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

FORM 10-Q

(Mark one)

[X] QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended September 30, 2021
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 001-39747

SEER, INC.

(Exact name of Registrant as specified in its charter)

Delaware	**82-1153150**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification Number)**

3800 Bridge Parkway, Suite 102
Redwood City, California 94065
650-453-0000
(Address, including zip code and telephone number, including area code, of Registrant's principal executive offices)

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

Copies to:

Title of each class	**Trading Symbol(s)**	**Name of Exchange on which registered**
Common Stock, par value $0.00001	SEER	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, a 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	☐
		Smaller reporting company	☒
Non-accelerated filer	☒	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 5, 2021, the registrant had 57,022,436 shares of Class A common stock, $0.00001 par value per share, and 4,686,028 shares of Class B common stock, $0.00001 par value per share, outstanding.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q ("Quarterly Report") contains forward-looking statements. 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, commercial activities and costs, research and development costs, timing and likelihood of success, as well as plans and objectives of management for future operations, are forward-looking statements. These statements involve known and unknown risks, uncertainties and other important factors that are in some cases beyond our control and may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements.

In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "would," "expect," "plan," "anticipate," "could," "intend," "target," "project," "believe," "estimate," "predict," "potential," or "continue" or the negative of these terms or other similar expressions. Forward-looking statements contained in this Quarterly Report include, but are not limited to, statements about:

- estimates of our addressable market, market growth, key performance indicators, capital requirements and our needs for additional financing;
- our expectations regarding our financial performance, including among others, revenue, cost of revenue, gross profit, operating expenses, loss from operations and net losses;
- our ability to successfully implement our three phase commercialization plan, including our ability to expand to additional key opinion leaders during the Limited Release phase and to attract customers during the Broad Release phase;
- the implementation of our business model and strategic plans for our Proteograph™ Product Suite, including the expected pricing of the solution and associated consumables;
- our expectations regarding the rate and degree of market acceptance of our Proteograph Product Suite;
- the impact of our Proteograph Product Suite on the field of proteomics and the size and growth of the addressable proteomics market;
- competitive companies and technologies and our industry;
- our ability to manage and grow our business and commercialize our Proteograph Product Suite;
- our ability to develop and commercialize new products;
- our ability to establish and maintain intellectual property protection for our products or avoid or defend claims of infringement;
- the performance of third-party manufacturers and suppliers;
- the potential effects of government regulation;
- our ability to hire and retain key personnel and to manage our future growth effectively;
- the volatility of the trading price of our Class A common stock;
- the benefits of the PrognomIQ, Inc. transaction;
- the impact of local, regional, and national and international economic conditions and events;
- the impact of COVID-19 on our business; and
- our expectations about market trends.

We have based these forward-looking statements largely on our current expectations and projections about our business, the industry in which we operate and financial trends that we believe may affect our business, financial condition, results of operations and prospects, and these forward-looking statements are not guarantees of future performance or development. 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 described in the section titled “Risk Factors” and elsewhere in this Quarterly Report. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, you should not rely on these forward-looking statements as predictions of future events. 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 undertake no obligation to update or revise any forward-looking statements contained herein to reflect events or circumstances after the date of this Quarterly Report, whether as a result of any new information, future events or otherwise.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information available to us as of the date of this Quarterly Report, and while we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted an exhaustive inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain, and you are cautioned not to unduly rely upon these statements.

Item 1. Financial Statements

SEER, INC.
Condensed Consolidated Balance Sheets
(Unaudited)
(in thousands, except share and per share amounts)

	September 30, 2021	December 31, 2020
ASSETS		
Current assets:		
Cash and cash equivalents	$ 331,402	$ 333,585
Investments	175,202	98,278
Accounts receivable, net	1,165	—
Related party receivables	703	99
Other receivables	672	163
Inventory	2,557	551
Prepaid expenses and other current assets	2,566	452
Total current assets	514,267	433,128
Property and equipment, net	12,588	8,441
Restricted cash	524	343
Other assets	459	407
Total assets	$ 527,838	$ 442,319
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 2,573	$ 2,115
Accrued expenses	5,974	5,147
Accrued research and development	627	396
Deferred revenue	111	250
Deferred rent, current	268	186
Total current liabilities	9,553	8,094
Deferred rent, net of current portion	2,687	1,899
Other noncurrent liabilities	402	717
Total liabilities	12,642	10,710
Commitments and contingencies (Note 8)		
Stockholders' equity:		
Preferred stock, $0.00001 par value; 5,000,000 shares authorized as of September 30, 2021 and December 31, 2020; zero shares issued and outstanding as of September 30, 2021 and December 31, 2020	—	—
Class A common stock, $0.00001 par value; 94,000,000 shares authorized as of September 30, 2021 and December 31, 2020; 56,967,870 and 53,395,319 shares issued and outstanding as of September 30, 2021 and December 31, 2020, respectively;	1	1
Class B common stock, $0.00001 par value; 6,000,000 shares authorized as of September 30, 2021 and December 31, 2020; 4,686,028 and 5,865,732 shares issued and outstanding as of September 30, 2021 and December 31, 2020, respectively;	—	—
Additional paid-in capital	621,994	486,915
Accumulated other comprehensive income (loss)	(8)	54
Accumulated deficit	(106,791)	(55,361)
Total stockholders' equity	515,196	431,609
Total liabilities and stockholders' equity	$ 527,838	$ 442,319

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

SEER, INC.
Condensed Consolidated Statements of Operations and Comprehensive Loss
(Unaudited)

(in thousands, except share and per share amounts)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Revenue:				
Product	$ 858	$ —	$ 1,695	$ —
Service	500	—	500	—
Related party	787	—	1,167	—
Grant	10	72	189	320
Total revenue	2,155	72	3,551	320
Cost of revenue:				
Product	574	—	1,078	—
Service	42	—	42	—
Related party	370	—	452	—
Total cost of revenue	986	—	1,572	—
Gross profit	1,169	72	1,979	320
Operating expenses:				
Research and development	7,745	4,762	20,906	13,520
Selling, general and administrative	11,855	3,726	32,672	7,408
Total operating expenses	19,600	8,488	53,578	20,928
Loss from operations	(18,431)	(8,416)	(51,599)	(20,608)
Other income (expense):				
Interest income	46	196	169	778
Other expense	—	(9)	—	(9)
Total other income	46	187	169	769
Net loss	$ (18,385)	$ (8,229)	$ (51,430)	$ (19,839)
Other comprehensive income (loss):				
Unrealized gain (loss) on available-for-sale securities	26	(159)	(62)	119
Comprehensive loss	$ (18,359)	$ (8,388)	$ (51,492)	$ (19,720)
Net loss per share attributable to common stockholders, basic and diluted	$ (0.30)	$ (0.80)	$ (0.85)	$ (2.04)
Weighted-average common shares outstanding, basic and diluted	61,133,518	10,285,401	60,625,601	9,709,501

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

SEER, INC.
Condensed Consolidated Statements of Changes in Stockholders' Equity
(Unaudited)

(in thousands, except share amounts)

	Convertible Preferred Stock		Class A and Class B Common Stock		Additional Paid in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total
	Shares	Amount	Shares	Amount				
Balance at December 31, 2020	—	$ —	59,261,051	$ 1	$ 486,915	$ (55,361)	$ 54	$ 431,609
Issuance of Class A common stock from exercise of options	—	—	399,174	—	171	—	—	171
Repurchase of Class A common stock	—	—	(876)	—	—	—	—	—
Vesting of early exercised stock options and restricted common stock	—	—	—	—	44	—	—	44
Issuance of Class A common stock upon follow-on offering, net of issuance costs of $7,591	—	—	1,650,000	—	102,959	—	—	102,959
Return of profit		—	—	—	11,403	—	—	11,403
Stock-based compensation	—	—	—	—	6,039	—	—	6,039
Other comprehensive loss	—	—	—	—	—	—	(26)	(26)
Net loss	—	—	—	—	—	(16,429)	—	(16,429)
Balance at March 31, 2021	—	—	61,309,349	1	607,531	(71,790)	28	535,770
Issuance of Class A common stock from exercise of options and release of restricted stock units	—	—	132,766	—	236	—		236
Repurchase of Class A common stock	—	—	(18,852)	—	—	—		—
Vesting of early exercised stock options and restricted common stock	—	—	—	—	285	—		285
Stock-based compensation	—	—	—	—	6,431	—		6,431
Other comprehensive loss	—	—	—	—	—	—	(62)	(62)
Net loss	—	—	—	—	—	(16,616)		(16,616)
Balance at June 30, 2021	—	—	61,423,263	1	614,483	(88,406)	(34)	526,044
Issuance of Class A common stock from exercise of options and release of restricted stock units	—	—	230,635	—	631	—	—	631
Vesting of early exercised stock options and restricted common stock	—	—	—	—	94	—	—	94
Stock-based compensation	—	—	—	—	6,786	—	—	6,786
Other comprehensive income	—	—	—	—	—	—	26	26
Net loss	—	—	—	—	—	(18,385)	—	(18,385)
Balance at September 30, 2021	—	$ —	61,653,898	$ 1	$ 621,994	$ (106,791)	$ (8)	$ 515,196

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

SEER, INC.
Condensed Consolidated Statements of Changes in Stockholders' Equity
(Unaudited)

(in thousands, except share amounts)

	Convertible Preferred Stock		Class A and Class B Common Stock		Additional Paid in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total
	Shares	Amount	Shares	Amount				
Balance at December 31, 2019	22,173,216	$ 107,953	12,193,677	$ —	$ 2,288	$ (22,586)	$ 24	$ 87,679
Issuance of Class A common stock from exercise of options	—	—	40,207	—	24	—	—	24
Vesting of early exercised stock options and restricted common stock	—	—	—	—	4	—	—	4
Stock-based compensation	—	—	—	—	579	—	—	579
Other comprehensive income	—	—	—	—	—	—	533	533
Net loss	—	—	—	—	—	(5,493)	—	(5,493)
Balance at March 31, 2020	22,173,216	107,953	12,233,884	—	2,895	(28,079)	557	83,326
Issuance of Class A common stock from exercise of options	—	—	11,877	—	28	—	—	28
Repurchase of Class A common stock	—	—	(215,245)	—	—	—	—	—
Vesting of early exercised stock options and restricted common stock	—	—	—	—	10	—	—	10
Issuance of Series D-1 convertible preferred stock, net of issuance costs of $104	6,853,571	54,896	—	—	—	—	—	54,896
Stock-based compensation	—	—	—	—	808	—	—	808
Other comprehensive loss	—	—	—	—	—	—	(255)	(255)
Net loss	—	—	—	—	—	(6,117)	—	(6,117)
Balance at June 30, 2020	29,026,787	162,849	12,030,516	—	3,741	(34,196)	302	132,696
Issuance of Class A common stock from exercise of options	—	—	611,824	—	42	—	—	42
Vesting of early exercised stock options and restricted common stock	—	—	—	—	49	—	—	49
Distribution of PrognomIQ shares	—	—	—	—	(40)	—	—	(40)
Stock-based compensation	—	—	—	—	1,177	—	—	1,177
Other comprehensive loss	—	—	—	—	—	—	(159)	(159)
Net loss	—	—	—	—	—	(8,229)	—	(8,229)
Balance at September 30, 2020	29,026,787	$ 162,849	12,642,340	$ —	$ 4,969	$ (42,425)	$ 143	$ 125,536

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

SEER, INC.
Condensed Consolidated Statements of Cash Flows
(Unaudited)

(in thousands)

	Nine Months Ended September 30,	
	2021	**2020**
OPERATING ACTIVITIES		
Net loss	$ (51,430)	$ (19,839)
Adjustments to reconcile net loss to net cash used in operating activities:		
Stock-based compensation	19,256	2,564
Depreciation and amortization	1,722	1,132
Net amortization of premium on available-for-sale securities	819	185
Non-cash interest expense and other adjustments	—	10
Changes in operating assets and liabilities:		
Accounts receivable, net	(1,165)	—
Related party receivables	(604)	—
Other receivables	(513)	(330)
Prepaid expenses and other current assets	(2,114)	(128)
Inventory	(2,006)	—
Other assets	(52)	(18)
Accounts payable	302	(60)
Deferred revenue	(139)	250
Deferred rent	870	256
Accrued expenses	919	738
Accrued research and development	231	(133)
Other noncurrent liabilities	(74)	30
Net cash used in operating activities	(33,978)	(15,343)
INVESTING ACTIVITIES		
Purchases of property and equipment	(5,588)	(4,407)
Purchase of available-for-sale securities	(169,801)	(75,624)
Proceeds from maturities of available-for-sale securities	92,000	40,250
Investment in equity method investee	—	(50)
Net cash used in investing activities	(83,389)	(39,831)
FINANCING ACTIVITIES		
Proceeds from issuance of common stock upon follow-on public offering, net of issuance costs	102,959	—
Proceeds from return of profit	11,403	—
Repurchase of Class A common stock	(35)	(6)
Proceeds from stock option exercises including early exercised options	1,038	578
Proceeds from issuance of Series D-1 preferred stock, net of issuance costs	—	54,896
Payments of deferred offering costs	—	(73)
Net cash provided by financing activities	115,365	55,395
Net increase (decrease) in cash, cash equivalents and restricted cash	(2,002)	221
Cash, cash equivalents and restricted cash, beginning of period	333,928	17,828
Cash, cash equivalents and restricted cash, end of period	$ 331,926	$ 18,049
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION		
Cash paid for income taxes	$ 605	$ —
SUPPLEMENTAL DISCLOSURE OF NON-CASH INVESTING AND FINANCING ACTIVITIES		
Property and equipment purchases included in accounts payable	$ 183	$ 20
Property and equipment purchases included in accrued expenses	$ 271	$ —
Deferred offering costs in accounts payable	$ —	$ 90
Deferred offering costs in accrued expenses	$ —	$ 1,006

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

1. ORGANIZATION AND DESCRIPTION OF THE BUSINESS

Seer, Inc. (the Company) was incorporated in Delaware on March 16, 2017, and is headquartered in Redwood City, California. In December 2020, the Company formed the wholly-owned subsidiary, Seer Securities Corporation, located in Massachusetts. The Company is a life sciences company focused on capturing deep molecular insights from the proteome to enable novel insights and breakthroughs in the understanding of biology and disease. Since inception, the Company has devoted its efforts principally to research, development and commercialization of its technology and products, recruiting management and technical staff, acquiring operating assets, and raising capital.

The Company is subject to a number of risks, similar to other early-stage life science companies, including, but not limited to, development and commercialization of its products, market acceptance of its products, development by its competitors of new technological innovations, protection of its intellectual property, and raising additional capital.

Public Offering

On February 1, 2021, the Company completed an underwritten public offering of 1,650,000 shares of its Class A common stock at a public offering price of $67.00 per share. The Company received net proceeds of $103.0 million after deducting offering costs, underwriting discounts, and commissions of $7.6 million.

Reverse Stock Split

In November 2020, the Company's board of directors approved an amended and restated certificate of incorporation to effect a reverse split of shares of the Company's common stock and convertible preferred stock on a 1-for-2.14 basis (the Reverse Stock Split) effective as of November 25, 2020. The par values of the common stock and convertible preferred stock were not adjusted as a result of the Reverse Stock Split. All references to common stock, options to purchase common stock, restricted stock awards, restricted stock units, convertible preferred stock, share data, per share data, and related information contained in the unaudited condensed consolidated financial statements have been retrospectively adjusted to reflect the effect of the Reverse Stock Split for all periods presented.

Liquidity

As of September 30, 2021, the Company has incurred significant losses and has had negative cash flows from operations. As of September 30, 2021, the Company had cash, cash equivalents and investments of $506.6 million and an accumulated deficit of $106.8 million. Management expects to continue to incur significant expenses for the foreseeable future and to incur operating losses in the near term while the Company makes investments to support its anticipated growth. The Company believes that its cash and cash equivalents balance as of September 30, 2021 provides sufficient capital resources to continue its operations for at least 12 months from the issuance date of the accompanying unaudited condensed consolidated financial statements.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES AND BASIS OF PRESENTATION

Basis of Presentation

The unaudited condensed consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America (U.S. GAAP). The Company has issued shares of Class A common stock, herein referred to as "Class A common stock" or "Class A," and Class B common stock, herein referred to as "Class B common stock" or "Class B," and collectively as "common stock." The unaudited condensed consolidated financial statements include the accounts of Seer, Inc. and its wholly-owned subsidiary. All intercompany transactions and balances have been eliminated.

The condensed consolidated balance sheet at December 31, 2020 has been derived from the audited consolidated financial statements of the Company at that date. Certain information and footnote disclosures typically included in the Company's audited consolidated financial statements have been condensed or omitted. The accompanying unaudited condensed consolidated financial statements have been prepared on the same basis as the

annual consolidated financial statements and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary to state fairly the Company's financial position, results of operations, comprehensive loss and cash flows for the periods presented, but are not necessarily indicative of the results of operations to be anticipated for any future annual or interim period.

The accompanying unaudited condensed consolidated financial statements and notes should be read in conjunction with the audited consolidated financial statements and related notes for the year ended December 31, 2020 included in the Annual Report on Form 10-K filed with the SEC on March 29, 2021.

Use of Estimates

The preparation of unaudited condensed consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, and the disclosure of contingent assets and liabilities at the date of the unaudited condensed consolidated financial statements and the reported amounts of expenses during the reporting period. On an ongoing basis, the Company evaluates its estimates and assumptions, including, but not limited to, those related to the determination of stand-alone selling price for revenue recognition, the fair value of common stock, stock-based compensation, accrued research and development expenses, allowance for credit losses, inventory valuation, useful lives and valuation of property and equipment, income tax uncertainties, and tax valuation allowances.

Management bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ materially from those estimates.

Impact of the COVID-19 Pandemic

As a result of the COVID-19 pandemic (COVID-19), the Company's operations experienced disruptions and restrictions on employees' ability to work and on the hiring of additional personnel, particularly as a result of preventive and precautionary measures taken by the Company and some of its suppliers and other service providers. In particular, some of the Company's laboratory material and equipment suppliers, collaborators, and service providers used in the performance of its research activities and phased commercial launch plan have been similarly impacted by COVID-19, which may limit the Company's ability to achieve its planned progress. COVID-19 has adversely affected the broader economy, which could affect the Company's financing prospects. Continued disruptions from COVID-19 could harm the Company's operations and the Company cannot anticipate all the ways in which it could be adversely impacted by health epidemics such as COVID-19.

The COVID-19 pandemic has mainly impacted some of the Company's suppliers who have experienced a surge in demand for their products resulting in supply delays for critical hardware, instrumentation and medical and testing supplies used for product development and commercialization. The Company continues to monitor and assess the effects of the COVID-19 pandemic on its business, financial condition, results of operations and cash flows.

Cash, Cash Equivalents and Restricted Cash

The Company considers all highly liquid investments with an original maturity of three months or less at the date of purchase to be cash equivalents. As of September 30, 2021 and December 31, 2020, all amounts recorded as cash and cash equivalents consist of money market funds and are stated at fair value.

Restricted cash as of September 30, 2021 and December 31, 2020 represents cash held by a financial institution as security for a letter of credit issued to the lessor for one of the Company's operating leases and is classified as noncurrent.

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

	September 30, 2021	December 31, 2020
Cash and cash equivalents	$ 331,402	$ 333,585
Restricted cash	524	343
Total cash, cash equivalents and restricted cash	$ 331,926	$ 333,928

Accounts Receivable, Net

Accounts receivable consist of amounts due from customers for the sales of products and services, net of any allowance for credit losses. The Company's expected loss allowance methodology for receivables is developed using its historical collection experience, current and future economic market conditions and a review of the current aging status and financial condition of its customers. Specific allowance amounts are established to record the appropriate allowance for customers that have an identified risk of default. General allowance amounts are established based upon an assessment of expected credit losses for the Company's receivables by aging category. Balances are written off when they are ultimately determined to be uncollectible. There was no allowance for credit losses related to accounts receivable as of September 30, 2021 and December 31, 2020.

Inventory

Inventory is recorded at the lower of standard cost, which approximates actual cost on a weighted-average basis, or net realizable value. Provisions for slow-moving, excess or obsolete inventories are recorded when required to reduce inventory values to their estimated net realizable values based on product expiration, development plans, or quality issues.

Revenue Recognition

Product and Service Revenue

The Company generates revenue from sales of products and services. The Company's product, the Proteograph Product Suite, consists of an instrument with software and consumables. The Company began shipping its Proteograph Product Suite during the second quarter of 2021.

The Company recognizes revenue when control of the products and services is transferred to its customers in an amount that reflects the consideration it expects to receive from its customers in exchange for those products and services. This process involves identifying the contract with a customer, determining the performance obligations in the contract, determining the contract price, allocating the contract price to the distinct performance obligations in the contract and recognizing revenue when the performance obligations have been satisfied. A performance obligation is considered distinct from other obligations in a contract when it provides a benefit to the customer either on its own or together with other resources that are readily available to the customer and is separately identified in the contract. The Company considers a performance obligation satisfied once it has transferred control of a good or service to the customer, meaning the customer has the ability to use and obtain the benefit of the good or service. The Company elected to account for shipping and handling activities that occur after the customer has obtained control as a fulfillment activity and not a separate performance obligation.

In instances where right of payment or transfer of title is contingent upon the customer's acceptance of the product, revenue is deferred until all acceptance criteria have been met. Revenue is recorded net of discounts and sales taxes collected on behalf of governmental authorities. Customers are invoiced generally upon shipment, or upon order for services, and payment is typically due within 30 or 60 days. Cash received from customers in

advance of product shipment or providing services is recorded as a contract liability. The Company's contracts with its customers generally do not include rights of return or a significant financing component.

The Company regularly enters into contracts that include various combinations of products and services which are generally distinct and accounted for as separate performance obligations. The transaction price is allocated to each performance obligation in proportion to its standalone selling price. The Company determines standalone selling price using average selling prices with consideration of current market conditions. If the product or service has no history of sales or if the sales volume is not sufficient, the Company relies upon prices set by management, adjusted for applicable discounts.

Grant Revenue

Grant revenue represents funding under cost reimbursement programs from federal foundation sources for qualified research and development activities performed by the Company and are not based on estimates that are subject to change. Grants received are assessed to determine if the agreement should be accounted for as an exchange transaction or a contribution. An agreement is accounted for as a contribution if the resource provider does not receive commensurate value in return for the assets transferred. Such amounts are recorded as revenue as grant-funded activities are performed up to the amount of expenses incurred. Any advance funding payments are recorded as deferred revenue until the activities are performed.

Shipping and Handling Costs

Shipping and handling costs are included in cost of revenue.

Stock-Based Compensation

The Company accounts for stock-based compensation, including from restricted common stock awards (RSAs), grants of restricted stock units (RSUs), and stock options that may be settled in shares of our common stock, based on the fair values of the equity instruments issued. The fair value is determined on the measurement date, which is generally the date of grant. The fair value of RSAs is the difference between the fair value of the underlying stock at the measurement date and the purchase price. The fair value of RSUs is the fair value of the underlying stock at the measurement date. The fair value for our stock option awards is determined at the grant date using the Black-Scholes valuation model. For share-based payment awards that vest subject to the satisfaction of a service requirement, the fair value of the awards is recognized as expense on a straight-line basis over the requisite service period in which the awards are expected to vest. For share-based payment awards with performance-based vesting conditions, the fair value of the awards is recognized as expense using the accelerated attribution method over the vesting period. Forfeitures are accounted for in the period in which they occur. Share-based payment awards that include a service condition and a performance condition are expected to vest when the performance condition is probable of being met.

The Black-Scholes model considers several variables and assumptions in estimating the fair value of stock-based awards that require judgment, for which changes if they occur can materially affect the resulting estimates of fair value. These assumptions include the per share fair value of the underlying common stock, exercise price, expected term, risk-free interest rate, expected annual dividend yield, and the expected stock price volatility over the expected term as follows:

Fair Value of Common Stock

For grants prior to the Company's initial public offering (IPO) in December 2020, the grant-date fair market value of the shares of common stock underlying stock options was determined by the Company's Board of Directors with assistance of third-party valuation specialists. Because there was no public market for the Company's common stock, the Board of Directors exercised reasonable judgment and considered a number of objective and subjective factors to determine the best estimate of the fair market value, which include important developments in the Company's operations, the prices at which the Company sold shares of its convertible preferred stock, the rights, preferences and privileges of the Company's convertible preferred stock relative to those of the Company's common stock, actual operating results, financial performance, external market conditions in the life sciences industry,

general U.S. market conditions, equity market conditions of comparable public companies, and the lack of marketability of the Company's common stock. For all grants subsequent to the IPO, the fair value of common stock was determined by using the closing price per share of common stock as reported on the Nasdaq Global Select Market.

Expected Volatility

The Company had no publicly available stock price information prior to its IPO and limited publicly available stock price information subsequent to its IPO and therefore the Company has used the historical volatility of the stock price of similar publicly traded peer companies. The historical volatility is calculated based on a period of time commensurate with the expected term assumptions.

