status of a Participant and the extent to which, and the period during which, the Participant, or the Participant's legal representative, conservator, guardian or Designated Beneficiary, may exercise rights under the Award.

(e) Withholding. The Participant must satisfy all applicable federal, state, and local or other income and employment tax withholding obligations before the Company will deliver stock certificates or otherwise recognize ownership of Common Stock under an Award. The Company may decide to satisfy the withholding obligations through additional withholding on salary or wages. If the Company elects not to or cannot withhold from other compensation, the Participant must pay the Company the full amount, if any, required for withholding or have a broker tender to the Company cash equal to the withholding obligations. Payment of withholding obligations is due before the Company will issue any shares on exercise, vesting or release from forfeiture of an Award or at the same time as payment of the exercise or purchase price, unless the Company determines otherwise. If provided for in an Award or approved by the Board in its sole discretion, a Participant may satisfy such tax obligations in whole or in part by delivery (either by actual delivery or attestation) of shares of Common Stock, including shares retained from the Award creating the tax obligation, valued at their Fair Market Value; *provided, however*, except as otherwise provided by the Board, that the total tax withholding where stock is being used to satisfy such tax obligations cannot exceed the maximum withholding amount consistent with the award being subject to equity accounting treatment under the applicable accounting rules. Shares used to satisfy tax withholding requirements cannot be subject to any repurchase, forfeiture, unfulfilled vesting or other similar requirements.

(f) Amendment of Award. The Board may amend, modify or terminate any outstanding Award, including but not limited to, substituting therefor another Award of the same or a different type, changing the date of exercise or realization, and converting an Incentive Stock Option to a Nonstatutory Stock Option. The Participant's consent to such action shall be required unless (i) the Board determines that the action, taking into account any related action, does not materially and adversely affect the Participant's rights under the Plan or (ii) the change is permitted under Section 9.

(g) Conditions on Delivery of Stock. The Company will not be obligated to deliver any shares of Common Stock pursuant to the Plan or to remove restrictions from shares previously issued or delivered under the Plan until (i) all conditions of the Award have been met or removed to the satisfaction of the Company, (ii) in the opinion of the Company's counsel, all other legal matters in connection with the issuance and delivery of such shares have been satisfied, including any applicable securities laws and regulations and any applicable stock exchange or stock market rules and regulations, and (iii) the Participant has executed and delivered to the Company such representations or agreements as the Company may consider appropriate to satisfy the requirements of any applicable laws, rules or regulations.

(h) Acceleration. The Board may at any time provide that any Award shall become immediately exercisable in whole or in part, free of some or all restrictions or conditions, or otherwise realizable in whole or in part, as the case may be.

(i) Performance Awards.

(1) Grants. Restricted Stock Awards and Other Stock-Based Awards under the Plan may be made subject to the achievement of performance goals pursuant to this Section 10(i) ("***Performance Awards***"). Subject to Section 10(i)(4), no Performance Awards shall vest prior to the first anniversary of the date of grant. Performance Awards can also provide for cash payments of up to $5,000,000 per calendar year per individual.

(2) Committee. Grants of Performance Awards to any Covered Employee (as defined below) intended to qualify as "performance-based compensation" under Section 162(m) of the Code as in effect prior to December 22, 2017, including any regulations thereunder (such Performance Awards, "***Performance-Based Compensation***" and such Code section, "***Section 162(m)***") shall be made only by a Committee (or a subcommittee of a Committee) comprised solely of two or more directors eligible to serve on a committee making Awards qualifying as "performance-based compensation" under Section 162(m). In the case of such Awards granted to Covered Employees, references to the Board or to a Committee shall be treated as referring to such Committee (or subcommittee). "***Covered Employee***" shall mean any person who is, or whom the Committee, in its discretion, determines may be, a "covered employee" under Section 162(m)(3) of the Code.

(3) Performance Measures. For any Award that is intended to qualify as Performance-Based Compensation, the Committee shall specify that the degree of granting, vesting and/or payout shall be subject to the achievement of one or more objective performance measures established by the Committee, which shall be based on the relative or absolute attainment of specified levels of one or any combination of the following, which may be determined pursuant to generally accepted accounting principles ("***GAAP***") or on a non-GAAP basis, as determined by the Committee: scientific progress, product development progress, business development progress, including in-licensing, net income/(loss), earnings/(loss) before or after discontinued operations, interest, taxes, depreciation and/or amortization, operating profit/(loss) before or after discontinued operations and/or taxes, sales, sales growth, earnings growth, cash flow or cash position, gross margins, stock price, financings (issuance of debt or equity), refinancings, market share, return on sales, assets, equity or investment, improvement of financial ratings, achievement of balance sheet or income statement objectives or total stockholder return. Such goals may reflect absolute entity or business unit performance or a relative comparison to the performance of a peer group of entities or other external measure of the selected performance criteria and may be absolute in their terms or measured against or in relationship to other companies comparably, similarly or otherwise situated. The Committee may specify that such performance measures shall be adjusted to exclude any one or more of (i) extraordinary items, (ii) gains or losses on the dispositions of discontinued operations, (iii) the cumulative effects of changes in accounting principles, (iv) the writedown of any asset, (vi) fluctuation in foreign currency exchange rates, and (vi) charges for restructuring and rationalization programs. Such performance measures: (i) may vary by Participant and may be different for different Awards; (ii) may be particular to a Participant or the department, branch, line of business, subsidiary or other unit in which the Participant works and may cover such period as may be specified by the Committee; and (iii) shall be set by the Committee within the time period prescribed by, and shall otherwise comply with the requirements of, Section 162(m). Awards that are not intended to qualify as Performance-Based Compensation may be based on these or such other performance measures as the Board may determine.

(4) Adjustments. Notwithstanding any provision of the Plan, with respect to any Performance Award that is intended to qualify as Performance-Based Compensation, the Committee may adjust downwards, but not upwards, the cash or number of shares payable pursuant to such Award, and the Committee may not waive the achievement of the applicable performance measures except in the case of the death or disability of the Participant or a change in control of the Company.

(5) Other. The Committee shall have the power to impose such other restrictions on Performance Awards as it may deem necessary or appropriate to ensure that such Awards satisfy all requirements for Performance-Based Compensation.

11. Miscellaneous

(a) No Right To Employment or Other Status. No person shall have any claim or right to be granted an Award by virtue of the adoption of the Plan, and the grant of an Award shall not be construed as giving a Participant the right to continued employment or any other relationship with the Company. The Company expressly reserves the right at any time to dismiss or otherwise terminate its relationship with a Participant free from any liability or claim under the Plan, except as expressly provided in the applicable Award.

(b) No Rights As Stockholder. Subject to the provisions of the applicable Award, no Participant or Designated Beneficiary shall have any rights as a stockholder with respect to any shares of Common Stock to be distributed with respect to an Award until becoming the record holder of such shares.

(c) Effective Date and Term of Plan. The Plan, as amended and restated, shall became effective on May 31, 2023.

No Awards shall be granted under the Plan after the expiration of 10 years from the date the Plan was initially approved by the Company's stockholders, but Awards previously granted may extend beyond that date.

(d) Amendment of Plan. The Board may amend, suspend or terminate the Plan or any portion thereof at any time provided that no amendment that would require stockholder approval under the rules of the NASDAQ Stock Market may be made effective unless and until the Company's stockholders approve such amendment. In addition, if at any time the approval of the Company's stockholders is required as to any other modification or amendment under Section 422 of the Code or any successor provision with respect to Incentive Stock Options, the Board may not effect such modification or amendment without such approval. Unless otherwise specified in the amendment, any amendment to the Plan adopted in accordance with this Section 11(d) shall apply to, and be binding on the holders of, all Awards outstanding under the Plan at the time the amendment is adopted, provided the Board determines that such amendment, taking into account any related action, does not materially and adversely affect the rights of Participants under the Plan. No Award shall be made that is conditioned upon stockholder approval of any amendment to the Plan unless the Award provides that (i) it will terminate or be forfeited if stockholder approval of such amendment is not obtained within no more than 12 months from the date of grant and (2) it may not be exercised or settled (or otherwise result in the issuance of Common Stock) prior to such stockholder approval.

(e) Authorization of Sub-Plans (including for Grants to non-U.S. Employees). The Board may from time to time establish one or more sub-plans under the Plan for purposes of satisfying applicable securities, tax or other laws of various jurisdictions. The Board shall establish such sub-plans by adopting supplements to the Plan containing (i) such limitations on the Board's discretion under the Plan as the Board deems necessary or desirable or (ii) such additional terms and conditions not otherwise inconsistent with the Plan as the Board shall deem necessary or desirable. All supplements adopted by the Board shall be deemed to be part of the Plan, but each supplement shall apply only to Participants within the affected jurisdiction and the Company shall not be required to provide copies of any supplement to Participants in any jurisdiction which is not the subject of such supplement.

