UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 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 September 30, 2022

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: 001-40602

ERASCA, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**83-1217027**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
3115 Merryfield Row, Suite 300 San Diego, CA	**92121**
(Address of principal executive offices)	**(Zip Code)**

Registrant's telephone number, including area code: (858) 465-6511

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.0001 par value per share	ERAS	Nasdaq Global Select 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 November 2, 2022, the registrant had 122,361,616 shares of common stock outstanding.

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PART I—FINANCIAL INFORMATION

Item 1. Financial Statements.

Erasca, Inc.
Condensed Consolidated Balance Sheets
(In thousands, except share and par value amounts)
(Unaudited)

	September 30, 2022	December 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	$ 219,260	$ 360,487
Short-term marketable securities	136,668	53,988
Prepaid expenses and other current assets	9,823	5,542
Total current assets	365,751	420,017
Long-term marketable securities	9,569	44,770
Property and equipment, net	24,875	15,954
Operating lease assets	41,051	17,356
Restricted cash	408	408
Other assets	4,775	2,910
Total assets	$ 446,429	$ 501,415
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 4,319	$ 4,677
Accrued expenses and other current liabilities	22,332	21,419
Operating lease liabilities	1,028	285
Total current liabilities	27,679	26,381
Operating lease liabilities, net of current portion	53,431	18,506
Total liabilities	81,110	44,887
Commitments and contingencies (Note 12)		
Stockholders' equity:		
Preferred stock, $0.0001 par value; 80,000,000 shares authorized as of September 30, 2022 and December 31, 2021; no shares issued and outstanding as of September 30, 2022 and December 31, 2021	—	—
Common stock, $0.0001 par value; 800,000,000 shares authorized as of September 30, 2022 and December 31, 2021; 122,306,969 and 121,382,547 shares issued at September 30, 2022 and December 31, 2021, respectively; 121,024,938 and 119,102,505 shares outstanding at September 30, 2022 and December 31, 2021, respectively	12	12
Additional paid-in capital	712,407	694,844
Accumulated other comprehensive loss	(1,379)	(162)
Accumulated deficit	(345,721)	(238,166)
Total stockholders' equity	365,319	456,528
Total liabilities and stockholders' equity	$ 446,429	$ 501,415

The accompanying notes are an integral part of these condensed consolidated financial statements.

Erasca, Inc.
Condensed Consolidated Statements of Operations and Comprehensive Loss
(In thousands, except share and per share amounts)
(Unaudited)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Operating expenses:				
Research and development	$ 28,184	$ 19,951	$ 83,101	$ 49,794
In-process research and development	—	1,680	2,000	10,848
General and administrative	8,778	6,916	24,271	15,696
Contribution of common stock to Erasca Foundation	—	17,497	—	17,497
Total operating expenses	36,962	46,044	109,372	93,835
Loss from operations	(36,962)	(46,044)	(109,372)	(93,835)
Other income (expense)				
Interest income	1,522	49	2,024	110
Other expense	(49)	(74)	(207)	(190)
Change in fair value of preferred stock purchase right liability	—	—	—	1,615
Total other income (expense), net	1,473	(25)	1,817	1,535
Net loss	$ (35,489)	$ (46,069)	$ (107,555)	$ (92,300)
Net loss per share, basic and diluted	$ (0.29)	$ (0.46)	$ (0.90)	$ (1.90)
Weighted-average shares of common stock used in computing net loss per share, basic and diluted	120,798,322	99,127,286	120,166,023	48,584,029
Other comprehensive income (loss):				
Unrealized (loss) gain on marketable securities, net	(156)	1	(1,217)	(2)
Comprehensive loss	$ (35,645)	$ (46,068)	$ (108,772)	$ (92,302)

The accompanying notes are an integral part of these condensed consolidated financial statements.

Erasca, Inc.
Condensed Consolidated Statements of Convertible Preferred Stock and Stockholders' Equity (Deficit)
(In thousands, except share data)
(Unaudited)

	Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
	Shares	Amount	Shares	Amount				
Balance at December 31, 2021	—	$ —	121,382,547	$ 12	$ 694,844	$ (162)	$ (238,166)	$ 456,528
Exercise of stock options	—	—	357,244	—	460	—	—	460
Vesting of early exercised stock options	—	—	—	—	479	—	—	479
Repurchases of early exercised stock options and restricted stock	—	—	(6,945)	—	—	—	—	—
Stock-based compensation expense	—	—	—	—	4,442	—	—	4,442
Net loss	—	—	—	—	—	—	(36,458)	(36,458)
Unrealized loss on marketable securities, net	—	—	—	—	—	(789)	—	(789)
Balance at March 31, 2022	—	$ —	121,732,846	$ 12	$ 700,225	$ (951)	$ (274,624)	$ 424,662
Exercise of stock options	—	—	179,985	—	375	—	—	375
Issuance of common stock under the Employee Stock Purchase Plan	—	—	150,642	—	617	—	—	617
Vesting of early exercised stock options	—	—	—	—	238	—	—	238
Stock-based compensation expense	—	—	—	—	5,055	—	—	5,055
Net loss	—	—	—	—	—	—	(35,608)	(35,608)
Unrealized loss on marketable securities, net	—	—	—	—	—	(272)	—	(272)
Balance at June 30, 2022	—	$ —	122,063,473	$ 12	$ 706,510	$ (1,223)	$ (310,232)	$ 395,067
Exercise of stock options	—	—	243,496	—	427	—	—	427
Vesting of early exercised stock options	—	—	—	—	238	—	—	238
Stock-based compensation expense	—	—	—	—	5,232	—	—	5,232
Net loss	—	—	—	—	—	—	(35,489)	(35,489)
Unrealized loss on marketable securities, net	—	—	—	—	—	(156)	—	(156)
Balance at September 30, 2022	—	$ —	122,306,969	$ 12	$ 712,407	$ (1,379)	$ (345,721)	$ 365,319

	Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders' Equity (Deficit)
	Shares	Amount	Shares	Amount				
Balance at December 31, 2020	69,584,682	$ 221,405	25,189,673	$ 3	$ 1,413	$ 2	$ (115,402)	$ (113,984)
Issuance of Series B-2 convertible preferred stock for cash, net of $95 in issuance costs	15,931,772	119,393	—	—	—	—	—	—
Issuance of common stock in connection with asset acquisition	—	—	500,000	—	1,680	—	—	1,680
Exercise of stock options	—	—	439,610	—	94	—	—	94
Vesting of early exercised stock options	—	—	—	—	174	—	—	174
Stock-based compensation expense	—	—	—	—	795	—	—	795
Net loss	—	—	—	—	—	—	(18,017)	(18,017)
Unrealized loss on marketable securities, net	—	—	—	—	—	(1)	—	(1)
Balance at March 31, 2021	85,516,454	$ 340,798	26,129,283	$ 3	$ 4,156	$ 1	$ (133,419)	$ (129,259)
Issuance of common stock in connection with license agreement	—	—	944,945	—	5,488	—	—	5,488
Exercise of stock options	—	—	225,895	—	180	—	—	180
Vesting of early exercised stock options	—	—	—	—	174	—	—	174
Stock-based compensation expense	—	—	—	—	1,636	—	—	1,636
Net loss	—	—	—	—	—	—	(28,214)	(28,214)
Unrealized loss on marketable securities, net	—	—	—	—	—	(2)	—	(2)
Balance at June 30, 2021	85,516,454	$ 340,798	27,300,123	$ 3	$ 11,634	$ (1)	$ (161,633)	$ (149,997)
Conversion of convertible preferred stock into common stock upon initial public offering	(85,516,454)	(340,798)	71,263,685	7	340,791	—	—	340,798
Issuance of common stock in initial public offering, net of $28,001 in discounts and offering costs	—	—	21,562,500	2	316,997	—	—	316,999
Issuance of common stock to Erasca Foundation	—	—	1,093,557	—	17,497	—	—	17,497
Disgorgement of stockholder's short-swing profits	—	—	—	—	553	—	—	553
Exercise of stock options	—	—	30,510	—	21	—	—	21
Vesting of early exercised stock options	—	—	—	—	171	—	—	171
Stock-based compensation expense	—	—	—	—	3,017	—	—	3,017
Net loss	—	—	—	—	—	—	(46,069)	(46,069)
Unrealized gain on marketable securities, net	—	—	—	—	—	1	—	1
Balance at September 30, 2021	—	$ —	121,250,375	$ 12	$ 690,681	$ —	$ (207,702)	$ 482,991

The accompanying notes are an integral part of these condensed consolidated financial statements.

Erasca, Inc.
Condensed Consolidated Statements of Cash Flows
(In thousands)
(Unaudited)

	Nine Months Ended September 30,	
	2022	**2021**
Cash flows from operating activities:		
Net loss	$ (107,555)	$ (92,300)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	1,708	509
Stock-based compensation expense	14,729	5,448
In-process research and development expenses	2,000	10,848
Issuance of common stock to Erasca Foundation	—	17,497
(Accretion) amortization on marketable securities, net	(169)	75
Change in fair value of preferred stock purchase right liability	—	(1,615)
Changes in operating assets and liabilities:		
Prepaid expenses and other current and long-term assets	(4,512)	(5,592)
Accounts payable	1,540	409
Accrued expenses and other current liabilities	2,936	7,173
Operating lease assets and liabilities, net	12,431	430
Net cash used in operating activities	(76,892)	(57,118)
Cash flows from investing activities:		
Purchases of marketable securities	(94,427)	(41,696)
Maturities of marketable securities	45,900	54,110
In-process research and development	(2,000)	(7,680)
Payment made for investment in equity securities	(2,000)	—
Purchases of property and equipment	(13,687)	(5,375)
Net cash used in investing activities	(66,214)	(641)
Cash flows from financing activities:		
Proceeds from the issuance of common stock in initial public offering, net of discounts and offering costs	—	316,999
Proceeds from the issuance of convertible preferred stock, net of issuance costs	—	119,393
Proceeds from the exercise of stock options, net of repurchases	1,262	1,345
Proceeds from issuance of common stock under the Employee Stock Purchase Plan	617	—
Proceeds from the disgorgement of stockholder's short-swing profits	—	553
Net cash provided by financing activities	1,879	438,290
Net (decrease) increase in cash, cash equivalents and restricted cash	(141,227)	380,531
Cash, cash equivalents and restricted cash at beginning of the period	360,895	65,688
Cash, cash equivalents and restricted cash at end of the period	$ 219,668	$ 446,219
Supplemental disclosure of noncash investing and financing activities:		
Issuance of common stock to Erasca Foundation	$ —	$ 17,497
Issuance of common stock in connection with asset acquisition	$ —	$ 1,680
Issuance of common stock in connection with license agreement	$ —	$ 5,488
Amounts accrued for purchases of property and equipment	$ 841	$ 1,882
Conversion of preferred stock to common stock upon initial public offering	$ —	$ 340,798
Vesting of early exercised options	$ 955	$ 519
Operating lease assets obtained in exchange for lease obligation	$ 22,704	$ 17,498
Reduction in operating lease assets due to lease amendment	$ 3,361	$ —
Tenant improvement allowance included in operating lease liabilities	$ —	$ 16,774

The accompanying notes are an integral part of these condensed consolidated financial statements.

Note 1. Organization and basis of presentation

Organization and nature of operations

Erasca, Inc. (Erasca or the Company) is a clinical-stage precision oncology company singularly focused on discovering, developing, and commercializing therapies for RAS/MAPK pathway-driven cancers. The Company has assembled a wholly-owned or controlled RAS/MAPK pathway-focused pipeline including 11 disclosed modality-agnostic programs aligned with its three therapeutic strategies of: (i) targeting key upstream and downstream signaling nodes in the RAS/MAPK pathway; (ii) targeting RAS directly; and (iii) targeting escape routes that emerge in response to treatment. The Company was incorporated under the laws of the State of Delaware on July 2, 2018, as Erasca, Inc., and is headquartered in San Diego, California. In September 2020, the Company established a wholly-owned Australian subsidiary, Erasca Australia Pty Ltd (Erasca Australia), in order to conduct clinical activities in Australia for its development candidates. In November 2020, the Company entered into an agreement and plan of merger with Asana BioSciences, LLC (Asana) and ASN Product Development, Inc. (ASN) (the Asana Merger Agreement), pursuant to which ASN became the Company's wholly-owned subsidiary. In March 2021, the Company established a wholly-owned subsidiary, Erasca Ventures, LLC (Erasca Ventures), to make equity investments in early-stage biotechnology companies that are aligned with the Company’s mission and strategy.

Since inception, the Company has devoted substantially all of its efforts and resources to organizing and staffing the Company, business planning, raising capital, identifying, acquiring and in-licensing the Company’s product candidates, establishing its intellectual property portfolio, conducting research, preclinical studies, and clinical trials, establishing arrangements with third parties for the manufacture of its product candidates and related raw materials, and providing general and administrative support for these operations. As of September 30, 2022, the Company had $355.9 million in cash, cash equivalents, and short-term marketable securities, and $9.6 million in long-term marketable securities. As of September 30, 2022, the Company had an accumulated deficit of $345.7 million. The Company has incurred significant operating losses and negative cash flows from operations. From its inception through September 30, 2022, the Company’s financial support has primarily been provided from the sale of its convertible preferred stock and the sale of its common stock in its initial public offering (IPO).

As the Company continues its expansion, it expects to use its cash, cash equivalents, and short-term marketable securities to fund research and development, working capital, and other general corporate purposes. The Company does not expect to generate any revenues from product sales unless and until the Company successfully completes development and obtains regulatory approval for any of its product candidates, which will not be for at least the next several years, if ever. Accordingly, until such time as the Company can generate significant revenue from sales of its product candidates, if ever, the Company expects to finance its cash needs through equity offerings, debt financings, or other capital sources, including potential collaborations, licenses or other similar arrangements. However, the Company may not be able to secure additional financing or enter into such other arrangements in a timely manner or on favorable terms, if at all. The Company’s failure to raise capital or enter into such other arrangements when needed would have a negative impact on the Company’s financial condition and could force the Company to delay, limit, reduce or terminate its research and development programs or other operations, or grant rights to develop and market product candidates that the Company would otherwise prefer to develop and market itself. The Company believes its cash, cash equivalents, and short-term marketable securities as of September 30, 2022 will be sufficient for the Company to fund operations for at least one year from the issuance date of these condensed consolidated financial statements.