Expected Term

For stock options granted to employees and directors, the expected term is calculated using the simplified method for "plain vanilla" stock option awards. The expected term for stock options granted to non-employees is the contractual term.

Risk-Free Interest Rate

The risk-free interest rate is based on the yield available on U.S. Treasury issues similar in duration to the expected term of the equity-settled award.

Expected Dividends

The expected dividend yield is assumed to be zero as the Company has never paid dividends and has no current plans to pay dividends on its common stock.

Net Loss Per Share Attributable to Common Stockholders

Net loss per share of common stock is computed using the two-class method required for multiple classes of common stock and participating securities based upon their respective rights to receive dividends as if all income for the period has been distributed. The rights, including the liquidation and dividend rights and sharing of losses, of the Class A and Class B common stock are identical, other than voting rights. As the liquidation and dividend rights and sharing of losses are identical, the undistributed earnings are allocated on a proportionate basis and the resulting net loss per share attributed to common stockholders is therefore the same for Class A and Class B common stock on an individual or combined basis.

The Company's participating securities include the Company's convertible preferred stock that was outstanding prior to the completion of the Company's IPO, as the holders were entitled to receive noncumulative dividends on a pari passu basis in the event that a dividend is paid on common stock. The Company also considers any shares issued on the early exercise of stock options subject to repurchase to be participating securities because holders of such shares have non-forfeitable dividend rights in the event a dividend is paid on common stock. The holders of convertible preferred stock, as well as the holders of early exercised shares subject to repurchase, do not have a contractual obligation to share in losses.

Basic net loss per share attributable to common stockholders is calculated by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding during the period, adjusted for outstanding shares that are subject to repurchase.

Diluted net loss per share is computed by giving effect to all potentially dilutive securities outstanding for the period using the treasury stock method or the if-converted method based on the nature of such securities. For periods in which the Company reports net losses, diluted net loss per common share attributable to common stockholders is the same as basic net loss per common share attributable to common stockholders, because potentially dilutive common shares are not assumed to have been issued if their effect is anti-dilutive.

Recently Adopted Accounting Pronouncements

In December 2019, the FASB issued ASU No. 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*, which is intended to simplify the accounting for income taxes. This standard removes certain exceptions to the general principles in Topic 740 and also clarifies and amends existing standards to improve consistent application. The Company adopted this standard as of January 1, 2021, which did not have a material impact on its financial statements as of the adoption date.

In January 2020, the FASB issued ASU No. 2020-01, *Investments—Equity Securities (Topic 321), Investments—Equity Method and Joint Ventures (Topic 323), and Derivatives and Hedging (Topic 815)*. This standard clarifies the interaction between accounting standards related to equity securities, equity method investments, and certain derivative instruments. The Company adopted this standard as of January 1, 2021, which did not have a material impact on its financial statements as of the adoption date.

Recently Issued Accounting Pronouncements Not Yet Adopted

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)*. This standard clarifies the definition of a lease and requires a lessee to recognize in the statement of financial position a liability to make lease payments (the lease liability) and a right-to-use asset representing its right to use the underlying asset for the lease term. The Company anticipates that it will no longer qualify as an emerging growth company as of December 31, 2021, and will first present the application of this standard in its annual financial statements for the year ending December 31, 2021. While the Company has not yet quantified the impact, these adjustments will increase total assets and total liabilities relative to such amounts reported prior to adoption.

3. FAIR VALUE MEASUREMENTS AND FAIR VALUE OF FINANCIAL INSTRUMENTS

The following tables set forth the fair value of the Company's financial assets that were measured at fair value on a recurring basis by level within the fair value hierarchy (in thousands).

		September 30, 2021			
		Level 1	Level 2	Level 3	Total
Assets:	Classification:				
Money market funds	Cash and cash equivalents	$ 330,308	$ —	$ —	$ 330,308
U.S. Treasury securities	Investments	—	175,202	—	175,202
Total assets measured at fair value		$ 330,308	$ 175,202	$ —	$ 505,510

		December 31, 2020			
		Level 1	Level 2	Level 3	Total
Assets:	Classification:				
Money market funds	Cash and cash equivalents	$ 333,585	$ —	$ —	$ 333,585
U.S. Treasury securities	Investments	—	98,278	—	98,278
Total assets measured at fair value		$ 333,585	$ 98,278	$ —	$ 431,863

There were no financial liabilities measured at fair value. The Company classifies money market funds within Level 1 of the fair value hierarchy because they are valued using quoted market prices. The Company classifies its investments in U.S. Treasury securities (Treasury bills, Treasury notes, and Treasury bonds) as Level 2 instruments and obtains fair value from an independent pricing service, which may use quoted market prices for identical or comparable instruments or model-driven valuations using observable market data or inputs corroborated by observable market data.

The carrying amount of the Company's accounts receivable, other receivables, prepaid expenses and other current assets, accounts payable, and accrued expenses approximate fair value due to their short maturities.

The following is a summary of the Company's cash equivalents and investments and the gross unrealized holding gains and losses (in thousands):

	September 30, 2021			
	Amortized Cost Basis	Unrealized Gains	Unrealized Losses	Fair Value
Assets:				
Money market funds	$ 330,308	$ —	$ —	$ 330,3
U.S. Treasury securities	175,210	12	(20)	175,2
Total	$ 505,518	$ 12	$ (20)	$ 505,5

	December 31, 2020			
	Amortized Cost Basis	Unrealized Gains	Unrealized Losses	Fair Value
Assets:				
Money market funds	$ 333,585	$ —	$ —	$ 333,5
U.S. Treasury securities	98,223	57	(2)	98,2
Total	$ 431,808	$ 57	$ (2)	$ 431,8

As of September 30, 2021 and December 31, 2020, unrealized losses on available-for-sale investments are not attributable to credit risk and are considered to be temporary. The Company believes it is more likely than not that investments in an unrealized loss position will be held until maturity or the recovery of the cost basis of the investment. To date, the Company has not recorded any impairment charges on marketable securities related to other-than-temporary declines in market value.

4. OTHER FINANCIAL STATEMENT INFORMATION

Inventory

Inventory consists of the following (in thousands):

	September 30, 2021	December 31, 2020
Raw materials	$ 1,743	$ —
Finished goods	814	551
Total inventory	$ 2,557	$ 551

Property and Equipment, Net

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

	September 30, 2021	December 31, 2020
Laboratory equipment	$ 12,470	$ 8,075
Computer equipment and software	1,344	182
Furniture and fixtures	478	241
Leasehold improvements	2,369	2,294
Property and equipment	16,661	10,792
Less: accumulated depreciation and amortization	4,073	2,351
Total property and equipment, net	$ 12,588	$ 8,441

Depreciation and amortization expense related to property and equipment was $0.7 million and $0.4 million for the three months ended September 30, 2021 and 2020, respectively. Depreciation and amortization expense related to property and equipment was $1.7 million and $1.1 million for the nine months ended September 30, 2021 and 2020, respectively.

Accrued Expenses

Accrued expenses consists of the following (in thousands):

	September 30, 2021	December 31, 2020
Accrued compensation	$ 3,600	$ 2,866
Accrued professional services	480	1,074
Accrued property and equipment	271	—
Accrued taxes	374	—
Restricted stock liability, current	267	484
Other	982	723
Total accrued expenses	$ 5,974	$ 5,147

5. REVENUE AND DEFERRED REVENUE

Product revenue consists of instruments, consumables and platform evaluation agreements. Related party revenue is comprised of both the sale of products and services performed.

As of September 30, 2021 and December 31, 2020, the Company recorded $0.1 million and $0.3 million of contract liabilities, consisting of deferred revenue. None of the revenue recorded in the nine months ended September 30, 2021 was included in contract liabilities as of December 31, 2020. All contract liabilities are expected to be recognized as revenue in the next twelve months.

Research Agreements

In February 2019 and March 2020, the Company entered into sponsored research agreements with a biotechnology company and a pharmaceutical company, respectively, under which the Company is required to execute certain research and development activities for total aggregate consideration payable of $0.9 million. During the three and nine months ended September 30, 2021 and 2020, the Company did not recognize any revenue with respect to these agreements.

National Institutes of Health Grant

In August 2019, the Company received a notice of a Small Business Innovation Research grant award from the National Institutes of Health, which will provide funding of approximately $1.1 million to the Company for its development of research applications. In June 2020, the Company received a notice that additional grant consideration of $0.9 million will be awarded. During the three months ended September 30, 2021 and 2020, the Company recognized grant revenue of approximately $10,000 and $0.1 million, respectively, with respect to the award. During the nine months ended September 30, 2021 and 2020, the Company recognized grant revenue of $0.2 million and $0.3 million, respectively, with respect to the award.

6. CAPITAL STOCK AND STOCKHOLDERS' EQUITY

As of September 30, 2021, the Company is authorized to issue 105,000,000 shares of capital stock consisting of 94,000,000 shares of Class A common stock, 6,000,000 shares of Class B common stock, and 5,000,000 shares of preferred stock.

Common Stock

Common stock issued and outstanding is as follows:

	September 30, 2021	December 31, 2020
Class A common stock	56,967,870	53,395,319
Class B common stock	4,686,028	5,865,732
Total common stock issued and outstanding	61,653,898	59,261,051

Class A and Class B common stock have a par value of $0.00001 per share. Holders of Class A common stock are entitled to one vote per share and holders of Class B common stock are entitled to 10 votes per share. Class B common shares are convertible to Class A common shares at any time at the option of the holder on a one-for-one basis. Holders of common stock are entitled to dividends as declared by the Board of Directors, subject to rights of holders of all classes of stock outstanding having priority rights as to dividends. There have been no dividends declared to date.

In the first quarter of 2021, the Company received $11.4 million related to the return of short-swing profits from one of its beneficial owners. These proceeds are recognized as a capital contribution from stockholders as an increase to additional paid-in capital on the condensed consolidated statements of changes in stockholders' equity and as cash provided by financing activities on the condensed consolidated statements of cash flows.

7. EQUITY INCENTIVE PLANS

In 2017, the Company adopted the 2017 Stock Incentive Plan (2017 Plan), which provided for the granting of awards to employees, directors, and consultants of the Company. Awards issuable under the Plan include incentive stock options (ISO), nonqualified stock options (NSO), and restricted stock awards. In 2020, the Company adopted the 2020 RSU Equity Incentive Plan (2020 RSU Plan), which provided for the granting of RSUs to certain employees of the Company.

In 2020, the Company adopted the 2020 Equity Incentive Plan (2020 Plan), which became effective in connection with the IPO. The Company's 2017 Plan and 2020 RSU Plan were terminated in connection with the IPO and no further grants will be made under the 2017 Plan and 2020 RSU Plan from the date that the 2020 Plan became effective.

Stock Options

As of September 30, 2021, there are 8,302,701 shares of Class A common stock reserved for issuance under the 2020 Plan, 5,734,044 shares of which are available for issuance in connection with grants of future awards.

Stock option activity for the nine months ended September 30, 2021 is as follows:

	Options Outstanding	Weighted Average Exercise Price
Balance - December 31, 2020	9,551,105	$ 5.55
Options granted	1,384,227	50.57
Options exercised	(760,383)	1.37
Options cancelled and forfeited	(276,880)	17.08
Balance - September 30, 2021	9,898,069	$ 11.84
Vested and exercisable, September 30, 2021	2,600,982	$ 3.63

Restricted Stock Awards

Certain stock options granted under the 2017 Plan provide stock option holders the right to exercise unvested stock options in exchange for restricted shares of Class A common stock. The Company has also issued restricted shares of Class A common stock to employees and directors under the 2017 Plan.

The activity of restricted shares of Class A common stock for the nine months ended September 30, 2021 is as follows:

	Number of Shares	Weighted Average Grant Date Fair Value
Unvested at December 31, 2020	775,641	$ 1.7
Granted	10,728	1.6
Repurchased	(19,728)	1.
Vested	(461,077)	1.
Unvested at September 30, 2021	305,564	$ 1.7

Restricted Stock Units

The Company has granted RSUs under the 2020 RSU Plan and the 2020 Plan. RSU activity for the nine months ended September 30, 2021 is as follows:

	Number of Shares	Weighted Average Grant Date Fair Value
Balance at December 31, 2020	491,318	$ 7.9
Granted	300,943	53.8
Vested	(2,192)	46.
Cancelled	(6,752)	19.
Balance at September 30, 2021	783,317	$ 25.3

Employee Stock Purchase Plan

In November 2020, the Company's board of directors adopted the 2020 Employee Stock Purchase Plan (ESPP), which was subsequently approved by the Company's stockholders and became effective in connection with the IPO. A total of 1,195,327 shares of Class A common stock are reserved for issuance under the ESPP as of September 30, 2021. The first offering period commenced in July 2021. Stock-based compensation related to the ESPP was $0.1 million for the three months ended September 30, 2021.

Stock-Based Compensation

The following table summarizes the components of stock-based compensation recognized in the Company's condensed consolidated statements of operations and comprehensive loss (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Cost of revenue	$ 523	$ —	$ 1,271	$ —
Research and development	1,022	210	3,209	561
Selling, general and administrative	5,241	967	14,776	2,003
Total stock-based compensation	$ 6,786	$ 1,177	$ 19,256	$ 2,564

8. COMMITMENTS AND CONTINGENCIES

Facility Lease Agreement

On January 4, 2019, the Company entered into a lease agreement for office and laboratory space in Redwood City, California. The lease term commenced in November 2019 and ends on September 30, 2029. In connection with the lease and its amendments, the Company maintains a letter of credit issued to the lessor in the amount of $0.5 million, which is secured by restricted cash that is classified as noncurrent at September 30, 2021 and December 31, 2020 based on the term of the underlying lease.

The Company entered into an amendment to the lease agreement with respect to its facility in Redwood City, California in June 2020. The amendment makes certain changes to the original lease, including (i) additional office and laboratory space in the same building (the Expansion Premises) and (ii) an extension of the expiration date of the original lease to 127.5 months following the delivery date of the Expansion Premises, which is estimated to be in the first quarter of 2022.

The amendment provides for annual base rent for the Expansion Premises of approximately $0.9 million in the first year of the lease term (subject to an abatement period of nine months), which increases on an annual basis to approximately $1.2 million in the final year of the lease term. The amendment also provides for tenant incentives in the amount of $2.4 million. Under the amendment, the Company retains its original option to renew the lease for an additional five-year term, at then-current market rates.

The Company entered into another amendment to the lease agreement with respect to its facility in Redwood City, California in April 2021. The amendment expanded the office and laboratory space by approximately 25,000 square feet, commenced in May 2021, and has a term of approximately 11 years.

During the period from June 2020 through May 2021, the Company was provided with temporary space. The Company was not required to pay additional rent for the temporary space, but was required to pay property taxes, insurance and normal maintenance costs with respect to the temporary space.

Rent expense was $0.7 million and $0.2 million for the three months ended September 30, 2021 and 2020, respectively. Rent expense was $1.5 million and $0.5 million for the nine months ended September 30, 2021 and 2020, respectively. The Company is required to pay property taxes, insurance, and normal maintenance costs for the facility and will be required to pay any increases over the base year of these expenses.

As of September 30, 2021, future minimum commitments under the Company's non-cancelable facility operating lease are as follows:

Years ending December 31,		(in thousands)
2021 (three months remaining)	$	25
2022		2,48
2023		3,63
2024		3,74
2025		3,85
Thereafter		28,93
Total	$	42,90

Purchase Commitments and Obligations

The Company has certain purchase commitments related to its inventory management with certain manufacturing suppliers wherein the Company is required to purchase the amounts forecasted in a blanket purchase order within a certain time period. The contractual obligations represent future cash commitments and liabilities under agreements with third parties and exclude orders for goods and services entered into in the normal course of business that are not enforceable or subject to change. These outstanding commitments amounted to $7.2 million and $3.1 million as of September 30, 2021 and December 31, 2020, respectively, and are excluded from the future minimum commitments table above.

Guarantees and Indemnifications

In the normal course of business, the Company enters into agreements that contain a variety of representations and provide for general indemnification. The Company's exposure under these agreements is unknown because it involves claims that may be made against the Company in the future. The Company has entered into indemnification agreements with certain directors and officers that require the Company, among other things, to indemnify them against certain liabilities that may arise by reason of the status or service as directors or officers. To date, the Company has not paid any claims or been required to defend any action related to its indemnification obligations. As of September 30, 2021 and December 31, 2020, the Company does not have any material indemnification claims that were probable or reasonably possible and consequently has not recorded related liabilities.

Contingencies

From time to time, the Company may become involved in legal proceedings arising in the ordinary course of business. The Company is not currently a party to any material legal proceedings.

9. PROGNOMIQ, INC.

In August 2020, the Company formed a new entity, PrognomIQ, Inc. (PrognomIQ), and entered into a stock purchase agreement with PrognomIQ, pursuant to which the Company transferred to PrognomIQ certain assets that comprise the Company's human diagnostics activities in exchange for all the outstanding equity interests of PrognomIQ. The Company subsequently completed a pro-rata distribution to its stockholders of most of the shares of capital stock of PrognomIQ.

The Company has concluded that PrognomIQ is a VIE due to its reliance on future financing and insufficient equity investment at risk. However, the Company is not the primary beneficiary of the VIE as it does not have the power to direct the activities that most significantly impact the economic performance of PrognomIQ and does not have control over the PrognomIQ board of directors. The Company has determined that it has the ability to exercise significant influence over PrognomIQ and therefore has accounted for its investment in PrognomIQ using the equity method. During the year ended December 31, 2020, the carrying value of the Company's investment in PrognomIQ was reduced to nil after recognizing net losses based on its percentage of ownership in PrognomIQ.

PrognomIQ constitutes a related party and, as of September 30, 2021 and December 31, 2020, the Company recorded $0.7 million and $0.1 million in related party receivables, respectively, on the condensed consolidated balance sheets representing amounts due from product sales and services and for general transition services and support provided. Revenue received from PrognomIQ is recorded as related party revenue on the condensed consolidated statements of operations and comprehensive loss and is comprised of the sale of instruments and consumables, and services performed.

10. NET LOSS PER SHARE ATTRIBUTABLE TO COMMON STOCKHOLDERS

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Numerator:				
Net loss attributable to common stockholders	$ (18,385)	$ (8,229)	$ (51,430)	$ (19,83
Denominator:				
Weighted-average common shares used in computing net loss per share attributable to common stockholders, basic and diluted	61,133,518	10,285,401	60,625,601	9,709,50
Net loss per share attributable to common stockholders, basic and diluted	$ (0.30)	$ (0.80)	$ (0.85)	$ (2.0

The following outstanding shares of potentially dilutive securities were excluded from the computation of diluted net loss per share attributable to common stockholders for the periods presented, because including them would have been anti-dilutive (on an as-converted basis):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2021	2020	2021	2020
Convertible preferred stock	—	29,026,787	—	29,026,78
Class A common stock options issued and outstanding	9,898,069	7,553,500	9,898,069	7,553,50
Restricted common stock subject to future vesting	305,564	1,573,436	305,564	1,573,43
Restricted stock units	783,317	335,194	783,317	335,19
Total	10,986,950	38,488,917	10,986,950	38,488,9

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

You should read the following discussion and analysis of our financial condition and results of operations together with our unaudited condensed consolidated financial statements and related notes included in Part I, Item 1 of this Quarterly Report. This discussion contains forward-looking statements that involve risks and uncertainties, including those described in the section titled "Special Note Regarding Forward Looking Statements." Our actual results and the timing of selected events could differ materially from those discussed below. Factors that could cause or contribute to such differences include, but are not limited to, those identified below and those set forth under the section titled "Risk Factors."

Overview

We aim to enable exceptional scientific outcomes by commercializing transformative products for researchers to unlock deep, unbiased biological information. Our initial product, the Proteograph Product Suite (Proteograph), leverages our proprietary engineered nanoparticle (NP) technology to provide unbiased, deep, rapid and large-scale access across the proteome. Our Proteograph Product Suite is an integrated solution that is comprised of consumables, our SP100 automation instrument and the Proteograph™ Analysis Suite software. Our Proteograph solution provides an easy-to-use workflow, which has the potential to make proteomic profiling, and the analysis of the thousands of samples needed to characterize the complex, dynamic nature of the proteome, accessible for nearly any laboratory. We believe that characterizing and understanding the full complexity of the proteome is foundational for accelerating biological insights and will lead to broad potential end-markets for proteomics, encompassing basic research and discovery, translational research, diagnostics and applied applications. This full understanding of the complexity of the proteome requires large-scale, unbiased and deep interrogation of thousands of samples across time, which we believe is unavailable with the proteomic approaches available today. We believe that our Proteograph has the potential to enable researchers to perform proteomics studies at scale, similar to the manner in which next generation sequencing (NGS) technologies have transformed genomics.

Since we were incorporated in 2017, we have devoted substantially all of our resources to research and development activities, including with respect to our Proteograph Product Suite, establishing and maintaining our intellectual property portfolio, hiring personnel, raising capital, building our commercial infrastructure and providing general and administrative support for these activities.

Our ability to generate product revenue sufficient to achieve profitability, if ever, will depend on the successful commercialization of our Proteograph. We are commercializing our Proteograph utilizing a three phase commercialization plan that has been shown to be effective and optimal for introducing disruptive products in numerous life sciences technology markets, including NGS. We have completed the first Collaboration phase, during which we signed collaboration agreements with a small number of key opinion leaders in proteomics, whose assessment and validation of products can significantly influence other researchers in their respective markets. We commenced the second, or Limited Release, phase of our commercialization plan, and generated our first revenues from product sales during the second quarter of 2021. We will continue to target sales of our Proteograph Product Suite to select sites performing large-scale proteomics or genomics research. We will work closely with these sites, which we expect will serve as models for the rest of the market, to exemplify applications that demonstrate the unique value proposition of our Proteograph. We expect this phase to continue through 2021 and lead into the third phase of commercialization, Broad Release, in early 2022.

We are commercializing our Proteograph Product Suite as an integrated solution comprising consumables, our SP100 automation instrument and software. Our commercial strategy will focus on growing adoption by the research community of our Proteograph, expanding the installed base and increasing utilization to generate revenue from the purchase of Proteograph consumables. We expect a highly efficient sales model because our workflow integrates with most existing proteomics laboratories' workflows and also complements large-scale genomics research.

We intend to broadly commercialize our Proteograph Product Suite through a direct sales channel in the United States, and through both direct and distributor sales channels in regions outside the United States. Given our stage of commercialization, we are currently in the early stages of building sales, marketing, support and product distribution capabilities. We intend to build the necessary infrastructure for these activities in the United States, European Union,

the United Kingdom, and potentially other countries and regions, including Asia-Pacific, as we execute on our three phase commercialization strategy for our Proteograph.

We leverage well-established unit operations to formulate and manufacture our NPs and to assemble our assay kits at our facilities in Redwood City, California. We procure some of our consumables, including components of our NPs, from third-party manufacturers, which includes the commonly-available raw materials needed for manufacturing our proprietary engineered NPs. We are currently manufacturing using our pilot line and building out our manufacturing capabilities as we ramp towards Broad Release. We obtain some of the reagents and components used in our Proteograph Product Suite workflow from third-party suppliers. While some of these reagents and components are sourced from a single supplier, these products are readily available from numerous suppliers. While we currently handle packaging of our Proteograph assay and the related consumables, in the future, we may have our packaging outsourced to a third-party. While we currently plan to handle filling of our Proteograph assay reagents both internally and externally, in the future, we may have some of our internal filling outsourced to a third-party. We conduct vendor and component qualification for components provided by third-party suppliers and quality control tests on all of our NPs. We will need to substantially expand our NP manufacturing capabilities to enable the successful commercialization of our Proteograph.

We have designed our SP100 automation instrument and have outsourced the manufacturing of our SP100 to Hamilton Company, a leading manufacturer of automated liquid handling workstations. We have entered into a non-exclusive agreement with Hamilton that covers the manufacturing of our SP100 and its continued supply on a purchase order basis. The agreement has an initial term that runs three years following our commercial launch. Pricing for the supply of our SP100 automation instrument is on a fixed schedule during the initial term of the agreement, with tiered pricing dependent upon the number of units purchased in a twelve-month period.

On December 8, 2020, we completed our IPO, in which we sold 10,592,106 shares of Class A common stock at a price of $19.00 per share, resulting in net proceeds of $183.9 million after deducting offering costs, underwriting discounts and commissions. Concurrent with the IPO, we issued 7,105,262 shares of our common stock in a private placement for net proceeds of $130.3 million after deducting underwriting discounts and commissions. On February 1, 2021, we completed an underwritten public offering of 1,650,000 shares of our Class A common stock at a public offering price of $67.00 per share. We received net proceeds of $103.0 million after deducting offering costs, underwriting discounts and commissions of $7.6 million.