(f) Compliance with Section 409A of the Code. Except as provided in individual Award agreements initially or by amendment, if and to the extent (i) any portion of any payment, compensation or other benefit provided to a Participant pursuant to the Plan in connection with his or her employment termination constitutes "nonqualified deferred compensation" within the meaning of Section 409A of the Code and (ii) the Participant is a specified employee as defined in Section 409A(a)(2)(B)(i) of the Code, in each case as determined by the Company in accordance with its procedures, by which determinations the Participant (through accepting the Award) agrees that he or she is bound, such portion of the payment, compensation or other benefit shall not be paid before the day that is six months plus one day after the date of "separation from service" (as determined under Section 409A of the Code) (the "***New Payment Date***"), except as Section 409A of the Code may then permit. The aggregate of any payments that otherwise would have been paid to the Participant during the period between the date of separation from service and the New Payment Date shall be paid to the Participant in a lump sum on such New Payment Date, and any remaining payments will be paid on their original schedule.

The Company makes no representations or warranty and shall have no liability to the Participant or any other person if any provisions of or payments, compensation or other benefits under the Plan are determined to constitute nonqualified deferred compensation subject to Section 409A of the Code but do not to satisfy the conditions of that section.

(g) Limitations on Liability. Notwithstanding any other provisions of the Plan, no individual acting as a director, officer, employee or agent of the Company will be liable to any Participant, former Participant, spouse, beneficiary, or any other person for any claim, loss, liability, or expense incurred in connection with the Plan, nor will such individual be personally liable with respect to the Plan because of any contract or other instrument he or she executes in his or her capacity as a director, officer, employee or agent of the Company. The Company will indemnify and hold harmless each director, officer, employee or agent of the Company to whom any duty or power relating to the administration or interpretation of the Plan has been or will be delegated, against any cost or expense (including attorneys' fees) or liability (including any sum paid in settlement of a claim with the Board's approval) arising out of any act or omission to act concerning the Plan unless arising out of such person's own fraud or bad faith.

(h) Governing Law. The provisions of the Plan and all Awards made hereunder shall be governed by and interpreted in accordance with the laws of the State of Delaware, excluding choice-of-law principles of the law of such state that would require the application of the laws of a jurisdiction other than the State of Delaware.

VERASTEM, INC.
AMENDED AND RESTATED
2021 EQUITY INCENTIVE PLAN

1. DEFINED TERMS

Exhibit A, which is incorporated by reference, defines certain terms used in the Plan and includes certain operational rules related to those terms.

2. PURPOSE

The Plan has been established to advance the interests of the Company by providing for the grant to Participants of Stock and Stock-based Awards.

3. ADMINISTRATION

The Plan will be administered by the Administrator. The Administrator has discretionary authority, subject only to the express provisions of the Plan, to administer and interpret the Plan and any Awards; to determine eligibility for and grant Awards; to determine the exercise price, base value from which appreciation is measured, or purchase price, if any, applicable to any Award, to determine, modify, accelerate or waive the terms and conditions of any Award; to determine the form of settlement of Awards (whether in cash, shares of Stock, other Awards or other property); to prescribe forms, rules and procedures relating to the Plan and Awards; and to otherwise do all things necessary or desirable to carry out the purposes of the Plan or any Award. Determinations of the Administrator made with respect to the Plan or any Award are conclusive and bind all persons.

4. SHARE POOL; LIMITS ON AWARDS

(a) Number of Shares. Subject to adjustment as provided in Section 7(b) below, the maximum number of shares of Stock that may be delivered in satisfaction of Awards under the Plan is (i) 1,991,666 shares of Stock, *plus* (ii) the number of shares of Stock underlying awards under the Prior Plans that on or after the Date of Adoption expire or terminate or are surrendered without the delivery of shares of Stock, are forfeited to or repurchased by the Company, or otherwise become available again for grant under the applicable Prior Plan, in each case, in accordance with the terms of the applicable Prior Plan (in the case of this clause (ii), which will not exceed 1,190,939 shares in the aggregate) (collectively, the "**Share Pool**"). Up to 1,991,666 shares of Stock from the Share Pool may be delivered in satisfaction of ISOs, but nothing in this Section 4(a) will be construed as requiring that any, or any fixed number of, ISOs be granted under the Plan. For purposes of this Section 4(a), the number of shares of Stock issued in satisfaction of Awards will be determined (i) by reducing the Share Pool by the number of shares of Stock withheld by the Company in payment of the exercise price or purchase price of an Award or in satisfaction of tax withholding requirements with respect to an Award; (ii) by reducing the Share Pool by the full number of shares covered by a SAR any portion of which is settled in Stock (and not only the number of shares of Stock delivered in settlement of the Award); and (iii) by increasing the Share Pool by any shares of Stock underlying Awards settled in cash or that expire, become unexercisable, terminate or are forfeited to or repurchased by the Company without the issuance (or retention, in the case of Restricted Stock or Unrestricted

Stock) of Stock. For the avoidance of doubt, the Share Pool will not be increased by any shares of Stock delivered under the Plan that are subsequently repurchased using proceeds directly attributable to Stock Option exercises. The limits set forth in this Section 4(a) will be construed to comply with the applicable requirements of Section 422.

(b) Substitute Awards. The Administrator may grant Substitute Awards under the Plan. To the extent consistent with the requirements of Section 422 and the regulations thereunder and other applicable legal requirements (including applicable stock exchange requirements), shares of Stock issued in respect of Substitute Awards will be in addition to and will not reduce the Share Pool. Notwithstanding the foregoing or anything in Section 4(a) above to the contrary, if any Substitute Award is settled in cash or expires, becomes unexercisable, terminates or is forfeited to or repurchased by the Company without the issuance (or retention, in the case of Restricted Stock or Unrestricted Stock) of Stock, the shares of Stock previously subject to such Award will not increase the Share Pool or otherwise be available for future issuance under the Plan. The Administrator will determine the extent to which the terms and conditions of the Plan apply to Substitute Awards, if at all.

(c) Type of Shares. Stock delivered by the Company under the Plan may be authorized but unissued Stock, treasury Stock or previously issued Stock acquired by the Company. No fractional shares of Stock will be delivered under the Plan.

(d) Director Limits. The aggregate value of all compensation granted or paid to any Director with respect to any calendar year, including Awards granted under the Plan and cash fees or other compensation paid by the Company to such Director outside of the Plan, in each case for his or her services as a Director during such calendar year, may not exceed $750,000 in the aggregate ($1,000,000 in the aggregate with respect to a Director's first calendar year of service on the Board), calculating the value of any Awards based on the grant date fair value in accordance with the Accounting Rules, assuming a maximum payout. For the avoidance of doubt, the limitation in this Section 4(d) will not apply to any compensation granted or paid to a Director for his or her services to the Company or a subsidiary other than as a Director, including, without limitation, as a consultant or advisor to the Company or a subsidiary.

5. ELIGIBILITY AND PARTICIPATION

The Administrator will select Participants from among Employees and Directors of, and consultants and advisors to, the Company and its subsidiaries. Eligibility for ISOs is limited to individuals described in the first sentence of this Section 5 who are employees of the Company or of a "parent corporation" or "subsidiary corporation" of the Company as those terms are defined in Section 424 of the Code. Eligibility for Stock Options, other than ISOs, and SARs is limited to individuals described in the first sentence of this Section 5 who are providing direct services on the date of grant of the Award to the Company or to a subsidiary of the Company that would be described in the first sentence of Section 1.409A-1(b)(5)(iii)(E) of the Treasury Regulations.

6. RULES APPLICABLE TO AWARDS

(a) All Awards.

(1) Award Provisions. The Administrator will determine the terms and conditions of all Awards, subject to the limitations provided herein. No term of an Award shall provide for automatic "reload" grants of additional Awards upon the exercise of an Option or SAR. By accepting (or, under such rules as the Administrator may prescribe, being deemed to have accepted) an Award, the Participant will be deemed to have agreed to the terms and conditions of the Award and the Plan. Notwithstanding any provision of the Plan to the contrary, Substitute Awards may contain terms and conditions that are inconsistent with the terms and conditions specified herein, as determined by the Administrator.

(2) Term of Plan. No Awards may be made after ten years from the Date of Adoption, but previously granted Awards may continue beyond that date in accordance with their terms.