Initial public offering

On July 20, 2021, the Company completed its IPO in which the Company issued and sold 21,562,500 shares of its common stock, including the exercise in full by the underwriters of their option to purchase 2,812,500 shares of common stock, at a price to the public of $16.00 per share. Proceeds from the IPO, net of underwriting discounts and commissions of $24.2 million and offering costs of $3.8 million, were $317.0 million. In connection with the completion of the IPO, all outstanding shares of convertible preferred stock were converted into 71,263,685 shares of common stock.

Reverse stock split

On July 9, 2021, the Company effected a one-for-1.2 reverse stock split of its issued and outstanding shares of common stock (the Reverse Stock Split). The par value and the number of authorized shares of the convertible preferred stock and common stock were not adjusted as a result of the Reverse Stock Split. All issued and outstanding common stock and the conversion prices and ratio of the convertible preferred stock have been retroactively adjusted to reflect this Reverse Stock Split for all periods presented.

Basis of presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with US generally accepted accounting principles (US GAAP) for interim financial information and pursuant to Form 10-Q and Article 10 of Regulation S-X of the Securities and Exchange Commission (SEC). Accordingly, they do not include all of the information and notes required by US GAAP for complete financial statements. Any reference in these notes to applicable guidance is meant to refer to US GAAP as found in the Accounting Standards Codification (ASC) and Accounting Standards Updates (ASU) promulgated by the Financial Accounting Standards Board (FASB). The Company's condensed consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries, Erasca Australia, ASN, and Erasca Ventures. All intercompany balances and transactions have been eliminated.

Note 2. Summary of significant accounting policies

Use of estimates

The preparation of the Company's condensed consolidated financial statements in conformity with US GAAP requires the Company to make estimates and assumptions that impact the reported amounts of assets, liabilities, expenses, and the disclosure of contingent assets and liabilities in the condensed consolidated financial statements and accompanying notes. Accounting estimates and management judgments reflected in the condensed consolidated financial statements include, but are not limited to, the accrual of research and development expenses, fair value of common stock, preferred stock and freestanding instruments, stock-based compensation expense, and the incremental borrowing rate for determining the operating lease asset and liability. Management evaluates its estimates on an ongoing basis. Although estimates are based on the Company's historical experience, knowledge of current events, and actions it may undertake in the future, actual results may ultimately materially differ from these estimates and assumptions.

Unaudited interim financial information

The accompanying condensed consolidated balance sheet as of September 30, 2022, the condensed consolidated statements of operations and comprehensive loss for the three and nine months ended September 30, 2022 and 2021, the condensed consolidated statements of convertible preferred stock and stockholders' equity (deficit) for the three and nine months ended September 30, 2022 and 2021 and the condensed consolidated statements of cash flows for the nine months ended September 30, 2022 and 2021 are unaudited. The unaudited condensed consolidated interim financial statements have been prepared on the same basis as the audited annual consolidated financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary for the fair statement of the Company's condensed consolidated financial position as of September 30, 2022 and the condensed consolidated results of its operations and cash flows for the three and nine months ended September 30, 2022 and 2021. The condensed consolidated financial data and other information disclosed in these notes related to the three and nine months ended September 30, 2022 and 2021 are unaudited. The condensed consolidated results for the three and nine months ended September 30, 2022 are not necessarily indicative of results to be expected for the year ending December 31, 2022, any other interim periods, or any future year or period. These unaudited condensed consolidated financial statements should be read in conjunction with the Company's audited consolidated financial statements included in its Annual Report on Form 10-K for the year ended December 31, 2021 filed with the SEC on March 24, 2022.

Concentration of credit risk and off-balance sheet risk

Financial instruments which potentially subject the Company to significant concentration of credit risk consist of cash and cash equivalents and marketable securities. The Company maintains deposits in federally insured financial institutions in excess of federally insured limits. The Company has not experienced any losses in such accounts, and management believes that the Company is not exposed to significant credit risk due to the financial position of the depository institutions in which those deposits are held. The Company's investment policy includes guidelines for the quality of the related institutions and financial instruments and defines allowable investments that the Company may invest in, which the Company believes minimizes the exposure to concentration of credit risk.

Cash, cash equivalents and restricted cash

Cash and cash equivalents include cash in readily available checking and savings accounts, money market funds, and US treasury securities. The Company considers all highly liquid investments with an original maturity of three months or less from the date of purchase to be cash equivalents.

The Company had deposited cash of $408,000 as of September 30, 2022 and December 31, 2021 to secure a letter of credit in connection with the lease of the Company's facilities (see Note 11). The Company has classified the restricted cash as a noncurrent asset on its condensed consolidated balance sheets.

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 amounts shown in the condensed consolidated statements of cash flows (in thousands):

	September 30,	
	2022	2021
Cash and cash equivalents	$ 219,260	$ 445,811
Restricted cash	408	408
Total cash, cash equivalents and restricted cash	$ 219,668	$ 446,219

Marketable securities and investments

The Company classifies all marketable securities as available-for-sale, as the sale of such securities may be required prior to maturity. Management determines the appropriate classification of its marketable securities at the time of purchase. Marketable securities with original maturities beyond three months at the date of purchase and which mature at, or less than 12 months from, the balance sheet date are classified as short-term marketable securities. Available-for-sale securities are carried at fair value, with the unrealized gains and losses reported as accumulated other comprehensive income (loss) until realized. The amortized cost of available-for-sale debt securities is adjusted for amortization of premiums and accretion of discounts to maturity. Such amortization and accretion are included in interest income. The Company regularly reviews all of its marketable securities for declines in fair value. The review includes the consideration of the cause of the impairment, including the creditworthiness of the security issuers, the number of securities in an unrealized loss position, the severity of the unrealized loss(es), whether the Company has the intent to sell the securities and whether it is more likely than not that the Company will be required to sell the securities before the recovery of their amortized cost basis. If the decline in fair value is due to credit-related factors, a loss is recognized in net income; whereas, if the decline in fair value is not due to credit-related factors, the loss is recorded in other comprehensive income (loss). Realized gains and losses on available-for-sale securities are included in other income or expense. The cost of securities sold is based on the specific identification method. Interest and dividends on securities classified as available-for-sale are included in interest income.

Through its wholly-owned subsidiary, Erasca Ventures, the Company has also invested in equity securities of a company whose securities are not publicly traded and whose fair value is not readily available. This investment is recorded using cost minus impairment, plus or minus changes in its estimated fair value resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer. Investments in equity securities without readily determinable fair values are assessed for potential impairment on a quarterly basis based on qualitative factors. This investment is included in other assets in the Company's condensed consolidated balance sheets.

Fair value measurements

Certain assets and liabilities are carried at fair value under US GAAP. Fair value is defined as an exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. Financial assets and liabilities carried at fair value are classified and disclosed in one of the following three levels of the fair value hierarchy, of which the first two are considered observable and the last is considered unobservable:

Level 1—Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.

Level 2—Quoted prices for similar assets and liabilities in active markets, quoted prices in markets that are not active, or inputs which are observable, either directly or indirectly, for substantially the full term of the asset or liability.

Level 3—Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (i.e., supported by little or no market activity).

Recently adopted accounting pronouncements

In June 2016, the FASB issued ASU 2016-13, Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments (ASU 2016-13) and also issued subsequent amendments to the initial guidance: ASU 2018-19, ASU 2019-04, ASU 2019-05, and ASU 2019-11. The standard requires that credit losses be reported using an expected losses model rather than the incurred losses model that is currently used, and it establishes additional disclosure requirements related to credit risks. For available-for-sale debt securities with expected credit losses, this standard now requires allowances to be recorded instead of reducing the amortized cost of the investment. This guidance was originally effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years, and early adoption was permitted. In November 2019, the FASB subsequently issued ASU 2019-10, Financial Instruments—Credit Losses (Topic 326), Derivatives and Hedging (Topic 815), and Leases (Topic 842): Effective Dates, whereby the effective date of this standard for smaller reporting companies was deferred to fiscal years beginning after December 15, 2022, including interim periods within those fiscal years, and early adoption is still permitted. The Company adopted ASU 2016-13, and related updates, on a modified retrospective basis on January 1, 2022, and the adoption had an immaterial impact on its condensed consolidated financial statements and related disclosures.

In August 2020, the FASB issued 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), which simplifies the accounting for convertible instruments and contracts in an entity's own equity. This guidance is effective for the Company in its annual reporting period beginning after December 15, 2023, including interim periods within that reporting period, with early adoption permitted only as of annual reporting periods beginning after December 15, 2020. The Company adopted ASU 2020-06 on a modified retrospective basis on January 1, 2022, and the adoption had no impact on its condensed consolidated financial statements and related disclosures.

In January 2020, the FASB issued ASU 2020-01, Clarifying the Interactions Between Topic 321, Topic 323, and Topic 815 (ASU 2020-01), which clarifies that an entity should consider observable transactions that require it to either apply or discontinue the equity method of accounting for the purposes of applying the measurement alternative in accordance with Topic 321 immediately before applying or upon discontinuing the equity method. In addition, ASU 2020-01 states that for the purpose of applying paragraph 815-10-15-141(a), an entity should not consider whether, upon the settlement of the forward contract or exercise of the purchased option, individually or with existing investments, the underlying securities would be accounted for under the equity method in Topic 323 or the fair value option in accordance with the financial instruments guidance in Topic 825. The Company adopted the provisions of ASU 2020-01 prospectively as of January 1, 2022, and the adoption had no impact on its condensed consolidated financial statements and related disclosures.

Recently issued accounting pronouncements not yet adopted

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies that the Company adopts as of the specified effective date. The Company qualifies as an “emerging growth company” as defined in the Jumpstart Our Business Startups Act of 2012 (JOBS Act) and has elected not to “opt out” of the extended transition related to complying with new or revised accounting standards, which means that when a standard is issued or revised and it has different application dates for public and nonpublic companies, the Company can adopt the new or revised standard at the time nonpublic companies adopt the new or revised standard and can do so until such time that the Company either (i) irrevocably elects to “opt out” of such extended transition period or (ii) no longer qualifies as an emerging growth company.

Note 3. Fair value measurements

The following tables summarize the Company’s financial assets measured at fair value on a recurring basis and their respective input levels based on the fair value hierarchy (in thousands):

		Fair value measurements as of September 30, 2022 using		
	September 30, 2022	Quoted prices in active markets for identical assets (level 1)	Significant other observable inputs (level 2)	Significant unobservable inputs (level 3)
Assets:				
Money market funds[1]	$ 187,565	$ 187,565	$ —	$ —
US treasury securities[1]	9,953	9,953	—	—
US treasury securities[2]	106,078	106,078	—	—
Commercial paper[2]	28,619	—	28,619	—
Corporate debt securities[2]	1,336	—	1,336	—
Supranational debt security[2]	635	—	635	—
US treasury securities[3]	9,569	9,569	—	—
Total fair value of assets	$ 343,755	$ 313,165	$ 30,590	$ —

(1) Included as cash and cash equivalents on the condensed consolidated balance sheets.
(2) Included as short-term marketable securities on the condensed consolidated balance sheets.
(3) Included as long-term marketable securities on the condensed consolidated balance sheets.

		Fair value measurements as of December 31, 2021 using		
	December 31, 2021	Quoted prices in active markets for identical assets (level 1)	Significant other observable inputs (level 2)	Significant unobservable inputs (level 3)
Assets:				
Money market funds[1]	$ 351,625	$ 351,625	$ —	$ —
US treasury securities[2]	18,097	18,097	—	—
Corporate debt securities[2]	2,822	—	2,822	—
Commercial paper[2]	31,566	—	31,566	—
Supranational debt securities[2]	1,503	—	1,503	—
US treasury securities[3]	44,770	44,770	—	—
Total fair value of assets	$ 450,383	$ 414,492	$ 35,891	$ —

(1) Included as cash and cash equivalents on the condensed consolidated balance sheets.
(2) Included as short-term marketable securities on the condensed consolidated balance sheets.
(3) Included as long-term marketable securities on the condensed consolidated balance sheets.

The carrying amounts of the Company's financial instruments, including cash, prepaid expenses and other current assets, accounts payable, and accrued expenses and other current liabilities, approximate fair value due to their short maturities. As of September 30, 2022, the Company has recorded a $2.0 million equity investment in Affini-T Therapeutics, Inc. (Affini-T) at cost, subject to impairment in accordance with ASC 321, Investments—Equity Securities. None of the Company's non-financial assets or liabilities are recorded at fair value on a non-recurring basis. No transfers between levels have occurred during the periods presented.

Cash equivalents consist of money market funds and US treasury securities; short-term marketable securities consist of US treasury securities, commercial paper, corporate debt securities, and supranational debt securities; and long-term marketable securities consist of US treasury securities. The Company obtains pricing information from its investment manager and generally determines the fair value of marketable securities using standard observable inputs, including reported trades, broker/dealer quotes, and bid and/or offers.