During the nine months ended September 30, 2021 and 2020, we incurred a net loss of $51.4 million and $19.8 million, respectively. As of September 30, 2021, we had an accumulated deficit of $106.8 million and cash, cash equivalents, and investments of $506.6 million. We expect to continue to incur significant and increasing losses and do not expect positive cash flows from operations for the foreseeable future.

We expect our expenses to increase significantly in connection with our ongoing activities, as we:

- continue to develop and commercialize our Proteograph Product Suite;
- attract, hire and retain qualified personnel;
- establish a sales, marketing, service, support and distribution infrastructure as part of our commercialization efforts;
- build-out and expand our in-house NP manufacturing capabilities;
- continue to engage in research and development of other products and enhancements to our Proteograph Product Suite;
- implement operational, financial and management information systems;
- obtain, maintain, expand, and protect our intellectual property portfolio; and
- build the infrastructure to operate as a public company.

PrognomIQ

In August 2020, we transferred certain assets related to human disease testing to PrognomIQ, Inc. (PrognomIQ), a new wholly-owned subsidiary, in exchange for all of its outstanding equity interests. Following the transfer, we completed a pro-rata distribution to our stockholders of most of the shares of capital stock of PrognomIQ. Following the distribution and a subsequent $55.0 million equity financing of PrognomIQ, we hold approximately 19% of the outstanding capital stock in PrognomIQ.

The rationale for this transaction was to enable the growth of ecosystems around new applications that leverage unbiased, deep and large-scale proteomic information. The transaction allows us to remain focused on our core strategy, which is to be a provider, rather than a consumer, of proteomics solutions to all customers across these ecosystems. By focusing on our role as a provider of proteomics solutions, we are no longer potentially competing with, or creating the perception that we are competing with, our customers. Our relationship with PrognomIQ does not preclude us from selling our Proteograph Product Suite to any customer in any geography, nor does it preclude our customers from using our Proteograph in any way. PrognomIQ has indicated that it plans to combine the protein data from our Proteograph solution with genomics and other -omics data, to create a multi-omics approach to health and disease testing. We believe PrognomIQ's use of proteomics and the potential for other similar companies that use proteomics in their research and products will help us drive the adoption of our Proteograph Product Suite in these applications. We have entered into certain agreements with PrognomIQ.

Omid Farokhzad, Chief Executive Officer and Chair of our board of directors, serves as the Chair of PrognomIQ's board of directors. Philip Ma, Ph.D., our former Chief Business Officer, serves as the Chief Executive Officer of PrognomIQ. Dr. Ma has fully transitioned to PrognomIQ and remains our consultant through April 2022. In addition, three of our other employees have also transitioned to PrognomIQ. We will be providing general transition services and support, including laboratory and office space to PrognomIQ during the transition period.

We granted PrognomIQ a non-exclusive license to certain patents and patent applications that we own and a non-exclusive sublicense to certain patent applications we exclusively licensed from Brigham and Women's Hospital (BWH), in each case relating to our core technology, to develop, manufacture and commercialize licensed products for the field of human diagnostics on a worldwide basis. In consideration of the non-exclusive sublicense to certain patent applications licensed from BWH, PrognomIQ paid us a low-five digit figure, and would pay a low single digit royalty, in an amount equivalent to what we would have to pay under our license with BWH, on net sales of sublicensed products beginning with the first commercial sale of a sublicensed product during the term of the agreement. We do not view these amounts to be material to our financial condition and results of operations nor do we expect these amounts to be material to us in the future. In accordance with the non-exclusive license agreement with PrognomIQ, we entered into a supply agreement with PrognomIQ in June 2021. The PrognomIQ supply agreement provides that we will supply PrognomIQ with the Proteograph Product Suite and associated consumables.

COVID-19 Pandemic

As a result of the COVID-19 pandemic, we could experience disruptions that could severely impact our business. For example, we have experienced longer lead times from Hamilton for orders of our SP100 automation instruments and may experience delays and longer lead times from our other suppliers of critical hardware, instrumentation and consumables used for product development, manufacturing and commercial operations. Pandemic precautions and preventative measures may also impact our commercialization plans due to restrictions on our customers' ability to access laboratories, causing delays in the delivery and installation of our Proteograph products, training such customers on our products, and their ability to conduct research. The ongoing build-out of our expansion facilities may also be delayed by COVID-related restrictions. Furthermore, COVID-19 has adversely affected the broader economy and financial markets, resulting in an economic downturn that could curtail the research and development budgets of our customers, our ability to hire additional personnel and our financing prospects. Any of the foregoing could harm our operations and we cannot anticipate all the ways in which it could be adversely impacted by health epidemics such as COVID-19.

For additional details, see the section titled "Risk Factors."

Components of Results of Operations

Revenue

We generate revenue from product sales, which includes sales of our Proteograph Product Suite and associated consumables as well as our platform evaluation agreements. In addition, we may at times generate revenue from performing services and the receipt of grant revenue for the reimbursement of research-related expenses. Our revenue is primarily generated domestically. We intend to focus our commercial efforts in the United States and expect to grow our international presence. A portion of our revenue is generated by sales to a related party and we anticipate a portion of our revenue to continue to be generated by such related party. Our grant-funded activities are expected to decrease as a percentage of total revenue as we continue to ramp up commercialization of our Proteograph Product Suite and our product offerings.

Cost of Revenue

We utilize third-party manufacturers for production of our SP100 instrument and we manufacture our NPs and assemble our assay kits internally. Cost of goods sold consists primarily of costs of the components of Proteograph Product Suite, including the SP100, consumables and software, and distribution-related expenses such as logistics and shipping costs.

Research and Development Expenses

Research and development, or R&D, expenses include cost associated with performing services under research and development service contracts and research and development of our technology and product candidates. R&D expenses consist primarily of employee compensation, including stock-based compensation, and related benefits, laboratory supplies used for in-house research, consulting costs, costs related to clinical studies for the collection of biological samples for research use, which relate to the assets transferred to PrognomIQ, and allocated overhead, including rent, depreciation, information technology and utilities.

We plan to increase our investment in our R&D efforts related to our Proteograph Product Suite, our product development pipeline and our proprietary engineered NP and other technologies. Therefore, we expect R&D expenses will increase in absolute dollars in future periods as we incur expenses associated with hiring additional personnel, purchasing supplies and materials, and the allocation of facility expense associated with the ongoing build-out of our expansion facilities to support our R&D efforts.

Selling, General and Administrative Expenses

Selling, general and administrative expenses consist primarily of employee compensation, including stock-based compensation, and related benefits for executive management, sales and marketing, finance, administration and human resources, legal, allocated overhead, professional service fees and other general overhead costs to support our operations.

We expect to incur additional selling, general and administrative expenses as we continue to invest in our personnel as we grow our commercial operations and with the additional costs incurred as a result of operating as a public company, including accounting, human resources, legal, insurance and investor relations costs. As a result, we expect selling, general and administrative expenses to increase in absolute dollars in future periods.

Interest Income

Interest income consists of interest earned on cash, cash equivalents and investments.

Results of Operations

Comparisons of the Three Months Ended September 30, 2021 and 2020

The following table summarizes our results of operations for the periods presented:

	Three Months Ended September 30,		Change	
	2021	2020	Amount	%
	(dollars in thousands)			
Revenue:				
Product	$ 858	$ —	$ 858	
Service	500	—	500	
Related party	787	—	787	
Grant	10	72	(62)	(86)
Total revenue	2,155	72	2,083	2893
Cost of revenue:				
Product	574	—	574	
Service	42	—	42	
Related party	370	—	370	
Total cost of revenue	986	—	986	
Gross profit	1,169	72	1,097	1524
Operating expenses:				
Research and development	7,745	4,762	2,983	63
Selling, general and administrative	11,855	3,726	8,129	218
Total operating expenses	19,600	8,488	11,112	131
Loss from operations	(18,431)	(8,416)	(10,015)	119
Other income (expense):				
Interest income	46	196	(150)	(77)
Other expense	—	(9)	9	(100)
Total other income	46	187	(141)	(75)
Net loss	$ (18,385)	$ (8,229)	(10,156)	123

**** Not meaningful***

Revenue

	Three Months Ended September 30,		Change	
	2021	2020	Amount	%
	(dollars in thousands)			
Revenue	$ 2,155	$ 72	$ 2,083	2,893

Revenue increased by $2.1 million, or 2,893%, from $0.1 million during the three months ended September 30, 2020 to $2.2 million during the three months ended September 30, 2021, due to sales of products related to our Proteograph Product Suite in the three months ended September 30, 2021. Revenue recognized primarily consisted of sales of the Proteograph SP100 instrument and assay kits, platform evaluations of which $0.8 million was attributed to related parties and $0.5M was attributable to a research-related service agreement. Revenue related to our grant-funded activities related to our Small Business Innovation Research (SBIR) grant from the National Institutes of Health Grant (NIH) decreased between the two periods by ($0.1) million.

Cost of Revenue

	Three Months Ended September 30,		Change	
	2021	2020	Amount	%
	(dollars in thousands)			
Cost of revenue	$ 986	$ —	$ 986	

Cost of revenue for the three months ended September 30, 2021 was $1.0 million compared to $0 for the three months ended September 30, 2020, primarily due to the first sales of our Proteograph Product Suite. Cost of revenue related to our Proteograph Product Suite consist of costs of the SP100 instrument, assay kits and other related costs, including labor and overhead.

Research and Development

	Three Months Ended September 30,		Change	
	2021	2020	Amount	%
	(dollars in thousands)			
Research and development	$ 7,745	$ 4,762	$ 2,983	63

R&D expenses increased by $3.0 million, or 63%, from $4.8 million during the three months ended September 30, 2020 to $7.7 million during the three months ended September 30, 2021. The increase was primarily due to an increase in product development efforts related to our Proteograph Product Suite, including $1.0 million in employee compensation and other related expenses, $0.8 million in stock-based compensation due to growth in research and development personnel and $1.4 million related to the expansion of facilities and maintenance and depreciation of laboratory equipment. This was offset by a decrease in professional and consulting fees of $(0.2) million and a decrease in clinical study fees of $(0.2) million related to the costs associated with the ramp down of site enrollment for clinical studies related to the collection of biological samples for research use. These clinical studies are related to the assets transferred to PrognomIQ.

Selling, General and Administrative

	Three Months Ended September 30,		Change	
	2021	2020	Amount	%
	(dollars in thousands)			
Selling, general and administrative	$ 11,855	$ 3,726	$ 8,129	218

Selling, general and administrative expenses increased by $8.1 million, or 218%, from $3.7 million during the three months ended September 30, 2020 to $11.9 million during the three months ended September 30, 2021, due to a $1.8 million increase in employee compensation and other related expenses, and a $4.3 million increase in stock-based compensation. Other increases are attributable to $0.3 million in marketing costs related to the Limited Release phase of our commercial plan, and costs related to becoming a publicly traded company including a $0.5 million increase in professional and consulting fees related to accounting and audit services, and a $1.5 million increase in general business expenses which includes insurance premiums. The increase was offset by a decrease in corporate and patent legal matters of $(0.1) million and a decrease of $(0.2) million in facility and other related expenses due to a reduction of square footage for general administration function.

Total Other Income

	Three Months Ended September 30,		Change	
	2021	2020	Amount	%
	(dollars in thousands)			
Total other income	$ 46	$ 187	$ (141)	(75)

Total other income decreased by $(0.1) million, or (75)%, from $0.2 million during the three months ended September 30, 2020 to approximately $46,000 during the three months ended September 30, 2021. Short-term interest rate yields decreased significantly during fiscal year 2020 and remained low during fiscal year 2021. These decreases were partially offset quantitatively by higher amounts of cash invested in money market funds and U.S. Treasury securities during fiscal year 2020 and the first nine months of fiscal year 2021 as a result of multiple private and public financing events.

Comparisons of the Nine Months Ended September 30, 2021 and 2020

The following table summarizes our results of operations for the periods presented:

	Nine Months Ended September 30,		Change	
	2021	2020	Amount	%
	(dollars in thousands)			
Revenue:				
Product	$ 1,695	$ —	$ 1,695	*
Service	500	—	500	*
Related party	1,167	—	1,167	*
Grant	189	320	(131)	(41)%
Total revenue	3,551	320	3,231	1010 %
Cost of revenue				
Product	1,078	—	1,078	*
Service	42	—	42	*
Related party	452	—	452	*
Total cost of revenue	1,572	—	1,572	*
Gross profit	1,979	320	1,659	518 %
Operating expenses:				
Research and development	20,906	13,520	7,386	55 %
Selling, general and administrative	32,672	7,408	25,264	341 %
Total operating expenses	53,578	20,928	32,650	156 %
Loss from operations	(51,599)	(20,608)	(30,991)	150 %
Other income (expense):				
Interest income	169	778	(609)	(78)%
Other expense	—	(9)	9	(100)%
Total other income	169	769	(600)	(78)%
Net loss	$ (51,430)	$ (19,839)	$ (31,591)	159 %

**** Not meaningful***

Revenue

	Nine Months Ended September 30,		Change	
	2021	2020	Amount	%
	(dollars in thousands)			
Revenue	$ 3,551	$ 320	$ 3,231	1,010

Revenue increased by $3.2 million, or 1,010%, from $0.3 million during the nine months ended September 30, 2020 to $3.6 million during the nine months ended September 30, 2021, primarily due to sales of products related to our Proteograph Product Suite. Revenue recognized primarily consisted of sales of the Proteograph SP100 instrument and assay kits, platform evaluations, and services, of which $1.2 million was attributed to related parties. Revenue related to our grant-funded activities related to our SBIR grant from the NIH declined between the two periods.

Cost of Revenue

	Nine Months Ended September 30,		Change	
	2021	2020	Amount	%
	(dollars in thousands)			
Cost of revenue	$ 1,572	$ —	$ 1,572	

Cost of revenue increased from $0 during the nine months ended September 30, 2020 to $1.6 million for the nine months ended September 30, 2021, primarily due to the first sales of our Proteograph Product Suite. Cost of revenue related to our Proteograph Product Suite consist of costs of the SP100 instrument, assay kits and other related costs, including labor and overhead.

Research and Development

	Nine Months Ended September 30,		Change	
	2021	2020	Amount	%
	(dollars in thousands)			
Research and development	$ 20,906	$ 13,520	$ 7,386	55

R&D expenses increased by $7.4 million, or 55%, from $13.5 million during the nine months ended September 30, 2020 to $20.9 million during the nine months ended September 30, 2021. The increase was primarily due to an increase in product development efforts related to our Proteograph Product Suite including $2.6 million in employee compensation and other related costs and $2.6 million in stock-based compensation due to growth in research and development personnel, $3.1 million related to the expansion of facilities and maintenance and depreciation of laboratory equipment, and $0.2 million in general business expenses which includes subscriptions and software costs. This was offset by a decrease in prototype materials of $(0.3) million as we entered the Limited Release phase of our commercial plan and a decrease in clinical study fees of $(0.8) million related to the costs associated with the ramp down of site enrollment for clinical studies related to the collection of biological samples for research use. These clinical studies are related to the assets transferred to PrognomIQ.

Selling, General and Administrative

	Nine Months Ended September 30,		Change	
	2021	2020	Amount	%
	(dollars in thousands)			
Selling, general and administrative	$ 32,672	$ 7,408	$ 25,264	341

Selling, general and administrative expenses increased by $25.3 million, or 341%, from $7.4 million during the nine months ended September 30, 2020 to $32.7 million during the nine months ended September 30, 2021, primarily due to a $5.7 million increase in employee compensation and other related expenses, and a $12.8 million increase in stock-based compensation, as a result of an increase in personnel, including the addition of key members of executive management. Other increases are attributable to $0.4 million in marketing costs and $0.2 million in travel costs related to the Limited Release phase of our commercial plan, and costs related to becoming a publicly traded company including a $1.8 million increase in professional and consulting fees related to accounting and audit services, a $0.6 million increase in corporate and patent legal matters, and a $4.5 million increase in general business expenses which includes insurance premiums and state and local business taxes. These increases were partially offset by the decrease of $(0.7) million in facility and other related expenses due to a reduction of square footage for general administration function.

Total Other Income

	Nine Months Ended September 30,		Change	
	2021	2020	Amount	%
	(dollars in thousands)			
Total other income	$ 169	$ 769	$ (600)	(78)

Total other income decreased by $(0.6) million, or (78)%, from $0.8 million during the nine months ended September 30, 2020 to $0.2 million during the nine months ended September 30, 2021. Short-term interest rate yields decreased significantly during fiscal year 2020 and remained low during the first nine months of fiscal year 2021. These decreases were partially offset quantitatively by higher amounts of cash invested in money market funds and U.S. Treasury securities during fiscal year 2020 and the first nine months of fiscal year 2021 as a result of multiple private and public financing events.

Liquidity and Capital Resources

Since the date of our incorporation, we have not generated significant revenue from product sales and have incurred significant operating losses and negative cash flows from operations. Our operations have been funded primarily through the sale and issuance of equity securities since inception. We anticipate that we will continue to incur net losses and do not expect positive cash flows from operations for the foreseeable future. However, based on our cash on hand, we believe we will have adequate liquidity over the next twelve months following the date of this Quarterly Report to operate our business and to meet our cash requirements.

In connection with our IPO, we sold 10,592,106 shares of Class A common stock and received net proceeds of $183.9 million after deducting offering costs, underwriting discounts and commissions. Concurrent with the IPO, we issued 7,105,262 shares of our common stock in a private placement for net proceeds of $130.3 million after deducting underwriting discounts and commissions. On February 1, 2021, we completed an underwritten public offering of 1,650,000 shares of our Class A common stock and received net proceeds of $103.0 million after deducting offering costs, underwriting discounts and commissions.

Cash Flows

The following table summarizes our cash flows for the periods indicated:

	Nine Months Ended September 30,	
	2021	2020
	(in thousands)	
Net cash used in operating activities	$ (33,978)	$ (15,343)
Net cash used in investing activities	(83,389)	$ (39,831)
Net cash provided by financing activities	115,365	$ 55,395
Net increase (decrease) in cash, cash equivalents and restricted cash	$ (2,002)	$ 221

Operating Activities

During the nine months ended September 30, 2021, cash used in operating activities was $34.0 million, which was attributable to a net loss of $(51.4) million and a net change in our net operating assets and liabilities of $(4.3) million, partially offset by non-cash charges of $21.8 million. Non-cash charges primarily consisted of $19.3 million in stock-based compensation, $1.7 million of depreciation and amortization and $0.8 million of net amortization of premiums on available-for-sales securities. The change in our net operating assets and liabilities was primarily due to an increase in inventory levels of $2.0 million, an increase in prepaid expenses and other current assets, including insurance, of $2.1 million related to being a public company and a decrease of $0.1 million in deferred revenue, partially offset by an increase in accounts payable of $0.3 million and an increase in accrued research and development of $0.2 million.

During the nine months ended September 30, 2020, cash used in operating activities was $15.3 million, which was attributable to a net loss of $(19.8) million, partially offset by a net change in our net operating assets and liabilities of $0.6 million and non-cash charges of $3.9 million. Non-cash charges primarily consisted of $2.6 million in stock-based compensation and $1.1 million of depreciation and amortization and $0.2 million of net amortization of premiums on available-for-sales securities. The change in our net operating assets and liabilities was primarily due to increased accrued liabilities related to professional, consulting and legal fees of $0.7 million, partially offset by a decrease in accrued research and development of $0.1 million.

Investing Activities

During the nine months ended September 30, 2021, cash used in investing activities was $83.4 million, which related to purchases of available-for-sale securities, net of proceeds from maturities of $(77.8) million and $(5.6) million in payments primarily for laboratory equipment.

During the nine months ended September 30, 2020, cash used in investing activities was $39.8 million, which related to purchases of available-for-sale securities, net of proceeds from maturities of $(35.4) million, in addition to $(4.4) million in payments primarily for laboratory equipment.

Financing Activities

During the nine months ended September 30, 2021, cash provided by financing activities was $115.4 million. This was attributable to net proceeds of $103.0 million from issuance of common stock upon our follow-on offering, net of issuance costs of $(7.6) million, $11.4 million in short-swing profits from a beneficial owner and $1.0 million from the exercise of stock options.

During the nine months ended September 30, 2020, cash provided by financing activities was approximately $55.4 million. This was attributable to the net proceeds of $54.9 million from the issuance of Series D-1 convertible preferred stock, net of issuance costs, and $0.6 million from the exercise of stock options.

Contractual Obligations

The following table summarizes our contractual obligations as of December 31, 2020:

	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
			(in thousands)		
Operating lease obligations	$ 20,367	$ 795	$ 3,063	$ 3,717	$ 12,79

In addition, we enter into agreements as a part of normal course of business with various vendors, which are generally cancellable without material penalty upon written notice. Payments associated with these agreements are not included in this table of contractual obligations.

Our operating lease obligations reflect our lease obligations for our headquarters facility in Redwood City, California. In June 2020, we amended the lease agreement for this facility to expand the office and laboratory space covered by the lease, extend the lease through February 2032, and increase the annual base rent for the expanded premises. Upon occupancy of the expansion facility that is anticipated to occur in the first quarter of 2022, the annual base rent will be $0.9 million in the first twelve months of the lease term (subject to an abatement period of nine months), and increases on an annual basis to $1.2 million in the final twelve months of the lease term. The amendment also provides for tenant incentives in the amount of $2.4 million.

In April 2021, we entered into a lease amendment for this facility to further expand the office and laboratory space for an approximate term of eleven years. Payments associated with this operating lease agreement will result in additional operating lease obligations not included in the above table of approximately $160,000 per month plus operating expenses.

We have certain purchase commitments related to its inventory management with certain manufacturing suppliers wherein the Company is required to purchase the amounts forecasted in a blanket purchase order within a certain time period. The contractual obligations represent future cash commitments and liabilities under agreements with third parties and exclude orders for goods and services entered into in the normal course of business that are not enforceable or subject to change. These outstanding commitments amounted to $7.2 million as of September 30, 2021. These payments are not included in the table of contractual obligations above.

Off-Balance Sheet Arrangements

Since the date of our incorporation, we have not engaged in any off-balance sheet arrangements, as such term is defined in the rules and regulations of the SEC.

Critical Accounting Policies, Significant Judgments and Use of Estimates

The discussion and analysis of our financial condition and results of operations is based on our unaudited condensed consolidated financial statements, which have been prepared in accordance with United States generally accepted accounting principles. The preparation of these unaudited condensed consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, and the disclosure of contingent assets and liabilities at the date of the unaudited condensed consolidated financial statements, as well as revenue and expenses incurred during the reporting periods. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. We believe that the accounting policies discussed below are critical to understanding our historical and future performance, as these policies relate to the more significant areas involving management's judgments and estimates.

Our critical accounting policies are described in the section titled "Management's Discussion and Analysis of Financial Condition and Operations" included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2020.

While our significant accounting policies are described in the Notes to our financial statements, we believe that the following critical accounting policies are most important to understanding and evaluating our reported financial results.

Revenue Recognition

We record revenue based on a five-step model in accordance with Accounting Standards Codification (ASC) 606, Revenue from Contracts with Customers (ASC 606). For the product and service revenue, we identify the performance obligations, determine the transaction price, allocate the contract transaction price to the performance obligations, and recognize the revenue when (or as) the performance obligation is satisfied.

We regularly enter into contracts for various components of the Proteograph Product Suite which are generally distinct and accounted for as separate performance obligations.

We recognize revenue when control of the products and services is transferred to its customers in an amount that reflects the consideration it expects to receive from its customers in exchange for those products and services.

We receive grant agreements and are assess either to be accounted for as an exchange transaction or contribution. We recognize revenue for contribution grants when grant-funded activities are performed up to the amount of expenses incurred and any advance funding payments are recorded as deferred revenue.

Emerging Growth Company Status

We are an emerging growth company, as defined in the JOBS Act. Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies. Other exemptions and reduced reporting requirements under the JOBS Act for emerging growth companies include presentation of only two years audited financial statements in a registration statement for an initial public offering, an exemption from the requirement to provide an auditor's report on internal controls over financial reporting pursuant to the Sarbanes-Oxley Act, an exemption from any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation, and less extensive disclosure about our executive compensation arrangements. We have elected to use the extended transition period for complying with new or revised accounting standards that have different effective dates for public and private companies until the earlier of the date that (i) we are no longer an emerging growth company or (ii) we affirmatively and irrevocably opt out of the extended transition period provided in the JOBS Act. As a result, our condensed consolidated financial statements may not be comparable to companies that comply with the new or revised accounting pronouncements as of public company effective dates.

We will remain an emerging growth company under the JOBS Act until the earliest of (i) the last day of our first fiscal year in which we have total annual gross revenue of $1.07 billion or more, (ii) the date on which we have issued more than $1.0 billion of non-convertible debt instruments during the previous three fiscal years or (iii) the date on which we are deemed a "large accelerated filer" under the rules of the SEC with at least $700.0 million of outstanding equity securities held by non-affiliates, or (iv) the last day of the fiscal year following the fifth anniversary of completion of our initial public offering. We will cease to be an emerging growth company as of December 31, 2021 and will become a "large accelerated filer" under the rules of the SEC with at least $700.0 million of outstanding equity securities held by non-affiliates.