(3) Transferability. Awards shall not be sold, assigned, transferred, pledged or otherwise encumbered by a Participant, either voluntarily or by operation of law, except by will or the laws of descent and distribution or, other than in the case of an ISO or Awards subject to Section 409A, pursuant to a qualified domestic relations order, and, during the life of a Participant, shall be exercisable only by the Participant; *provided*, *however*, except with respect to Awards subject to Section 409A or ISOs, that the Administrator may permit or provide in an Award for the gratuitous transfer of the Award by the Participant to or for the benefit of any immediate family member, family trust or other entity established for the benefit of the Participant and/or an immediate family member thereof if the Company would be eligible to use a Form S-8 under the Securities Act, for the registration of the sale of the Stock subject to such Award to such proposed transferee; *provided further*, that the Company shall not be required to recognize any such permitted transfer until such time as such permitted transferee shall, as a condition to such transfer, deliver to the Company a written instrument in form and substance satisfactory to the Company confirming that such transferee shall be bound by all of the terms and conditions of the Award and the Plan. References to a Participant, to the extent relevant in the context, shall include references to permitted transferees. For the avoidance of doubt, nothing contained in this Section 6(a)(3) shall be deemed to restrict a transfer to the Company.

(4) Vesting; Exercisability. The Administrator will determine the time or times at which an Award vests or becomes exercisable and the terms and conditions on which a Stock Option or SAR remains exercisable. Without limiting the foregoing, the Administrator may at any time accelerate the vesting and/or exercisability of an Award (or any portion thereof), regardless of any adverse or potentially adverse tax or other consequences resulting from such acceleration. Unless the Administrator expressly provides otherwise, however, the following rules will apply if a Participant's Employment ceases:

> **(A)** Except as provided in (B) and (C) below, immediately upon the cessation of the Participant's Employment, each Stock Option and SAR (or portion thereof) that is then held by the Participant or by the Participant's permitted transferees, if any, will cease to be exercisable and will terminate and each other Award that is then held by the Participant or by the Participant's permitted transferees, if any, to the extent not then vested, will be forfeited.

(B) Subject to (C) and (D) below, each vested and unexercised Stock Option and SAR (or portion thereof) held by the Participant or the Participant's permitted transferees, if any, immediately prior to the cessation of the Participant's Employment, to the extent then exercisable, will remain exercisable for the lesser of (i) a period of three months following such cessation of Employment or (ii) the period ending on the latest date on which such Stock Option or SAR could have been exercised without regard to this Section 6(a)(4), and will thereupon immediately terminate. Notwithstanding the foregoing, if the Participant violates the non-competition or confidentiality provisions of any employment contract, confidentiality and nondisclosure agreement or other agreement between the Participant and the Company, the right to exercise any Stock Option and/or SAR held by the Participant shall terminate immediately upon such violation.

(C) Subject to (D) below, each vested and unexercised Stock Option and SAR (or portion thereof) held by a Participant or the Participant's permitted transferees, if any, immediately prior to the cessation of the Participant's Employment due to his or her death or by the Company due to his or her Disability, to the extent then exercisable, will remain exercisable for the lesser of (i) the one-year period ending on the first anniversary of such cessation of Employment or (ii) the period ending on the latest date on which such Stock Option or SAR could have been exercised without regard to this Section 6(a)(4), and will thereupon immediately terminate.

(D) All Awards (whether or not vested or exercisable) held by a Participant or the Participant's permitted transferees, if any, immediately prior to the cessation of the Participant's Employment will immediately terminate upon such cessation of Employment if the termination is for Cause or occurs in circumstances that in the determination of the Administrator would have constituted grounds for the Participant's Employment to be terminated for Cause (in each case, without regard to the lapsing of any required notice or cure periods in connection therewith).

(5) **Recovery of Compensation**. The Administrator may provide in any case that any outstanding Award (whether or not vested or exercisable), the proceeds from the exercise or disposition of any Award or Stock acquired under any Award, and any other amounts received in respect of any Award or Stock acquired under any Award will be subject to forfeiture and disgorgement to the Company, with interest and other related earnings, if the Participant to whom the Award was granted is not in compliance with any provision of the Plan or any applicable Award or any non-competition, non-solicitation, no-hire, non-disparagement, confidentiality, invention assignment or other restrictive covenant by which he or she is bound. Each Award will be subject to any policy of the Company or any of its subsidiaries that relates to trading on non-public information and permitted transactions and other limitations with respect to shares of Stock, including limitations on hedging and pledging and stock ownership guidelines. In addition, each Award will be subject to any policy of the Company or any of its affiliates that provides for forfeiture, disgorgement, or clawback with respect to incentive compensation that includes Awards under the Plan and will be further subject to forfeiture and disgorgement to the extent required by law or applicable stock exchange listing standards, including, without limitation, Section 10D of the Exchange Act. Each Participant, by accepting or being deemed to have accepted an Award under the Plan, agrees (or will be deemed to have

agreed) to the terms of this Section 6(a)(5) and to any clawback, recoupment or similar policy of the Company or any of its subsidiaries and further agrees (or will be deemed to have further agreed) to cooperate fully with the Administrator, and to cause any and all permitted transferees of the Participant to cooperate fully with the Administrator, to effectuate any forfeiture or disgorgement described in this Section 6(a)(5). Neither the Administrator nor the Company nor any other person, other than the Participant and his or her permitted transferees, if any, will be responsible for any adverse tax or other consequences to a Participant or his or her permitted transferees, if any, that may arise in connection with this Section 6(a)(5).

(6) Taxes. The grant of an Award and the issuance, delivery, vesting and retention of Stock, cash or other property under an Award are conditioned upon the full satisfaction by the Participant of all tax and other withholding requirements with respect to the Award. The Administrator will prescribe such rules for the withholding of taxes and other amounts with respect to any Award as it deems necessary. Without limitation to the foregoing, the Company or any affiliate of the Company will have the authority and the right to deduct or withhold (by any means set forth herein or in an Award agreement), or require a Participant to remit to the Company or an affiliate of the Company, an amount sufficient to satisfy all U.S. and non-U.S. federal, state and local income tax, social insurance, payroll tax, fringe benefits tax, payment on account or other tax-related items related to participation in the Plan and any Award hereunder and legally applicable to the Participant and required by law to be withheld (including, any amount deemed by the Company, in its discretion, to be an appropriate charge to the Participant even if legally applicable to the Company or any affiliate of the Company). The Administrator, in its sole discretion, may hold back shares of Stock from an Award or permit a Participant to tender previously-owned shares of Stock in satisfaction of tax or other withholding requirements (but not in excess of the maximum withholding amount consistent with the Award being subject to equity accounting treatment under the Accounting Rules). Any amounts withheld pursuant to this Section 6(a)(6) will be treated as though such amounts had been paid directly to the applicable Participant. In addition, the Company may, to the extent permitted by law, deduct any such tax and other withholding amounts from any payment of any kind otherwise due to a Participant from the Company or any of its affiliates.

(7) Dividend Equivalents. The Administrator may provide for the payment of amounts (on terms and subject to such conditions established by the Administrator) in lieu of cash dividends or other cash distributions with respect to Stock subject to an Award whether or not the holder of such Award is otherwise entitled to share in the actual dividend or distribution in respect of such Award; *provided*, *however*, that (a) dividends or dividend equivalents relating to an Award that, at the dividend payment date, remains subject to a risk of forfeiture (whether service-based or performance-based) shall be subject to the same risk of forfeiture as applies to the underlying Award and (b) no dividends or dividend equivalents shall be payable with respect to Stock Options or SARs. Any entitlement to dividend equivalents or similar entitlements will be established and administered either consistent with an exemption from, or in compliance with, the applicable requirements of Section 409A.

(8) Rights Limited. Nothing in the Plan or any Award will be construed as giving any person the right to be granted an Award or to continued employment or service with the Company or any of its subsidiaries, or any rights as a stockholder except as to shares of Stock actually delivered under the Plan. The loss of existing or potential profit in any Award will not

constitute an element of damages in the event of a termination of a Participant's Employment for any reason, even if the termination is in violation of an obligation of the Company or any of its subsidiaries to the Participant.

(9) Coordination with Other Plans. Shares of Stock and/or Awards under the Plan may be issued or granted in tandem with, or in satisfaction of or substitution for, other Awards under the Plan or awards made under other compensatory plans or programs of the Company or any of its subsidiaries. For example, but without limiting the generality of the foregoing, awards under other compensatory plans or programs of the Company or any of its subsidiaries may be settled in Stock (including, without limitation, Unrestricted Stock) under the Plan if the Administrator so determines, in which case the shares delivered will be treated as awarded under the Plan (and will reduce the Share Pool in accordance with the rules set forth in Section 4).

(10) Section 409A.

(A) Without limiting the generality of Section 11(b) hereof, each Award will contain such terms as the Administrator determines and will be construed and administered, such that the Award either qualifies for an exemption from the requirements of Section 409A or satisfies such requirements.

(B) Notwithstanding anything to the contrary in the Plan or any Award agreement, the Administrator may unilaterally amend, modify or terminate the Plan or any outstanding Award, including, without limitation, changing the form of the Award, if the Administrator determines that such amendment, modification or termination is necessary or desirable to avoid the imposition of an additional tax, interest or penalty under Section 409A.