Note 4. Marketable securities

The following tables summarize the Company's marketable securities accounted for as available-for-sale securities (in thousands, except years):

		September 30, 2022			
	Maturity (in years)	Amortized cost	Unrealized gains	Unrealized losses	Estimated fair value
US treasury securities	1 or less	$ 107,042	$ 7	$ (971)	106,078
Commercial paper	1 or less	28,619	—	—	28,619
Corporate debt securities	1 or less	1,348	—	(12)	1,336
Supranational debt security	1 or less	642	—	(7)	635
US treasury securities	1-2	9,965	—	(396)	9,569
Total		$ 147,616	$ 7	$ (1,386)	$ 146,237

		December 31, 2021			
	Maturity (in years)	Amortized cost	Unrealized gains	Unrealized losses	Estimated fair value
US treasury securities	1 or less	$ 18,116	$ —	$ (19)	$ 18,097
Corporate debt securities	1 or less	2,824	—	(2)	2,822
Commercial paper	1 or less	31,566	—	—	31,566
Supranational debt securities	1 or less	1,503	—	—	1,503
US treasury securities	1-2	44,911	—	(141)	44,770
Total		$ 98,920	$ —	$ (162)	$ 98,758

As of September 30, 2022, there were 30 available-for-sale securities with an estimated fair value of $88.0 million that were in gross unrealized loss positions. None had been in such position for greater than 12 months. As of December 31, 2021, there were 19 available-for-sale securities with an estimated fair value of $68.0 million in gross unrealized loss positions.

As of September 30, 2022 and December 31, 2021, unrealized losses on available-for-sale securities are not attributed to credit risk. The Company believes that an allowance for credit losses is unnecessary because the unrealized losses on certain of the Company's available-for-sale securities are due to market factors and interest rate increases. Additionally, the Company does not intend to sell the securities nor is it more likely than not that the Company will be required to sell the securities before recovery of their amortized cost basis.

Note 5. Property and equipment, net

Property and equipment, net consisted of the following (in thousands):

	September 30, 2022	December 31, 2021
Construction in process	$ —	$ 11,228
Laboratory equipment	4,098	2,488
Furniture and fixtures	4,127	2,455
Leasehold improvements	18,315	795
Computer equipment and software	902	715
Property and equipment	27,442	17,681
Less accumulated depreciation and amortization	(2,567)	(1,727)
Property and equipment, net	$ 24,875	$ 15,954

Depreciation and amortization expense related to property and equipment was $771,000 and $1.7 million for the three and nine months ended September 30, 2022, respectively, and $191,000 and $509,000 for the three and nine months ended September 30, 2021, respectively.

Note 6. Accrued expenses and other current liabilities

Accrued expenses and other current liabilities consisted of the following (in thousands):

	September 30, 2022	December 31, 2021
Accrued research and development expenses	$ 11,623	$ 9,122
Accrued compensation	7,104	7,275
Unvested early exercised stock option liability	1,929	2,884
Accrued property and equipment	273	1,272
Accrued professional services	1,048	383
Other accruals	355	483
Total	$ 22,332	$ 21,419

Note 7. Asset acquisitions

The following purchased assets were accounted for as asset acquisitions as substantially all of the fair value of the assets acquired were concentrated in a group of similar assets, and the acquired assets did not have outputs or employees. Because the assets had not yet received regulatory approval, the fair value attributable to these assets was recorded as in-process research and development expenses in the Company's condensed consolidated statements of operations and comprehensive loss.

Asana BioSciences, LLC

In November 2020, the Company entered into the Asana Merger Agreement, pursuant to which ASN became its wholly-owned subsidiary. Asana and ASN had previously entered into a license agreement, which was amended and restated prior to the closing of the merger transaction (the Asana License Agreement, and collectively with the Asana Merger Agreement, the Asana Agreements), pursuant to which ASN acquired an exclusive, worldwide license to certain intellectual property rights relating to inhibitors of ERK1 and ERK2 owned or controlled by Asana to develop and commercialize ERAS-007 and certain other related compounds for all applications.

Under the Asana Merger Agreement, the Company made an upfront payment of $20.0 million and issued 4,000,000 shares of its Series B-2 convertible preferred stock to Asana at a value of $7.50 per share or a total fair value of $30.0 million. In connection with the Company's IPO, these shares of Series B-2 convertible preferred stock were converted into 3,333,333 shares of the Company's common stock. The Company is obligated to make future development and regulatory milestone cash payments for a licensed product in an amount of up to $90.0 million. Additionally, upon achieving a development milestone related to demonstration of successful proof-of-concept in a specified clinical trial, the Company will also be required to issue 3,888,889 shares of its common stock to Asana. The Company is not obligated to pay royalties on the net sales of licensed products. The Company recorded IPR&D expense of $50.0 million during the year ended December 31, 2020 in connection with the asset acquisition. No IPR&D expense was recorded during the three and nine months ended September 30, 2022 and 2021. As of September 30, 2022 and December 31, 2021, no milestones had been accrued as the underlying contingencies were not probable or estimable.

Emerge Life Sciences, Pte. Ltd.

In March 2021, the Company entered into an asset purchase agreement (ELS Purchase Agreement) with Emerge Life Sciences, Pte. Ltd. (ELS) wherein it purchased all rights, title, and interest (including all patent and other intellectual property rights) to EGFR antibodies directed against the EGFR domain II (EGFR-D2) and domain III (EGFR-D3) as well as a bispecific antibody where one arm is directed against EGFR-D2 and the other is directed against EGFR-D3 (the Antibodies). Under the terms of the ELS Purchase Agreement, the Company made an upfront payment of $2.0 million and issued to ELS 500,000 shares of the Company's common stock at a value of $3.36 per share or a total fair value of $1.7 million. Under the ELS Purchase Agreement, ELS was committed to performing certain studies on the applicable antibodies to assist in development activities, the costs of which were mutually agreed upon and for which the Company was responsible. No IPR&D expense was recorded during the three and nine months ended September 30, 2022. The Company recorded IPR&D expense of $0 and $3.7 million during the three and nine months ended September 30, 2021, respectively, in connection with the asset acquisition.

Pursuant to the ELS Purchase Agreement, at any time between 12 months and 36 months after the effective date of the ELS Purchase Agreement, if the Company reasonably determines that none of the Antibodies should be taken into human clinical trials due to safety, efficacy or chemistry, manufacturing and controls (CMC) issues, then the Company has the option to select another antibody developed and solely owned by ELS that is not the subject of a license, collaboration, or option to a third party (the Option). If the Company elects to exercise the Option, then ELS will provide to the Company a list of all available antibodies that meet the aforementioned requirements, and the Company has the right to select one antibody from the list. Upon the Company's selection of an antibody, ELS will assign to the Company all rights, title and interest to such antibody (including patent and other intellectual property rights) subject to any pre-existing obligations or restrictions. In the event that the Company wishes to have ELS conduct any studies on such optioned antibody, then after mutual agreement as to the scope of the studies, the Company will be responsible for the cost for such studies.

Note 8. License agreements

NiKang Therapeutics, Inc.

In February 2020, the Company entered into a license agreement (the NiKang Agreement) with NiKang Therapeutics, Inc. (NiKang) under which the Company was granted an exclusive, worldwide license to certain intellectual property rights owned or controlled by NiKang related to certain SHP2 inhibitors to develop and commercialize ERAS-601 and certain other related compounds for all applications.

Under the NiKang Agreement, the Company made an upfront payment of $5.0 million to NiKang and reimbursed NiKang $0.4 million for certain initial manufacturing costs. In addition, the Company paid $7.0 million in April 2020 related to the publication of a US patent application that covered the composition of matter of ERAS-601. The Company is also obligated to pay (i) development and regulatory milestone payments in an aggregate amount of up to $16.0 million for the first licensed product, of which $4.0 million was paid in January 2021, and $12.0 million for a second licensed product, and (ii) commercial milestone payments in an aggregate amount of up to $157.0 million for the first licensed product and $151.0 million for a second licensed product. The Company is also obligated to: (i) pay tiered royalties on net sales of all licensed products in the mid-single digit percentages, subject to certain reductions; and (ii) equally split all net sublicensing revenues earned under sublicense agreements that the Company enters into with any third party before commencement of the first Phase I clinical trial for a licensed product. No IPR&D expense was recorded during the three and nine months ended September 30, 2022 and 2021.

Katmai Pharmaceuticals, Inc.

In March 2020, the Company entered into a license agreement (the Katmai Agreement) with Katmai Pharmaceuticals, Inc. (Katmai) under which the Company was granted an exclusive, worldwide, royalty-bearing license to certain patent rights and know-how controlled by Katmai related to the development of small molecule therapeutic and diagnostic products that modulate EGFR and enable the identification, diagnosis, selection, treatment, and/or monitoring of patients for neuro-oncological applications to develop, manufacture, use, and commercialize ERAS-801 and certain other related compounds in all fields of use.
Under the Katmai Agreement, the Company made an upfront payment of $5.7 million and Katmai agreed to purchase shares of the Company's Series B-1 convertible preferred stock and Series B-2 convertible preferred stock having an aggregate value of $2.7 million. In April 2020, Katmai purchased 356,000 shares of the Company's Series B-1 convertible preferred stock for $1.8 million, and in January 2021, Katmai purchased 118,666 shares of the Company's Series B-2 convertible preferred stock for $0.9 million. In connection with the Company's IPO, these shares of Series B-1 convertible preferred stock and Series B-2 convertible preferred stock were converted into 395,555 shares of the Company's common stock, in the aggregate. The Company is obligated to make future development and regulatory milestone payments of up to $24.0 million and commercial milestone payments of up to $101.0 million. The Company is also obligated to pay tiered royalties on net sales of each licensed product, at rates ranging from the mid- to high-single digit percentages, subject to a minimum annual royalty payment in the low six figures and certain permitted deductions. The Company recorded IPR&D expense of $0 and $2.0 million in connection with a development milestone payment made during the three and nine months ended September 30, 2022, respectively. No IPR&D expense was recorded during the three and nine months ended September 30, 2021.

LifeArc

In April 2020, the Company entered into a license agreement with LifeArc (the LifeArc Agreement) under which the Company was granted an exclusive, worldwide license to certain materials, know-how, and intellectual property rights owned or controlled by LifeArc to develop, manufacture, use, and commercialize certain ULK inhibitors for all applications.

Under the LifeArc Agreement, the Company was granted the license at no upfront cost and a period of three months after the effective date to conduct experiments on LifeArc's compounds. Upon completion of this initial testing period, the Company had the option to continue the license and make a one-time license payment of $75,000 to LifeArc, which payment was subsequently made. The Company is obligated to make future development milestone payments for a licensed product of up to $11.0 million and sales milestone payments of up to $50.0 million. The Company is also obligated to pay royalties on net sales of all licensed products, in the low-single digit percentages, subject to certain reductions. No IPR&D expense was recorded during the three and nine months ended September 30, 2022 and 2021.

University of California, San Francisco

In December 2018, the Company entered into a license agreement, as amended (the UCSF Agreement), with The Regents of the University of California, San Francisco (the Regents), under which the Company was granted an exclusive, worldwide, royalty-bearing license under certain patent rights claiming novel covalent inhibitors of GTP- and GDP-bound RAS for the development and commercialization of products covered by such patent rights for the prevention, treatment and amelioration of human cancers and other diseases and conditions. The UCSF Agreement was amended in May 2021.

Under the UCSF Agreement, the Company made upfront payments of $50,000 to the Regents and pays the Regents an annual license maintenance fee during the term of the license, but such fee will not be due on any anniversary if, on that date, the Company is making royalty payments to the Regents. The Company is obligated to make future development and regulatory milestone payments of up to $6.4 million and a sales milestone payment of $2.0 million for either of the first two licensed products. The Company is also obligated to pay royalties on net sales of all licensed products in the low-single digit percentages, subject to a minimum annual royalty payment in the low six figures, commencing on the year of the first sale of a licensed product and continuing, on a licensed product-by-licensed product and country-by-country basis, until there are no valid claims of the licensed patent rights covering the licensed product in such country.

Additionally, the Company is obligated to pay tiered sublicensing fees, with the first two tiers in the low-to-mid teen percentages and the third tier at 30%, on certain fees the Company receives from any sublicense that the Company grants, depending on the stage of development of a licensed product when such sublicense is granted. Prior to the execution of the amendment, the Company was obligated to make a cash payment to the Regents in the event of the Company's initial public offering, a change of control transaction or a reverse merger (the Corporate Milestone). In the amendment, the amount of the cash payment payable upon the Company's achievement of a Corporate Milestone was reduced and the Company agreed to issue the Regents 944,945 shares of the Company's common stock, which issuance was not contingent upon the achievement of a Corporate Milestone and occurred in May 2021. In August 2021, following the achievement of the Corporate Milestone, the Company made a cash payment to the Regents in the amount of $1.7 million. No IPR&D expense was recorded during the three and nine months ended September 30, 2022. The Company recorded IPR&D expense of $1.7 million and $7.2 million during the three and nine months ended September 30, 2021 related to the Corporate Milestone cash payment and issuance of 944,945 shares of the Company's common stock to the Regents, respectively.

Note 9. Stockholders' equity

In connection with the IPO, on July 20, 2021, the Company amended and restated its certificate of incorporation to, among other things, (i) increase the number of authorized shares of common stock from 156,000,000 to 800,000,000 and (ii) authorize 80,000,000 shares of undesignated preferred stock with a par value of $0.0001 per share.

Convertible preferred stock

Upon the closing of the IPO in July 2021, all shares of convertible preferred stock then outstanding converted into 71,263,685 shares of common stock. Prior to conversion, the Company's convertible preferred stock was classified outside of stockholders' equity (deficit) on the consolidated balance sheets because the holders of such shares had liquidation rights in the event of a deemed liquidation that, in certain situations, were not solely within the control of the Company and would require the redemption of the then-outstanding convertible preferred stock. There were no shares of convertible preferred stock outstanding as of September 30, 2022 and December 31, 2021.

Common stock

The Company had 800,000,000 shares of its common stock authorized as of September 30, 2022 and December 31, 2021. The Company had 122,306,969 and 121,382,547 shares of its common stock issued and 121,024,938 and 119,102,505 shares of common stock outstanding as of September 30, 2022 and December 31, 2021, respectively.