Recent Accounting Pronouncements

See Note 2 to our unaudited condensed consolidated financial statements included elsewhere in this Quarterly Report for more information about recent accounting pronouncements, the timing of their adoption, and our assessment, to the extent we have made one yet, of their potential impact on our financial condition of results of operations.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

Interest Rate Risk

We have exposure to interest rate risk that relates to our cash, cash equivalents, and investments held in money market funds and U.S. Treasury securities. The goals of our investment policy are liquidity and capital preservation. We believe that we do not have any material exposure to changes in the fair value of these assets as a result of changes in interest rates due to the short-term nature of our cash, cash equivalents, and investments.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Under the supervision and with the participation of our management, including our Chief Executive Officer (CEO), and Chief Financial Officer (CFO), we evaluated the effectiveness of the design and operation of our disclosure controls and procedures pursuant to Rule 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act) as of the end of the period covered by this report. Our disclosure controls and procedures are designed to ensure that information required to be disclosed in the reports we file or submit under the Exchange Act 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 the CEO and the CFO, to allow timely decisions regarding required disclosures. Any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objective and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on that evaluation, our CEO and CFO have concluded that our disclosure controls and procedures were not effective at a reasonable assurance level as of September 30, 2021 because of the material weaknesses in internal controls further discussed below. Notwithstanding the material weaknesses, our management, including our CEO and CFO, has concluded that our unaudited condensed consolidated financial statements, included in this Quarterly Report fairly present, in all material respects, our financial condition, results of operations and cash flows for the periods presented in conformity with generally accepted accounting principles.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that a reasonable possibility exists that a material misstatement of our annual or interim financial statements would not be prevented or detected on a timely basis.

Specifically, our management determined that, as of September 30, 2021, we have material weaknesses in each of the following components of the "Internal Control—Integrated Framework" (2013), issued by the Committee of Sponsoring Organizations of the Treadway Commission:

- insufficient accounting personnel to enable segregation of duties relating to the general ledger, disbursement, and certain accounting functions;

- no formalized processes or controls for account reconciliations, including independent review of such reconciliations, or related financial statement analysis prepared in conformity with generally accepted accounting principles in the United States (U.S. GAAP); and
- an insufficient complement of accounting personnel with the necessary U.S. GAAP technical expertise to timely identify and account for complex or non-routine transactions or to formalize accounting policies, memoranda, or controls for such transactions.

These material weaknesses could result in a misstatement of account balances or disclosures that would result in a material misstatement of our annual or interim consolidated financial statements that may not be prevented or detected, and accordingly, it was determined that these control deficiencies constitute material weaknesses.

Remediation Plan

We have commenced measures to remediate the identified material weaknesses. These measures include adding personnel as well as implementing new financial systems and processes. We intend to continue to take steps to remediate the material weaknesses described above and to further improve our accounting processes. We will not be able to fully remediate these material weaknesses until these steps have been completed and have been operating effectively for a sufficient period of time.

While we believe that these efforts will improve our internal control over financial reporting, the implementation of our remediation plan is ongoing and will require validation and testing of the design and operating effectiveness of internal controls over a sustained period of financial reporting cycles.

We are committed to continuing to improve our internal control processes and will continue to review and enhance our financial reporting controls and procedures. As we continue to evaluate and improve our internal control over financial reporting, we may take additional measures to address control deficiencies, or we may modify, or in appropriate circumstances not complete, certain of the remediation measures described above. These material weaknesses will not be considered remediated until the applicable controls operate for a sufficient period of time and management has concluded, through testing, that the enhanced control is operating effectively.

Changes in Internal Control over Financial Reporting

Except for the identification of the material weaknesses and the remediation plan described above, there were no changes in our internal control over financial reporting (as such term is defined in Rules 13a-15(f) under the Exchange Act) during the quarter ended September 30, 2021 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

Our management, including our CEO and CFO, does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all error and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. The design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, within a company have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of simple error or mistake. Controls can also be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of the controls. The design of any system of controls is based in part on 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. Projections of any evaluation of controls effectiveness to future periods are subject to risks. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings

We are not currently a party to any material legal proceedings. From time to time we may be involved in legal proceedings or investigations, which could have an adverse impact on our reputation, business and financial condition and divert the attention of our management from the operation of our business.

Item 1A. Risk Factors

Investing in our Class A common stock involves a high degree of risk. You should carefully consider the risks described below, as well as the other information in this Quarterly Report, including our unaudited condensed consolidated financial statements and the related notes and the section titled "Management's Discussion and Analysis of Financial Condition and Results of Operations" in this Quarterly Report, before deciding whether to invest in our Class A common stock. The occurrence of any of the events or developments described below could harm our business, financial condition, results of operations and prospects. In such an event, the market price of our Class A common stock could decline, and you may lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently deem immaterial also may impair our business operations and the market price of our Class A common stock.

Summary Risk Factor

Our business is subject to numerous risks and uncertainties that you should consider before investing in our company, as more fully described below. The principal factors and uncertainties that make investing in our company risky include, among others:

- we are an early-stage life sciences technology company with a history of net losses, which we expect to continue, and we may not be able to generate meaningful revenues or achieve and sustain profitability in the future;
- we have a limited operating history, which may make it difficult to evaluate the prospects for our future viability and predict our future performance;
- our operating results may fluctuate significantly in the future, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or any guidance we may provide;
- the size of the markets for our Proteograph Product Suite may be smaller than estimated, and new market opportunities may not develop as quickly as we expect, or at all, limiting our ability to successfully sell our products;
- we have not yet commenced the Broad Release phase of our commercial launch plan for our Proteograph Product Suite, and we may not be able to successfully commence this phase as planned;
- even if we are able to commence the Broad Release phase of our commercial launch plan, our success depends on broad scientific and market acceptance of our Proteograph, which we may fail to achieve;
- even if our Proteograph Product Suite is broadly commercialized and achieves broad scientific and market acceptance, if we fail to improve it or introduce compelling new products, our revenues and our prospects could be harmed;
- the COVID-19 pandemic and efforts to reduce its spread have adversely impacted, and are expected to continue to materially and adversely impact, our business and operations;
- if we are unable to obtain and maintain sufficient intellectual property protection for our products and technology, or if the scope of the intellectual property protection obtained is not sufficiently broad, our

competitors could develop and commercialize products similar or identical to ours, and our ability to successfully commercialize our products may be impaired; and

- we have identified material weaknesses in our internal control over financial reporting. If our remediation measures are ineffective, or if we experience additional material weaknesses in the future or otherwise fail to maintain an effective system of internal controls in the future, we may not be able to report our financial condition or results of operations accurately or on a timely basis, which may adversely affect investor confidence in us and, as a result, the value of our Class A common stock.

Risks Related to Our Business and Industry

We are an early-stage life sciences technology company with a history of net losses, which we expect to continue, and we may not be able to generate meaningful revenues or achieve and sustain profitability in the future.

We are an early-stage life sciences technology company, and we have incurred significant losses since we were formed in 2017, and expect to continue to incur losses in the future. For the three months ended September 30, 2021 and 2020, we incurred net losses of $18.4 million and $8.2 million, respectively. For the nine months ended September 30, 2021 and 2020, we incurred net losses of $51.4 million and $19.8 million, respectively. As of September 30, 2021, we had an accumulated deficit of $106.8 million. These losses and accumulated deficit were primarily due to the substantial investments we have made to develop and improve our technology and our Proteograph Product Suite. Over the next several years, we expect to continue to devote substantially all of our resources towards continuing development and commercialization of our Proteograph Product Suite and research and development efforts for products. These efforts may prove more costly than we currently anticipate. While we have generated product revenue, we may never generate revenue sufficient to offset our expenses. In addition, as a newly public company, we will incur significant legal, accounting, administrative, insurance and other expenses that we did not incur as a private company. Accordingly, we cannot assure you that we will achieve profitability in the future or that, if we do become profitable, we will sustain profitability.

We have a limited operating history, which may make it difficult to evaluate the prospects for our future viability and predict our future performance.

We have not yet broadly commercialized our Proteograph Product Suite or any other products. Our operations to date have been primarily focused on developing our technology and products. Our prospects must be considered in light of the uncertainties, risks, expenses, and difficulties frequently encountered by companies in their early stages of operations. We have not yet achieved market acceptance for our products, produced our products at scale, established a sales model, or conducted sales and marketing activities necessary for successful broad product commercialization. Consequently, predictions about our future success or viability are highly uncertain and may not be as accurate as they could be if we had a longer operating history or a company history of successfully developing and commercializing products.

In addition, as a business with a limited operating history, we may encounter unforeseen expenses, difficulties, complications, delays and other known and unknown obstacles. We will need to transition from a company with a focus on research and development to a company capable of supporting broad commercial activities as well, and we may not be successful in such a transition. We have encountered in the past, and will encounter in the future, risks and uncertainties frequently experienced by growing companies with limited operating histories in emerging and rapidly changing industries. If our assumptions regarding these risks and uncertainties, which we use to plan and operate our business, are incorrect or change, or if we do not address these risks successfully, our results of operations could differ materially from our expectations, and our business, financial condition and results of operations could be adversely affected.

Our operating results may fluctuate significantly in the future, which makes our future operating results difficult to predict and could cause our operating results to fall below expectations or any guidance we may provide.

Our quarterly and annual operating results may fluctuate significantly, which makes it difficult for us to predict our future operating results. These fluctuations may occur due to a variety of factors, many of which are outside of our control, including, but not limited to:

- our ability to successfully commercialize our Proteograph Product Suite on our anticipated timeline;
- the timing and cost of, and level of investment in, research and development and commercialization activities relating to our Proteograph Product Suite, including our SP100 automation instrument, proprietary engineered nanoparticle (NP) technology and Proteograph Analysis Suite software, which may change from time to time;
- the level of demand for any products we are able to commercialize, particularly our Proteograph Product Suite, which may vary significantly from period to period;
- our ability to drive adoption of our Proteograph in our target markets and our ability to expand into any future target markets;
- the prices at which we will be able to sell our Proteograph Product Suite;
- the volume and mix of our sales between our Proteograph Product Suite and associated consumables, or changes in the manufacturing or sales costs related to our products;
- the length of time of the sales cycle for purchases of our Proteograph, including lead time needed to procure SP100 automation instruments from our third-party contract manufacturer;
- the timing and amount of expenditures that we may incur to develop, commercialize or acquire additional products and technologies or for other purposes, such as the expansion of our facilities;
- changes in governmental funding of life sciences research and development or changes that impact budgets and budget cycles;
- seasonal spending patterns of our customers;
- the timing of when we recognize any revenues;
- future accounting pronouncements or changes in our accounting policies;
- the outcome of any future litigation or governmental investigations involving us, our industry or both;
- higher than anticipated service, replacement and warranty costs;
- the impact of the COVID-19 pandemic on the economy, invest ment in life sciences and research industries, our business operations, and resources and operations of our customers, suppliers and supply chain, and distributors; and
- general industry, economic and market conditions and other factors, including factors unrelated to our operating performance or the operating performance of our competitors.

The cumulative effects of the factors discussed above could result in large fluctuations and unpredictability in our quarterly and annual operating results. As a result, comparing our operating results on a period-to-period basis may not be meaningful. Investors should not rely on our past results as an indication of our future performance.

This variability and unpredictability could also result in our failing to meet the expectations of industry or financial analysts or investors for any period. If we are unable to commercialize products or generate revenue, or if our operating results fall below the expectations of analysts or investors or below any guidance we may provide, or

if the guidance we provide is below the expectations of analysts or investors, it could cause the market price of our Class A common stock to decline.

The size of the markets for our Proteograph Product Suite may be smaller than estimated, and new market opportunities may not develop as quickly as we expect, or at all, limiting our ability to successfully sell our products.

The market for proteomics and genomics technologies and products is evolving, making it difficult to predict with any accuracy the size of the markets for our current and future products, including our Proteograph Product Suite. Our estimates of the total addressable market for our current and future products are based on a number of internal and third-party estimates and assumptions. In particular, our estimates are based on our expectations that researchers in the market for certain life sciences research tools and technologies will view our products as competitive alternatives to, or better options than, existing tools and technologies. We also expect researchers will recognize the ability of our products to complement, enhance and enable new applications of their current tools and technologies. We expect them to recognize the value proposition offered by our products, enough to purchase our products in addition to the tools and technologies they already own. Underlying each of these expectations are a number of estimates and assumptions that may be incorrect, including the assumptions that government or other sources of funding will continue to be available to life sciences researchers at times and in amounts necessary to allow them to purchase our products and that researchers have sufficient samples and an unmet need for performing proteomics studies at scale across thousands of samples. In addition, sales of new products into new market opportunities may take years to develop and mature and we cannot be certain that these market opportunities will develop as we expect. New life sciences technology may not be adopted until the consistency and accuracy of such technology, method or device has been proven. As a result, the sizes of the annual total addressable market for new markets and new products are even more difficult to predict. Our product is an innovative new product, and while we draw comparisons between the evolution and growth of the genomics and proteomics markets, the proteomics market may develop more slowly or differently. In addition, our Proteograph Product Suite may not impact the field of proteomics in the same manner or degree, or within the same time frame, that NGS technologies have impacted the field of genomics, or at all. While we believe our assumptions and the data underlying our estimates of the total addressable market for our products are reasonable, these assumptions and estimates may not be correct and the conditions supporting our assumptions or estimates, or those underlying the third-party data we have used, may change at any time, thereby reducing the accuracy of our estimates. As a result, our estimates of the total addressable market for our products may be incorrect.

The future growth of the market for our current and future products depends on many factors beyond our control, including recognition and acceptance of our products by the scientific community and the growth, prevalence and costs of competing products and solutions. Such recognition and acceptance may not occur in the near term, or at all. If the markets for our current and future products are smaller than estimated or do not develop as we expect, our growth may be limited and our business, financial condition and operational results of operations could be adversely affected.

We have not yet commenced the Broad Release phase of our commercial launch plan for our Proteograph Product Suite, and we may not be able to commence this phase as planned.

We have not yet initiated a broad commercial launch of our Proteograph Product Suite. We are following a three phase launch plan to commercialize our Proteograph, which includes a Collaboration phase, a Limited Release phase and a Broad Release phase. We have moved into the second phase of commercialization, the Limited Release phase of our commercial launch plan. Our commercialization plan may not progress as planned due to:

- the inability to establish the capabilities and value proposition of our Proteograph Product Suite with key opinion leaders in a timely fashion;
- the potential need or desire to modify aspects of our Proteograph Product Suite during the second phase or prior to entering into the third phase of our commercial launch plan;
- changing industry or market conditions, customer requirements or competitor offerings over the span of our commercialization plan;

- delays in building out our sales, customer support and marketing organization as needed for the Broad Release phase of our commercialization plan;
- delays in ramping up manufacturing, either internally or through our suppliers to meet the expected demand for the Broad Release phase of our commercialization plan; and,
- the impact of the COVID-19 pandemic on the economy and research industries, our business operations, and resources and the operations of our customers, suppliers and supply chain, and distributors.

To the extent our commercial launch plan is delayed or unsuccessful, our financial results will be adversely impacted.

Even if we are able to commence the Broad Release phase of our commercial launch plan, our success depends on broad scientific and market acceptance of our Proteograph, which we may fail to achieve.

Our ability to achieve and maintain scientific and commercial market acceptance of our Proteograph Product Suite will depend on a number of factors. We expect that our Proteograph will be subject to the market forces and adoption curves common to other new technologies. The market for proteomics and genomics technologies and products is in its early stages of development. If widespread adoption of our Proteograph takes longer than anticipated, or broad scientific and market acceptance does not occur, we will continue to experience operating losses.

The success of life sciences products is due, in large part, to acceptance by the scientific community and their adoption of certain products in the applicable field of research. The life sciences scientific community is often led by a small number of early adopters and key opinion leaders who significantly influence the rest of the community through publications, including peer-reviewed journals. In such journal publications, the researchers will describe not only their discoveries, but also the methods, and typically the products used, to fuel such discoveries. Mentions in publications, including peer-reviewed journal publications, are a driver for the general acceptance of life sciences products, such as our Proteograph Product Suite. During the Collaboration and Limited Release phases of our commercialization plan, we intend to collaborate with a small number of key opinion leaders who are highly skilled at evaluating novel technologies and whose feedback can help us solidify our commercialization plans and processes. Ensuring that early adopters and key opinion leaders publish research involving the use of our products is critical to ensuring our products gain widespread scientific acceptance. In addition, continuing collaborative relationships with key opinion leaders will be vital to maintaining any market acceptance we achieve. If too few researchers describe the use of our products, too many researchers utilize or shift to a competing product and publish research outlining their use of that product or too many researchers negatively describe the use of our products in publications, it may drive customers away from our products and it may delay our progression towards the broad release phase of our commercialization plan.

Other factors in achieving commercial market acceptance, include:

- our ability to market and increase awareness of the capabilities of our Proteograph Product Suite;
- the ability of our Proteograph Product Suite to demonstrate comparable performance in intended use applications broadly in the hands of customers as achieved in the Collaboration and Limited Release phases of our commercialization plan;
- our customers' willingness to adopt new products and workflows;
- our Proteograph's ease of use and whether it reliably provides advantages over other alternative technologies;
- the rate of adoption of our Proteograph Product Suite by academic institutions, laboratories, biopharmaceutical companies and others;
- the prices we charge for our Proteograph Product Suite;

- our ability to develop new products and workflows and solutions for customers;
- if competitors develop and commercialize products that perform similar functions as our Proteograph; and
- the impact of our investments in product innovation and commercial growth.

We cannot assure you that we will be successful in addressing each of these criteria or other criteria that might affect the market acceptance of any products we commercialize, particularly our Proteograph Product Suite. If we are unsuccessful in achieving and maintaining market acceptance of our Proteograph, our business, financial condition and results of operations would be adversely affected.

If we are unable to establish sales and marketing capabilities, we may not be successful in commercializing our Proteograph Product Suite.

We have limited experience as a company in sales and marketing and our ability to successfully commercialize depends on our being able to attract customers for our Proteograph Product Suite. Although members of our management team have considerable industry experience, we need to expand our sales, marketing, distribution and customer service and support capabilities with the appropriate technical expertise prior to the broad release of our Proteograph Product Suite. To perform sales, marketing, distribution, and customer service and support successfully, we will face a number of risks, including:

- our ability to attract, retain and manage the sales, marketing and customer service and support force necessary to commercialize and gain market acceptance for our technology;
- the time and cost of establishing a specialized sales, marketing and customer service and support force; and
- our sales, marketing and customer service and support force may be unable to initiate and execute successful commercialization activities.

We may seek to enlist one or more third parties to assist with sales, distribution and customer service and support globally or in certain regions of the world. There is no guarantee, if we do seek to enter into such arrangements, that we will be successful in attracting desirable or experienced sales or distribution partners or that we will be able to enter into such arrangements on favorable terms. If our sales and marketing efforts, or those of any third-party sales and distribution partners, are not successful, our Proteograph may not gain market acceptance, which could materially impact our business operations.

Even if our Proteograph Product Suite is broadly commercialized and achieves broad scientific and market acceptance, if we fail to improve it or introduce compelling new products, our revenues and our prospects could be harmed.

Even if we are able to broadly commercialize our Proteograph Product Suite and achieve broad scientific and market acceptance, our ability to attract new customers and increase revenue from existing customers will depend in large part on our ability to enhance and improve our Proteograph solution and to introduce compelling new products. The success of any enhancement to our Proteograph Product Suite or introduction of new products depends on several factors, including timely completion and delivery, competitive pricing, adequate quality testing, integration with existing technologies, appropriately timed and staged introduction and overall market acceptance. Any new product or enhancement to our Proteograph that we develop may not be introduced in a timely or cost-effective manner, may contain defects, errors, vulnerabilities or bugs, or may not achieve the market acceptance necessary to generate significant revenue.

The typical development cycle of new life sciences products can be lengthy and complicated, and may require new scientific discoveries or advancements, considerable resources and complex technology and engineering. Such developments may involve external suppliers and service providers, making the management of development projects complex and subject to risks and uncertainties regarding timing, timely delivery of required components or services and satisfactory technical performance of such components or assembled products. If we do not achieve the required technical specifications or successfully manage new product development processes, or if development work is not performed according to schedule, then such new technologies or products may be adversely impacted. If

we are unable to successfully develop new products, enhance our Proteograph Product Suite to meet customer requirements, compete with alternative products, or otherwise gain and maintain market acceptance, our business, results of operations and financial condition could be harmed.

The COVID-19 pandemic and efforts to reduce its spread have adversely impacted, and are expected to continue to materially and adversely impact, our business and operations.

The COVID-19 pandemic has had, and is expected to continue to have, an adverse impact on our operations, particularly as a result of preventive and precautionary measures that we, other businesses, and governments are taking. Governmental mandates related to COVID-19 or other infectious diseases, or public health crises, have impacted, and we expect them to continue to impact, our personnel and personnel at third-party manufacturing facilities in the United States and other countries, and the availability or cost of materials, which would disrupt or delay our receipt of instruments, components and supplies from the third parties we rely on to, among other things, produce our SP100 automation instrument and NPs. For instance, "stay-at-home" orders in California, and specifically San Mateo County where our headquarters is located, that require businesses to implement certain social distancing protocols and other written health and safety plans and measures and which could affect productivity and morale, could be reinstated. We have continued to operate within the rules applicable to our business; however, an extended implementation of these governmental mandates could further impact our ability to operate effectively and conduct ongoing research and development or other activities. For onsite work in our Redwood City and San Diego offices, we require employees to show proof of vaccination and be tested weekly. The COVID-19 pandemic and a skilled labor shortage in general have also had an effect on our ability to attract, recruit and interview candidates at the pace we would typically expect to support our rapidly expanding operations. To the extent that any governmental authority imposes additional regulatory requirements or changes existing laws, regulations, and policies that apply to our business and operations, such as additional workplace safety measures, our product development plans may be delayed, and we may incur further costs in bringing our business and operations into compliance with changing or new laws, regulations, and policies.

In the near term, we expect that substantially all of our revenue will be derived from sales of our Proteograph Product Suite, including our instruments and associated consumables, to academic, research and commercial institutions. We have moved into the Limited Release phase of our commercialization plan and, as a result, in the near term, our ability to drive the adoption of our Proteograph solution will depend on our ability to visit customer sites, the ability of our customers to access laboratories, and the ability to install and train on our Proteograph Product Suite and conduct research in light of the COVID-19 pandemic. Additionally, since we have moved into the Limited Release phase of our commercialization plan, the research and development budgets of these customers, the ability of such customers to receive funding for research, and the ability of such customers to receive instrument installations and visitors to their facilities and to travel to our facilities, other laboratories and industry events, has become increasingly important to the adoption of our Proteograph. All of these considerations are impacted by factors beyond our control, such as:

- reductions in capacity or shutdowns of laboratories and other institutions as well as other impacts stemming from the COVID-19 pandemic, such as reduced or delayed spending on instruments or consumables as a result of such shutdowns and delays before re-opened laboratories and institutions resume previous levels of research activities that require new purchases of our instruments or consumables;
- decreases in government funding of research and development; and
- changes to programs that provide funding to research laboratories and institutions, including changes in the amount of funds allocated to different areas of research, changes that have the effect of increasing the length of the funding process or the impact of the COVID-19 pandemic on our customers and potential customers and their funding sources.

Additionally, our suppliers have also been impacted by the COVID-19 pandemic. For example, our SP100 automation instrument manufacturer, Hamilton Company, has experienced a surge in demand for equipment and associated consumables used for COVID-19 diagnostics, and as a result, we have experienced longer lead times for our instruments. We have also experienced supply delays for critical hardware, instrumentation, medical and testing

supplies that we use for product development and certain components of our consumable kits, as these other components and supplies are otherwise diverted to COVID-19-related testing and other uses.

The ultimate impact of the COVID-19 pandemic is highly uncertain and subject to sudden change. This impact could have a material, adverse impact on our liquidity, capital resources, operations and business and those of the third parties on which we rely, and could worsen over time. The extent to which the COVID-19 pandemic impacts our results will depend on future developments, which are highly uncertain and cannot be predicted, including new information which may emerge concerning the severity of COVID-19 and the actions to contain COVID-19 or treat its impact, among others. While we do not yet know the full extent of potential impacts on our business, any of these occurrences could significantly harm our business, results of operations and financial condition.

Unfavorable U.S. or global economic conditions as a result of the COVID-19 pandemic, or otherwise, could adversely affect our ability to raise capital and our business, results of operations and financial condition.