(C) If a Participant is determined on the date of the Participant's termination of Employment to be a "specified employee" within the meaning of that term under Section 409A(a)(2)(B) of the Code, then, with regard to any payment that is considered nonqualified deferred compensation under Section 409A, to the extent applicable, payable on account of a "separation from service", such payment will be made or provided on the date that is the earlier of (i) the first business day following the expiration of the six-month period measured from the date of such "separation from service" and (ii) the date of the Participant's death (the "**Delay Period**"). Upon the expiration of the Delay Period, all payments delayed pursuant to this Section 6(a)(10)(C) (whether they would have otherwise been payable in a single lump sum or in installments in the absence of such delay) will be paid, without interest, on the first business day following the expiration of the Delay Period in a lump sum and any remaining payments due under the Award will be paid in accordance with the normal payment dates specified for them in the applicable Award agreement.

(D) For purposes of Section 409A, each payment made under the Plan or any Award will be treated as a separate payment.

(E) With regard to any payment considered to be nonqualified deferred compensation under Section 409A, to the extent applicable, that is payable upon a change in control of the Company or other similar event, to the extent required to avoid the imposition of any additional tax, interest or penalty under Section 409A, no amount will be payable unless such change in control constitutes a "change in control event" within the meaning of Section 1.409A-3(i)(5) of the Treasury Regulations.

(b) Stock Options and SARs.

(1) Time and Manner of Exercise. Unless the Administrator expressly provides otherwise, no Stock Option or SAR will be deemed to have been exercised until the Administrator receives a notice of exercise in a form acceptable to the Administrator that is signed by the appropriate person and accompanied by any payment required under the Award. The Administrator may limit or restrict the exercisability of any Stock Option or SAR in its discretion, including in connection with any Covered Transaction. Any attempt to exercise a Stock Option or SAR by any person other than the Participant will not be given effect unless the Administrator has received such evidence as it may require that the person exercising the Award has the right to do so.

(2) Exercise Price. The exercise price (or the base value from which appreciation is to be measured) per share of each Award requiring exercise must be no less than 100% (in the case of an ISO granted to a 10-percent stockholder within the meaning of Section 422(b)(6) of the Code, 110%) of the Fair Market Value of a share of Stock, determined as of the date of grant of the Award, or such higher amount as the Administrator may determine in connection with the grant.

(3) Payment of Exercise Price. Where the exercise of an Award (or portion thereof) is to be accompanied by a payment, payment of the exercise price must be made by cash or check acceptable to the Administrator or, if so permitted by the Administrator and if legally permissible, (i) through the delivery of previously acquired unrestricted shares of Stock, or the withholding of unrestricted shares of Stock otherwise deliverable upon exercise, in either case, that have a Fair Market Value equal to the exercise price; (ii) through a broker-assisted cashless exercise program acceptable to the Administrator; (iii) by other means acceptable to the Administrator; or (iv) by any combination of the foregoing permissible forms of payment. The delivery of previously acquired shares in payment of the exercise price under clause (i) above may be accomplished either by actual delivery or by constructive delivery through attestation of ownership, subject to such rules as the Administrator may prescribe.

(4) Maximum Term. The maximum term of a Stock Option or a SAR must not exceed 10 years from the date of grant (or five years from the date of grant in the case of an ISO granted to a 10-percent stockholder described in Section 6(b)(2) above).

(5) No Repricing. Except in connection with a corporate transaction involving the Company (which term includes, without limitation, any stock dividend, stock split, extraordinary cash dividend, recapitalization, reorganization, merger, consolidation, split-up, spin-off, combination or exchange of shares) or as otherwise contemplated by Section 7 below, the Company may not, without obtaining stockholder approval, (i) amend the terms of

outstanding Stock Options or SARs to reduce the exercise price or base value of such Stock Options or SARs; (ii) cancel outstanding Stock Options or SARs in exchange for Stock Options or SARs that have an exercise price or base value that is less than the exercise price or base value of the original Stock Options or SARs; or (iii) cancel outstanding Stock Options or SARs that have an exercise price or base value greater than the Fair Market Value of a share of Stock on the date of such cancellation in exchange for cash or other consideration.

7. EFFECT OF CERTAIN TRANSACTIONS

(a) Mergers, *etc*. Except as otherwise expressly provided in an Award or other agreement or by the Administrator, the following provisions will apply in the event of a Covered Transaction:

(1) Assumption or Substitution. If the Covered Transaction is one in which there is an acquiring or surviving entity, the Administrator may provide for (i) the assumption or continuation of some or all outstanding Awards or any portion thereof or (ii) the grant of new awards in substitution therefor by the acquirer, successor or survivor or an affiliate of the acquirer, successor or survivor.

(2) Cash-Out of Awards; Conversion to Liquidation Proceeds. Subject to Section 7(a)(5) below, the Administrator may provide for payment (a "**cash-out**"), with respect to some or all Awards or any portion thereof (including only the vested portion thereof, with the unvested portion terminating without payment due as provided in Section 7(a)(4) below), equal in the case of each applicable Award or portion thereof to the excess, if any, of (i) the fair market value of one share of Stock multiplied by the number of shares of Stock subject to the Award or such portion, minus (ii) the aggregate exercise or purchase price, if any, of such Award or such portion thereof (or, in the case of a SAR, the aggregate base value above which appreciation is measured), in each case, on such payment and other terms and subject to such conditions (which need not be the same as the terms and conditions applicable to holders of Stock generally), as the Administrator determines, including that any amounts paid in respect of such Award in connection with the Covered Transaction be placed in escrow or otherwise made subject to such restrictions as the Administrator deems appropriate. For the avoidance of doubt, if the per share exercise or purchase price (or base value) of an Award or portion thereof is equal to or greater than the fair market value of one share of Stock, such Award or portion may be cancelled with no payment due hereunder or otherwise in respect thereof. Subject to Section 7(a)(5) below, in connection with a liquidation or dissolution of the Company, the Administrator may provide for some or all Awards to convert into the right to receive liquidation proceeds, on such payment and other terms and subject to such conditions (which need not be the same as the terms and conditions applicable to holders of Stock generally), as the Administrator determines.

(3) Acceleration of Certain Awards. Subject to Section 7(a)(5) below, the Administrator may provide that any Award requiring exercise will become exercisable, in full or in part, and/or that the delivery of any shares of Stock remaining deliverable under any outstanding Award of Stock Units (including Restricted Stock Units and Performance Awards to the extent consisting of Stock Units) will be accelerated, in full or in part, in each case on a basis that gives the holder of the Award a reasonable opportunity, as determined by the Administrator,

following the exercise of the Award or the delivery of the shares, as the case may be, to participate as a stockholder in the Covered Transaction.

(4) Termination of Awards upon Consummation of Covered Transaction. Except as the Administrator may otherwise determine, each Award will automatically terminate (and in the case of outstanding shares of Restricted Stock, will automatically be forfeited) immediately upon the consummation of the Covered Transaction, other than (i) any Award that is assumed, continued or substituted for pursuant to Section 7(a)(1) above and (ii) any Award that by its terms, or as a result of action taken by the Administrator, continues following the Covered Transaction.

(5) Additional Limitations. Any share of Stock and any cash or other property or other award delivered pursuant to Section 7(a)(1), Section 7(a)(2) or Section 7(a)(3) above with respect to an Award may, in the discretion of the Administrator, contain such restrictions, if any, as the Administrator deems appropriate, including to reflect any performance or other vesting conditions to which the Award was subject and that did not lapse (and were not satisfied) in connection with the Covered Transaction. For purposes of the immediately preceding sentence, a cash-out under Section 7(a)(2) above or an acceleration under Section 7(a)(3) above will not, in and of itself, be treated as the lapsing (or satisfaction) of a performance or other vesting condition. In the case of Restricted Stock that does not vest and is not forfeited in connection with the Covered Transaction, the Administrator may require that any amounts delivered, exchanged or otherwise paid in respect of such Stock in connection with the Covered Transaction be placed in escrow or otherwise made subject to such restrictions as the Administrator deems appropriate to carry out the intent of the Plan.

(6) Uniform Treatment. For the avoidance of doubt, the Administrator need not treat Participants or Awards (or portions thereof) in a uniform manner, and may treat different Participants and/or Awards differently, in connection with a Covered Transaction.

(b) Changes in and Distributions with Respect to Stock.