In August 2022, the Company entered into an Open Market Sale Agreement (the Sale Agreement) with Jefferies LLC (the Agent), pursuant to which the Company may offer and sell shares of the Company's common stock having an aggregate offering price of up to $200 million from time to time, in "at the market" offerings through the Agent. Sales of the shares of common stock, if any, will be made at prevailing market prices at the time of sale, or as otherwise agreed with the Agent. The Agent will receive a commission from the Company of up to 3.0% of the gross proceeds of any shares of common stock sold under the Sale Agreement. There have been no shares of the Company's common stock sold under the Sale Agreement as of September 30, 2022.

Shares of common stock subject to repurchase

During 2018, the Company issued 1,458,332 shares of restricted stock for cash at a price of $0.0001 per share. The restricted stock vests 25% one year from the vesting commencement date and monthly thereafter over a three-year period and is subject to repurchase by the Company in the event of any voluntary or involuntary termination of services to the Company prior to vesting. Any shares subject to repurchase by the Company are not deemed, for accounting purposes, to be outstanding until those shares vest. As of September 30, 2022 and December 31, 2021, zero and 212,674 shares of common stock, respectively, were subject to repurchase by the Company. The unvested stock liability related to these awards is immaterial for all periods presented. For the three and nine months ended September 30, 2022, 30,384 and 212,674 shares vested, respectively. For the three and nine months ended September 30, 2021, 91,146 and 273,439 shares vested, respectively.

Note 10. Stock-based compensation

In July 2021, the Company's board of directors adopted and the Company's stockholders approved the Company's 2021 Incentive Award Plan (the 2021 Plan), which became effective in connection with the IPO. Upon the adoption of the 2021 Plan, the Company ceased making equity grants under its 2018 Equity Incentive Plan (the 2018 Plan). Under the 2021 Plan, the Company may grant stock options, restricted stock, restricted stock units, stock appreciation rights, and other stock or cash-based awards to individuals who are then employees, officers, directors or non-entity consultants of the Company. A total of 15,150,000 shares of common stock were initially reserved for issuance under the 2021 Plan. In addition, the number of shares of common stock available for issuance under the 2021 Plan may be increased annually on the first day of each calendar year during the term of the 2021 Plan, beginning in 2022, by an amount equal to the lesser of (i) 5% of the shares of common stock outstanding on the final day of the immediately preceding calendar year or (ii) such smaller number of shares as determined by the Company's board of directors or an authorized committee of the board of directors. As of September 30, 2022, there were 16,170,804 stock-based awards available for future grant under the 2021 Plan.

Subsequent to July 2021, no further awards will be granted under the 2018 Plan and all future stock-based awards will be granted under the 2021 Plan. To the extent outstanding options or restricted stock granted under the 2018 Plan are cancelled, forfeited, repurchased, or otherwise terminated without being exercised or becoming vested, and would otherwise have been returned to the share reserve under the 2018 Plan, the number of shares underlying such awards will be available for future grant under the 2021 Plan.

Options granted are exercisable at various dates as determined upon grant and will expire no more than ten years from their date of grant. Stock options generally vest over a four-year term. The exercise price of each option shall be determined by the Company's board of directors based on the estimated fair value of the Company's stock on the date of the option grant. The exercise price shall not be less than 100% of the fair market value of the Company's common stock at the time the option is granted. For holders of more than 10% of the Company's total combined voting power of all classes of stock, incentive stock options may not be granted at less than 110% of the fair market value of the Company's common stock on the date of grant and for a term that exceeds five years. Early exercise is permitted for certain grants under the 2018 Plan.

Stock options

A summary of the Company's stock option activity under the 2021 Plan and 2018 Plan is as follows (in thousands, except share and per share data and years):

	Shares	Weighted-average exercise price	Weighted-average remaining contractual term (years)	Aggregate intrinsic value
Outstanding at December 31, 2021	13,818,212	$ 3.87	8.82	$ 163,264
Granted	5,732,046	10.37		
Exercised	(780,725)	1.62		
Canceled	(1,127,348)	5.57		
Outstanding at September 30, 2022	17,642,185	$ 5.74	8.42	$ 54,708
Options exercisable at September 30, 2022	6,537,157	$ 3.80	7.83	$ 29,165

The weighted-average grant date fair value of options granted for the three and nine months ended September 30, 2022 was $4.91 and $7.50, respectively, and for the three and nine months ended September 30, 2021 was $12.29 and $3.96, respectively. As of September 30, 2022, the unrecognized compensation cost related to unvested stock option grants was $57.0 million and is expected to be recognized as expense over approximately 2.59 years. The intrinsic value of the options exercised for the three and nine months ended September 30, 2022 was $1.5 million and $5.9 million, respectively. The intrinsic value of the options exercised for the three and nine months ended September 30, 2021 was $663,000 and $2.5 million, respectively.

Prior to the Company's IPO, certain individuals were granted the ability to early exercise their stock options. The shares of common stock issued from the early exercise of unvested stock options are restricted and continue to vest in accordance with the original vesting schedule. The Company has the option to repurchase any unvested shares at the original purchase price upon any voluntary or involuntary termination. The shares purchased by the employees and non-employees pursuant to the early exercise of stock options are not deemed, for accounting purposes, to be outstanding until those shares vest. The cash received in exchange for exercised and unvested shares related to stock options granted is recorded as a liability for the early exercise of stock options on the accompanying condensed consolidated balance sheets and will be transferred into common stock and additional paid-in capital as the shares vest. As of September 30, 2022 and December 31, 2021, there were 1,282,031 shares and 1,854,427 shares subject to repurchase by the Company, respectively. As of September 30, 2022 and December 31, 2021, the Company recorded $1.9 million and $2.9 million of liabilities associated with shares issued with repurchase rights, respectively, which is recorded in accrued expenses and other current liabilities.

The assumptions used in the Black-Scholes option pricing model to determine the fair value of the employee and nonemployee stock option grants were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Risk-free interest rate	2.65%-3.38%	0.91%-0.97%	1.46%-3.38%	0.59%-1.09%
Expected volatility	85.76%-86.34%	81.93%-84.98%	85.51%-87.11%	81.93%-84.98%
Expected term (in years)	6.03-6.08	6.08	5.50-6.08	6.08
Expected dividend yield	--%	--%	--%	--%

Employee stock purchase plan

In July 2021, the Company’s board of directors adopted and the Company’s stockholders approved the ESPP, which became effective in connection with the IPO. The ESPP permits participants to contribute up to a specified percentage of their eligible compensation during a series of offering periods of 24 months, each comprised of four six-month purchase periods, to purchase the Company’s common stock. The purchase price of the shares will be 85% of the fair market value of the Company’s common stock on the first day of trading of the applicable offering period or on the applicable purchase date, whichever is lower. A total of 1,260,000 shares of common stock was initially reserved for issuance under the ESPP. In addition, the number of shares of common stock available for issuance under the ESPP may be increased annually on the first day of each calendar year during the term of the ESPP, beginning in 2022, by an amount equal to the lesser of (i) 1% of the shares of common stock outstanding on the final day of the immediately preceding calendar year or (ii) such smaller number of shares as determined by the Company’s board of directors or an authorized committee of the board of directors. The Company recognized stock-based compensation expense related to the ESPP of $166,000 and $834,000 during the three and nine months ended September 30, 2022, respectively, and $278,000 during the three and nine months ended September 30, 2021. As of September 30, 2022, the unrecognized compensation cost related to the ESPP was $3.4 million and is expected to be recognized as expense over approximately 1.70 years. As of September 30, 2022 and December 31, 2021, $261,000 and $102,000 has been withheld on behalf of employees for future purchase under the ESPP, respectively, and is included in accrued expenses and other current liabilities on the condensed consolidated balance sheets. The Company issued and sold zero and 150,642 shares under the ESPP during the three and nine months ended September 30, 2022. No shares were issued and sold under the ESPP during the three and nine months ended September 30, 2021.

The assumptions used in the Black-Scholes option pricing model to determine the fair value of the stock to be purchased under the ESPP were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022[1]	2021	2022	2021
Risk-free interest rate	--%	0.05%-0.19%	2.24%-3.14%	0.05%-0.19%
Expected volatility	--%	70.99%-88.50%	84.74%-87.89%	70.99%-88.50%
Expected term (in years)	--	0.39-1.89	0.50-1.99	0.39-1.89
Expected dividend yield	--%	--%	--%	--%

(1) No grant was made under the ESPP during the three months ended September 30, 2022.

Restricted stock

The Company granted 1,795,827 shares of its restricted stock in 2018, which vest 25% one year from the vesting commencement date and monthly thereafter over a three-year period. The weighted-average grant date fair value of restricted stock granted in 2018 was $0. No shares of restricted stock were granted during the three and nine months ended September 30, 2022 and 2021. The restricted stock shares are subject to forfeiture upon the stockholders' termination of employment or service to the Company. Any shares subject to forfeiture are not deemed, for accounting purposes, to be outstanding until those shares vest. As such, the Company recognizes the measurement date fair value of the restricted stock over the vesting period as compensation expense. As of September 30, 2022 and December 31, 2021, zero and 212,941 shares of common stock, respectively, were subject to forfeiture.

The summary of the Company's restricted stock activity during the nine months ended September 30, 2022 is as follows:

	Number of restricted stock shares outstanding	Weighted-average grant date fair value
Nonvested at December 31, 2021	212,941	$ 0.001
Vested	(205,996)	0.001
Forfeited	(6,945)	0.001
Nonvested at September 30, 2022	-	$ 0.001

At September 30, 2022, the total unrecognized compensation related to unvested restricted stock awards granted was $0.

Stock-based compensation expense

The allocation of stock-based compensation for all stock awards was as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Research and development	$ 2,872	$ 1,665	$ 8,607	$ 3,080
General and administrative	2,360	1,352	6,122	2,368
Total	$ 5,232	$ 3,017	$ 14,729	$ 5,448

Common stock reserved for future issuance

Common stock reserved for future issuance consisted of the following as of September 30, 2022 and December 31, 2021:

	September 30, 2022	December 31, 2021
Stock options issued and outstanding	17,642,185	13,818,212
Awards available for future grant	16,170,804	14,699,430
Shares available for purchase under the ESPP	1,017,371	1,168,013
Total	34,830,360	29,685,655

Note 11. Leases

Operating leases

The Company has facility leases for office space under non-cancellable and cancelable operating leases with various expiration dates through 2032 and equipment under a non-cancellable operating lease with a term expiring in 2026. Operating lease cost was approximately $2.6 million and $5.1 million, including variable lease costs of $701,000 and $1.1 million, and short-term lease costs of $24,000 and $86,000, during the three and nine months ended September 30, 2022, respectively. Operating lease cost was approximately $905,000 and $1.6 million, including variable lease costs of $96,000 and $324,000, and short-term lease costs of $30,000 and $89,000, during the three and nine months ended September 30, 2021, respectively. The Company paid $585,000 and $803,000 in cash for operating leases that were included in the operating activities section of the condensed consolidated statements of cash flows for the nine months ended September 30, 2022 and 2021, respectively.

The weighted-average remaining lease term and the weighted-average discount rate of the Company's operating leases were 9.50 years and 8.97% at September 30, 2022, respectively. The weighted-average remaining lease term and the weighted-average discount rate of the Company's operating leases was 9.86 years and 6.9% at December 31, 2021, respectively. The weighted-average remaining lease term does not include any renewal options at the election of the Company.

The Company's lease agreements do not contain any material residual value guarantees or material restrictive covenants.

Facility leases

In 2018, the Company entered into a lease agreement for approximately 11,000 square feet of office space in San Diego, California which was subsequently amended resulting in a total of 16,153 square feet of office space leased (the 2018 Lease). The amended space was accounted for as a separate lease. The 2018 Lease was again modified in November 2021 to amend the termination date from May 2024 to April 2022. The Company remeasured the associated lease liability using the incremental borrowing rate at the date of the second amendment selected on the basis of the remaining lease term and remaining lease payments and adjusted the operating lease asset accordingly, resulting in a $539,000 gain on remeasurement, which was recorded as other income (expense), net in the consolidated statements of operations and comprehensive loss. The 2018 Lease was again modified in April 2022 to amend the termination date from April 2022 to May 2022. The Company's lease payments consisted primarily of fixed rental payments for the right to use the underlying leased assets over the lease term. The Company was responsible for operating expenses over base operating expenses as defined in the original lease agreement.

In September 2020, the Company entered into a lease agreement for 59,407 square feet of laboratory and office space in San Diego, California, which represented a portion of a new facility that was under construction and which was subsequently amended in March 2021 to expand the rented premises by 18,421 square feet (the 2020 Lease). The construction and design of the asset was the primary responsibility of the lessor. The Company was involved in certain aspects of construction and design for certain interior features and leasehold improvements that is beneficial to the Company to better suit its business needs and intended purpose of the space. The lease is accounted for as an operating lease and commenced in August 2021. In April 2022, the 2020 Lease was modified to amend the rent commencement date from February 2022 to May 2022. The 2020 Lease, as amended, has an initial term of 10.75 years and includes aggregate monthly payments to the lessor of approximately $51.6 million beginning in May 2023 with a rent escalation clause, and a tenant improvement allowance of approximately $16.8 million. The 2020 Lease is cancellable at the Company's request after the 84th month with 12 months written notice and a lump-sum cancellation payment of $2.5 million. As discussed in Note 2, the Company provided a letter of credit to the lessor for $408,000, which expires October 31, 2031.

In December 2021, the Company entered into a lease agreement for 29,542 square feet of office and laboratory space in South San Francisco, California. The lease is accounted for as an operating lease with the associated operating lease assets and liabilities recorded upon commencement, which occurred in July 2022. The non-cancellable operating lease has an initial term of 124 months with an option to extend the lease term by 5 years at the then current market rates and includes aggregate monthly payments to the lessor of approximately $34.4 million beginning in November 2022 with a rent escalation clause and a tenant improvement allowance of approximately $8.2 million. The construction and design of the tenant improvements is the primary responsibility of the lessor. While the Company was involved in certain aspects of construction and design for certain interior features and leasehold improvements that is beneficial to the Company to better suit its business needs and intended purpose of the space, all construction was handled directly by the landlord. The Company was not deemed to be the accounting owner of the tenant improvements prior to or after the construction period. All payments made by the Company for landlord-owned tenant improvements were recorded as prepaid rent on the condensed consolidated balance sheets prior to lease commencement. In February 2022, the expected project costs exceeded the tenant improvement allowances by $5.1 million, which was paid directly to the landlord by the Company and was recorded as prepaid rent in the condensed consolidated balance sheets and as a cash outflow from operating activities in the condensed consolidated statements of cash flows. The Company paid a security deposit of $874,000 in December 2021 that was recorded as other assets in the condensed consolidated balance sheets.