While the potential economic impact brought by, and the duration of, the COVID-19 pandemic is difficult to assess or predict, the COVID-19 pandemic has resulted in, and may continue to result in, extreme volatility and disruptions in the capital and credit markets, reducing our ability to raise additional capital through equity, equity-linked or debt financings, which could negatively impact our short-term and long-term liquidity and our ability to operate in accordance with our operating plan, or at all. Additionally, our results of operations could be adversely affected by general conditions in the global economy and financial markets. A severe or prolonged economic downturn could result in a variety of risks to our business, including weakened demand for our Proteograph Product Suite and our ability to raise additional capital when needed on favorable terms, if at all. A weak or declining economy could strain our customers' budgets or cause delays in their payments to us. Any of the foregoing could harm our business, and we cannot anticipate all of the ways in which the current economic climate and financial market conditions could adversely impact our ability to raise capital, business, results of operations and financial condition.

If we do not sustain or successfully manage our anticipated growth, our business and prospects will be harmed.

Our anticipated growth will place significant strains on our management, operational and manufacturing systems and processes, sales and marketing team, financial systems and internal controls and other aspects of our business. Developing and commercializing our Proteograph Product Suite will require us to hire and retain scientific, sales and marketing, software, manufacturing, customer service, distribution, quality assurance and other personnel. In addition, we will need to hire additional accounting, finance and other personnel in connection with our efforts to comply with the requirements of being a public company. As a newly public company, our management and other personnel will need to devote a substantial amount of time towards maintaining compliance with these requirements and effectively manage these activities. We may face challenges integrating, developing and motivating our rapidly growing employee base. To effectively manage our growth, we must continue to improve our operational and manufacturing systems and processes, our financial systems and internal controls and other aspects of our business and continue to effectively expand, train and manage our personnel. Our ability to successfully manage our expected growth is uncertain given the fact that we have been in operation only since 2017. As our organization continues to grow, we will be required to implement more complex organizational management structures, and may find it increasingly difficult to maintain the benefits of our corporate culture, including our ability to quickly develop and launch new and innovative products. If we do not successfully manage our anticipated growth, our business, results of operations, financial condition and prospects will be harmed.

We depend on our key personnel and other highly qualified personnel, and if we are unable to recruit, train and retain our personnel, we may not achieve our goals.

Our future success depends upon our ability to recruit, train, retain and motivate key personnel. Our senior management team, including Omid Farokhzad, one of our founders and our Chief Executive Officer; Omead Ostadan, our President and Chief Operating Officer; and David Horn, our Chief Financial Officer, is critical to our vision, strategic direction, product development and commercialization efforts. On October 13, 2021, we announced that Mr. Ostadan will be taking a leave of absence as an officer of the Company for personal reasons, beginning on November 20, 2021, and lasting approximately three months. The departure of one or more of our executive

officers, senior management team members, or other key employees could be disruptive to our business until we are able to hire qualified successors. We do not maintain “key man” life insurance on our senior management team.

Our continued growth and ability to successfully transition from a company primarily focused on development to commercialization depends, in part, on attracting, retaining and motivating qualified personnel, including highly-trained sales personnel with the necessary scientific background and ability to understand our systems at a technical level to effectively identify and sell to potential new customers. New hires require significant training and, in most cases, take significant time before they achieve full productivity. Our failure to successfully integrate these key personnel into our business could adversely affect our business. In addition, competition for qualified personnel is intense, particularly in the San Francisco Bay Area. We compete for qualified scientific and information technology personnel with other life science and information technology companies as well as academic institutions and research institutions. Some of our scientific personnel are qualified foreign nationals whose ability to live and work in the United States is contingent upon the continued availability of appropriate visas. Due to the competition for qualified personnel in the San Francisco Bay Area, we expect to continue to utilize foreign nationals to fill part of our recruiting needs. As a result, changes to United States immigration policies could restrain the flow of technical and professional talent into the United States and may inhibit our ability to hire qualified personnel.

We do not maintain fixed term employment contracts with any of our employees. As a result, our employees could leave our company with little or no prior notice and would be free to work for a competitor. Due to the complex and technical nature of our products and technology and the dynamic market in which we compete, any failure to attract, train, retain and motivate qualified personnel could materially harm our business, results of operations, financial condition and prospects.

We expect to be dependent upon revenue generated from the sale of our Proteograph Product Suite from the time it is commercialized through the foreseeable future.

While we have moved into the Limited Release phase, we do not expect to have broad release of our Proteograph Product Suite and associated consumables until early 2022. If we are able to successfully broadly commercialize our Proteograph, we expect that we will generate substantially all of our revenue from the sale of our Proteograph Product Suite and associated consumables. There can be no assurance that we will be able to successfully commercialize our Proteograph solution, design other products that will meet the expectations of our customers or that any of our future products will become commercially viable. As technologies change in the future for life sciences research tools, generally, and in proteomics and genomics technologies, specifically, we will be expected to upgrade or adapt our Proteograph solution to keep up with the latest technology. To date, we have limited experience simultaneously designing, testing, manufacturing and selling products and there can be no assurance we will be able to do so. Our sales expectations are based in part on the assumption that our Proteograph Product Suite will increase study sizes for our future customers and their associated purchases of our consumables. If sales of our instruments fail to materialize, or our assumptions about study sizes or customer purchases of our consumables, so will the related consumable sales and associated revenue.

In our development and commercialization plans for our Proteograph Product Suite, we may forego other opportunities that may provide greater revenue or be more profitable. If our research and product development efforts do not result in commercially viable products within anticipated timelines, or at all, our business and results of operations will be adversely affected. Any delay or failure by us to develop and release our Proteograph Product Suite or new products or product enhancements would have a substantial adverse effect on our business and results of operations.

Our business will depend significantly on research and development spending by academic and other research institutions, and other third parties, including commercial organizations, and any reduction in spending could limit demand for our products and adversely affect our business, results of operations, financial condition and prospects.

We expect that substantially all of our sales revenue in the near term will be generated from sales to academic institutions, other research institutions and commercial companies. Certain of these customers’ funding will be, in turn, provided by various state, federal and international government agencies. As a result, the demand for our

Proteograph Product Suite will depend upon the research and development budgets of these customers, which are impacted by factors beyond our control, such as:

- decreases in government funding of research and development;
- changes to programs that provide funding to research laboratories and institutions, including changes in the amount of funds allocated to different areas of research or changes that have the effect of increasing the length of the funding process;
- changes in strategy and funding by commercial companies in their efforts around therapeutic and diagnostic product development and their adoption and use of our Proteograph Product Suite;
- macroeconomic conditions;
- opinions in the scientific community, including researchers' opinions of the utility of our Proteograph solution;
- citation of our Proteograph Product Suite in published research;
- potential changes in the regulatory environment;
- differences in budgetary cycles, especially government- or grant-funded customers, whose cycles often coincide with government fiscal year ends;
- competitor product offerings or pricing;
- market-driven pressures to consolidate operations and reduce costs; and
- market acceptance of relatively new technologies, such as our Proteograph Product Suite.

In addition, various state, federal and international agencies that provide grants and other funding may be subject to stringent budgetary constraints that could result in spending reductions, reduced grant making, reduced allocations or budget cutbacks, which could jeopardize the ability of these customers, or the customers to whom they provide funding, to purchase our products. For example, congressional appropriations to the National Institutes of Health (NIH) have generally increased year-over-year for the last 19 years, and reached a new high in 2020, but the NIH also experiences occasional year-over-year decreases in appropriations, including as recently as 2013. In addition, funding for life science research has increased more slowly during the past several years compared to previous years and has actually declined in some countries. There is no guarantee that NIH appropriations will not decrease in the future. A decrease in the amount of, or delay in the approval of, appropriations to NIH or other similar United States or international organizations, such as the Medical Research Council in the United Kingdom, could result in fewer grants benefiting life sciences research. These reductions or delays could also result in a decrease in the aggregate amount of grants awarded for life sciences research or the redirection of existing funding to other projects or priorities, any of which in turn could cause our customers and potential customers to reduce or delay purchases of our products. Our operating results may fluctuate substantially due to any such reductions and delays. Any decrease in our customers' budgets or expenditures, or in the size, scope or frequency of their capital or operating expenditures, could materially and adversely affect our business, results of operations, financial condition and prospects.

We rely on single suppliers for some of the components of our Proteograph Product Suite, including a single contract manufacturer to manufacture and supply our instruments. If these supplier or manufacturers should fail or not perform satisfactorily, our ability to meet demand and supply our Proteograph Product Suite would be adversely affected.

We rely on a single contract manufacturer, Hamilton Company, a manufacturer of precision measurement devices, automated liquid handling workstations, and sample management systems located in Nevada and other locations, to manufacture and supply our instruments. Since our contract with Hamilton does not commit them to carry inventory or make available any particular quantities, Hamilton may give other customers' needs higher

priority than ours, we may not be able to obtain adequate supplies in a timely manner or on commercially reasonable terms, and we may incur price increases from Hamilton Company. For example, due to the COVID-19 pandemic and increased demand for Hamilton's products, we have seen the lead time for our instruments increase significantly. Further, if Hamilton is unable to obtain critical components used in our Proteograph solution or supply our instruments on the timelines we require, our business and commercialization efforts would be harmed.

In the event it becomes necessary to utilize one or more different contract manufacturers for automated liquid handling workstations, products, or product components associated with our Proteograph Product Suite, we would experience additional costs, delays and difficulties in doing so as a result of identifying and entering into new agreements with new suppliers or manufacturers as well as preparing such new suppliers or manufacturers to meet the logistical requirements associated with supplying and manufacturing our Proteograph Product Suite , and our business would suffer.

In addition, certain of the components used in our products are sourced from limited or sole suppliers. If we were to lose such suppliers, there can be no assurance that we will be able to identify or enter into agreements with alternative suppliers on a timely basis on acceptable terms, if at all. An interruption in our ability to sell and deliver instruments to customers could occur if we encounter delays or difficulties in securing these components, or if the quality of the components supplied does not meet specifications, or if we cannot then obtain an acceptable substitute. Our suppliers have also been impacted by the COVID-19 pandemic, and we have also experienced supply delays for critical hardware, instrumentation, medical and testing supplies that we use for product development, and certain components of our consumable kits, as these other components and supplies are otherwise diverted to COVID-19-related testing and other uses. If any of these events occur, our business, results of operations, financial condition and prospects could be harmed.

We have limited experience producing and supplying our products, and we may be unable to consistently manufacture or source our SP100 automation instruments and consumables to the necessary specifications or in quantities necessary to meet demand on a timely basis and at acceptable performance and cost levels.

Our Proteograph Product Suite is an integrated solution with many different components that work together. As such, a quality defect in a single component can compromise the performance of the entire solution. In order to successfully generate revenue from our Proteograph Product Suite, we need to supply our customers with products that meet their expectations for quality and functionality in accordance with established specifications on a timely basis. Our instruments are manufactured by Hamilton Company at their facility using complex processes, sophisticated equipment and strict adherence to specifications and quality systems procedures. Given the complexity of this automation instrumentation, individual units may occasionally require additional installation and service time prior to becoming available for customer use.

We leverage well-established unit operations to formulate and manufacture our NPs at our facilities in Redwood City, California. We procure certain components of our consumables from third-party manufacturers, which includes the commonly-available raw materials needed for manufacturing our proprietary engineered NPs. These manufacturing processes are complex. As we move to towards commercial scale formulation and manufacturing of our NP panels, if we are not able to repeatably produce our NPs at commercial scale or source them from third-party suppliers, encounter unexpected difficulties in packaging our consumables, fail to comply with regulations relating to laboratory safety, the handling of human samples, the use of certain hazardous substances or chemicals, including in commercial products, or the collection, reuse, and recycling of waste from products we manufacture, our business will be adversely impacted.

As we continue to scale commercially and develop new products, and as our products incorporate increasingly sophisticated technology, it will be increasingly difficult to ensure our products are produced in the necessary quantities without sacrificing quality. There is no assurance that we or our third-party manufacturer will be able to continue to manufacture our SP100 automation instrument so that it consistently achieves the product specifications and produces results with acceptable quality. Our NPs and other consumables have a limited shelf life, after which their performance is not ensured. While we have completed accelerated stability testing for our NPs, our real-time long-term liquid stability studies are underway, but have not been completed. Shipment of consumables that effectively expire early or shipment of defective instruments or consumables to customers may result in recalls and

warranty replacements, which would increase our costs, and depending upon current inventory levels and the availability and lead time for additional inventory, could lead to availability issues. Any future design issues, unforeseen manufacturing problems, such as contamination of our or our manufacturers' facilities, equipment malfunctions, aging components, quality issues with components and materials sourced from third-party suppliers, or failures to strictly follow procedures or meet specifications, may have a material adverse effect on our brand, business, results of operations and financial condition and could result in us or our third-party manufacturers losing International Organization for Standardization (ISO) quality management certifications. If our third-party manufacturers fail to maintain ISO quality management certifications, customers might choose not to purchase products from us.

In addition, as we commercialize our Proteograph Product Suite, we will also need to make corresponding improvements to other operational functions, such as our customer support, service and billing systems, compliance programs and our internal quality assurance programs. We cannot assure you that any increases in scale, related improvements and quality assurance will be successfully implemented or that appropriate personnel will be available. As we develop additional products, we may need to bring new equipment online, implement new systems, technology, controls and procedures and hire personnel with different qualifications.

An inability to manufacture products and components that consistently meet specifications, in necessary quantities, at commercially acceptable costs and without significant delays, may have a material adverse effect on our business, results of operations, financial condition and prospects.

Our products could have defects or errors, which may give rise to claims against us, adversely affect market adoption of our Proteograph Product Suite, and adversely affect our business, financial condition, and results of operations.

Our Proteograph Product Suite utilizes novel and complex technology and may develop or contain undetected defects or errors. We cannot assure you that material performance problems, defects, or errors will not arise, and as we commercialize our Proteograph, these risks may increase. We provide warranties that our products will meet performance expectations and will be free from material defects. The costs incurred in correcting any defects or errors may be substantial and could adversely affect our operating margins.

In manufacturing our Proteograph Product Suite, we depend upon third parties for the supply of our instruments and various components, many of which require a significant degree of technical expertise to produce. If our suppliers fail to produce our SP100 automation instrument and components to specification or provide defective products to us and our quality control tests and procedures fail to detect such errors or defects, or if we or our suppliers use defective materials or workmanship in the manufacturing process, the reliability and performance of our products will be compromised.

If our Proteograph Product Suite contains defects, we may experience:

- a failure to achieve market acceptance for our Proteograph or expansion of our Proteograph Product Suite sales;
- loss of customer orders and delay in order fulfillment;
- damage to our brand reputation;
- increased warranty and customer service and support costs due to product repair or replacement;
- product recalls or replacements;
- inability to attract new customers;
- diversion of resources from our manufacturing and research and development departments to our service department; and

- legal claims against us, including product liability claims, which could be costly and time consuming to defend and result in substantial damages.

In addition, we expect that our Proteograph Product Suite will be used with our potential customers' own mass spectrometry (MS) instruments or the MS instrument of a third-party service provider and the performance of these MS instruments is outside of our control. If such third-party products are not produced to specification, are produced in accordance with modified specifications, are defective, or not used with recommended equipment, they may not be compatible or perform as intended with our Proteograph. In such case, the reliability, results and performance of our Proteograph may be compromised. The occurrence of any one or more of the foregoing may have a material adverse effect on our business, results of operations, financial condition and prospects.

If we do not successfully develop and deploy our Proteograph Analysis Suite, our commercialization efforts and therefore business and results of operations could suffer.

The success of our Proteograph Product Suite depends, in part, on our ability to design and deploy our Proteograph Analysis Suite in a manner that enables the integration with our potential customers' systems and accommodates our customers' needs. Without our Proteograph Analysis Suite, quality control of the workflow and data analysis is less accessible and robust and can make it difficult for our customers to understand and evaluate the quality of their results.

We have and will continue to spend significant amounts of effort developing our Proteograph Analysis Suite, and potential enhanced versions over time, to meet our customers' and potential customers' evolving needs. There is no assurance that the development or deployment of our Proteograph Analysis Suite, or any potential enhancements, will be compelling to our customers. In addition, we may experience delays in our release dates of our Proteograph Analysis Suite, and there can be no assurance that our Proteograph Analysis Suite will be released according to schedule. If our software development and deployment plan does not accurately anticipate customer demands or if we fail to develop our Proteograph Analysis Suite in a manner that satisfies customer preferences in a timely and cost-effective manner, our Proteograph Product Suite may fail to gain market acceptance. The occurrence of any one or more of the foregoing could negatively affect our business, financial condition, and results of operations.

As we commercialize our Proteograph Product Suite outside of the United States, our international business could expose us to business, regulatory, political, operational, financial, and economic risks associated with doing business outside of the United States.

Engaging in international business inherently involves a number of difficulties and risks, including:

- required compliance with existing and changing foreign regulatory requirements and laws that are or may be applicable to our business in the future, such as the European Union's General Data Protection Regulation (GDPR) and other data privacy requirements, labor and employment regulations, anti-competition regulations, the U.K. Bribery Act of 2010 and other anti-corruption laws, regulations relating to the use of certain hazardous substances or chemicals in commercial products, and require the collection, reuse, and recycling of waste from products we manufacture;
- required compliance with U.S. laws such as the Foreign Corrupt Practices Act, and other U.S. federal laws and regulations established by the office of Foreign Asset Control;
- export requirements and import or trade restrictions, including, without limitation, trade retaliation laws;
- laws and business practices favoring local companies;
- foreign currency exchange, longer payment cycles and difficulties in enforcing agreements and collecting receivables through certain foreign legal systems;
- changes in social, economic, political and climate conditions or in laws, regulations and policies governing foreign trade, manufacturing, research and development, investment, and climate control both domestically as well as in the other countries and jurisdictions in which we operate and into which we may sell our products, including as a result of the separation of the United Kingdom from the European Union (Brexit);

- potentially adverse tax consequences, tariffs, customs charges, bureaucratic requirements, and other trade barriers;
- difficulties and costs of staffing and managing foreign operations; and
- difficulties protecting, maintaining, enforcing or procuring intellectual property rights.

The collection and transfer of personal data and human samples is subject to increasing regulatory authority around the world. For example, Europe and China have adopted or are in the process of adopting data protections laws, regulations, and practice standards covering personal data, medical samples and data, and their potential transfer across national borders. In some cases, consent from individuals and the opportunity for revocation of consent, handling by local entities, and approvals from regulatory bodies may be required, and enforcement may include suspension of the ability to conduct business in the regulated jurisdiction along with civil fines and criminal penalties. This could increase our compliance costs and subject us to significant risks of doing business in these jurisdictions, and any failure to comply with these laws, rules, and regulations could materially and adversely affect our revenue and business operations.

If one or more of these risks occurs, it could require us to dedicate significant resources to remedy such occurrence, and if we are unsuccessful in finding a solution, our financial results will suffer.

A portion of our international sales will be conducted through third-party distributors, and we will not control their efforts to sell our products. If our relationships with these third-party distributors cannot be established or deteriorate, or if these third-party distributors fail to sell our products, or engage in activities that harm our reputation, our results of operation and business may be negatively affected.

Our current commercial model includes direct sales in the United States, and we plan to potentially build relationships with third party distributors in various countries to enable us to enter additional markets more efficiently. If we are unable to enter or maintain such distribution arrangements on acceptable terms, or at all, we may not be able to successfully commercialize our products in certain countries.

Furthermore, distributors can choose the level of effort that they apply to selling our products relative to others in their portfolio. The selection, training, and compensation of distributors' sales personnel are within their control rather than our own and may vary significantly in quality from distributor to distributor. They may experience their own financial difficulties, or distribution relationships may be terminated or allowed to expire, which could increase the cost of or impede commercialization of our products in applicable countries. Disputes may also arise between us and our distributors that result in the delay or termination of commercialization or that result in costly litigation or arbitration that diverts management's attention and resources. Distributors may not properly maintain or defend our intellectual property rights or may use our intellectual property, and our confidential or proprietary information in such a way as to invite litigation that could jeopardize or invalidate our intellectual property rights, and confidential or proprietary information, and expose us to potential litigation. Distributors could move forward with competing products developed either independently or in collaboration with others, including our competitors.

In addition, although we intend to require contract terms obligating our distributors to comply with all applicable laws regarding the sale of our products, including regulatory labelling, protection of personal data, U.S. export regulations and the U.S. Foreign Corrupt Practices Act (FCPA), we may not be able to ensure proper compliance. If our distributors fail to effectively market and sell our products in full compliance with applicable laws and regulations, our results of operations and business may suffer.

The life sciences technology market is highly competitive. If we fail to compete effectively, our business and results of operation will suffer.

We face significant competition in the life sciences technology market. We currently compete with life sciences technology and the diagnostic companies that are supplying components, products and services that serve customers engaged in proteomics analysis. These companies include Agilent Technologies, Bruker Corporation, Danaher, DiaSorin, and Thermo Fisher Scientific. We also compete with a number of emerging growth companies that have

developed, or are developing, proteomic products and solutions, such as Nautilus Biotechnology, Olink Proteomics, Quanterix, Quantum-Si and SomaLogic.

Some of our current competitors are large publicly-traded companies, or are divisions of large publicly-traded companies, and may enjoy a number of competitive advantages over us, including:

- greater name and brand recognition;
- greater financial and human resources;
- broader product lines;
- larger sales forces and more established distributor networks;
- substantial intellectual property portfolios;
- larger and more established customer bases and relationships; and
- better established, larger scale and lower cost manufacturing capabilities.

We also face competition from researchers developing their own products. The area in which we compete involves rapid innovation and some of our customers have in the past, and more may in the future, elect to create their own assays rather than rely on a third-party supplier such as ourselves. This is particularly true for the largest research centers and laboratories who are continually testing and trying new technologies, whether from a third-party vendor or developed internally. We will also compete for the resources our customers allocate for purchasing a wide range of products used to analyze the proteome, some of which may be additive to or complementary with our own but not directly competitive.

We cannot assure investors that our products will compete favorably or that we will be successful in the face of increasing competition from products and technologies introduced by our existing or future competitors, companies entering our markets or developed by our customers internally. In addition, we cannot assure investors that our competitors do not have or will not develop products or technologies that currently or in the future will enable them to produce competitive products with greater capabilities or at lower costs than ours or that are able to run comparable experiments at a lower total experiment cost. Any failure to compete effectively could materially and adversely affect our business, financial condition and operating results.

We are required by Section 404 of the Sarbanes-Oxley Act to evaluate the effectiveness of our internal control over financial reporting. If we are unable to achieve and maintain effective internal controls, our operating results and financial condition could be harmed and the market price of our Class A common stock may be negatively affected.

As a public company with SEC reporting obligations, we are required to document and test our internal control procedures to satisfy the requirements of Section 404(b) of the Sarbanes-Oxley Act (SOX), which requires annual assessments by management of the effectiveness of our internal control over financial reporting. Although we currently qualify as an emerging growth company, we anticipate becoming a large accelerated filer on December 31, 2021. As such, our auditor will be required to attest to the effectiveness of our internal control over financial reporting beginning with our 2021 annual report on Form 10-K. We must implement and maintain substantial internal control systems and procedures to satisfy the reporting requirements under the Securities Exchange Act of 1934.

During our assessments, we may identify deficiencies that we are unable to remediate in a timely manner. Testing and maintaining our internal control over financial reporting may also divert management’s attention from other matters that are important to the operation of our business. We may not be able to conclude on an ongoing basis that we have effective internal control over financial reporting in accordance with Section 404(b) of SOX. If we conclude that our internal control over financial reporting is not effective, the cost and scope of remediation actions and their effect on our operations may be significant. Moreover, any material weaknesses or other deficiencies in our internal control over financial reporting may impede our ability to file timely and accurate reports

with the SEC. Any of the above could cause investors to lose confidence in our reported financial information or our Class A common stock listing on Nasdaq to be suspended or terminated, which could have a negative effect on the trading price of our common stock.

We have identified material weaknesses in our internal control over financial reporting. If our remediation measures are ineffective, or if we experience additional material weaknesses in the future or otherwise fail to maintain an effective system of internal controls in the future, we may not be able to report our financial condition or results of operations accurately or on a timely basis, which may adversely affect investor confidence in us and, as a result, the value of our Class A common stock.

We are testing our internal controls for the purpose of providing the reports required by SOX. During our testing, we may identify deficiencies and be unable to remediate them before we must provide the required reports. In connection with the audit of our consolidated financial statements for the year ended December 31, 2019, we and our independent registered public accounting firm identified the following material weaknesses in our internal control over financial reporting, which remain unremediated:

- there is insufficient accounting personnel to enable segregation of duties relating to the general ledger, disbursement, and certain accounting functions;
- there are not formalized processes or controls for account reconciliations, including independent review of such reconciliations, or related financial statement analysis prepared in conformity with generally accepted accounting principles in the United States (U.S. GAAP); and
- there is not a sufficient complement of accounting personnel with the necessary U.S. GAAP technical expertise to timely identify and account for complex or non-routine transactions or to formalize accounting policies, memoranda, or controls for such transactions.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting such that there is a reasonable possibility that a material misstatement of our consolidated financial statements will not be prevented or detected on a timely basis.