(1) Basic Adjustment Provisions. In the event of a stock dividend, stock split or combination of shares (including a reverse stock split), recapitalization, reclassification of shares, spin-off, dividend or distribution to holders of Stock other than an ordinary cash dividend, or other change in the Company's capital structure that constitutes an equity restructuring within the meaning of the Accounting Rules, the Administrator shall make appropriate adjustments to the Share Pool, and shall make appropriate adjustments to the number and kind of shares of stock or securities underlying Awards then outstanding or subsequently granted, any exercise or purchase prices (or base values) relating to Awards and any other provision of Awards affected by such change. Without limiting the generality of the foregoing, in the event the Company effects a split of the Stock by means of a stock dividend and the exercise price of and the number of shares subject to an outstanding Stock Option are adjusted as of the date of the distribution of the dividend (rather than as of the record date for such dividend), then an optionee who exercises a Stock Option between the record date and the distribution date for such stock dividend shall be entitled to receive, on the distribution date, the stock dividend with respect to the shares of Stock acquired upon such Stock Option exercise,

notwithstanding the fact that such shares were not outstanding as of the close of business on the record date for such stock dividend.

(2) Certain Other Adjustments. The Administrator may also make adjustments of the type described in Section 7(b)(1) above to take into account distributions to stockholders other than those provided for in Sections 7(a) and 7(b)(1) above, or any other event, if the Administrator determines that adjustments are appropriate to avoid distortion in the operation of the Plan or any Award.

(3) Continuing Application of Plan Terms. References in the Plan to shares of Stock will be construed to include any stock or securities resulting from an adjustment pursuant to this Section 7.

8. LEGAL CONDITIONS ON DELIVERY OF STOCK

The Company will not be obligated to deliver any shares of Stock pursuant to the Plan or to remove any restriction from shares of Stock previously delivered under the Plan until: (i) the Company is satisfied that all legal matters in connection with the issuance and delivery of such shares have been addressed and resolved; (ii) if the outstanding Stock is at the time of delivery listed on any stock exchange or national market system, the shares to be delivered have been listed or authorized to be listed on such exchange or system upon official notice of issuance; and (iii) all conditions of the Award have been satisfied or waived. The Company may require, as a condition to the exercise of an Award or the delivery of shares of Stock under an Award, such representations or agreements as counsel for the Company may consider appropriate to avoid violation of the Securities Act or any applicable state or non-U.S. securities law. Any Stock delivered under the Plan will be evidenced in such manner as the Administrator determines appropriate, including book-entry registration or delivery of stock certificates. In the event that the Administrator determines that stock certificates will be issued in connection with Stock issued under the Plan, the Administrator may require that such certificates bear an appropriate legend reflecting any restriction on transfer applicable to such Stock, and the Company may hold the certificates pending the lapse of the applicable restrictions.

9. AMENDMENT AND TERMINATION

The Administrator may at any time or times amend the Plan or any outstanding Award for any purpose which may at the time be permitted by applicable law, and may at any time terminate the Plan as to any future grants of Awards; *provided, however*, that except as otherwise expressly provided in the Plan or the applicable Award, the Administrator may not, without the Participant's consent, alter the terms of an Award so as to affect materially and adversely the Participant's rights under the Award, unless the Administrator expressly reserved the right to do so in the Plan or at the time the applicable Award was granted. Any amendments to the Plan will be conditioned upon stockholder approval only to the extent, if any, such approval is required by applicable law (including the Code) or stock exchange requirements, as determined by the Administrator. For the avoidance of doubt, without limiting the Administrator's rights hereunder, no adjustment to any Award pursuant to the terms of Section 7 or Section 12 hereof will be treated as an amendment requiring a Participant's consent.

10. OTHER COMPENSATION ARRANGEMENTS

The existence of the Plan or the grant of any Award will not affect the right of the Company or any of its subsidiaries to grant any person bonuses or other compensation in addition to Awards under the Plan.

11. MISCELLANEOUS

(a) Waiver of Jury Trial. By accepting or being deemed to have accepted an Award under the Plan, each Participant waives (or will be deemed to have waived), to the maximum extent permitted under applicable law, any right to a trial by jury in any action, proceeding or counterclaim concerning any rights under the Plan or any Award, or under any amendment, waiver, consent, instrument, document or other agreement delivered or which in the future may be delivered in connection therewith, and agrees (or will be deemed to have agreed) that any such action, proceedings or counterclaim will be tried before a court and not before a jury. By accepting (or being deemed to have accepted) an Award under the Plan, each Participant certifies that no officer, representative, or attorney of the Company has represented, expressly or otherwise, that the Company would not, in the event of any action, proceeding or counterclaim, seek to enforce the foregoing waivers. Notwithstanding anything to the contrary in the Plan, nothing herein is to be construed as limiting the ability of the Company and a Participant to agree to submit any dispute arising under the terms of the Plan or any Award to binding arbitration or as limiting the ability of the Company to require any individual to agree to submit such disputes to binding arbitration as a condition of receiving an Award hereunder.

(b) Limitation of Liability. Notwithstanding anything to the contrary in the Plan or any Award, none of the Company, nor any of its subsidiaries, nor the Administrator, nor any person acting on behalf of the Company, any of its subsidiaries, or the Administrator, will be liable to any Participant, to any permitted transferee, to the estate or beneficiary of any Participant or any permitted transferee, or to any other person by reason of any acceleration of income, any additional tax, or any penalty, interest or other liability asserted by reason of the failure of an Award to satisfy the requirements of Section 422 or Section 409A or by reason of Section 4999 of the Code, or otherwise asserted with respect to any Award.

(c) Unfunded Plan. The Company's obligations under the Plan are unfunded, and no Participant will have any right to specific assets of the Company in respect of any Award. Participants will be general unsecured creditors of the Company with respect to any amounts due or payable under the Plan.

12. ESTABLISHMENT OF SUB-PLANS

The Administrator may at any time and from time to time (including before or after an Award is granted) establish, adopt, or revise any rules and regulations as it may deem necessary or advisable to administer the Plan for Participants based outside of the U.S. and/or subject to the laws of countries other than the U.S., including by establishing one or more sub-plans, supplements or appendices under the Plan or any Award agreement for the purpose of complying or facilitating compliance with non-U.S. laws or taking advantage of tax favorable treatment or for any other legal or administrative reason determined by the Administrator. Any such sub-

plan, supplement or appendix may contain, in each case, (i) such limitations on the Administrator's discretion under the Plan and (ii) such additional or different terms and conditions, as the Administrator deems necessary or desirable and will be deemed to be part of the Plan but will apply only to Participants within the group to which the sub-plan, supplement or appendix applies (as determined by the Administrator); *provided, however*, that no sub-plan, supplement or appendix, rule or regulation established pursuant to this provision shall increase the Share Pool.

13. GOVERNING LAW

(a) Certain Requirements of Corporate Law. Awards and shares of Stock will be granted, issued and administered consistent with the requirements of applicable Delaware law relating to the issuance of stock and the consideration to be received therefor, and with the applicable requirements of the stock exchanges or other trading systems on which the Stock is listed or entered for trading, in each case, as determined by the Administrator.

(b) Other Matters. Except as otherwise provided by the express terms of an Award agreement, under a sub-plan described in Section 12 above or as provided in Section 13(a) above, the domestic substantive laws of the Commonwealth of Massachusetts govern the provisions of the Plan and of Awards under the Plan and all claims or disputes arising out of or based upon the Plan or any Award under the Plan or relating to the subject matter hereof or thereof without giving effect to any choice or conflict of laws provision or rule that would cause the application of the domestic substantive laws of any other jurisdiction.

(c) Jurisdiction. Subject to Section 11(a) above, by accepting (or being deemed to have accepted) an Award, each Participant agrees or will be deemed to have agreed to (i) submit irrevocably and unconditionally to the jurisdiction of the federal and state courts located within the geographic boundaries of the United States District Court for the District of Massachusetts for the purpose of any suit, action or other proceeding arising out of or based upon the Plan or any Award; (ii) not commence any suit, action or other proceeding arising out of or based upon the Plan or any Award, except in the federal and state courts located within the geographic boundaries of the United States District Court for the District of Massachusetts; and (iii) waive, and not assert, by way of motion as a defense or otherwise, in any such suit, action or proceeding, any claim that he or she is not subject personally to the jurisdiction of the above-named courts that his or her property is exempt or immune from attachment or execution, that the suit, action or proceeding is brought in an inconvenient forum, that the venue of the suit, action or proceeding is improper or that the Plan or any Award or the subject matter thereof may not be enforced in or by such court.

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EXHIBIT A

Definition of Terms

The following terms, when used in the Plan, have the meanings and are subject to the provisions set forth below:

"Accounting Rules": Financial Accounting Standards Board Accounting Standards Codification Topic 718, or any successor provision.