Future minimum lease payments under the operating leases with initial lease terms in excess of one year as of September 30, 2022 are as follows (in thousands):

Year ending December 31,		
2022 (remaining three months)	$	640
2023		6,858
2024		8,752
2025		9,024
2026		9,170
Thereafter		53,574
Total lease payments	$	88,018
Less: Amount representing interest		(31,026)
Less: Tenant improvement allowance receivable		(2,533)
Operating lease liabilities	$	54,459

Note 12. Commitments and contingencies

Liabilities for loss contingencies arising from claims, assessments, litigation, fines, penalties and other sources are recorded when it is probable that a liability has been incurred and the amount can be reasonably estimated. There are no matters currently outstanding for which any such liabilities have been accrued.

Note 13. Income taxes

No provision for federal, state or foreign income taxes has been recorded for the three and nine months ended September 30, 2022 and 2021. The Company has incurred net operating losses for all the periods presented and has not reflected any benefit of such net operating loss carryforwards in the accompanying condensed consolidated financial statements due to uncertainty around utilizing these tax attributes within their respective carryforward periods. The Company has recorded a full valuation allowance against all of its deferred tax assets as it is not more likely than not that such assets will be realized in the near future. The Company's policy is to recognize interest expense and penalties related to income tax matters as tax expense. For the three and nine months ended September 30, 2022 and 2021, the Company has not recognized any interest or penalties related to income taxes.

In March and December 2020, in response to the COVID-19 pandemic, the Coronavirus Aid, Relief and Economic Security Act (the CARES Act) was passed and provided for a refundable employee retention credit, which can be used to offset payroll tax liabilities. On March 11, 2021, President Biden signed the American Rescue Plan Act, which includes several provisions previously enacted under the CARES Act, such as measures that extended and expanded the employee retention credit through December 31, 2021. However, on November 15, 2021, President Biden signed into law the Infrastructure Investment and Jobs Act, which terminated the employee retention credit for wages paid in the fourth calendar quarter of 2021 for employers that are not recovery startup businesses.

Pursuant to the employee retention credit, eligible employers could receive a 50% or 70% credit on qualified wages against their employment taxes each quarter during the eligible periods in 2020 and 2021, respectively, with any excess credits eligible for refunds. During the three months ended September 30, 2022, the Company recorded an employee retention credit of $2.2 million upon completion of an analysis providing reasonable assurance that the Company met the conditions set forth in the CARES Act and it was reasonably assured that the Company will receive the employee retention credit. The employee retention credit is recorded in research and development expenses and general and administrative expenses in the manner in which the qualified wages and related costs were classified.

Note 14. Net loss per share

The following table summarizes the computation of basic and diluted net loss per share of the Company (in thousands, except share and per share data):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
Net loss	$ (35,489)	$ (46,069)	$ (107,555)	$ (92,300)
Weighted-average shares of common stock used in computing net loss per share, basic and diluted	120,798,322	99,127,286	120,166,023	48,584,029
Net loss per share, basic and diluted	$ (0.29)	$ (0.46)	$ (0.90)	$ (1.90)

The Company's potentially dilutive securities, which include options to purchase common stock, shares purchasable under the ESPP and common stock subject to repurchase related to unvested restricted stock and options early exercised, have been excluded from the computation of diluted net loss per share as the effect would be to reduce the net loss per share. Therefore, the weighted-average number of common shares outstanding used to calculate both basic and diluted net loss per share is the same. The Company excluded the following potential common shares, presented as amounts outstanding at each period end, from the computation of diluted net loss per share for the periods indicated because including them would have had an anti-dilutive effect:

	September 30, 2022	September 30, 2021
Options to purchase common stock	17,642,185	13,782,167
Restricted stock subject to future vesting	—	602,959
Options early exercised subject to future vesting	1,282,031	2,001,823
Estimated shares purchasable under the ESPP	876,347	299,092
Total potentially dilutive shares	19,800,563	16,686,041

Note 15. COVID-19 pandemic

The current COVID-19 pandemic, which is impacting worldwide economic activity, poses the risk that the Company or its employees, contractors, suppliers, and other partners may be prevented from conducting business activities for an indefinite period of time, including due to shutdowns that may be requested or mandated by governmental authorities. During the three and nine months ended September 30, 2022 and 2021, the Company has not experienced significant impact from the pandemic. The extent to which the COVID-19 pandemic will impact the Company's business will depend on future developments that are highly uncertain and cannot be predicted at this time.

Note 16. Related party transactions

Erasca Foundation

In May 2021, the Company established the Erasca Foundation to provide support such as direct research grants, hardship grants, patient advocacy, patient education in underserved populations, and funding for other initiatives to positively impact society that align with the Company's mission. The Company's chief executive officer and certain board members serve as directors of the Erasca Foundation and the Company's chief executive officer, chief financial officer, and general counsel are also officers of the Erasca Foundation. In July 2021, the Company issued 1,093,557 shares of its common stock to the Erasca Foundation as a contribution and recorded $17.5 million to such contribution of common stock to the Erasca Foundation in the Company's condensed consolidated statements of operations and comprehensive loss. In December 2021, the Company loaned the Erasca Foundation $100,000 in exchange for a non-interest bearing promissory note that matures one year following the date of the note. As of September 30, 2022, $100,000 is recorded as a receivable in prepaid expenses and other current assets in the condensed consolidated balance sheet.

Affini-T Therapeutics, Inc.

The Company holds a $2.0 million equity investment in Affini-T. One of the Company's board members is also a member of the board of Affini-T.

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our unaudited condensed consolidated financial statements and notes thereto included elsewhere in this Quarterly Report on Form 10-Q and with our audited consolidated financial statements and notes thereto and management's discussion and analysis of financial condition and results of operations for the year ended December 31, 2021, included in our Annual Report on Form 10-K for the year ended December 31, 2021 filed with the SEC on March 24, 2022.

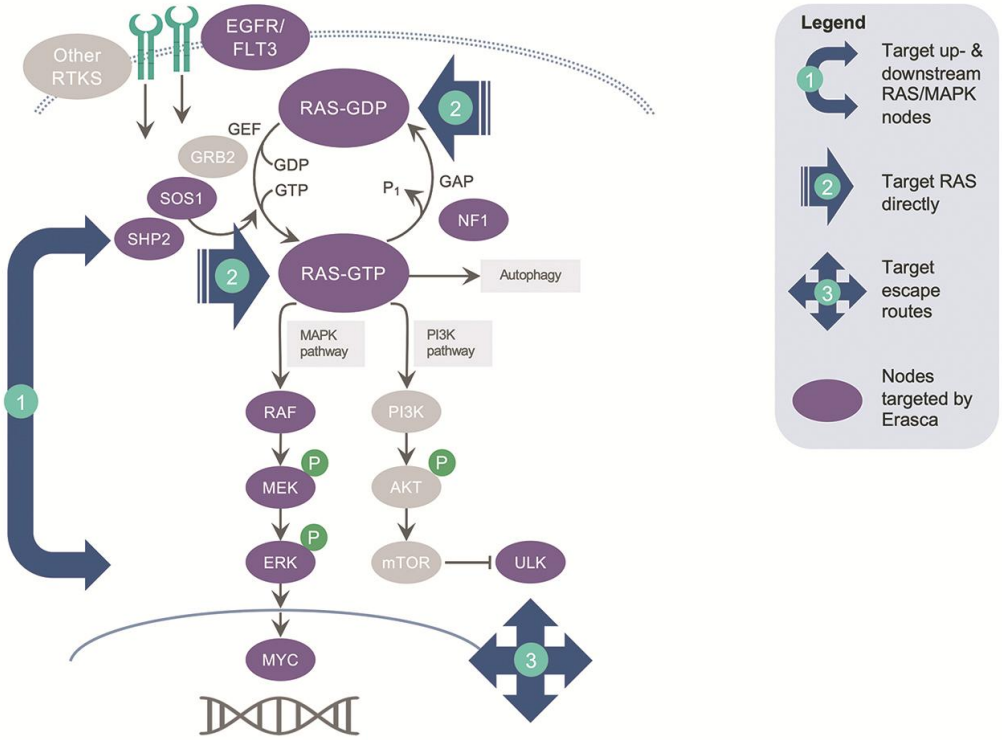
Cautionary Note Regarding Forward-Looking Statements

This Quarterly Report contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the Exchange Act). All statements other than statements of historical facts contained in this Quarterly Report, including statements regarding our future results of operations and financial position, business strategy, research and development plans, the anticipated timing, costs, design and conduct of our ongoing and planned preclinical studies and planned clinical trials for our product candidates, the timing and likelihood of regulatory filings and approvals for our product candidates, our ability to commercialize our product candidates, if approved, the impact of the COVID-19 pandemic and global geopolitical events, such as the ongoing conflict between Russia and Ukraine, on our business, the pricing and reimbursement of our product candidates, if approved, the potential to develop future product candidates, the potential benefits of current and future licenses, acquisitions, and strategic arrangements with third parties, and our intent to enter into any future strategic arrangements, the timing and likelihood of success, plans and objectives of management for future operations and future results of anticipated product development efforts, are forward-looking statements. In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "could," "expect," "intend," "target," "plan," "anticipate," "believe," "estimate," "predict," "potential," "continue," or the negative of these terms or other similar expressions. These forward-looking statements are only predictions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our business, financial condition and results of operations. These forward-looking statements speak only as of the date of this Quarterly Report and are subject to a number of risks, uncertainties and assumptions, including those described in Part II, Item 1A, "Risk Factors." The events and circumstances reflected in our forward-looking statements may not be achieved or occur, and actual results could differ materially from those projected in the forward-looking statements. Except as required by applicable law, we do not plan to publicly update or revise any forward-looking statements contained herein, whether as a result of any new information, future events, changed circumstances or otherwise.

Overview

We are a clinical-stage precision oncology company singularly focused on discovering, developing, and commercializing therapies for patients with RAS/MAPK pathway-driven cancers. Molecular alterations in RAS, the most frequently mutated oncogene, and the MAPK pathway, one of the most frequently altered signaling pathways in cancer, account for approximately 5.5 million new patients diagnosed with cancer globally each year. Our company was co-founded by leading pioneers in precision oncology and RAS targeting to create novel therapies and combination regimens designed to comprehensively shut down the RAS/MAPK pathway for the treatment of cancer. We have assembled what we believe to be the deepest, wholly-owned or controlled RAS/MAPK pathway-focused pipeline in the industry, including 11 disclosed modality-agnostic programs aligned with our three therapeutic strategies of: (1) targeting key upstream and downstream signaling nodes in the RAS/MAPK pathway; (2) targeting RAS directly; and (3) targeting escape routes that emerge in response to treatment.

The following figure shows the RAS/MAPK pathway and how the three therapeutic strategies listed above attempt to comprehensively and synergistically shut down the RAS/MAPK pathway.



The target breadth and molecular diversity represented in our pipeline enable us to pursue a systematic, data-driven clinical development effort to identify single agent and combination approaches with the goal of prolonging survival in numerous patient populations with high unmet medical needs. Our modality-agnostic approach aims to allow us to selectively and potently inhibit or degrade critical signaling nodes with small molecule therapeutics, large molecule therapeutics, and protein degraders. Our purpose-built pipeline includes three clinical-stage programs (ERK and SHP2 inhibitors, which together comprise our first, innovative MAPKlamp approach, and an EGFR inhibitor), one preclinical-stage program (central nervous system (CNS)-penetrant KRAS G12C inhibitor), and seven discovery-stage programs targeting other key oncogenic drivers. In 2023, we expect to have four product candidates in the clinic. In addition, we expect to file an additional investigational new drug application (IND) with the US Food and Drug Administration (FDA) every 12-18 months through 2026. We believe our world-class team's capabilities and experience, further guided by our scientific advisory board, which includes the world's leading experts in the RAS/MAPK pathway, uniquely position us to achieve our bold mission of erasing cancer.

Our lead product candidates are ERAS-007 (our oral ERK1/2 inhibitor) and ERAS-601 (our oral SHP2 inhibitor), which target downstream and upstream nodes, respectively, of the RAS/MAPK pathway. We are pursuing a broad clinical development plan across multiple tumor types for ERAS-007, which we refer to as our HERKULES series of clinical trials, that includes both monotherapy and combinations with approved and investigational agents, such as receptor tyrosine kinase (RTK), SHP2, RAS, and/or RAF inhibitors.