We have commenced measures to remediate the identified material weaknesses. These measures include adding personnel as well as implementing new financial systems and processes. We intend to continue to take steps to remediate the material weaknesses described above and to further improve our accounting processes. We will not be able to fully remediate these material weaknesses until these steps have been completed and have been operating effectively for a sufficient period of time.

While we believe that these efforts will improve our internal control over financial reporting, the implementation of our remediation plan is ongoing and will require validation and testing of the design and operating effectiveness of internal controls over a sustained period of financial reporting cycles.

We are committed to continuing to improve our internal control processes and will continue to review and enhance our financial reporting controls and procedures. As we continue to evaluate and improve our internal control over financial reporting, we may take additional measures to address control deficiencies, or we may modify, or in appropriate circumstances not complete, certain of the remediation measures described above. These material weaknesses will not be considered remediated until the applicable controls operate for a sufficient period of time and management has concluded, through testing, that the enhanced control is operating effectively.

While we have begun taking measures and plan to continue to take measures to design and implement an effective control environment, we cannot assure you that the measures we have taken to date and other remediation and internal control measures we implement in the future will be sufficient to remediate our current material weaknesses or prevent future material weaknesses. We may discover additional weaknesses in our system of internal financial and accounting controls and procedures that could result in a material misstatement of our consolidated financial statements. Our internal control over financial reporting will not prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system’s objectives will be met. Because of the inherent limitations in all control systems, no evaluation

of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud will be detected.

If we are unable to successfully maintain internal control over financial reporting, or identify any additional material weaknesses, the accuracy and timing of our financial reporting may be adversely affected. In addition, if we are unable to assert that our internal control over financial reporting is effective, or if our independent registered public accounting firm is unable to express an opinion as to the effectiveness of our internal control over financial reporting, when required, investors may lose confidence in the accuracy and completeness of our financial reports, we may face restricted access to the capital markets, and our stock price may be materially adversely affected. Moreover, we could become subject to investigations by regulatory authorities, which could require additional financial and management resources.

If we fail to maintain an effective system of internal control over financial reporting, we may not be able to accurately report our financial results in a timely manner or prevent fraud, which would harm our business.

Effective internal controls over financial reporting are necessary for us to provide reliable financial reports and, together with adequate disclosure controls and procedures, are designed to prevent fraud. Any failure to implement required new or improved controls, or difficulties encountered in their implementation, could cause us to fail to meet our reporting obligations in a timely manner, or at all. In addition, any testing by us conducted in connection with Section 404(a) of SOX or any subsequent testing by our independent registered public accounting firm in connection with Section 404(b) of SOX, may reveal deficiencies in our internal controls over financial reporting that are deemed to be significant deficiencies or material weaknesses or that may require prospective or retroactive changes to our consolidated financial statements or identify other areas for further attention or improvement. We will also be required to disclose material changes made in our internal controls over financing reporting and procedures on a quarterly basis and our management will be required to assess the effectiveness of these controls annually. As discussed above, we have identified material weaknesses in the past which we are in the process of remedying. However, our efforts to remediate previous material weaknesses may not be effective or prevent any future deficiency in our internal control over financial reporting. Ineffective internal controls could also cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our Class A common stock.

To achieve compliance with Section 404(a) within the prescribed period, we will be engaging in a process to document and evaluate our internal control over financial reporting, which is both costly and challenging. In this regard, we will need to continue to dedicate internal resources, potentially engage outside consultants and adopt a plan to assess and document the adequacy of our internal control over financial reporting, continue steps to improve control processes as appropriate, validate through testing that controls are designed and operating effectively and implement a continuous reporting and improvement process for internal control over financial reporting.

An independent assessment of the effectiveness of our internal controls could detect problems that our management’s assessment might not identify. Undetected material weaknesses in our internal controls could lead to financial statement restatements and require us to incur the expense of remediation.

If our estimates or judgments relating to our critical accounting policies are based on assumptions that change or prove to be incorrect, our results of operation could fall below our publicly announced guidance or the expectations of securities analysts and investors, resulting in a decline in the market price of our Class A common stock.

The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in our consolidated financial statements and accompanying notes. We base our estimates on historical experience and estimates and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets, liabilities, equity, revenue and expenses that are not readily apparent from other sources. For example, in connection with the implementation of the new revenue accounting standard if and when we have product sales, management makes judgments and assumptions based on our interpretation of the new standard. The new revenue standard is principle-based and interpretation of those principles may vary from company

to company based on their unique circumstances. It is possible that interpretation, industry practice and guidance may evolve as we apply the new standard. If our assumptions underlying our estimates and judgments relating to our critical accounting policies change or if actual circumstances differ from our assumptions, estimates or judgments, our operating results may be adversely affected and could fall below our publicly announced guidance or the expectations of securities analysts and investors, resulting in a decline in the market price of our Class A common stock.

If we elect to label and promote any of our products as clinical diagnostics tests or medical devices, we would be required to obtain prior approval or clearance by the FDA, which would take significant time and expense and could fail to result in FDA clearance or approval for the intended uses we believe are commercially attractive.

Our products are currently labeled and promoted, and are, and in the near-future will be, sold as research use only (RUO) products, primarily to academic and research institutions and research companies, and are not currently designed, or intended to be used, for diagnostic procedures, clinical diagnostic tests or as medical devices. If we elect to label and market our products for use as, or in the performance of, clinical diagnostics in the United States, thereby subjecting them to U.S. Food and Drug Administration (FDA) regulation as medical devices, we would be required to obtain premarket 510(k) clearance or premarket approval from the FDA, unless an exception applies.

We may in the future register with the FDA as a medical device manufacturer and list some of our products with the FDA pursuant to an FDA Class I listing for general purpose laboratory equipment. While this regulatory classification is exempt from certain FDA requirements, such as the need to submit a premarket notification commonly known as a 510(k), and some of the requirements of the FDA's Quality System Regulations (QSRs), we would be subject to ongoing FDA "general controls," which include compliance with FDA regulations for labeling, inspections by the FDA, complaint evaluation, corrections and removals reporting, promotional restrictions, reporting adverse events or malfunctions for our products, and general prohibitions against misbranding and adulteration.

In addition, we may in the future submit 510(k) premarket notifications to the FDA to obtain FDA clearance of certain of our products on a selective basis. It is possible, in the event we elect to submit 510(k) applications for certain of our products, that the FDA would take the position that a more burdensome premarket application, such as a premarket approval application (PMA) or a *de novo* application is required for some of our products. If such applications were required, greater time and investment would be required to obtain FDA approval. Even if the FDA agreed that a 510(k) was appropriate, FDA clearance can be expensive and time consuming. It generally takes a significant amount of time to prepare a 510(k), including conducting appropriate testing on our products, and several months to years for the FDA to review a submission. Notwithstanding the effort and expense, FDA clearance or approval could be denied for some or all of our products for which we choose to market as a medical device or a clinical diagnostic device. Even if we were to seek and obtain regulatory approval or clearance, it may not be for the intended uses we request or that we believe are important or commercially attractive. There can be no assurance that future products for which we may seek premarket clearance or approval will be approved or cleared by FDA or a comparable foreign regulatory authority on a timely basis, if at all, nor can there be assurance that labeling claims will be consistent with our anticipated claims or adequate to support continued adoption of such products. Compliance with FDA or comparable foreign regulatory authority regulations will require substantial costs, and subject us to heightened scrutiny by regulators and substantial penalties for failure to comply with such requirements or the inability to market our products. The lengthy and unpredictable premarket clearance or approval process, as well as the unpredictability of the results of any required clinical studies, may result in our failing to obtain regulatory clearance or approval to market such products, which would significantly harm our business, results of operations, reputation, and prospects.

If we sought and received regulatory clearance or approval for certain of our products, we would be subject to ongoing FDA obligations and continued regulatory oversight and review, including the general controls listed above and the FDA's QSRs for our development and manufacturing operations. In addition, we would be required to obtain a new 510(k) clearance before we could introduce subsequent modifications or improvements to such products. We could also be subject to additional FDA post-marketing obligations for such products, any or all of which would increase our costs and divert resources away from other projects. If we sought and received regulatory clearance or approval and are not able to maintain regulatory compliance with applicable laws, we could be

prohibited from marketing our products for use as, or in the performance of, clinical diagnostics and/or could be subject to enforcement actions, including warning letters and adverse publicity, fines, injunctions, and civil penalties; recall or seizure of products; operating restrictions; and criminal prosecution.

In addition, we could decide to seek regulatory clearance or approval for certain of our products in countries outside of the United States. Sales of such products outside the United States will likely be subject to foreign regulatory requirements, which can vary greatly from country to country. As a result, the time required to obtain clearances or approvals outside the United States may differ from that required to obtain FDA clearance or approval and we may not be able to obtain foreign regulatory approvals on a timely basis or at all. In Europe, we would need to comply with the new Medical Device Regulation 2017/745 and In Vitro Diagnostic Regulation 2017/746, which became effective May 26, 2017, with application dates of May 26, 2021 (postponed from 2020) and May 26, 2022 respectively. This will increase the difficulty of regulatory approvals in Europe in the future. In addition, the FDA regulates exports of medical devices. Failure to comply with these regulatory requirements or obtain and maintain required approvals, clearances and certifications could impair our ability to commercialize our products for diagnostic use outside of the United States.

Our products could become subject to government regulation as medical devices by the FDA and other regulatory agencies even if we do not elect to seek regulatory clearance or approval to market our products for diagnostic purposes, which would adversely impact our ability to market and sell our products and harm our business. If our products become subject to FDA regulation, the regulatory clearance or approval and the maintenance of continued and post-market regulatory compliance for such products will be expensive, time-consuming, and uncertain both in timing and in outcome.

We do not currently expect our Proteograph Product Suite to be subject to the clearance or approval of the FDA, as it is not intended to be used for the diagnosis, treatment or prevention of disease. However, as we expand our product line and the applications and uses of our current or products into new fields, certain of our future products could become subject to regulation by the FDA, or comparable international agencies, including requirements for regulatory clearance or approval of such products before they can be marketed. Also, even as our products are labeled, promoted, and intended as RUO, the FDA or comparable agencies of other countries could disagree with our conclusion that our products are intended for research use only or deem our sales, marketing and promotional efforts as being inconsistent with RUO products. For example, our customers may independently elect to use our RUO labeled products in their own laboratory developed tests (LDTs) for clinical diagnostic use, which could subject our products to government regulation, and the regulatory clearance or approval and maintenance process for such products may be uncertain, expensive, and time-consuming. Regulatory requirements related to marketing, selling, and distribution of RUO products could change or be uncertain, even if clinical uses of our RUO products by our customers were done without our consent. If the FDA or other regulatory authorities assert that any of our RUO products are subject to regulatory clearance or approval, our business, financial condition, or results of operations could be adversely affected.

The FDA has historically exercised enforcement discretion in not enforcing the medical device regulations against laboratories offering LDTs. However, on October 3, 2014, the FDA issued two draft guidance documents that set forth the FDA's proposed risk-based framework for regulating LDTs, which are designed, manufactured, and used within a single laboratory. The draft guidance documents provide the anticipated details through which the FDA would propose to establish an LDT oversight framework, including premarket review for higher-risk LDTs, such as those that have the same intended use as FDA-approved or cleared companion diagnostic tests currently on the market. In January 2017, the FDA announced that it would not issue final guidance on the oversight of LDTs and manufacturers of products used for LDTs, but would seek further public discussion on an appropriate oversight approach, and give Congress an opportunity to develop a legislative solution. More recently, the FDA has issued warning letters to certain genomics labs for illegally marketing genetic tests that claim to predict patients' responses to specific medications, noting that the FDA has not created a legal "carve-out" for LDTs and retains discretion to take action when appropriate, such as when certain genomic tests raise significant public health concerns.

As manufacturers develop more complex diagnostic tests and diagnostic software, the FDA may increase its regulation of LDTs. Any future legislative or administrative rule making or oversight of LDTs, if and when finalized, may impact the sales of our products and how customers use our products, and may require us to change

our business model in order to maintain compliance with these laws. We cannot predict how these various efforts will be resolved, how Congress or the FDA will regulate LDTs in the future, or how that regulatory system will impact our business. Changes to the current regulatory framework, including the imposition of additional or new regulations, including regulation of our products, could arise at any time during the development or marketing of our products, which may negatively affect our ability to obtain or maintain FDA or comparable regulatory approval of our products, if required. Further, sales of devices for diagnostic purposes may subject us to additional healthcare regulation and enforcement by the applicable government agencies. Such laws include, without limitation, state and federal anti-kickback or anti-referral laws, healthcare fraud and abuse laws, false claims laws, privacy and security laws, Physician Payments Sunshine Act and related transparency and manufacturer reporting laws, and other laws and regulations applicable to medical device manufacturers.

Additionally, on November 25, 2013, the FDA issued Final Guidance "Distribution of In Vitro Diagnostic Products Labeled for Research Use Only." The guidance emphasizes that the FDA will review the totality of the circumstances when it comes to evaluating whether equipment and testing components are properly labeled as RUO. The final guidance states that merely including a labeling statement that the product is for research purposes only will not necessarily render the device exempt from the FDA's clearance, approval, and other regulatory requirements if the circumstances surrounding the distribution, marketing and promotional practices indicate that the manufacturer knows its products are, or intends for its products to be, used for clinical diagnostic purposes. These circumstances may include written or verbal sales and marketing claims or links to articles regarding a product's performance in clinical applications and a manufacturer's provision of technical support for clinical applications.

In August 2020, the Department of Health and Human Services (HHS) announced rescission of guidance and other informal issuances of the FDA regarding premarket review of LDT absent notice-and-comment rulemaking, stating that, absent notice-and-comment rulemaking, those seeking approval or clearance of, or an emergency use authorization, for an LDT may nonetheless voluntarily submit a premarket approval application, premarket notification or an Emergency Use Authorization request, respectively, but are not required to do so. The impact of this HHS rescission policy, including whether or how this policy will be implemented under the current administration, as well as other legislative, executive, and agency actions of the current administration remains unclear. The Biden administration has also issued a "regulatory freeze" memorandum that directs department and agency heads to review any new or pending rules of the prior administration. Any restrictions or heightened regulatory requirements on LDTs, IVDs, or RUO products by the FDA, HHS, Congress, or state regulatory authorities may decrease the demand for our products, increase our compliance costs, and negatively impact our business and profitability. We will continue to monitor and assess the impact of changing regulatory landscape on our business.

We may need to raise additional capital to fund commercialization plans for our Proteograph Product Suite, including manufacturing, sales and marketing activities, expand our investments in research, and develop and commercialize new products and applications.

Based on our current plans, we believe that our current cash and cash equivalents and anticipated cash flow from operations will be sufficient to meet our anticipated cash requirements for at least twelve months from the date of this Quarterly Report. If our available cash resources and anticipated cash flow from operations are insufficient to satisfy our liquidity requirements including because of lower demand for our products or the realization of other risks described in this Quarterly Report, we may be required to raise additional capital prior to such time through issuances of equity or convertible debt securities, entrance into a credit facility or another form of third-party funding or seek other debt financing.

We will consider raising additional capital in the future to expand our business, to pursue strategic investments, to take advantage of financing opportunities or for other reasons, including:

- increasing our sales and marketing and other commercialization efforts to drive market adoption of our Proteograph Product Suite;
- funding development and marketing efforts of our Proteograph Product Suite or any other future products;
- expanding our technologies into additional markets;

- acquiring, licensing or investing in technologies and other intellectual property rights;
- acquiring or investing in complementary businesses or assets; and
- financing capital expenditures and general and administrative expenses.

Our present and future funding requirements will depend on many factors, including:

- our rate of progress in commercializing our Proteograph Product Suite and new products, and the cost of the sales and marketing activities associated with establishing adoption of our products;
- our rate of progress in, and cost of research and development activities associated with, products in research and development; and
- the effect of competing technological and market developments.

The various ways we could raise additional capital carry potential risks. If we raise funds by issuing equity securities, dilution to our stockholders could result. If we raise funds by issuing debt securities, those debt securities would have rights, preferences and privileges senior to those of holders of our Class A common stock. The terms of debt securities issued or borrowings pursuant to a credit agreement could impose significant restrictions on our operations. If we raise funds through collaborations or licensing arrangements, we might be required to relinquish significant rights to our technologies or products or grant licenses on terms that are not favorable to us.

If we are unable to obtain adequate financing or financing on terms satisfactory to us, if we require it, our ability to continue to pursue our business objectives and to respond to business opportunities, challenges, or unforeseen circumstances could be significantly limited, and could have a material adverse effect on our business, financial condition, results of operations and prospects.

We may acquire other companies or technologies, which could divert our management's attention, result in additional dilution to our stockholders and otherwise disrupt our operations and harm our operating results.

We may in the future seek to acquire or invest in businesses, applications or technologies that we believe could complement or expand our Proteograph Product Suite or future products, enhance our technical capabilities or otherwise offer growth opportunities. The pursuit of potential acquisitions may divert the attention of management and cause us to incur various costs and expenses in identifying, investigating and pursuing suitable acquisitions, whether or not they are consummated. We may not be able to identify desirable acquisition targets or be successful in entering into an agreement with any particular target or obtain the expected benefits of any acquisition or investment.

To date, the growth of our operations has been organic, and we have limited experience in acquiring other businesses or technologies. We may not be able to successfully integrate acquired personnel, operations and technologies, or effectively manage the combined business following an acquisition. Acquisitions could also result in dilutive issuances of equity securities, the use of our available cash, or the incurrence of debt, which could harm our operating results. In addition, if an acquired business fails to meet our expectations, our operating results, business and financial condition may suffer.

We may not realize the benefits of PrognomIQ as a separate healthcare company in the area of disease testing.

In August 2020, we transferred certain assets to PrognomIQ, as a separate healthcare company to help enable the growth of ecosystems around new applications that leverage our Proteograph solution for unbiased, deep and large-scale proteomic information. We continue to hold approximately 19% of the outstanding capital stock of PrognomIQ. We may not realize the potential benefits of forming PrognomIQ for a variety of reasons, including:

- PrognomIQ may be unable to successfully develop viable testing products;
- PrognomIQ's business may not help demonstrate the value of our Proteograph;
- an inability to reach agreement with PrognomIQ on future commercial arrangements;

- PrognomIQ may not become a meaningful customer of ours;
- PrognomIQ may need to raise additional funding in the future and be unable to do so; and
- the formation of PrognomIQ and our continuing equity position in PrognomIQ may add complexities to our business from a finance, tax and accounting perspective.

Further, PrognomIQ is a separate entity, and as such, may decide over time to pursue a different business model, decide to do business with our competitors in addition to or instead of with us, be acquired by a competitor or take other actions that may not be beneficial to us.

Risks Related to our Intellectual Property

If we are unable to obtain and maintain sufficient intellectual property protection for our products and technology, or if the scope of the intellectual property protection obtained is not sufficiently broad, our competitors could develop and commercialize products similar or identical to ours, and our ability to successfully commercialize our products may be impaired.

We rely on patent protection as well as trademark, copyright, trade secret and other intellectual property rights protection and contractual restrictions to protect our proprietary products and technologies, all of which provide limited protection and may not adequately protect our rights or permit us to gain or keep any competitive advantage. If we fail to obtain, maintain and protect our intellectual property, third parties may be able to compete more effectively against us. In addition, we may incur substantial litigation costs in our attempts to recover or restrict use of our intellectual property.

To the extent our intellectual property offers inadequate protection, or is found to be invalid or unenforceable, we would be exposed to a greater risk of direct competition. If our intellectual property does not provide adequate coverage of our competitors' products, our competitive position could be adversely affected, as could our business, financial condition, results of operations and prospects. Both the patent application process and the process of managing patent and other intellectual property disputes can be time-consuming and expensive.

Our success depends in large part on our and our licensor's ability to obtain and maintain protection of the intellectual property we may own solely and jointly with, or license from, third parties, particularly patents, in the United States and other countries with respect to our products and technologies. We apply for patents covering our products and technologies and uses thereof, as we deem appropriate. However, obtaining and enforcing patents is costly, time-consuming and complex, and we may fail to apply for patents on important products and technologies in a timely fashion or at all, or we may fail to apply for patents in potentially relevant jurisdictions. We may not be able to file and prosecute all necessary or desirable patent applications, or maintain, enforce and license any patents that may issue from such patent applications, at a reasonable cost or in a timely manner or in all jurisdictions. It is also possible that we will fail to identify patentable aspects of our research and development output before it is too late to obtain patent protection. Moreover, we may not develop additional proprietary products, methods and technologies that are patentable. We may not have the right to control the preparation, filing and prosecution of patent applications, or to maintain the rights to patents licensed from or to third parties. Therefore, these patents and applications may not be prosecuted and enforced by such third parties in a manner consistent with the best interests of our business.

In addition, the patent position of life sciences technology companies generally is highly uncertain, involves complex legal and factual questions, and has been the subject of much litigation in recent years. Changes in either the patent laws or in interpretations of patent laws in the United States or other countries or regions may diminish the value of our intellectual property. As a result, the issuance, scope, validity, enforceability, and commercial value of our patent rights are highly uncertain. It is possible that none of our pending patent applications will result in issued patents in a timely fashion or at all, and even if patents are granted, they may not provide a basis for intellectual property protection of commercially viable products or services, may not provide us with any competitive advantages, or may be challenged, narrowed and invalidated by third parties. We cannot predict the breadth of claims that may be allowed or enforced in our patents or in third-party patents. It is possible that third parties will design around our current or future patents such that we cannot prevent such third parties from using

similar technologies and commercializing similar products to compete with us. Some of our owned or licensed patents or patent applications may be challenged at a future point in time and we may not be successful in defending any such challenges made against our patents or patent applications. Any successful third-party challenge to our patents could result in the narrowing, unenforceability or invalidity of such patents and increased competition to our business. The outcome of patent litigation or other proceeding can be uncertain, and any attempt by us to enforce our patent rights against others or to challenge the patent rights of others may not be successful, or, regardless of success, may take substantial time and result in substantial cost, and may divert our efforts and attention from other aspects of our business. Any of the foregoing events could have a material adverse effect on our business, financial condition and results of operations.

The U.S. law relating to the patentability of certain inventions in the life sciences technology industry is uncertain and rapidly changing, which may adversely impact our existing patents or our ability to obtain patents in the future.

Changes in either the patent laws or interpretation of the patent laws in the United States or in other jurisdictions could increase the uncertainties and costs surrounding the prosecution of patent applications and the enforcement or defense of issued patents. For instance, under the Leahy-Smith America Invents Act, or the America Invents Act, enacted in September 2011, the United States transitioned to a first inventor to file system in which, assuming that other requirements for patentability are met, the first inventor to file a patent application is entitled to the patent on an invention regardless of whether a third party was the first to invent the claimed invention. These changes include allowing third-party submission of prior art to the United States Patent and Trademark Office (USPTO) during patent prosecution and additional procedures to challenge the validity of a patent by USPTO administered post-grant proceedings, including post-grant review, *inter partes* review and derivation proceedings. The America Invents Act and its implementation could increase the uncertainties and costs surrounding the prosecution of our patent applications and the enforcement or defense of our issued patents, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Various courts, including the U.S. Supreme Court, have rendered decisions that impact the scope of patentability of certain inventions or discoveries relating to the life sciences technology. Specifically, these decisions stand for the proposition that patent claims that recite laws of nature are not themselves patentable unless those patent claims have sufficient additional features that provide practical assurance that the processes are genuine inventive applications of those laws rather than patent drafting efforts designed to monopolize the law of nature itself. What constitutes a “sufficient” additional feature is uncertain. Furthermore, in view of these decisions, since December 2014, the USPTO has published and continues to publish revised guidelines for patent examiners to apply when examining process claims for patent eligibility.

In addition, U.S. Supreme Court rulings have narrowed the scope of patent protection available in certain circumstances and weakened the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on decisions by the U.S. Congress, the federal courts and the USPTO, the laws and regulations governing patents could change in unpredictable ways that may have a material adverse effect on our ability to obtain new patents and to defend and enforce our existing patents and patents that we might obtain in the future.

We cannot assure you that our patent portfolio will not be negatively impacted by the current uncertain state of the law, new court rulings or changes in guidance or procedures issued by the USPTO or other similar patent offices around the world. From time to time, the U.S. Supreme Court, other federal courts, the U.S. Congress or the USPTO may change the standards of patentability, scope and validity of patents within the life sciences technology and any such changes, or any similar adverse changes in the patent laws of other jurisdictions, could have a negative impact on our business, financial condition, prospects and results of operations.

We may not be able to protect our intellectual property rights throughout the world.

Filing, prosecuting and defending patents on our Proteograph Product Suite in all countries throughout the world would be prohibitively expensive, and our intellectual property rights in some countries outside the United States can be less extensive than those in the United States.