"Administrator": The Compensation Committee, except that the Board may at any time act in the capacity of the Administrator (including with respect to such matters that are not delegated to the Compensation Committee by the Board (whether pursuant to committee or charter), if applicable). The Compensation Committee (or the Board) may delegate (i) to one or more of its members (or one or more other members of the Board) such of its duties, powers and responsibilities as it may determine; (ii) to one or more officers of the Company the power to grant Awards to the extent permitted by applicable law; and (iii) to such Employees or other persons as it determines such ministerial tasks as it deems appropriate. For purposes of the Plan, the term "Administrator" will include the Board, the Compensation Committee, and the person or persons delegated authority under the Plan to the extent of such delegation, as applicable.

"Award": Any or a combination of the following:

(i) Stock Options.

(ii) SARs.

(iii) Restricted Stock.

(iv) Unrestricted Stock.

(v) Stock Units, including Restricted Stock Units.

(vi) Performance Awards.

(vii) Awards (other than Awards described in (i) through (vi) above) that are convertible into or otherwise based on Stock.

"Board": The Board of Directors of the Company.

"Cause": In the case of any Participant who is party to an employment, change of control or severance-benefit agreement that contains a definition of "Cause," the definition set forth in such agreement applies with respect to such Participant for purposes of the Plan for so long as such agreement is in effect. In every other case, "Cause" means, as determined by the Administrator, (i) the Participant's material failure to perform (other than by reason of disability), or substantial negligence in the performance of, the Participant's duties and responsibilities to the Company or any of its affiliates; (ii) the Participant's material breach of the Plan, any Award agreement or any other agreement between the Participant and the

Company or any of its affiliates; (iii) the Participant's commission of, or plea of nolo contendere to, a felony or other crime involving moral turpitude; or (iv) other conduct by the Participant that is or could reasonably be expected to be materially harmful to the business interests or reputation of the Company or any of its affiliates.

"Change of Control": Any of (i) the acquisition of beneficial ownership (as defined in Rule 13d-3 under the Exchange Act) directly or indirectly by any "person" (as such term is used in Sections 13(d) and 14(d) of the Exchange Act) of securities of the Company representing a majority or more of the combined voting power of the Company's then outstanding securities, other than an acquisition of securities for investment purposes pursuant to a bona fide financing of the Company; (ii) a merger or consolidation of the Company with any other corporation in which the holders of the voting securities of the Company prior to the merger or consolidation do not own more than 50% of the total voting securities of the surviving corporation; or (iii) the sale or disposition by the Company of all or substantially all of the Company's assets other than a sale or disposition of assets to an affiliate of the Company or a holder of securities of the Company.

"Code": The U.S. Internal Revenue Code of 1986, as from time to time amended and in effect, or any successor statute as from time to time in effect.

"Company": Verastem, Inc., a Delaware corporation.

"Compensation Committee": The Compensation Committee of the Board.

"Covered Transaction": Any of (i) a merger or consolidation of the Company with or into another entity as a result of which all of the Stock is converted into or exchanged for the right to receive cash, securities or other property or is cancelled; (ii) a transfer or disposition of all the Stock for cash, securities or other property pursuant to a share exchange or other transaction; (iii) a liquidation or dissolution of the Company; (iv) a sale or transfer of all or substantially all the Company's assets; or (v) any other transaction the Administrator determines to be a Covered Transaction. Where a Covered Transaction involves a tender offer that is reasonably expected to be followed by a merger described in clause (i) (as determined by the Administrator), the Covered Transaction will be deemed to have occurred upon consummation of the tender offer.

"Date of Adoption": The earlier of the date the Plan was originally approved by the Company's stockholders or adopted by the Board, as determined by the Committee.

"Director": A member of the Board who is not an Employee.

"Disability": In the case of any Participant who is party to an employment, change of control or severance-benefit agreement that contains a definition of "Disability" (or a corollary term), the definition set forth in such agreement applies with respect to such Participant for purposes of the Plan for so long as such agreement is in effect. In every other case, "Disability" means, as determined by the Administrator, a Participant's total and permanent disability within the meaning of Section 22(e)(3) of the Code.

"Employee": Any person who is employed by the Company or any of its subsidiaries.

"Employment": A Participant's employment or other service relationship with the Company or any of its subsidiaries. Employment will be deemed to continue, unless the Administrator otherwise determines, so long as the Participant is employed by, or otherwise is providing services in a capacity described in Section 5 to, the Company or any of its subsidiaries. If a Participant's employment or other service relationship is with any subsidiary of the Company and that entity ceases to be a subsidiary of the Company, the Participant's Employment will be deemed to have terminated when the entity ceases to be a subsidiary of the Company unless the Participant transfers Employment to the Company or one of its remaining subsidiaries. Notwithstanding the foregoing, in construing the provisions of any Award relating to the payment of "nonqualified deferred compensation" (subject to Section 409A) upon a termination or cessation of Employment, references to termination or cessation of employment, separation from service, retirement or similar or correlative terms will be construed to require a "separation from service" (as that term is defined in Section 1.409A-1(h) of the Treasury Regulations, after giving effect to the presumptions contained therein) from the Company and from all other corporations and trades or businesses, if any, that would be treated as a single "service recipient" with the Company under Section 1.409A-1(h)(3) of the Treasury Regulations. The Company may, but need not, elect in writing, subject to the applicable limitations under Section 409A, any of the special elective rules prescribed in Section 1.409A-1(h) of the Treasury Regulations for purposes of determining whether a "separation from service" has occurred. Any such written election will be deemed a part of the Plan.

"Exchange Act": The Securities Exchange Act of 1934, as amended.

"Fair Market Value": As of a particular date, (i) the closing price for a share of Stock reported on the Nasdaq Stock Market (or any other national securities exchange on which the Stock is then listed) for that date or, if no closing price is reported for that date, the closing price on the immediately preceding date on which a closing price was reported or (ii) in the event that the Stock is not traded on a national securities exchange, the fair market value of a share of Stock determined by the Administrator consistent with the rules of Section 422 and Section 409A to the extent applicable.

"ISO": A Stock Option intended to be an "incentive stock option" within the meaning of Section 422.

"NSO": A Stock Option that is not intended to be an "incentive stock option" within the meaning of Section 422.

"Participant": A person who is granted an Award under the Plan.

"Performance Award": An Award subject to performance vesting conditions, which may include Performance Criteria.

"Performance Criteria": Specified criteria, other than the mere continuation of Employment or the mere passage of time, the satisfaction of which is a condition for the grant, exercisability, vesting or full enjoyment of an Award. A Performance Criterion and any targets with respect thereto need not be based upon an increase, a positive or improved result or avoidance of loss and may be applied to a Participant individually, or to a business unit or

division of the Company or to the Company as a whole. A Performance Criterion may also be based on individual performance and/or subjective performance criteria. The Administrator may provide that one or more of the Performance Criteria applicable to such Award will be adjusted in a manner to reflect events (for example, but without limitation, acquisitions or dispositions) occurring during the performance period that affect the applicable Performance Criterion or Criteria.

"Plan": This Verastem, Inc. Amended and Restated 2021 Equity Incentive Plan, as from time to time amended and in effect.

"Prior Plans": The Verastem, Inc. Amended and Restated 2012 Incentive Plan and the Verastem, Inc. 2010 Equity Incentive Plan, as amended.

"Restricted Stock": Stock subject to restrictions requiring that it be forfeited, redelivered or offered for sale to the Company if specified performance or other vesting conditions are not satisfied.

"Restricted Stock Unit": A Stock Unit that is, or as to which the delivery of Stock or of cash in lieu of Stock is, subject to the satisfaction of specified performance or other vesting conditions.

"SAR": A right entitling the holder upon exercise to receive an amount (payable in cash or in shares of Stock of equivalent value) equal to the excess of the Fair Market Value of the shares of Stock subject to the right over the base value from which appreciation under the SAR is to be measured.

"Section 409A": Section 409A of the Code and the regulations thereunder.

"Section 422": Section 422 of the Code and the regulations thereunder.

"Securities Act": The Securities Act of 1933, as amended.

"Stock": Common stock of the Company, par value $0.01 per share.

"Stock Option": An option entitling the holder to acquire shares of Stock upon payment of the exercise price.

"Stock Unit": An unfunded and unsecured promise, denominated in shares of Stock, to deliver Stock or cash measured by the value of Stock in the future.

"Substitute Award": An Award granted under the Plan in substitution for one or more equity awards of an acquired company that are converted, replaced or adjusted in connection with the acquisition.

"Unrestricted Stock": Stock not subject to any restrictions under the terms of the Award.