Our current HERKULES Phase 1b/2 clinical trials are exploring both tissue agnostic and tissue specific indications in patients with solid tumors, including non-small cell lung cancer (NSCLC), colorectal cancer (CRC), and pancreatic ductal adenocarcinoma (PDAC). In May 2021, we dosed the first patient in HERKULES-1, a Phase 1b/2 clinical trial designed to evaluate ERAS-007 as a single agent and in combination with various RAS/MAPK pathway targeting agents in advanced solid tumors. In September 2021, we dosed the first patient in HERKULES-2, a Phase 1b/2 master protocol clinical trial for ERAS-007 and/or ERAS-601 in combination with various agents in patients with NSCLC. In September 2021, we dosed the first patient in HERKULES-3, a Phase 1b/2 master protocol clinical trial for ERAS-007 in combination with various agents in patients with gastrointestinal (GI)

cancers. In September 2021, we announced a clinical trial collaboration and supply agreement (CTCSA) with Pfizer Inc. (Pfizer) in connection with the HERKULES-3 trial. Under the terms of the agreement, we are sponsoring and funding the clinical trial and Pfizer is providing its BRAF inhibitor, encorafenib (BRAFTOVI), at no cost. Additionally, in March 2022, we announced a CTCSA with Eli Lilly and Company (Lilly) in connection with the HERKULES-3 trial. Under the terms of the agreement, we are sponsoring and funding the clinical trial and Lilly is providing its EGFR antibody, cetuximab (ERBITUX), at no cost. Further, in October 2022, we announced a second CTCSA with Pfizer in connection with the HERKULES-3 trial. Under the terms of the agreement, we are sponsoring and funding the clinical trial and Pfizer is providing its CDK4/6 inhibitor, palbociclib (IBRANCE), at no cost. The master protocols for each of the HERKULES-2 and -3 Phase 1b/2 clinical trials provide the flexibility to explore additional combinations and expand into other NSCLC and GI cancer indications, respectively. These two trials are expected to provide proof-of-concept (PoC) data and may be expanded to enable potential accelerated approvals in their respective indications. We closed the HERKULES-4 clinical trial prior to enrolling patients in order to further focus our clinical efforts on solid tumors where we see the most promising avenues to make an impact on patients in the near term. As data emerge, we will re-evaluate hematologic malignancies in the context of our overall clinical development plan. In September 2022, we announced preliminary data related to ERAS-007 at a virtual R&D Day event that are discussed in more detail below. In addition, in October 2022, we reported additional Phase 1b monotherapy data from HERKULES-1 at the 2022 EORTC-NCI-AACR Molecular Targets and Cancer Therapeutics Symposium. These data included preliminary monotherapy safety and pharmacokinetics to support dose selection for combinations of ERAS-007. In addition, we anticipate multiple additional data readouts from our HERKULES clinical trials, including a Phase 1b combination data readout from HERKULES-3 in the first half of 2023 and a Phase 1b combination data readout from HERKULES-2 in 2023. In June 2022, we announced an additional Phase 1b PoC clinical trial to investigate ERAS-007 in combination with a KRAS G12C inhibitor in KRAS G12C-driven NSCLC and CRC. While we have agreed to provide ERAS-007 for this clinical trial, the trial will be funded by a grant that the principal investigators received from Stand Up To Cancer (SU2C).

ERAS-601 is designed to be a potent and selective oral inhibitor of SHP2, a convergent node for upstream RTK signaling and a critical “on/off switch” that activates RAS-GTP signaling. SHP2 also drives tumor cell proliferation and development of resistance. ERAS-601 is designed to block oncogenic signal transduction and delay the onset of therapeutic resistance, and thereby serve as a backbone of combination therapy. In December 2020, we dosed the first patient in FLAGSHP-1, a Phase 1 clinical trial for ERAS-601 in patients with advanced solid tumors. ERAS-601 combinations are being evaluated in the FLAGSHP-1 and HERKULES-2 clinical trials for patients with CRC, head and neck cancer, and NSCLC. In July 2022, we announced a CTCSA with Lilly in connection with the FLAGSHP-1 trial. Under the terms of the agreement, we are sponsoring and funding the clinical trial and Lilly is providing its EGFR inhibitor, cetuximab (ERBITUX), at no cost. In September 2022, we announced preliminary data related to ERAS-601 at a virtual R&D Day event that are discussed in more detail below. In addition, in October 2022, we reported additional Phase 1 monotherapy data from FLAGSHP-1 at the 2022 EORTC-NCI-AACR Molecular Targets and Cancer Therapeutics Symposium. These data included preliminary monotherapy safety and pharmacokinetics to support dose selection for combinations of ERAS-601. In addition, we anticipate a Phase 1b combination data readout from FLAGSHP-1 in triple wildtype (KRAS/NRAS/BRAF wildtype) CRC in the first half of 2023.

In September 2022, we announced promising preliminary data for ERAS-007 and ERAS-601 in BRAF-driven and RAS/MAPK-altered solid tumors at a virtual R&D Day event. A retrospective pooled analysis of all trials evaluating ERAS-007 or ERAS-601 in advanced solid tumors was performed that included our ongoing HERKULES-1 and FLAGSHP-1 trials and the Asana BioSciences’ previously completed ASN007-101 trial. The analysis was designed to identify responsive subsets that were particularly sensitive to ERAS-007 or ERAS-601 for prioritized combination development within indications of high unmet medical need where no targeted therapies with regular approval are available. Patients with solid tumors with RAS/MAPK alterations were segmented into two groups based on differing levels of responsiveness to monotherapy inhibition and differences in RAS/MAPK pathway reactivation: (1) patients with CRC and (2) patients with non-CRC. Key findings from the retrospective pooled interim analysis of ERAS-007 and ERAS-601 included:

- 23% (6/26) of patients with RAS/MAPK-altered non-CRC solid tumors responded (2 confirmed and 4 unconfirmed partial responses) to single agent ERAS-007 or ERAS-601;
- 44% (4/9) with a subset of BRAF-driven non-CRC solid tumors responded (1 confirmed and 3 unconfirmed partial responses) to single agent ERAS-007 or ERAS-601; and
- ERAS-007 and ERAS-601 had favorable safety and tolerability monotherapy profiles with largely non-overlapping treatment-related adverse events that are expected to be monitorable and manageable at the likely recommended combination doses.

The above results are based on data cutoff dates of November 6, 2020, July 11, 2022, and May 16, 2022 for the ASN007-101, FLAGSHP-1, and HERKULES-1 trials, respectively.

In February 2022, we dosed the first patient in our THUNDERBBOLT-1 Phase 1 clinical trial for ERAS-801, our CNS-penetrant EGFR inhibitor, in patients with recurrent glioblastoma multiforme (GBM). In the second half of 2022, we expect to file an IND with the FDA for ERAS-3490, the CNS-penetrant development candidate we nominated from our ERAS-1 KRAS G12C inhibitor franchise. We are also advancing seven other disclosed programs targeting key oncogenic drivers in the RAS/MAPK pathway, which we will need to successfully progress through discovery and IND-enabling activities prior to advancing these programs into clinical development, if at all.

We do not own or operate, and currently have no plans to establish, any manufacturing facilities. We rely, and expect to continue to rely, on third parties for the manufacture of our product candidates for preclinical and clinical testing, as well as for commercial manufacture if any of our product candidates obtain marketing approval. We are working with our current manufacturers to ensure that we will be able to scale up our manufacturing capabilities to support our clinical plans. We are also in the process of locating and qualifying additional manufacturers to build redundancies into our supply chain. In addition, we rely on third parties to package, label, store, and distribute our product candidates, and we intend to continue to rely on third parties with respect to our commercial products if marketing approval is obtained. We believe that this strategy allows us to maintain a more efficient infrastructure by eliminating the need for us to invest in our own manufacturing facilities, equipment, and personnel while also enabling us to focus our expertise and resources on the design and development of our product candidates.

In July 2021, we completed our initial public offering (IPO) and issued 21,562,500 shares of our common stock, including the exercise in full by the underwriters of their option to purchase 2,812,500 shares of our common stock, at a price to the public of $16.00 per share. Our aggregate net proceeds from the offering were $317.0 million, net of underwriting discounts and commissions of $24.2 million and offering costs of $3.8 million.

In August 2022, we entered into an Open Market Sale Agreement (the Sale Agreement) with Jefferies LLC (the Agent), pursuant to which we may offer and sell shares of our common stock having an aggregate offering price of up to $200 million from time to time, in “at the market” offerings through the Agent. Sales of the shares of common stock, if any, will be made at prevailing market prices at the time of sale, or as otherwise agreed with the Agent. The Agent will receive a commission from us of up to 3.0% of the gross proceeds of any shares of common stock sold under the Sale Agreement. There have been no shares of our common stock sold under the Sale Agreement as of September 30, 2022.

Since our inception in 2018, we have devoted substantially all of our resources to organizing and staffing our company, business planning, raising capital, identifying, acquiring, and in-licensing our product candidates, establishing our intellectual property portfolio, conducting research, preclinical studies and clinical trials, establishing arrangements with third parties for the manufacture of our product candidates and related raw materials, and providing general and administrative support for these operations. We do not have any products approved for sale and have not generated any revenue. As of September 30, 2022, we have raised a total of $665.4 million to fund our operations, comprised primarily of gross proceeds from our IPO and the sale and issuance of convertible preferred stock. As of September 30, 2022, we had cash, cash equivalents and marketable securities of $365.5 million.

We have incurred significant operating losses since inception. Our net losses were $35.5 million and $46.1 million for the three months ended September 30, 2022 and 2021, respectively, and $107.6 million and $92.3 million for the nine months ended September 30, 2022 and 2021, respectively. As of September 30, 2022, we had an accumulated deficit of $345.7 million. We expect our expenses and operating losses will increase substantially for the foreseeable future, particularly if and as we conduct our ongoing and planned clinical trials and preclinical studies; continue our research and development activities; utilize third parties to manufacture our product candidates and related raw materials; hire additional personnel; acquire, in-license, or develop additional product candidates; expand and protect our intellectual property; and incur additional costs associated with being a public company. If we obtain regulatory approval for any of our product candidates, we expect to incur significant commercialization expenses related to product sales, marketing, manufacturing, and distribution. In addition, as our product candidates progress through development and toward commercialization, we will need to make milestone payments to the licensors and other third parties from whom we have in-licensed or acquired our product candidates. Our net losses may fluctuate significantly from quarter-to-quarter and year-to-year, depending on the timing of our clinical trials and preclinical studies and our expenditures on other research and development activities.

Based upon our current operating plans, we believe that our cash, cash equivalents and marketable securities as of September 30, 2022 will be sufficient to fund our operations into the second half of 2024. We do not expect to generate any revenues from product sales until we successfully complete development and obtain regulatory approval for one or more of our product candidates, which we expect will take a number of years and may never occur. Accordingly, until such time as we can generate significant revenue from sales of our product candidates, if ever, we expect to finance our cash needs through equity offerings, debt financings or other capital sources, including potential collaborations, licenses, and other similar arrangements. However, we may be unable to raise additional funds or enter into such other arrangements when needed on favorable terms or at all. Our failure to raise capital or enter into such other arrangements when needed would have a negative impact on our financial condition and could force us to delay, limit, reduce, or terminate our research and development programs or other operations, or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

The COVID-19 worldwide pandemic has presented substantial public health and economic challenges and is affecting our employees, patients, physicians and other healthcare providers, communities and business operations, as well as the US and global economies and financial markets. To date, we have not experienced material disruptions in our business operations. However, while it is not possible at this time to estimate the impact that COVID-19 could have on our business in the future, particularly as we advance our product candidates through clinical development, the continued spread of COVID-19 and the measures taken by the governmental authorities, and any future epidemic disease outbreaks, could: disrupt the supply chain and the manufacture or shipment of drug substances and finished drug products for our product candidates for use in our research, preclinical studies and clinical trials; delay, limit or prevent our employees and CROs from continuing research and development activities; impede our clinical trial initiation and recruitment and the ability of patients to continue in clinical trials, including the risk that participants enrolled in our clinical trials will contract COVID-19 or other epidemic disease while the clinical trial is ongoing, which could impact the results of the clinical trial, including by increasing the number of observed adverse events; impede testing, monitoring, data collection and analysis and other related activities; any of which could delay our preclinical studies and clinical trials and increase our development costs, and have a material adverse effect on our business, financial condition and results of operations. The extent to which the COVID-19 pandemic impacts our results will depend on future developments that are highly uncertain and cannot be predicted, including new information that may emerge concerning the severity of the virus and the actions to contain its impact.

Additionally, inflation generally affects us by increasing our employee-related costs and other expenses. Our financial condition and results of operations may also be impacted by other factors we may not be able to control, such as global supply chain disruptions, uncertain global economic conditions, global trade disputes or political instability. We do not believe that such factors had a material adverse impact on our results of operations during the three months ended September 30, 2022.

Our acquisition and license agreements

We have entered into in-license and acquisition agreements pursuant to which we in-licensed or acquired certain intellectual property rights related to our product candidates and development programs.

For additional information regarding these agreements, see the section titled “Business—Our acquisition and license agreements” in our Annual Report on Form 10-K for the year ended December 31, 2021 filed with the SEC on March 24, 2022.

Components of results of operations

Revenue

We do not expect to generate any revenue from the sale of products unless and until such time that our product candidates have advanced through clinical development and obtained regulatory approval, if ever. If we fail to complete preclinical and clinical development of product candidates or obtain regulatory approval for them, our ability to generate future revenues, and our results of operations and financial position would be adversely affected.

Operating expenses

Research and development

Research and development expenses consist of external and internal costs associated with our research and development activities, including our discovery and research efforts and the preclinical and clinical development of our product candidates. Research and development costs are expensed as incurred. Our research and development expenses include:

- external costs, including expenses incurred under arrangements with third parties, such as contract research organizations (CROs), contract manufacturing organizations (CMOs), consultants and our scientific advisors; and
- internal costs, including:
    - employee-related expenses, including salaries, benefits, and stock-based compensation for those individuals involved in research and development efforts;
    - the costs of laboratory supplies and acquiring, developing and manufacturing preclinical study materials; and
    - facilities and depreciation, which include direct and allocated expenses for rent of facilities and depreciation.

The following table summarizes our research and development expenses incurred for the following periods (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2022	2021	2022	2021
ERAS-007	$ 9,519	$ 6,239	$ 27,439	$ 15,094
ERAS-601	5,156	4,099	15,091	10,453
Other clinical program	2,119	—	6,689	—
Other discovery and preclinical programs	11,390	9,613	33,882	24,247
Total research and development expenses	$ 28,184	$ 19,951	$ 83,101	$ 49,794

We expect our research and development expenses to increase substantially for the foreseeable future as we continue to conduct our ongoing research and development activities, conduct clinical trials and advance our preclinical research programs toward clinical development, particularly as more of our product candidates move into later stages of development, which typically cost more. The process of conducting clinical trials and preclinical studies necessary to obtain regulatory approval is costly and time-consuming. We may never succeed in achieving marketing approval for any of our product candidates.