The laws of some foreign countries do not protect intellectual property rights to the same extent as the laws of the United States, and we and our licensor may encounter difficulties in protecting and defending such rights in foreign jurisdictions. Consequently, we and our licensor may not be able to prevent third parties from practicing our inventions in some or all countries outside the United States, or from selling or importing products made using our or our licensor's inventions in and into the United States or other jurisdictions. Competitors and other third parties may use our technologies in jurisdictions where we have not obtained patent protection to develop their own products and technologies and may also export infringing products to territories where we have patent protection, but enforcement is not as strong as that in the United States. These products may compete with our products. Our and our licensor's patents or other intellectual property rights may not be effective or sufficient to prevent them from competing. In addition, certain countries have compulsory licensing laws under which a patent owner may be compelled to grant licenses to other parties. Furthermore, many countries limit the enforceability of patents against other parties, including government agencies or government contractors. In these countries, the patent owner may have limited remedies, which could materially diminish the value of any patents.

Many companies have encountered significant problems in protecting and defending intellectual property rights in foreign jurisdictions. The legal systems of many other countries do not favor the enforcement of patents and other intellectual property protection, which could make it difficult for us to stop the misappropriation or other violations of our intellectual property rights including infringement of our patents in such countries. The legal systems in certain countries may also favor state-sponsored or companies headquartered in particular jurisdictions over our first-in-time patents and other intellectual property protection. The absence of harmonized intellectual property protection laws and effective enforcement makes it difficult to ensure consistent respect for patent, trade secret, and other intellectual property rights on a worldwide basis. As a result, it is possible that we will not be able to enforce our rights against third parties that misappropriate our proprietary technology in those countries.

Proceedings to enforce our or our licensor's patent rights in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business, could put our and our licensor's patents at risk of being invalidated or interpreted narrowly and our and our licensor's patent applications at risk of not issuing, and could provoke third parties to assert claims against us. We and our licensors may not prevail in any lawsuits that we or our licensor initiate, or that are initiated against us or our licensor, and the damages or other remedies awarded, if any, may not be commercially meaningful. In addition, changes in the law and legal decisions by courts in the United States and foreign countries may affect our ability to obtain adequate protection for our products, services and other technologies and the enforcement of intellectual property. Accordingly, our efforts to enforce our intellectual property rights around the world may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop or license. Any of the foregoing events could have a material adverse effect on our business, financial condition, results of operations and prospects.

Issued patents covering our products could be found invalid or unenforceable if challenged.

Our owned and licensed patents and patent applications may be subject to validity, enforceability and priority disputes. The issuance of a patent is not conclusive as to its inventorship, scope, validity or enforceability. Some of our patents or patent applications (including licensed patents and patent applications) may be challenged at a future point in time in opposition, derivation, reexamination, *inter partes* review, post-grant review or interference or other similar proceedings. Any successful third-party challenge to our patents in this or any other proceeding could result in the unenforceability or invalidity of such patents, which may lead to increased competition to our business, which could have a material adverse effect on our business, financial condition, results of operations and prospects. In addition, if we or our licensor initiate legal proceedings against a third party to enforce a patent covering our products, the defendant could counterclaim that such patent covering our products, as applicable, is invalid and/or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity or unenforceability are commonplace. There are numerous grounds upon which a third party can assert invalidity or

unenforceability of a patent. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, including lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the relevant patent office, or made a misleading statement, during prosecution. Third parties may also raise similar claims before administrative bodies in the United States or abroad, even outside the context of litigation. Such mechanisms include *ex parte* re-examination, *inter partes* review, post-grant review, derivation and equivalent proceedings in non-U.S. jurisdictions, such as opposition proceedings. Such proceedings could result in revocation of or amendment to our patents in such a way that they no longer cover and protect our products. With respect to the validity of our patents, for example, we cannot be certain that there is no invalidating prior art of which we, our licensor, our or its patent counsel and the patent examiner were unaware during prosecution. The outcome following legal assertions of invalidity and unenforceability during patent litigation is unpredictable. If a defendant or other third party were to prevail on a legal assertion of invalidity or unenforceability, we would lose at least part, and perhaps all, of the patent protection on certain aspects of our products and technologies, which could have a material adverse effect on our business, financial condition, results of operations and prospects. In addition, if the breadth or strength of protection provided by our patents and patent applications is threatened, regardless of the outcome, it could dissuade companies from collaborating with us to license intellectual property, or develop or commercialize current or future products.

We may not be aware of all third-party intellectual property rights potentially relating to our products. Publications of discoveries in the scientific literature often lag behind the actual discoveries, and patent applications in the United States and other jurisdictions are typically not published until approximately 18 months after filing or, in some cases, not until such patent applications issue as patents. We might not have been the first to make the inventions covered by each of our pending patent applications and we might not have been the first to file patent applications for these inventions. To determine the priority of these inventions, we may have to participate in interference proceedings, derivation proceedings or other post-grant proceedings declared by the USPTO, or other similar proceedings in non-U.S. jurisdictions, that could result in substantial cost to us and the loss of valuable patent protection. The outcome of such proceedings is uncertain. No assurance can be given that other patent applications will not have priority over our patent applications. In addition, changes to the patent laws of the United States allow for various post-grant opposition proceedings that have not been extensively tested, and their outcome is therefore uncertain. Furthermore, if third parties bring these proceedings against our patents, regardless of the merit of such proceedings and regardless of whether we are successful, we could experience significant costs and our management may be distracted. Any of the foregoing events could have a material adverse effect on our business, financial condition, results of operations and prospects.

If we are unable to protect the confidentiality of our trade secrets, the value of our technology could be materially adversely affected and our business could be harmed.

We rely heavily on trade secrets and confidentiality agreements to protect our unpatented know-how, technology and other proprietary information, including parts of our Proteograph Product Suite, and to maintain our competitive position. However, trade secrets and know-how can be difficult to protect. In particular, we anticipate that with respect to our technologies, these trade secrets and know how will over time be disseminated within the industry through independent development, the publication of journal articles describing the methodology, and the movement of personnel between academia and industry.

In addition to pursuing patents on our technology, we take steps to protect our intellectual property and proprietary technology by entering into agreements, including confidentiality agreements, non-disclosure agreements and intellectual property assignment agreements, with our employees, consultants, academic institutions, corporate partners and, when needed, our advisers. However, we cannot be certain that such agreements have been entered into with all relevant parties, and we cannot be certain that our trade secrets and other confidential proprietary information will not be disclosed or that competitors or other third parties will not otherwise gain access to our trade secrets or independently develop substantially equivalent information and techniques. For example, any of these parties may breach the agreements and disclose our proprietary information, including our trade secrets, and we may not be able to obtain adequate remedies for such breaches. Such agreements may not be enforceable or may not provide meaningful protection for our trade secrets or other proprietary information in the event of unauthorized use or disclosure or other breaches of the agreements, and we may not be able to prevent such unauthorized

disclosure, which could adversely impact our ability to establish or maintain a competitive advantage in the market, business, financial condition, results of operations and prospects.

Monitoring unauthorized disclosure is difficult, and we do not know whether the steps we have taken to prevent such disclosure are, or will be, adequate. If we were to enforce a claim that a third party had wrongfully obtained and was using our trade secrets, it would be expensive and time-consuming, it could distract our personnel, and the outcome would be unpredictable. In addition, courts outside the United States may be less willing to protect trade secrets.

We also seek to preserve the integrity and confidentiality of our confidential proprietary information by maintaining physical security of our premises and physical and electronic security of our information technology systems, but it is possible that these security measures could be breached. If any of our confidential proprietary information were to be lawfully obtained or independently developed by a competitor or other third party, absent patent protection, we would have no right to prevent such competitor from using that technology or information to compete with us, which could harm our competitive position. Competitors or third parties could purchase our products and attempt to replicate some or all of the competitive advantages we derive from our development efforts, design around our protected technology, develop their own competitive technologies that fall outside the scope of our intellectual property rights or independently develop our technologies without reference to our trade secrets. If any of our trade secrets were to be disclosed to or independently discovered by a competitor or other third party, it could materially and adversely affect our business, financial condition, results of operations and prospects.

We may be subject to claims challenging the inventorship of our patents and other intellectual property.

We or our licensor may be subject to claims that former employees, collaborators or other third parties have an interest in our owned or in-licensed patents, trade secrets or other intellectual property as an inventor or co-inventor. For example, we or our licensor may have inventorship disputes arise from conflicting obligations of employees, consultants or others who are involved in developing our products. In addition, counterparties to our consulting, sponsored research, software development and other agreements may assert that they have an ownership interest in intellectual property developed under such arrangements. In particular, certain software development agreements pursuant to which certain third parties have developed parts of our proprietary software may not include provisions that expressly assign to us ownership of all intellectual property developed for us by such third parties. Furthermore, certain of our sponsored research agreements pursuant to which we provide certain research services for third parties do not assign to us all intellectual property developed under such agreements. As such, we may not have the right to use all such developed intellectual property under such agreements, we may be required to obtain licenses from third parties and such licenses may not be available on commercially reasonable terms or at all, or may be non-exclusive. If we are unable to obtain such licenses and such licenses are necessary for the development, manufacture and commercialization of our products and technologies, we may need to cease the development, manufacture and commercialization of our products and technologies.

Litigation may be necessary to defend against these and other claims challenging inventorship of our or our licensor’s ownership of our owned or in-licensed patents, trade secrets or other intellectual property. If we or our licensor fail in defending any such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights, such as exclusive ownership of, or right to use, intellectual property that is important to our Proteograph solution, including our software, workflows, consumables and reagent kits. In such an event, we may be required to obtain licenses from third parties and such licenses may not be available on commercially reasonable terms or at all, or may be non-exclusive. If we are unable to obtain and maintain such licenses, we may need to cease the development, manufacture and commercialization of our products and technologies. Even if we are successful in defending against such claims, litigation could result in substantial costs and be a distraction to management and other employees, and certain customers or partners may defer engaging with us until the particular dispute is resolved. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operations and prospects.

We may not be able to protect and enforce our trademarks and trade names, or build name recognition in our markets of interest thereby harming our competitive position.

The registered or unregistered trademarks or trade names that we own may be challenged, infringed, circumvented, declared generic, lapsed or determined to be infringing on or dilutive of other marks. We may not be able to protect our rights in these trademarks and trade names, which we need in order to build name recognition. In addition, third parties have filed, and may in the future file, for registration of trademarks similar or identical to our trademarks, thereby impacting our ability to build brand identity and possibly leading to market confusion. In addition, there could be potential trade name or trademark infringement claims, or other challenges to our trademarks, brought by owners of trademarks that incorporate variations of our registered or unregistered trademarks or trade names. Further, we may in the future enter into agreements with owners of such third party trade names or trademarks to avoid potential trademark litigation which may impact our ability to use our trade names or trademarks in certain fields of business. Over the long term, if we are unable to establish name recognition based on our trademarks and trade names, then we may suffer a competitive disadvantage, and our business, financial condition, results of operations and prospects may be adversely affected. Our efforts to enforce or protect our proprietary rights related to trademarks, trade secrets, domain names, copyrights or other intellectual property may be ineffective and could result in substantial costs and diversion of resources. Any of the foregoing events could have a material adverse effect on our business, financial condition and results of operations.

Patent terms may be inadequate to protect our competitive position on our Proteograph Product Suite for an adequate amount of time.

Patents have a limited lifespan. In the United States, if all maintenance fees are timely paid, the natural expiration of a patent is generally 20 years from its earliest U.S. non-provisional filing date. While extensions may be available, the life of a patent, and the protection it affords, is limited. In the United States, a patent's term may, in certain cases, be lengthened by patent term adjustment, which compensates a patentee for administrative delays by the USPTO in examining and granting a patent, or may be shortened if a patent is terminally disclaimed over a commonly owned patent or a patent naming a common inventor and having an earlier expiration date. Even if patents covering our products are obtained, once the patent life has expired, we may be open to competition from competitive products. If one of our products requires extended development, testing and/or regulatory review, patents protecting such products might expire before or shortly after such products are commercialized. As a result, our owned and licensed patent portfolio may not provide us with sufficient rights to exclude others from commercializing products similar or identical to ours, which could have a material adverse effect on our business, financial condition and results of operations.

We may become involved in lawsuits to defend against third-party claims of infringement, misappropriation or other violations of intellectual property or to protect or enforce our intellectual property, any of which could be expensive, time consuming and unsuccessful, and may prevent or delay our development and commercialization efforts.

Our commercial success depends in part on our ability and the ability of future collaborators to develop, manufacture, market and sell our product and use our products and technologies without infringing, misappropriating or otherwise violating the intellectual property rights of third parties. There is a substantial amount of litigation involving patents and other intellectual property rights in the life sciences technology sector, as well as administrative proceedings for challenging patents, including interference, derivation, *inter partes* review, post grant review, and reexamination proceedings before the USPTO, or oppositions and other comparable proceedings in foreign jurisdictions. We may be exposed to, or threatened with, future litigation by third parties having patent or other intellectual property rights alleging that our products, manufacturing methods, software and/or technologies infringe, misappropriate or otherwise violate their intellectual property rights. Numerous issued patents and pending patent applications that are owned by third parties exist in the fields in which we are developing our products and technologies. It is not always clear to industry participants, including us, the claim scope that may issue from pending patent applications owned by third parties or which patents cover various types of products, technologies or their methods of use or manufacture. Thus, because of the large number of patents issued and patent applications filed in our fields, there may be a risk that third parties, including our competitors, may allege they have patent

rights encompassing our products, technologies or methods and that we are employing their proprietary technology without authorization.

If third parties, including our competitors, believe that our products or technologies infringe, misappropriate or otherwise violate their intellectual property, such third parties may seek to enforce their intellectual property, including patents against us by filing an intellectual property-related lawsuit, including patent infringement lawsuit, against us. Even if we believe third-party intellectual property claims are without merit, there is no assurance that a court would find in our favor on questions of infringement, validity, enforceability, or priority. For example, we are aware of a U.S. issued patent owned by a third party that is directed to a method for diagnosing a biological condition by analyzing certain types of proteins, including through the use of nanoparticles. Such patent is expected to expire in 2026, without taking into account any possible patent term adjustments or extensions. We are also aware of pending patent applications in Europe and in the United States owned by a third party that are directed to a method of identifying biomarkers in biofluids using nanoparticles and, if issued, is projected to expire in 2037, without taking into account any possible patent term adjustments or extensions. Such patent and patent applications could be construed to cover certain aspects of our products or technologies, including our Proteograph Product Suite. If any of these third parties, or any other third parties, were to assert these or any other patents against us and we are unable to successfully defend against any such assertion, we may be required, including by court order, to cease the development and commercialization of the infringing products or technologies and we may be required to redesign such products or technologies so they do not infringe such patents, which may not be possible or may require substantial monetary expenditures and time. We could also be required to pay damages, which could be significant, including treble damages and attorneys' fees if we are found to have willfully infringed such patents. We could also be required to obtain a license to such patents in order to continue the development and commercialization of the infringing product or technology, however such a license may not be available on commercially reasonable terms or at all, including because certain of these patents are held by or may be licensed to our competitors. Even if such license were available, it may require substantial payments or cross-licenses under our intellectual property rights, and it may only be available on a nonexclusive basis, in which case third parties, including our competitors, could use the same licensed intellectual property to compete with us. Any of the foregoing could have a material adverse effect on our business, financial condition, results of operation or prospects.

We may choose to challenge, including in connection with any allegation of patent infringement by a third party, the patentability, validity or enforceability of any third-party patent that we believe may have applicability in our field, and any other third-party patent that may be asserted against us. Such challenges may be brought either in court or by requesting that the USPTO, European Patent Office (EPO), or other foreign patent offices review the patent claims, such as in an *ex-parte* reexamination, *inter partes* review, post-grant review proceeding or opposition proceeding. However, there can be no assurance that any such challenge by us or any third party will be successful. Even if such proceedings are successful, these proceedings are expensive and may consume our time or other resources, distract our management and technical personnel, and the costs of these opposition proceedings could be substantial. There can be no assurance that our defenses of non-infringement, invalidity or unenforceability will succeed.

Third parties, including our competitors, could be infringing, misappropriating or otherwise violating our owned and in-licensed intellectual property rights. Monitoring unauthorized use of our intellectual property is difficult and costly. We may not be able to detect unauthorized use of, or take appropriate steps to enforce, our intellectual property rights. From time to time, we seek to analyze our competitors' products and services, and may in the future seek to enforce our rights against potential infringement, misappropriation or violation of our intellectual property. However, the steps we have taken to protect our intellectual property rights may not be adequate to enforce our rights as against such infringement, misappropriation or violation of our intellectual property. Any inability to meaningfully enforce our intellectual property rights could harm our ability to compete and reduce demand for our products and technologies.

Litigation proceedings may be necessary for us to enforce our patent and other intellectual property rights. In any such proceedings, a court may refuse to stop the other party from using the technology at issue on the grounds that our owned and in-licensed patents do not cover the technology in question. Further, in such proceedings, the defendant could counterclaim that our intellectual property is invalid or unenforceable and the court may agree, in which case we could lose valuable intellectual property rights, which could allow third parties to commercialize

technology or products similar to ours and compete directly with us, without payment to us, or could require us to obtain license rights from the prevailing party in order to be able to manufacture or commercialize our products without infringing such party's intellectual property rights, and if we unable to obtain such a license, we may be required to cease commercialization of our products and technologies, any of which could have a material adverse effect on our business, financial condition, results of operations and prospects. The outcome in any such proceedings are unpredictable.

Regardless of whether we are defending against or asserting any intellectual property-related proceeding, any such intellectual property-related proceeding that may be necessary in the future, regardless of outcome, could result in substantial costs and diversion of resources and could have a material adverse effect on our business, financial condition, results of operations and prospects. Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, there could be public announcements of the results of hearings, motions, or other interim proceedings or developments, and if securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our Class A common stock. Some of our competitors and other third parties may be able to sustain the costs of such litigation or proceedings more effectively than we can because of their greater financial resources and more mature and developed intellectual property portfolios. We may not have sufficient financial or other resources to adequately conduct these types of litigation or proceedings. Any of the foregoing, or any uncertainties resulting from the initiation and continuation of any litigation, could have a material adverse effect on our ability to raise the funds necessary to continue our operations or could otherwise have a material adverse effect on our business, financial condition, results of operations and prospects. Claims that we have misappropriated the confidential information or trade secrets of third parties could have a similar adverse effect on our business, financial condition, results of operations and prospects.

Obtaining and maintaining our patent protection depends on compliance with various required procedures, document submissions, fee payments and other requirements imposed by governmental patent agencies, and our patent protection could be reduced or eliminated for non-compliance with these requirements.

Periodic maintenance fees, renewal fees, annuity fees and various other governmental fees on patents and/or applications will be due to be paid to the USPTO and various governmental patent agencies outside of the United States at several stages over the lifetime of the patents and/or applications. The USPTO and various non-U.S. governmental patent agencies require compliance with a number of procedural, documentary, fee payment and other similar provisions during the patent application process. In certain circumstances, we rely on our licensor to pay these fees due to the U.S. and non-U.S. patent agencies and to take the necessary action to comply with these requirements with respect to our licensed intellectual property. In many cases, an inadvertent lapse can be cured by payment of a late fee or by other means in accordance with the applicable rules. However, there are situations in which non-compliance can result in abandonment or lapse of the patent or patent application, resulting in partial or complete loss of patent rights in the relevant jurisdiction. In such an event, our competitors may be able to enter the market without infringing our patents and this circumstance would have a material adverse effect on our business, financial condition, results of operations and prospects.

We may be subject to claims that our employees, consultants or independent contractors have wrongfully used or disclosed confidential information of third parties or that our employees have wrongfully used or disclosed alleged trade secrets of their former employers.

We have employed and expect to employ individuals, and engaged consultants and expect to engage consultants, who were previously employed, or consulted, at universities or other companies, including our competitors or potential competitors. Although we try to ensure that our employees, consultants, advisors and independent contractors do not use the confidential or proprietary information or know-how of others in their work for us, we may be subject to claims that our employees, advisors, consultants or independent contractors have inadvertently or otherwise used or disclosed intellectual property, including trade secrets or other proprietary information of their former employers or other third parties, or to claims that we have improperly used or obtained such trade secrets. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights and face increased

competition to our business. Any such litigation or the threat thereof may adversely affect our ability to hire employees or contract with advisors, contractors and consultants. A loss of key research personnel work product could hamper or prevent our ability to commercialize potential products, which could harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management. This type of litigation or proceeding could substantially increase our operating losses and reduce our resources available for development activities. Some of our competitors may be able to sustain the costs of this type of litigation or proceedings more effectively than we can because of their substantially greater financial resources.

In addition, while it is our policy to require our employees and contractors who may be involved in the conception or development of intellectual property to execute agreements assigning such intellectual property to us, we may be unsuccessful in executing such an agreement with each party who, in fact, conceives or develops intellectual property that we regard as our own. The assignment of intellectual property rights may not be self-executing, or the assignment agreements may be breached, and we may be forced to bring claims against third parties, or defend claims that they may bring against us, to determine the ownership of what we regard as our intellectual property. Furthermore, individuals executing agreements with us may have pre-existing or competing obligations to a third party, such as an academic institution, and thus an agreement with us may be ineffective in perfecting ownership of inventions developed by that individual, which could have a material adverse effect on our business, financial condition, results of operations, and prospects.

Furthermore, we or our licensor may in the future be subject to claims by former employees, consultants or other third parties asserting an ownership right in our owned or licensed patents or patent applications. An adverse determination in any such proceeding may result in loss of exclusivity or freedom to operate or in patent claims being narrowed, invalidated or held unenforceable, in whole or in part, which could limit our ability to stop others from using or commercializing similar technology, without payment to us, or could limit the duration of the patent protection covering our technology and products. Such challenges may also result in our inability to develop, manufacture or commercialize our products without infringing third-party patent rights. Any of the foregoing could harm our business, financial condition, results of operations and prospects.

We currently rely on a license from a third party, and in the future may rely on additional licenses from other third parties, in relation to our Proteograph Product Suite and if we lose any of these licenses, then we may be subjected to future litigation.

We are, and may in the future become, a party to license agreements that grant us rights to use certain intellectual property, including patents and patent applications, typically in certain specified fields of use. Currently, we rely on an in-license from The Brigham and Women's Hospital, Inc. (BWH), for patents relating to methods of using nanoparticles to measure the proteome, including the methods used in our Proteograph Product Suite and may in the future rely on licenses from other third parties with respect to our Proteograph Product Suite or other technology. Our rights to use licensed technology in our business are subject to the continuation of and compliance with the terms of this license and any licenses we may enter into in the future. Some of these licensed rights provide us with freedom to operate for aspects of our products and technologies. As a result, any termination of this license could result in the loss of significant rights and could harm our ability to develop, manufacture and commercialize our Proteograph Product Suite. We may need to obtain additional licenses from others to advance our research, development and commercialization activities. For instance, under our license agreement with BWH, we currently in-license two patent families, one of which includes the methods used in our Proteograph Product Suite, and to the extent any additional intellectual property developed by BWH that are not included in such licensed patent families are necessary or useful for our Proteograph Product Suite, we would need to negotiate for additional licenses to such additional intellectual property. Such licenses may not be available on commercially reasonable terms or at all, or may be non-exclusive.

Our success may depend in part on the ability of our licensor and any future licensors to obtain, maintain and enforce patent protection for our licensed intellectual property. Under our license agreement with BWH and under any licenses we may enter into in the future, BWH controls, and future licensors may control, the prosecution, maintenance and enforcement of patents and patent applications that are licensed to us. BWH or any future licensors may not successfully prosecute the patent applications we license or prosecute such patent applications in our best interest. Even if patents issue in respect of these patent applications, BWH and any future licensors may fail to

maintain these patents, may determine not to pursue litigation against other companies that are infringing these patents or may pursue such litigation less aggressively than we would. Without protection for the intellectual property we license, other companies might be able to offer substantially identical products and technologies for sale, which could materially adversely affect our competitive business position and harm our business prospects, financial condition or results of operations.

Our current license agreement imposes, and future agreements may impose, various diligence, commercialization, milestone payment, royalty, insurance and other obligations on us and require us to meet development timelines, or to exercise commercially reasonable efforts to develop and commercialize licensed products, in order to maintain the licenses. If we fail to comply with these obligations, our licensor(s) may have the right to terminate our license, in which event we would not be able to develop or market products or technology covered by the licensed intellectual property. Any of the foregoing could have a material adverse effect on our competitive position, business, financial conditions, results of operations and prospects.

Moreover, disputes may also arise between us and our licensor regarding intellectual property subject to a license agreement, including:

- the scope of rights granted under the license agreement and other interpretation-related issues;
- our financial or other obligations under the license agreement;
- whether, and the extent to which, our products, technology and processes infringe on intellectual property of the licensor that is not subject to the licensing agreement;
- our diligence obligations under the license agreement and what activities satisfy those diligence obligations;
- the inventorship and ownership of inventions and know-how resulting from the joint creation or use of intellectual property by our licensor(s); and
- the priority of invention of patented technology.