Exhibit 31.1

CERTIFICATIONS

I, Daniel W. Paterson, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Verastem, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ DANIEL W. PATERSON

Daniel W. Paterson
President and Chief Executive Officer
(Principal executive officer)

Date: August 8, 2023

Exhibit 31.2

CERTIFICATIONS

I, Daniel Calkins, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Verastem, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

/s/ DANIEL CALKINS

Daniel Calkins
Vice President, Finance
(Principal financial and accounting officer)

Date: August 8, 2023

Exhibit 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of Verastem, Inc. (the "Company") for the period ended June 30, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, Daniel W. Paterson, President and Chief Executive Officer of the Company, hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to his knowledge:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ DANIEL W. PATERSON

Daniel W. Paterson
President and Chief Executive Officer
(Principal executive officer)

Date: August 8, 2023

Exhibit 32.2

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of Verastem, Inc. (the "Company") for the period ended June 30, 2023 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, Daniel Calkins, Vice President of Finance, of the Company, hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to his knowledge:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

/s/ DANIEL CALKINS

Daniel Calkins
Vice President, Finance
(Principal financial and accounting officer)

Date: August 8, 2023

Exhibit 99.1

Verastem Oncology Reports Second Quarter 2023 Financial Results and Highlights Recent Company Progress

Presented Positive Results from Part A of RAMP 201 Trial of Avutometinib and Defactinib in Recurrent Low-Grade Serous Ovarian Cancer (LGSOC) at American Society of Clinical Oncology Meeting

Established Design for RAMP 301 Phase 3 Confirmatory Trial of Avutometinib and Defactinib in Recurrent LGSOC

Strengthened Balance Sheet, Including Receipt of Gross Proceeds of $97.8M from June 2023 Public Offering, Bringing Company Cash, Cash Equivalents, and Investments to $183.1M as of June 30, 2023

BOSTON, MA – August 8, 2023 – Verastem Oncology (Nasdaq: VSTM), a biopharmaceutical company committed to advancing new medicines for patients with cancer, today reported financial results for the second quarter ending June 30, 2023 and highlighted recent progress.

"We made significant advancements in the second quarter, including presenting positive results from the RAMP 201 trial of avutometinib and defactinib in recurrent LGSOC and finalizing the design of the confirmatory Phase 3 trial. Both are important milestones in our plan to file for accelerated approval in LGSOC based on mature results from RAMP 201 and data from the investigator sponsored FRAME trial," said Dan Paterson, President and Chief Executive Officer, Verastem Oncology. "Our work to strengthen our balance sheet will enable our continued progress across our RAMP programs in LGSOC, non-small lung cancer and pancreatic cancer and support continued preparation for a potential commercial launch in LGSOC. We are encouraged by the progress we have made and believe we are well positioned to address significant unmet needs in RAS pathway-driven cancers."

Second Quarter 2023 and Recent Highlights

Low Grade Serous Ovarian Cancer (LGSOC)

- The Company finalized the design of the Phase 3 confirmatory trial (RAMP 301) of avutometinib and defactinib in LGSOC versus standard of care (SOC) chemotherapy (pegylated liposomal doxorubicin, paclitaxel, topotecan) or hormone therapy (letrozole, anastrozole). RAMP 301 is an international collaboration between The GOG Foundation, Inc. (GOG) and the European Network of Gynaecological Oncological Trial groups (ENGOT) sponsored by Verastem Oncology. The trial will enroll approximately 270 patients who will be randomized to either the combination of avutometinib and defactinib or SOC. The primary endpoint is progression free survival (PFS) by blinded independent central review (BICR). Secondary endpoints include overall response rates, duration of response, disease control rate, safety and tolerability, patient reported outcomes and overall survival.

- RAMP 301 is the follow-up confirmatory study being conducted for full regulatory approval in recurrent LGSOC. The Company intends to file for accelerated approval with the U.S. Food and Drug Administration (FDA) for the combination of avutometinib and defactinib based on mature data from the Company's Phase 2 registration-directed trial, RAMP 201, together with the results of the investigator-initiated FRAME trial.

- Data from Part A of the RAMP 201 trial were presented at the American Society of Clinical Oncology Meeting in June. Results included confirmed objective response rates (ORR) by BICR of 45% (13/29; 95% CI: 26%-64%). Overall, patients were heavily pretreated with a median of 4 prior systemic regimens (up to 11). Tumor shrinkage was observed in the majority of patients, 86% (25/29). The safety profile was tolerable and consistent with previously reported safety data. These results are consistent with the data that supported the Breakthrough Therapy Designation granted by the FDA for the combination in recurrent LGSOC after one or more prior lines of therapy, including platinum-based chemotherapy.

Other Programs

- In the Company's RAMP 203 and RAMP 204 Phase 1/2 clinical trials, the combinations of avutometinib with Amgen's LUMAKRAS® (sotorasib) (RAMP 203) and with Mirati's KRAZATI® (adagrasib) (RAMP 204) are evaluated in patients with KRAS G12C mutant non-small cell lung cancer (NSCLC). RAMP 203 progressed to the recommendation of the Phase 2 dose (avutometinib 4 mg BIW PO and sotorasib 960 mg QD PO) and continues enrollment in Part B dose expansion in patients who are G12C inhibitor treatment naïve and in patients who experienced disease progression on prior G12C inhibitor monotherapy. Dose escalation is ongoing in RAMP 204.

- Enrollment is ongoing in the Company's RAMP 205 Phase 1b/2 clinical trial evaluating avutometinib and defactinib in combination with SOC chemotherapy (GEMZAR® (gemcitabine) and ABRAXANE®) in patients with metastatic adenocarcinoma of the pancreas. The trial is supported by the Company's receipt of the first "Therapeutic Accelerator Award" from the Pancreatic Cancer Action Network (PanCAN).

Corporate Updates

- Dan Paterson was promoted to President and Chief Executive Officer in July. During his tenure as President and Chief Operating Officer of Verastem Oncology, he spearheaded the acquisition of lead compound avutometinib and led strategic direction designed to accelerate the program's advancement. In connection with his appointment, Dan was also appointed to the Board of Directors. Dan succeeds Brian Stuglik who has retired from his role as Chief Executive Officer but remains a member of the Company's Board of Directors and leads the Board's recently designated Commercialization Committee.

- The Company strengthened the balance sheet in June 2023 by raising gross proceeds of approximately $97.8 million in a public offering of 8,489,409 shares of common stock and, in lieu of common stock to certain investors, pre-funded warrants to purchase an aggregate of 1,538,591 shares of common stock.

- Karin Tollefson was elected to Verastem Oncology's Board of Directors at the Company's annual meeting, alongside returning Board members Robert Gagnon and Brian Stuglik. Dr. Tollefson is the Senior Vice President and Head of Global Medical Affairs at Seagen Inc. Karin has 30 years of experience in the pharmaceutical industry and is a proven leader in global oncology development and medical affairs.

Second Quarter 2023 Financial Results

Verastem Oncology ended the second quarter of 2023 with cash, cash equivalents and investments of $183.1 million. Total operating expenses for the three months ended June 30, 2023 (the "2023 Quarter") were $20.3 million, compared to $21.4 million for the three months ended June 30, 2022 (the "2022 Quarter"). Recent historical operating expenses have ranged between $16.0M and $20.0M per quarter, which the Company does not anticipate will change significantly in the near term as the RAMP 301 trial commences.

Research & development expenses for the 2023 Quarter were $12.9 million, compared to $14.9 million for the 2022 Quarter. The decrease of $2.0 million, or 13.4%, primarily resulted from a decrease in drug product and drug substance costs and contract research organization costs.

Selling, general & administrative expenses for the 2023 Quarter were $7.4 million, compared to $6.5 million for the 2022 Quarter. The increase of $0.9 million, or 13.8%, was primarily related to increased consulting and professional fees as well as additional costs in anticipation of a potential launch of avutometinib and defactinib in LGSOC.

Net loss for the 2023 Quarter was $24.3 million, or $1.37 per share (basic and diluted, each as adjusted for the Company's reverse stock split), compared to net loss of $22.0 million, or $1.41 per share (basic and diluted, each as adjusted for the Company's reverse stock split) for the 2022 Quarter.

For the 2023 Quarter, non-GAAP adjusted net loss was $18.8 million, or $1.06 per share (diluted, as adjusted for the Company's reverse stock split), compared to non-GAAP adjusted net loss of $20.1 million, or $1.29 per share (diluted, as adjusted for the Company's reverse stock split) for the 2022 Quarter. Please refer to the GAAP to Non-GAAP Reconciliation attached to this press release.