The timelines and costs with research and development activities are uncertain, can vary significantly for each product candidate and program and are difficult to predict. We anticipate we will make determinations as to which product candidates and programs to pursue and how much funding to direct to each product candidate and program on an ongoing basis in response to preclinical and clinical results, regulatory developments, ongoing assessments as to each product candidate's and program's commercial potential, and our ability to enter into collaborations, licenses, or other similar agreements to the extent we determine the resources or expertise of a third-party would be beneficial for a given product candidate or program. We will need to raise substantial additional capital in the future. In addition, we cannot forecast which product candidates and programs may be subject to future collaborations, licenses, or other agreements, when such arrangements will be secured, if at all, and to what degree such arrangements would affect our development plans and capital requirements.

Our development costs may vary significantly based on factors such as:

- the number and scope of preclinical and IND-enabling studies and clinical trials;
- per-patient trial costs;
- the number of trials required for approval;
- the number of sites included in the trials;

- the countries in which the trials are conducted;
- the length of time required to enroll eligible patients;
- the number of patients that participate in the trials;
- the number of doses that patients receive;
- the drop-out or discontinuation rates of patients;
- potential additional safety monitoring requested by regulatory agencies;
- the duration of patient participation in the trials and follow-up;
- the cost and timing of manufacturing our product candidates;
- the phase of development of our product candidates;
- the efficacy and safety profile of our product candidates;
- the timing, receipt and terms of any approvals from applicable regulatory authorities;
- maintaining a continued acceptable safety profile of our products following approval, if any;
- significant and changing government regulation and regulatory guidance;
- the impact of any interruptions to our operations or to those of the third parties with whom we work due to the ongoing COVID-19 pandemic and other events (such as the ongoing conflict between Russia and Ukraine and the increased rate of inflation in the United States); and
- the extent to which we establish additional collaboration, license or other arrangements.

In-process research and development

In-process research and development expenses include rights acquired as part of asset acquisitions or in-licenses to develop and commercialize product candidates. Upfront payments that relate to the acquisition of a new product candidate, as well as pre-commercial milestone payments, are immediately expensed as in-process research and development in the period in which they are incurred, provided that the new product candidate did not also include processes or activities that would constitute a “business” as defined under US generally accepted accounting principles (US GAAP), the product candidate has not achieved regulatory approval for marketing and, absent obtaining such approval, has no established alternative future use.

In-process research and development expenses consist primarily of our upfront payments, milestone payments, and our stock issuances in connection with our acquisition and in-license agreements.

General and administrative

General and administrative expenses consist primarily of employee-related expenses, including salaries, benefits and stock-based compensation, for employees in our finance, accounting, legal, information technology, business development and support functions. Other general and administrative expenses include allocated facility and depreciation related costs not otherwise included in research and development expenses and professional fees for auditing, tax, intellectual property and legal services. Costs related to filing and pursuing patent applications are recognized as general and administrative expenses as incurred since recoverability of such expenditures is uncertain.

We expect our general and administrative expenses will increase substantially for the foreseeable future as we continue to increase our general and administrative headcount to support our continued research and development activities and, if any product candidates receive marketing approval, commercialization activities, as well as to support our operations generally. We also expect to incur increased costs associated with operating as a public company. These increased costs will likely include increased expenses related to audit, legal, regulatory and tax services associated with maintaining compliance with exchange listing and SEC requirements, director and officer insurance premiums and investor relations costs associated with operating as a public company.

Other income (expense), net

Interest income

Interest income consists primarily of interest earned on our cash, cash equivalents and marketable securities.

Change in fair value of preferred stock purchase right liability

Our issuance of shares of our Series B-1 convertible preferred stock in April and August 2020 potentially obligated us to issue 13,175,191 shares of our Series B-2 convertible preferred stock at a price of $7.50 per share in an additional closing to certain purchasers of our Series B-1 convertible preferred stock, upon the achievement of certain milestones set forth in the Series B financing purchase agreement. We determined our obligation to issue these shares of Series B-2 convertible preferred stock represented a freestanding financial instrument that required liability accounting. This freestanding preferred stock purchase right liability for the Series B-2 convertible preferred stock was recorded at fair value upon issuance and was subsequently remeasured to fair value at each reporting date. Changes in the fair value of the preferred stock purchase right liability were recognized in the condensed consolidated statements of operations and comprehensive loss until the obligation for the Series B-2 shares was fulfilled upon the Series B-2 issuance in January 2021.

Results of operations

Comparison of the three months ended September 30, 2022 and 2021

The following table summarizes our results of operations for the three months ended September 30, 2022 and 2021 (in thousands):

	Three Months Ended September 30,		
	2022	2021	Change
Operating expenses:			
Research and development	$ 28,184	$ 19,951	$ 8,233
In-process research and development	—	1,680	(1,680)
General and administrative	8,778	6,916	1,862
Contribution of common stock to Erasca Foundation	—	17,497	(17,497)
Total operating expenses	36,962	46,044	(9,082)
Loss from operations	(36,962)	(46,044)	9,082
Total other income (expense), net	1,473	(25)	1,498
Net loss	$ (35,489)	$ (46,069)	$ 10,580

Research and development expenses

Research and development expenses were $28.2 million for the three months ended September 30, 2022 compared to $20.0 million for the three months ended September 30, 2021. The increase of $8.2 million was primarily driven by a $4.4 million increase in expenses incurred in connection with clinical trials, preclinical studies and discovery activities, a $2.0 million increase in facilities-related expenses and depreciation primarily due to our new San Diego and South San Francisco facilities which we moved into in the second and third quarters of 2022, respectively, a $1.2 million increase in stock-based compensation expense primarily due to increases in our stock price and headcount, and a $1.0 million increase in outsourced services and consulting fees, partially offset by a net decrease of $0.7 million in personnel costs primarily due to the employee retention credit of $1.5 million recorded during the three months ended September 30, 2022 offset by an increase in headcount.

In-process research and development expenses

In-process research and development expenses were $0 for the three months ended September 30, 2022 compared to $1.7 million for the three months ended September 30, 2021. In-process research and development expenses for the three months ended September 30, 2021 related to the cash payment of $1.7 million following the completion of our IPO in connection with the amendment to our license agreement with The Regents of the University of California, San Francisco (the Regents).

General and administrative expenses

General and administrative expenses were $8.8 million for the three months ended September 30, 2022 compared to $6.9 million for the three months ended September 30, 2021. The increase of $1.9 million was primarily driven by an increase of $1.0 million in stock-based compensation expense due to increases in our stock price and headcount, increases of $1.0 million in legal and accounting fees, in the aggregate, and an increase of $0.3 million in facilities and office-related expenses, partially offset by a net decrease in personnel costs of $0.5 million primarily due to the employee retention credit of $0.7 million recorded during the three months ended September 30, 2022 and a decrease in insurance costs of $0.2 million.

Contribution of common stock to the Erasca Foundation

Expenses of $17.5 million were recognized for the three months ended September 30, 2021 in connection with the issuance of 1,093,557 shares of our common stock as a contribution to the Erasca Foundation in conjunction with our IPO. No such expenses were recognized for the three months ended September 30, 2022.

Other income (expense), net

Other income (expense), net was $1.5 million for the three months ended September 30, 2022 compared to $(25,000) for the three months ended September 30, 2021. The increase of $1.5 million was primarily related to an increase in interest earned on our cash, cash equivalents and marketable securities during the three months ended September 30, 2022.

Comparison of the nine months ended September 30, 2022 and 2021

The following table summarizes our results of operations for the nine months ended September 30, 2022 and 2021 (in thousands):

	Nine Months Ended September 30,		
	2022	2021	Change
Operating expenses:			
Research and development	$ 83,101	$ 49,794	$ 33,307
In-process research and development	2,000	10,848	(8,848)
General and administrative	24,271	15,696	8,575
Contribution of common stock to Erasca Foundation	—	17,497	(17,497)
Total operating expenses	109,372	93,835	15,537
Loss from operations	(109,372)	(93,835)	(15,537)
Total other income (expense), net	1,817	1,535	282
Net loss	$ (107,555)	$ (92,300)	$ (15,255)

Research and development expenses

Research and development expenses were $83.1 million for the nine months ended September 30, 2022 compared to $49.8 million for the nine months ended September 30, 2021. The increase of $33.3 million was primarily driven by a $17.1 million increase in expenses incurred in connection with clinical trials, preclinical studies and discovery activities, a $5.5 million increase in stock-based compensation expense primarily due to increases in our stock price and headcount, a $4.6 million net increase in personnel costs primarily due to an increase in headcount offset by the employee retention credit of $1.5 million recorded during the nine months ended September 30, 2022, a $3.5 million increase in facilities-related expenses and depreciation primarily due to our new San Diego and South San Francisco facilities which we moved into in the second and third quarters of 2022, respectively, and a $1.6 million increase in outsourced services and consulting fees.

In-process research and development expenses

In-process research and development expenses were $2.0 million for the nine months ended September 30, 2022 compared to $10.8 million for the nine months ended September 30, 2021. In-process research and development expenses for the nine months ended September 30, 2022 related to a development milestone payment of $2.0 million in connection with our license agreement with Katmai Pharmaceuticals, Inc. In-process research and development expenses for the nine months ended September 30, 2021 related to the cash payment of $1.7 million following the completion of our IPO and the issuance of 944,945 shares of our common stock at a price of $5.81 per share or a total fair value of $5.5 million in connection with the amendment to our license agreement with the Regents, and a $2.0 million upfront payment and issuance of 500,000 shares of our common stock to Emerge Life Sciences, Pte. Ltd. (ELS) at a price of $3.36 per share or a total fair value of $1.7 million in connection with the purchase agreement we entered into in March 2021 with ELS.

General and administrative expenses

General and administrative expenses were $24.3 million for the nine months ended September 30, 2022 compared to $15.7 million for the nine months ended September 30, 2021. The increase of $8.6 million was primarily driven by an increase of $3.8 million in stock-based compensation expense due to increases in our stock price and headcount, an increase of $1.7 million in insurance costs, an increase of $1.5 million in facilities and office-related expenses, a net increase of $0.7 million in personnel costs primarily due to an increase in headcount partially offset by the employee retention credit of $0.7 million recorded during the nine months ended September 30, 2022, and increases in legal and accounting fees of $0.2 million, in the aggregate.

Contribution of common stock to the Erasca Foundation

Expenses of $17.5 million were recognized for the nine months ended September 30, 2021 in connection with the issuance of 1,093,557 shares of our common stock as a contribution to the Erasca Foundation in conjunction with our IPO. No such expenses were recognized for the nine months ended September 30, 2022.

Other income (expense), net

Other income (expense), net was $1.8 million for the nine months ended September 30, 2022 compared to $1.5 million for the nine months ended September 30, 2021. The increase of $0.3 million was primarily related to an increase of $1.9 million in interest earned on our cash, cash equivalents and marketable securities during the nine months ended September 30, 2022, partially offset by the change in fair value of the preferred stock purchase right liability of $1.6 million recorded in the nine months ended September 30, 2021 as a result of the obligation of the Series B-2 shares being fulfilled upon the Series B-2 issuance in January 2021.

Liquidity and capital resources

Sources of liquidity

In July 2021, we completed our IPO and issued 21,562,500 shares of our common stock, including the exercise in full by the underwriters of their option to purchase 2,812,500 shares of our common stock, at a price to the public of $16.00 per share. Our aggregate net proceeds from the offering were $317.0 million, net of underwriting discounts and commissions of $24.2 million and offering costs of $3.8 million. Prior to the IPO, we received aggregate gross proceeds of $320.4 million from the sale of shares of our convertible preferred stock.

In August 2022, we entered into the Sale Agreement with the Agent, pursuant to which we may offer and sell shares of our common stock having an aggregate offering price of up to $200 million from time to time, in “at the market” offerings through the Agent. Sales of the shares of common stock, if any, will be made at prevailing market prices at the time of sale, or as otherwise agreed with the Agent. The Agent will receive a commission from us of up to 3.0% of the gross proceeds of any shares of common stock sold under the Sale Agreement. There have been no shares of our common stock sold under the Sale Agreement as of September 30, 2022.

Future capital requirements

As of September 30, 2022, we had cash, cash equivalents and marketable securities of $365.5 million. Based upon our current operating plans, we believe that our cash, cash equivalents and marketable securities will be sufficient to fund our operations into the second half of 2024. However, our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement that involves risks and uncertainties, and actual results could vary materially. We have based this estimate on assumptions that may prove to be wrong, and we could deplete our capital resources sooner than we expect. Additionally, the process of conducting preclinical studies and testing product candidates in clinical trials is costly, and the timing of progress and expenses in these studies and trials is uncertain.

Our future capital requirements are difficult to forecast and will depend on many factors, including but not limited to:

- the type, number, scope, progress, expansions, results, costs and timing of discovery, preclinical studies and clinical trials of our product candidates that we are pursuing or may choose to pursue in the future, including the costs of any third-party products used in our combination clinical trials that are not covered by such third party or other sources;
- the costs and timing of manufacturing for our product candidates with CMOs, including commercial manufacturing, if any product candidate is approved;
- the costs, timing and outcome of regulatory review of our product candidates;
- the costs of obtaining, maintaining and enforcing our patents and other intellectual property rights;
- our efforts to enhance operational systems and hire additional personnel to satisfy our obligations as a public company, including enhanced internal controls over financial reporting;
- the costs associated with hiring additional personnel, consultants, and CROs as our preclinical and clinical activities increase;
- the timing and amount of the milestone or other payments we must make to the licensors and other third parties from whom we have in-licensed or acquired our product candidates or technologies;
- the costs and timing of establishing or securing sales and marketing capabilities if any product candidate is approved;
- our ability to achieve sufficient market acceptance, coverage and adequate reimbursement from third-party payors and adequate market share and revenue for any approved products;
- patients’ willingness to pay out-of-pocket for any approved products in the absence of coverage and/or adequate reimbursement from third-party payors;

- any delays and cost increases that result from the COVID-19 pandemic and other events (such as the ongoing conflict between Russia and Ukraine and the increased rate of inflation in the United States);
- the terms and timing of establishing and maintaining collaborations, licenses and other similar arrangements; and
- costs associated with any products or technologies that we may in-license or acquire.

We have no other committed sources of capital. Until we can generate a sufficient amount of product revenue to finance our cash requirements, if ever, we expect to finance our future cash needs primarily through equity offerings, debt financings or other capital sources, including potential collaborations, licenses and other similar arrangements. However, we may be unable to raise additional funds or enter into such other arrangements when needed on favorable terms or at all. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our stockholders will be or could be diluted, and the terms of these securities may include liquidation or other preferences that adversely affect the rights of our common stockholders. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds through collaborations, licensing, or other similar arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our research and development programs or other operations, or grant rights to develop and market product candidates to third parties that we would otherwise prefer to develop and market ourselves.

Cash flows

The following table shows a summary of our cash flows for the periods presented (in thousands):

	Nine Months Ended September 30,	
	2022	2021
Net cash (used in) provided by:		
Operating activities	$ (76,892)	$ (57,118)
Investing activities	(66,214)	(641)
Financing activities	1,879	438,290
Net (decrease) increase in cash, cash equivalents and restricted cash	$ (141,227)	$ 380,531

Operating activities

Cash used in operating activities was $76.9 million during the nine months ended September 30, 2022, primarily resulting from a net loss of $107.6 million, partially reduced by changes in operating assets and liabilities of $12.4 million, stock-based compensation of $14.7 million, in-process research and development expenses of $2.0 million, which are reflected in investing activities, and depreciation expense of $1.7 million. Net cash provided by changes in operating assets and liabilities consisted primarily of an increase in operating lease assets and liabilities of $12.4 million primarily due to the receipt of $14.2 million in reimbursement from our landlord for tenant improvements and increases in accounts payable, accrued expenses and other current liabilities of $4.5 million, partially offset by an increase in prepaid expenses and other current and long-term assets of $4.5 million.

Cash used in operating activities was $57.1 million during the nine months ended September 30, 2021, primarily resulting from a net loss of $92.3 million, partially reduced by the issuance of common stock to the Erasca Foundation of $17.5 million, which is reflected in noncash investing and financing activities, in-process research and development expenses of $10.8 million, which are reflected in noncash and investing activities, stock-based compensation expense of $5.4 million, changes in operating assets and liabilities of $2.4 million and depreciation expense of $0.5 million, partially offset by a $1.6 million change in fair value of the preferred stock purchase right liability. Net cash provided by changes in operating assets and liabilities consisted primarily of increases in accounts payable, accrued expenses and other current liabilities of $7.6 million, partially offset by an increase in prepaid expenses and other current and long-term assets of $5.6 million.

Investing activities

Net cash used in investing activities was $66.2 million during the nine months ended September 30, 2022 as compared to cash used in investing activities of $0.6 million during the nine months ended September 30, 2021. The increase in cash used in investing activities of $65.6 million was primarily the result of an increase in purchases of marketable securities of $52.7 million, an increase in purchases of property and equipment of $8.3 million, a decrease in maturities of marketable securities of $8.2 million, and the $2.0 million payment made for our investment in Affini-T Therapeutics, Inc., partially offset by a $5.7 million decrease in in-process research and development.

Financing activities

Net cash generated from financing activities was $1.9 million during the nine months ended September 30, 2022 as compared to $438.3 million during the nine months ended September 30, 2021. During the nine months ended September 30, 2022, we received $1.3 million from the exercise of stock options and $0.6 million from the issuance of common stock under our Employee Stock Purchase Plan. During the nine months ended September 30, 2021, we received $317.0 million from the issuance of common stock in our IPO, net of underwriting discounts and commissions and offering costs, $119.4 million from the sale of shares of our Series B-2 convertible preferred stock, net of issuance costs, $1.3 million from the exercise of stock options and $0.6 million from the disgorgement of a stockholder's short-swing profits.

Contractual obligations and commitments

As of September 30, 2022, there have been no material changes outside the ordinary course of our business to the contractual obligations we reported in “Management’s discussion and analysis of financial condition and results of operations – Cash requirements due to contractual obligations and other commitments,” included in our Annual Report on Form 10-K for the year ended December 31, 2021 filed with the SEC on March 24, 2022.

Off-balance sheet arrangements

During the periods presented, we did not have, nor do we currently have, any off-balance sheet arrangements, as defined in the rules and regulations of the SEC.

Critical accounting policies and estimates

This management discussion and analysis of financial condition and results of operations is based on our condensed consolidated financial statements, which have been prepared in accordance with US GAAP. The preparation of these condensed consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses. On an ongoing basis, we evaluate these estimates and judgments. We base our estimates on historical experience and on various assumptions that we believe to be reasonable under the circumstances. These estimates and assumptions form the basis for making judgments about the carrying values of assets and liabilities and the recording of revenue and expenses that are not readily apparent from other sources. Actual results may differ materially from these estimates. As of September 30, 2022, there have been no material changes to our critical accounting policies and estimates from those disclosed in “Management’s discussion and analysis of financial condition and results of operations – Critical accounting policies and estimates,” included in our Annual Report on Form 10-K for the year ended December 31, 2021 filed with the SEC on March 24, 2022.

Recently issued and adopted accounting pronouncements

See Note 2 to our condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q for recently issued and adopted accounting pronouncements.

Emerging growth company and smaller reporting company status

As an emerging growth company under the Jumpstart Our Business Startups Act of 2012 (the JOBS Act), we can take advantage of an extended transition period for complying with new or revised accounting standards. This allows an emerging growth company to delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. We have elected to avail ourselves of this exemption from new or revised accounting standards and, therefore, our condensed consolidated financial statements may not be comparable to companies that comply with new or revised accounting pronouncements as of public company effective dates. We also intend to rely on other exemptions provided by the JOBS Act, including without limitation, not being required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act of 2002 (Sarbanes-Oxley).

We will remain an emerging growth company until the earliest of (i) the last day of the fiscal year following the fifth anniversary of the consummation of our IPO; (ii) the last day of the fiscal year in which we have total annual gross revenue of at least $1.235 billion; (iii) the last day of the fiscal year in which we are deemed to be a “large accelerated filer” as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common stock held by non-affiliates exceeded $700.0 million as of the last business day of the second fiscal quarter of such year; or (iv) the date on which we have issued more than $1.0 billion in nonconvertible debt securities during the prior three-year period.

We are also a smaller reporting company as defined in the Exchange Act. We may continue to be a smaller reporting company even after we are no longer an emerging growth company. We may take advantage of certain of the scaled disclosures available to smaller reporting companies and will be able to take advantage of these scaled disclosures for so long as our voting and non-voting common stock held by non-affiliates is less than $250.0 million measured on the last business day of our second fiscal quarter, or our annual revenue is less than $100.0 million during the most recently completed fiscal year and our voting and non-voting common stock held by non-affiliates is less than $700.0 million measured on the last business day of our second fiscal quarter.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

As of September 30, 2022, there have been no material changes surrounding our market risk, including interest rate risk, foreign currency exchange risk, and inflation risk, from the discussion provided in “Management’s Discussion and Analysis of Financial Condition and Results of Operations – Quantitative and Qualitative Disclosures About Market Risk” in our Annual Report on Form 10-K for the year ended December 31, 2021 filed with the SEC on March 24, 2022.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our periodic and current reports that we file with the SEC is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms, and that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable and not absolute assurance of achieving the desired control objectives. In reaching a reasonable level of assurance, management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. In addition, the design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Our management, with the participation of our principal executive officer and our principal financial officer, evaluated, as of the end of the period covered by this Quarterly Report on Form 10-Q, the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act). Based on that evaluation, our principal executive officer and principal financial officer have concluded that, as of September 30, 2022, 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 quarter ended September 30, 2022 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.

We are not currently a party to any material proceedings. From time to time, we may become involved in legal proceedings or be subject to claims arising in the ordinary course of our business. Regardless of outcome, such proceedings or claims can have an adverse impact on us because of defense and settlement costs, diversion of resources and other factors, and there can be no assurances that favorable outcomes will be obtained.

Item 1A. Risk Factors.

There have been no material changes to the risk factors set forth in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2021 filed with the SEC on March 24, 2022.

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

Unregistered Sales of Equity Securities

None.

Use of Proceeds

On July 15, 2021, the SEC declared effective our registration statement on Form S-1 (File No. 333-257436), as amended, filed in connection with our IPO. Our IPO closed on July 20, 2021, and we issued and sold 21,562,500 shares of our common stock at a price to the public of $16.00 per share, which included the exercise in full of the underwriters' option to purchase additional shares. We received gross proceeds from our IPO of $345.0 million, before deducting underwriting discounts and commissions of $24.2 million and offering costs of $3.8 million. The managing underwriters of the offering were J.P. Morgan Securities LLC, Morgan Stanley & Co. LLC, BofA Securities, Inc., Evercore Group L.L.C. and Guggenheim Securities, LLC. No offering costs were paid or are payable, directly or indirectly, to our directors or officers, to persons owning 10% or more of any class of our equity securities or to any of our affiliates.

As of September 30, 2022, we have used approximately $133.1 million of the proceeds from our IPO for general corporate purposes, including to fund the research and development of ERAS-007, ERAS-601 and our other RAS/MAPK pathway-focused pipeline programs. There has been no material change in the planned use of such proceeds from that described in the prospectus for our IPO.

Item 3. Defaults Upon Senior Securities.

Not applicable.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

On August 11, 2022, we entered into the Sale Agreement with the Agent, under which we may, from time to time, sell shares of our common stock having an aggregate offering price of up to $200 million in “at the market” offerings through the Agent. Sales of the shares of common stock, if any, will be made at prevailing market prices at the time of sale, or as otherwise agreed with the Agent. The Agent will receive a commission from us of up to 3.0% of the gross proceeds of any shares of common stock sold under the Sale Agreement.

We are not obligated to sell, and the Agent is not obligated to buy or sell, any shares of common stock under the Sale Agreement. No assurance can be given that we will sell any shares of common stock under the Sale Agreement, or, if we do, as to the price or amount of shares of common stock that we sell or the dates when such sales will take place.

In the Sale Agreement, we agreed to indemnify the Agent against certain liabilities, including under the Securities Act of 1933, as amended (the Securities Act), or the Exchange Act, or to contribute to payments that the Agent may be required to make because of such liabilities. We and the Agent may each terminate the Sale Agreement at any time upon specified prior written notice.

The foregoing description of the Sale Agreement is not complete and is qualified in its entirety by reference to the Sale Agreement, a copy of which was filed as Exhibit 1.2 to our Registration Statement on Form S-3 (File No. 333-266802), which was filed with the SEC on August 11, 2022.

Item 6. Exhibits.

Exhibit Number	Exhibit Description	Incorporated by Reference			Filed Herewith
		Form	Date	Number	
3.1	Amended and Restated Certificate of Incorporation of Erasca, Inc.	8-K	7/20/2021	3.1	
3.2	Amended and Restated Bylaws of Erasca, Inc.	8-K	7/20/2021	3.2	
4.1	Specimen stock certificate evidencing the shares of common stock	S-1	6/25/2021	4.1	
4.2	Amended and Restated Stockholders Agreement, dated April 15, 2020, by and among the Registrant and certain of its stockholders	S-1	6/25/2021	4.2	
31.1	Certification of Chief Executive Officer of Erasca, Inc., as required by Rule 13a-14(a) or Rule 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				X
31.2	Certification of Chief Financial Officer of Erasca, Inc., as required by Rule 13a-14(a) or Rule 15d-14(a), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				X
32.1*	Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002				X
32.2*	Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002				X
101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because XBRL tags are embedded within the Inline XBRL document.				X
101.SCH	Inline XBRL Taxonomy Extension Schema Document				X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document				X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document				X
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document				X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document				X
104	Cover Page Interactive Data File (embedded within the Inline XBRL document)				X

† Portions of this exhibit have been omitted for confidentiality purposes.

* This certification is deemed not filed for purpose of section 18 of the Exchange Act or otherwise subject to the liability of that section, nor shall it be deemed incorporated by reference into any filing under the Securities Act or the Exchange Act.

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.

Erasca, Inc.

Date: November 9, 2022

By: /s/ Jonathan E. Lim M.D.
Jonathan E. Lim, M.D.
Chairman, Chief Executive Officer and Co-Founder
(Principal Executive Officer)

Date: November 9, 2022

By: /s/ David M. Chacko, M.D.
David M. Chacko, M.D.
Chief Financial Officer
(Principal Financial and Accounting Officer)

Exhibit 31.1

CERTIFICATION

I, Jonathan E. Lim, M.D., certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Erasca, 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(s) 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)) 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) [omitted];

   (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(s) 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.

Date: November 9, 2022

By: /s/ Jonathan E. Lim, M.D.

Jonathan E. Lim, M.D.
Chairman and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION

I, David M. Chacko, M.D., certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Erasca, 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(s) 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)) 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) [omitted];

   (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(s) 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.

Date: November 9, 2022

By: /s/ David M. Chacko, M.D.

David M. Chacko, M.D.

Chief Financial Officer
(Principal Financial and Accounting Officer)

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 Erasca, Inc. (the "Company") for the period ended September 30, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my 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.

Date: November 9, 2022

By: /s/ Jonathan E. Lim, M.D.

Jonathan E. Lim, M.D.

Chairman and Chief Executive Officer
(Principal Executive Officer)

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 Erasca, Inc. (the "Company") for the period ended September 30, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to the best of my 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.

Date: November 9, 2022

By: /s/ David M. Chacko, M.D.

David M. Chacko, M.D.

Chief Financial Officer
(Principal Financial and Accounting Officer)