Use of Non-GAAP Financial Measures

To supplement Verastem Oncology's condensed consolidated financial statements, which are prepared and presented in accordance with generally accepted accounting principles in the United States (GAAP), the Company uses the following non-GAAP financial measures in this press release: non-GAAP adjusted net loss and non-GAAP adjusted net loss per share. These non-GAAP financial measures exclude certain amounts or expenses from the corresponding financial measures determined in accordance with GAAP. Management believes this non-GAAP information is useful for investors, taken in conjunction with the Company's GAAP financial statements, because it provides greater transparency and period-over-period comparability with respect to the Company's operating performance and can enhance investors' ability to identify operating trends in the Company's business. Management uses these measures, among other factors, to assess and analyze operational results and trends and to make financial and operational decisions. Non-GAAP information is not prepared under a comprehensive set of accounting rules and should only be used to supplement an understanding of the Company's operating results as reported under GAAP, not in isolation or as a substitute for, or superior to, financial information prepared and presented in accordance with GAAP. In addition, these non-GAAP financial measures are unlikely to be comparable with non-GAAP information provided by other companies. The determination of the amounts that are excluded from non-GAAP financial measures is a matter of management judgment and depends upon, among other factors, the nature of the underlying expense or income amounts. Reconciliations between these non-GAAP financial measures and the most comparable GAAP financial measures for the three and six months ended June 30, 2023, and 2022 are included in the tables accompanying this press release, after the unaudited condensed consolidated financial statements.

About Avutometinib (VS-6766)

Avutometinib is a RAF/MEK clamp that induces inactive complexes of MEK with ARAF, BRAF and CRAF potentially creating a more complete and durable anti-tumor response through maximal RAS pathway inhibition. Avutometinib is currently in late-stage development.

In contrast to other MEK inhibitors, avutometinib blocks both MEK kinase activity and the ability of RAF to phosphorylate MEK. This unique mechanism allows avutometinib to block MEK signaling without the compensatory activation of MEK that appears to limit the efficacy of other inhibitors. The U.S. Food and Drug Administration granted Breakthrough Therapy designation for the combination of Verastem Oncology's investigational RAF/MEK clamp avutometinib, with defactinib, its FAK inhibitor, for the treatment of all patients with recurrent low-grade serous ovarian cancer (LGSOC) regardless of KRAS status after one or more prior lines of therapy, including platinum-based chemotherapy.

Verastem Oncology is currently conducting clinical trials with its RAF/MEK clamp avutometinib in RAS- driven tumors as part of its (**R**af **A**nd **M**ek **P**rogram). RAMP 201 is a registration-directed trial of avutometinib in combination with defactinib in patients with recurrent LGSOC. Verastem Oncology has established clinical collaborations with Amgen and Mirati to evaluate LUMAKRAS® (sotorasib) and KRAZATI® (adagrasib) in combination with avutometinib in KRAS G12C mutant NSCLC as part of the RAMP 203 and RAMP 204 trials, respectively. As part of the "Therapeutic Accelerator Award" Verastem Oncology received from PanCAN, Verastem Oncology is conducting RAMP 205, a Phase 1b/2 clinical trial evaluating avutometinib and defactinib with gemcitabine/nab-paclitaxel in patients with front-line metastatic pancreatic cancer.

About Verastem Oncology

Verastem Oncology (Nasdaq: VSTM) is a development-stage biopharmaceutical company committed to the development and commercialization of new medicines to improve the lives of patients diagnosed with cancer. Our pipeline is focused on novel small molecule drugs that inhibit critical signaling pathways in cancer that promote cancer cell survival and tumor growth, including RAF/MEK inhibition and focal adhesion kinase (FAK) inhibition. For more information, please visit www.verastem.com.

Forward-Looking Statements Notice

This press release includes forward-looking statements about Verastem Oncology's strategy, future plans and prospects, including statements related to its financial condition, its future operating expenses, the potential clinical value of various of its clinical trials, the timing of commencing and completing trials, including topline data reports and interactions with regulators. The words "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "predict," "project," "target," "potential," "will," "would," "could," "should," "continue," "can," "promising" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Each forward- looking statement is subject to risks and uncertainties that could cause actual results to differ materially from those expressed or implied in such statement.

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 occurrence of adverse safety events and/or unexpected concerns that may arise from additional data or analysis or result in unmanageable safety profiles as compared to their levels of efficacy; 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; that third- party payors (including government agencies) may not reimburse; that there may be competitive developments affecting our product candidates; that we may not attract and retain high quality personnel; that data may not be available when expected; that enrollment of clinical trials may take longer than expected; that our product candidates will experience manufacturing or supply interruptions or failures; 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 our target market for our product candidates might be smaller than we are presently estimating; that we or Chugai Pharmaceutical Co., Ltd. will fail to fully perform under the avutometinib license agreement; that we or our other collaboration partners may fail to perform under our collaboration agreements; 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 may not have sufficient cash to fund our contemplated operations; 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 Secura will achieve the milestones that result in payments to us under our asset purchase agreement with Secura; that we will be unable to execute on our partnering strategies for avutometinib in combination with other compounds; 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 Verastem Oncology’s Annual Report on Form 10-K for the year ended December 31, 2022 as filed with the Securities and Exchange Commission (SEC) on March 14, 2023 and in any subsequent filings with the SEC. The forward-looking statements contained in this press release reflect Verastem Oncology’s views as of the date hereof, and Verastem Oncology does not assume and specifically disclaims any obligation to update any forward-looking statements whether as a result of new information, future events or otherwise, except as required by law.

Investors:

Dan Calkins
+1 781-469-1694
Investor Relations dcalkins@verastem.com

Nate LiaBraaten
+1 212-600-1902
nate@argotpartners.com

Media:

Lisa Buffington
Corporate Communications
+1 781-292-4205
lbuffington@verastem.com

Verastem Oncology
Condensed Consolidated Balance Sheets
(in thousands)
(unaudited)

	June 30, 2023	December 31, 2022
Cash, cash equivalents, & investments	$ 183,086	$ 87,894
Accounts receivable, net	2	31
Prepaid expenses and other current assets	6,875	4,945
Property and equipment, net	40	92
Right-of-use asset, net	1,494	1,789
Restricted cash and other assets	261	299
Total assets	**$ 191,758**	**$ 95,050**
Current Liabilities	$ 20,787	$ 21,663
Long term debt	39,739	24,526
Lease liability, long-term	1,022	1,470
Preferred stock tranche liability	7,460	—
Convertible preferred stock	21,159	—
Stockholders' equity	101,591	47,391
Total liabilities, convertible preferred stock and stockholders' equity	**$ 191,758**	**$ 95,050**

Verastem Oncology
Condensed Consolidated Statements of Operations
(in thousands, except per share amounts)
(unaudited)

	Three months ended June 30,		Six months ended June 30,	
	2023	2022	2023	2022
Revenue:				
Sale of COPIKTRA license and related assets revenue	$ —	$ —	$ —	$ 2,596
Total revenue	—	—	—	2,596
Operating expenses:				
Research and development	12,893	14,888	24,908	28,530
Selling, general and administrative	7,399	6,514	14,728	12,448
Total operating expenses	20,292	21,402	39,636	40,978
Loss from operations	(20,292)	(21,402)	(39,636)	(38,382)
Other income (expense)	(40)	6	(47)	34
Interest income	1,122	84	2,098	130
Interest expense	(1,121)	(640)	(1,890)	(696)
Change in fair value of preferred stock tranche liability	(3,950)	—	(520)	—
Net loss	$ (24,281)	$ (21,952)	$ (39,995)	$ (38,914)
Net loss per share—basic and diluted[1]	$ (1.37)	$ (1.41)	$ (2.32)	$ (2.51)
Weighted average common shares outstanding used in computing:				
Net loss per share – basic and diluted[1]	17,732	15,539	17,231	15,530

(1) Amounts have been retroactively restated to reflect the 1-for-12 reverse stock split effected on May 31, 2023

Verastem Oncology
Reconciliation of GAAP to Non-GAAP Financial Information
(in thousands, except per share amounts)
(unaudited)

	Three months ended June 30,		Six months ended June 30,	
	2023	**2022**	**2023**	**2022**
Net loss reconciliation				
Net loss (GAAP basis)	$ (24,281)	$ (21,952)	$ (39,995)	$ (38,914)
Adjust:				
Stock-based compensation expense	1,432	1,758	2,745	3,404
Non-cash interest, net	112	94	76	111
Change in fair value of preferred stock tranche liability	3,950	—	520	—
Severance and Other	—	—	38	—
Adjusted net loss (non-GAAP basis)	$ (18,787)	$ (20,100)	$ (36,616)	$ (35,399)
Reconciliation of net loss per share				
Net loss per share – diluted (GAAP Basis)[1]	(1.37)	(1.41)	(2.32)	(2.51)
Adjust per diluted share:				
Stock-based compensation expense[1]	0.08	0.11	0.16	0.22
Non-cash interest, net[1]	0.01	0.01	—	0.01
Change in fair value of preferred stock tranche liability[1]	0.22	—	0.03	—
Severance and Other[1]	—	—	—	—
Adjusted net loss per share – diluted (non-GAAP basis)[1]	$ (1.06)	$ (1.29)	$ (2.13)	$ (2.28)
Weighted average common shares outstanding used in computing net loss per share—diluted[1]	17,732	15,539	17,231	15,530

(1) Amounts have been retroactively restated to reflect the 1-for-12 reverse stock split effected on May 31, 2023