If we do not prevail in such disputes, we may lose any or all of our rights under such license agreements, experience significant delays in the development and commercialization of our products and technologies, or incur liability for damages, any of which could have a material adverse effect on our business, financial condition, results of operations, and prospects. In addition, we may seek to obtain additional licenses from our licensor(s) and, in connection with obtaining such licenses, we may agree to amend our existing licenses in a manner that may be more favorable to the licensor(s), including by agreeing to terms that could enable third parties, including our competitors, to receive licenses to a portion of the intellectual property that is subject to our existing licenses and to compete with our products.

In addition, the agreements under which we currently and in the future license intellectual property or technology from third parties are complex and certain provisions in such agreements may be susceptible to multiple interpretations. The resolution of any contract interpretation disagreement that may arise could narrow what we believe to be the scope of our rights to the relevant intellectual property or technology, or increase what we believe to be our financial or other obligations under the relevant agreement, either of which could have a material adverse effect on our business, financial condition, results of operations and prospects. Moreover, if disputes over intellectual property that we have licensed prevent or impair our ability to maintain our current licensing arrangements on commercially acceptable terms, we may be unable to successfully develop and commercialize any affected products or services, which could have a material adverse effect on our business, financial condition, results of operations and prospects.

Absent the license agreements, we may infringe patents subject to those agreements, and if the license agreements are terminated, we may be subject to litigation by the licensor. Litigation could result in substantial costs to us and distract our management. If we do not prevail, we may be required to pay damages, including treble damages, attorneys' fees, costs and expenses and royalties or be enjoined from selling our Proteograph Product

Suite, which could adversely affect our ability to offer products or services, our ability to continue operations and our business, financial condition, results of operations and prospects.

If we cannot license rights to use technologies on reasonable terms, we may not be able to commercialize new products in the future.

We may identify third-party technology that we may need to license or acquire in order to develop or commercialize our products or technologies, including our Proteograph Product Suite. However, we may be unable to secure such licenses or acquisitions. The licensing or acquisition of third-party intellectual property rights is a competitive area, and several more established companies may pursue strategies to license or acquire third-party intellectual property rights that we may consider attractive or necessary. These established companies may have a competitive advantage over us due to their size, capital resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to assign or license rights to us.

We also may be unable to license or acquire third-party intellectual property rights on terms that would allow us to make an appropriate return on our investment or at all. In return for the use of a third party's technology, we may agree to pay the licensor royalties based on sales of our products or services. Royalties are a component of cost of products or technologies and affect the margins on our products. We may also need to negotiate licenses to patents or patent applications before or after introducing a commercial product. We may not be able to obtain necessary licenses to patents or patent applications, and our business may suffer if we are unable to enter into the necessary licenses on acceptable terms or at all, if any necessary licenses are subsequently terminated, if the licensor fails to abide by the terms of the license or fails to prevent infringement by third parties, or if the licensed intellectual property rights are found to be invalid or unenforceable.

Certain of our in-licensed patents are, and our future owned and in-licensed patents may be, subject to a reservation of rights by one or more third parties, including government march-in rights, that may limit our ability to exclude third parties from commercializing products similar or identical to ours.

In addition, our owned and in-licensed patents may be subject to a reservation of rights by one or more third parties. For example, the U.S. government has certain rights, including march-in rights, to patent rights and technology funded by the U.S. government and licensed to us from BWH. When new technologies are developed with government funding, in order to secure ownership of such patent rights, the recipient of such funding is required to comply with certain government regulations, including timely disclosing the inventions claimed in such patent rights to the U.S. government and timely electing title to such inventions. Any failure to timely elect title to such inventions may provide the U.S. government to, at any time, take title such inventions. Additionally, the U.S. government generally obtains certain rights in any resulting patents, including a non-exclusive license authorizing the government to use the invention or to have others use the invention on its behalf. If the government decides to exercise these rights, it is not required to engage us as its contractor in connection with doing so. These rights may permit the U.S. government to disclose our confidential information to third parties and to exercise march-in rights to use or allow third parties to use our licensed technology. The U.S. government can exercise its march-in rights if it determines that action is necessary because we fail to achieve practical application of the government-funded technology, because action is necessary to alleviate health or safety needs, to meet requirements of federal regulations, or to give preference to U.S. industry. In addition, our rights in such inventions may be subject to certain requirements to manufacture products embodying such inventions in the United States. Any exercise by the government of any of the foregoing rights could have a material adverse effect on our business, financial condition, results of operations and prospects.

Our products contain third-party open source software components and failure to comply with the terms of the underlying open source software licenses could restrict our ability to sell our products and provide third parties access to our proprietary software.

Our products contain software licensed by third parties under open source software licenses. Use and distribution of open source software may entail greater risks than use of third-party commercial software, as open source software licensors generally do not provide warranties or other contractual protections regarding

infringement claims or the quality of the code. Some open source software licenses contain requirements that the licensee make its source code publicly available if the licensee creates modifications or derivative works using the open source software, depending on the type of open source software the licensee uses and how the licensee uses it. If we combine our proprietary software with open source software in a certain manner, we could, under certain open source software licenses, be required to release the source code of our proprietary software to the public for free. This would allow our competitors and other third parties to create similar products with less development effort and time and ultimately could result in a loss of our product sales and revenue, which could have a material adverse effect on our business, financial condition, results of operations and prospects. In addition, some companies that use third-party open source software have faced claims challenging their use of such open source software and their compliance with the terms of the applicable open source license. We may be subject to suits by third parties claiming ownership of what we believe to be open source software, or claiming non-compliance with the applicable open source licensing terms. Use of open source software may also present additional security risks because the public availability of such software may make it easier for hackers and other third parties to compromise or attempt to compromise our technology platform and systems.

Although we review our use of open source software to avoid subjecting our proprietary software to conditions we do not intend, the terms of many open source software licenses have not been interpreted by United States courts, and there is a risk that these licenses could be construed in a way that could impose unanticipated conditions or restrictions on our ability to commercialize our products and proprietary software. Moreover, we cannot assure investors that our processes for monitoring and controlling our use of open source software in our products will be effective. If we are held to have breached the terms of an open source software license, we could be subject to damages, required to seek licenses from third parties to continue offering our products on terms that are not economically feasible, to re-engineer our products, to discontinue the sale of our products if re-engineering could not be accomplished on a timely basis, or to make generally available, in source code form, our proprietary code, any of which could adversely affect our business, financial condition, results of operations and prospects.

Intellectual property rights do not necessarily address all potential threats.

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations, and may not adequately protect our business or permit us to maintain our competitive advantage. For example:

- others may be able to make products that are similar to products and technologies we may develop or utilize similar technology that are not covered by the claims of the patents that we own or license now or in the future;
- we, or our licensor(s), might not have been the first to make the inventions covered by the issued patent or pending patent application that we license or may own in the future;
- we, or our licensor(s), might not have been the first to file patent applications covering certain of our or their inventions;
- others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing, misappropriating or otherwise violating our owned or licensed intellectual property rights;
- it is possible that our pending licensed patent applications or those that we may own in the future will not lead to issued patents;
- issued patents that we hold rights to may be held invalid or unenforceable, including as a result of legal challenges by our competitors;
- our competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;

- we may not develop additional proprietary technologies that are patentable;
- the patents of others may harm our business; and
- we may choose not to file a patent for certain trade secrets or know-how, and a third party may subsequently file a patent covering such intellectual property.

Should any of these events occur, they could materially adversely affect our business, financial condition, results of operations and prospects.

Risks Related to Ownership of Our Class A Common Stock

An active trading market for our Class A common stock may not be sustained.

Although our Class A common stock is traded on the Nasdaq Global Select Market under the symbol "SEER," there is a limited trading history and an active trading market for our Class A common stock may not be sustained. Accordingly, we cannot assure you of your ability to sell your shares of Class A common stock when desired or the prices that you may obtain for your shares. If an active market for our Class A common stock with meaningful trading volume is not sustained, the market price of our Class A common stock may decline materially and you may not be able to sell your shares.

The market price of our Class A common stock may be volatile.

Some of the factors that may cause the market price of our Class A common stock to fluctuate include, but are not limited to:

- the timing of our launch and commercialization of our products and degree to which such launch and commercialization meets the expectations of securities analysts and investors;
- actual or anticipated fluctuations in our operating results, including fluctuations in our quarterly and annual results;
- revenue being less than anticipated or operating expenses being more than anticipated;
- the failure or discontinuation of any of our product development and research programs;
- changes in the structure or funding of research at academic and research laboratories and institutions, including changes that would affect their ability to purchase our instruments or consumables;
- the success of existing or new competitive businesses or technologies;
- announcements about new research programs or products of our competitors;
- developments or disputes concerning patent applications, issued patents or other proprietary rights;
- the recruitment or departure of key personnel;
- litigation and governmental investigations involving us, our industry or both;
- regulatory or legal developments in the United States and other countries;
- volatility and variations in market conditions in the life sciences technology sector generally, or the proteomics or genomics sectors specifically;
- investor perceptions of us or our industry;
- the level of expenses related to any of our research and development programs or products;

- actual or anticipated changes in our estimates as to our financial results or development timelines, variations in our financial results or those of companies that are perceived to be similar to us or changes in estimates or recommendations by securities analysts, if any, that cover our Class A common stock or companies that are perceived to be similar to us;
- whether our financial results meet the expectations of securities analysts or investors;
- the announcement or expectation of additional financing efforts;
- sales of our Class A common stock by us or sales of our Class A common stock or Class B common stock by our insiders or other stockholders;
- the expiration of market standoff or lock-up agreements;
- general economic, industry and market conditions; and
- the COVID-19 pandemic, natural disasters or major catastrophic events.

Recently, stock markets in general, and the market for life sciences technology companies in particular, have experienced significant price and volume fluctuations that have often been unrelated or disproportionate to changes in the operating performance of the companies whose stock is experiencing those price and volume fluctuations, particularly in light of the current COVID-19 pandemic. Broad market and industry factors may seriously affect the market price of our Class A common stock, regardless of our actual operating performance. Following periods of such volatility in the market price of a company's securities, securities class action litigation has often been brought against that company. Because of the potential volatility of our stock price, we may become the target of securities litigation in the future. Securities litigation could result in substantial costs and divert management's attention and resources from our business.

The multi-class structure of our common stock will have the effect of concentrating voting control with certain stockholders and it may depress the trading price of our Class A common stock.

Our Class A common stock, which is our publicly-traded class of stock, has one vote per share, and our Class B common stock has ten votes per share, except as otherwise required by law. Our Class B common stock is held by our founders and early investors. Following our February 2021 public offering, the holders of our Class B common stock hold in the aggregate 45.7% of the voting power of our capital stock.

As a result, the holders of our Class B common stock collectively will continue to control a significant amount of the combined voting power of our common stock and therefore may be able to control matters submitted to our stockholders for approval. This control will limit to the stockholders' influence over corporate matters for approximately five years following our initial public offering, including the election of directors, amendments of our organizational documents and any sale of the company or other major corporate transaction requiring stockholder approval. This may prevent or discourage unsolicited proposals to acquire the company. Future transfers by holders of Class B common stock will generally result in those shares converting to Class A common stock, subject to limited exceptions, such as certain transfers effected for estate planning purposes where sole dispositive power and exclusive voting control with respect to the shares of Class B common stock is retained by the transferring holder. The Class B common stock will also automatically convert into Class A common stock on December 8, 2025. The conversion of Class B common stock to Class A common stock will have the effect, over time, of increasing the relative voting power of those individual holders of Class B common stock who retain their shares over the long term.

In July 2017, S&P Dow Jones announced that it would no longer admit companies with multiple-class share structures to certain of its indices. Affected indices include the S&P 500, S&P MidCap 400, and S&P SmallCap 600, which together make up the S&P Composite 1500. Our multi-class capital structure may make us ineligible for inclusion in certain indices, and as a result, mutual funds, exchange-traded funds and other investment vehicles that attempt to passively track these indices may not be investing in our stock. It is unclear what effect, if any, exclusion from any indices has had on the valuations of the affected publicly traded companies. It is possible that such policies

could depress the valuations of public companies excluded from such indices compared to those of other companies that are included.

If securities analysts do not publish research or reports about our business or if they publish negative evaluations of our Class A common stock, the price of our Class A common stock could decline.

The trading market for our Class A common stock relies in part on the research and reports that industry or securities analysts publish about us or our business. If no or few analysts commence or continue coverage of us, the trading price of our Class A common stock could decrease. If one or more of the analysts covering our business downgrade their evaluations of our Class A common stock, the price of our Class A common stock could decline. If one or more of these analysts cease to cover our Class A common stock, we could lose visibility in the market for our Class A common stock, which in turn could cause the price of our Class A common stock to decline.

Sales of a substantial number of shares of our Class A common stock by our existing stockholders could cause the price of our Class A common stock to decline.

Sales of a substantial number of shares of our Class A common stock in the public market could occur at any time following the expiration of the market standoff and lock-up agreements or the early release of these agreements or the perception in the market that the holders of a large number of shares of Class A common stock intend to sell shares and could reduce the market price of our Class A common stock.

The selling stockholders who sold greater than 5% and up to 20.8% of their existing holdings in our February 2021 public offering have entered into lock-up agreements which expire January 27, 2022. Additionally stockholders were given the opportunity to have a portion of their stockholdings released from the lock-up agreements entered into in connection with our initial public offering if they agreed to the same additional terms as the selling stockholders in our February 2021 public offering. As a result, following our February 2021 public offering, 3,028,622 shares of Class A common stock and 3,565,416 shares of our Class B common stock (and any share of Class A common stock into which they are converted) are currently prohibited or otherwise restricted from being sold in the public market under securities laws, lock-up agreements entered into with the underwriters in connection our February 2021 public offering, market standoff agreements entered into by our stockholders with us, or lock-up agreements entered into by our stockholders. The representatives may, in their sole discretion, release all or some portion of the shares subject to lock-up agreements at any time and for any reason.

Shares issued upon the exercise of stock options outstanding under our equity incentive plans or pursuant to future awards granted under those plans will become available for sale in the public market to the extent permitted by the provisions of applicable vesting schedules, any applicable market standoff and lock-up agreements, and Rule 144 and Rule 701 under the Securities Act of 1933, as amended, or the Securities Act.

We have not paid dividends in the past and do not expect to pay dividends in the future, and, as a result, any return on investment may be limited to the value of our stock.

You should not rely on an investment in our Class A common stock to provide dividend income. We do not anticipate that we will pay any dividends to holders of our Class A common stock in the foreseeable future. Instead, we plan to retain any earnings to maintain and expand our existing operations, fund our research and development programs and continue to invest in our commercial infrastructure. In addition, any future credit facility or financing we obtain may contain terms prohibiting or limiting the amount of dividends that may be declared or paid on our Class A common stock. Accordingly, investors must rely on sales of their Class A common stock after price appreciation, which may never occur, as the only way to realize any return on their investment. As a result, investors seeking cash dividends should not purchase our Class A common stock.

Our amended and restated bylaws designate a state or federal court located within the State of Delaware as the exclusive forum for substantially all disputes between us and our stockholders, and also provide that the federal district courts will be the exclusive forum for resolving any complaint asserting a cause of action arising under

the Securities Act of 1933, as amended, each of which could limit our stockholders' ability to choose the judicial forum for disputes with us or our directors, officers, stockholders, or employees.

Our amended and restated certificate of incorporation specifies that, unless we consent in writing to the selection of an alternative forum, the sole and exclusive forum for (a) any derivative action or proceeding brought on our behalf, (b) any action asserting a claim of breach of a fiduciary duty owed by any of our current or former directors, stockholders, officers, or other employees to us or our stockholders, (c) any action or proceeding asserting a claim arising pursuant to, or seeking to enforce any right, obligation or remedy under, any provision of the Delaware General Corporation Law, our amended and restated certificate of incorporation, or our amended and restated bylaws, (d) any action or proceeding as to which the Delaware General Corporation Law confers jurisdiction on the Court of Chancery of the State of Delaware, or (e) any action or proceeding asserting a claim that is governed by the internal affairs doctrine shall be the Court of Chancery of the State of Delaware (or, if the Court of Chancery does not have jurisdiction, another state court in Delaware or, if no state court in Delaware has jurisdiction, the federal district court for the District of Delaware) and any appellate court therefrom, in all cases subject to the court having jurisdiction over the claims at issue and the indispensable parties; provided that the exclusive forum provision will not apply to suits brought to enforce any liability or duty created by the Exchange Act.

Section 22 of the Securities Act of 1933, as amended (the Securities Act), creates concurrent jurisdiction for federal and state courts over all such Securities Act actions. Accordingly, both state and federal courts have jurisdiction to entertain such claims. To prevent having to litigate claims in multiple jurisdictions and the threat of inconsistent or contrary rulings by different courts, among other considerations, our amended and restated bylaws also provide that the federal district courts of the United States of America will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act.

Any person or entity purchasing or otherwise acquiring or holding or owning (or continuing to hold or own) any interest in any of our securities shall be deemed to have notice of and consented to the foregoing bylaw provisions. Although we believe these exclusive forum provisions benefit us by providing increased consistency in the application of Delaware law and federal securities laws in the types of lawsuits to which each applies, the exclusive forum provisions may limit a stockholder's ability to bring a claim in a judicial forum of its choosing for disputes with us or any of our directors, officers, stockholders, or other employees, which may discourage lawsuits with respect to such claims against us and our current and former directors, officers, stockholders, or other employees. Our stockholders will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder as a result of our exclusive forum provisions. Further, in the event a court finds either exclusive forum provision contained in our amended and restated bylaws to be unenforceable or inapplicable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our results of operations.

Delaware law and provisions in our amended and restated certificate of incorporation and amended and restated bylaws might discourage, delay or prevent a change in control of our company or changes in our management and, therefore, depress the trading price of our Class A common stock.

Our status as a Delaware corporation and the anti-takeover provisions of the Delaware General Corporation Law may discourage, delay or prevent a change in control by prohibiting us from engaging in a business combination with an interested stockholder for a period of three years after the person becomes an interested stockholder, even if a change of control would be beneficial to our existing stockholders. In addition, our restated certificate of incorporation and restated bylaws contain provisions that may make the acquisition of our company more difficult, including the following:

- any transaction that would result in a change in control of our company requires the approval of a majority of our outstanding Class B common stock voting as a separate class;
- our multi-class common stock structure provides our holders of Class B common stock with the ability to significantly influence the outcome of matters requiring stockholder approval, even if they own

significantly less than a majority of the shares of our outstanding Class A common stock and Class B common stock;

- our board of directors is classified into three classes of directors with staggered three-year terms and directors will only be able to be removed from office for cause by the affirmative vote of holders of at least two-thirds of the voting power of our then outstanding capital stock;
- certain amendments to our amended and restated certificate of incorporation require the approval of stockholders holding two-thirds of the voting power of our then outstanding capital stock;
- any stockholder-proposed amendment to our amended and restated bylaws require the approval of stockholders holding two-thirds of the voting power of our then outstanding capital stock;
- our stockholders may only be able to take action at a meeting of stockholders and may not be able to take action by written consent for any matter;
- our stockholders are be able to act by written consent only if the action is first recommended or approved by the board of directors;
- vacancies on our board of directors may be filled only by our board of directors and not by stockholders;
- only the chair of the board of directors, chief executive officer or a majority of the board of directors are authorized to call a special meeting of stockholders;
- certain litigation against us can only be brought in Delaware;
- our restated certificate of incorporation authorizes undesignated preferred stock, the terms of which may be established and shares of which may be issued, without the approval of the holders of our capital stock; and
- advance notice procedures apply for stockholders to nominate candidates for election as directors or to bring matters before an annual meeting of stockholders.

These anti-takeover defenses could discourage, delay, or prevent a transaction involving a change in control of our company. These provisions could also discourage proxy contests and make it more difficult for stockholders to elect directors of their choosing and to cause us to take other corporate actions they desire, any of which, under certain circumstances, could limit the opportunity for our stockholders to receive a premium for their shares of our capital stock and could also affect the price that some investors are willing to pay for our Class A common stock.

Our ability to use net operating losses to offset future taxable income may be subject to certain limitations.

As of December 31, 2020 we had U.S. federal and state net operating loss carryforwards (NOLs) of $36.2 million and $33.0 million, respectively, which if not utilized will expire in 2031 for state purposes. We may use these NOLs to offset against taxable income for U.S. federal and state income tax purposes. However, Section 382 of the Internal Revenue Code of 1986, as amended, may limit the NOLs we may use in any year for U.S. federal income tax purposes in the event of certain changes in ownership of our company. A Section 382 “ownership change” generally occurs if one or more stockholders or groups of stockholders who own at least 5% of a company’s stock increase their ownership by more than 50 percentage points over their lowest ownership percentage within a rolling three-year period. Similar rules may apply under state tax laws. We have not conducted a 382 study to determine whether the use of our NOLs is impaired. We may have previously undergone multiple “ownership changes.” In addition, future issuances or sales of our stock, including certain transactions involving our stock that are outside of our control, could result in future “ownership changes.” “Ownership changes” that have occurred in the past or that may occur in the future could result in the imposition of an annual limit on the amount of pre-ownership change NOLs and other tax attributes we can use to reduce our taxable income, potentially increasing and accelerating our liability for income taxes, and also potentially causing those tax attributes to expire unused. States may impose other limitations on the use of our NOLs. Any limitation on using NOLs could, depending on the extent of such limitation and the NOLs previously used, result in our retaining less cash after payment of U.S. federal and state income taxes during any year in which we have taxable income, rather than losses, than we would be entitled to

retain if such NOLs were available as an offset against such income for U.S. federal and state income tax reporting purposes, which could adversely impact our operating results.

We are an "emerging growth company" and a "smaller reporting company" and the reduced disclosure requirements applicable to emerging growth companies and smaller reporting companies may make our Class A common stock less attractive to investors.

We are an "emerging growth company," as defined in the JOBS Act a "smaller reporting company," as such term is defined in Rule 12b-2 under the Securities Exchange Act of 1934 and are currently relying on exemptions from certain disclosure requirements that are applicable to other SEC registered public companies that are not emerging growth companies or smaller reporting companies. These exemptions include not being required to comply with the auditor attestation requirements of Section 404 of the SOX, not being required to comply with any requirement that may be adopted by the Public Company Accounting Oversight Board regarding mandatory audit firm rotation or a supplement to the auditor's report providing additional information about the audit and the consolidated financial statements, reduced disclosure obligations regarding executive compensation and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved. As a result, the information we provide stockholders will be different than the information that is available with respect to other public companies. We will cease to be an emerging growth company and smaller reporting company on December 31, 2021.

We cannot predict whether investors will find our Class A common stock less attractive if we rely on these exemptions while we are an emerging growth company and smaller reporting company. If some investors find our Class A common stock less attractive as a result, there may be a less active trading market for our Class A common stock and our stock price may be more volatile.

In addition, the JOBS Act provides that an emerging growth company 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, we will not be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies. As a result, our consolidated financial statements may not be comparable to companies that comply with new or revised accounting pronouncements as of public company effective dates.

We continue to incur significant increased costs and management resources as a result of operating as a public company.

As a public company, we continue to incur significant legal, accounting, compliance and other expenses that we did not incur as a private company and these expenses may increase even more after we are no longer an "emerging growth company." Our management and other personnel need to devote a substantial amount of time and incur significant expense in connection with compliance initiatives. As a public company, we continue to bear all of the internal and external costs of preparing and distributing periodic public reports in compliance with our obligations under the securities laws.

In addition, regulations and standards relating to corporate governance and public disclosure, including SOX, and the related rules and regulations implemented by the SEC and the Nasdaq Stock Market, LLC (Nasdaq) have increased legal and financial compliance costs and make some compliance activities more time-consuming. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment will result in increased general and administrative expenses and may divert management's time and attention from our other business activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to practice, regulatory authorities may initiate legal proceedings against us, and our business may be harmed. In the future, it may be more expensive or more difficult for us to obtain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. These factors could also make it more difficult for us to attract and retain qualified members of our board of directors, particularly to serve on our audit committee and compensation committee, and qualified executive officers.

General Risks

If our facilities or our third-party manufacturers' facilities become unavailable or inoperable, our research and development program and commercialization launch plan could be adversely impacted and manufacturing of our instruments and consumables could be interrupted.

Our Redwood City, California, facilities house our corporate, research and development, NP manufacturing and quality assurance teams. Our instruments are manufactured at our third-party manufacturer's facilities in Nevada, and our consumables are manufactured at various locations in the United States and internationally.

Our facilities in Redwood City and those of our third-party manufacturers are vulnerable to natural disasters, public health crises, including the impact of the COVID-19 pandemic, climate change and catastrophic events. For example, our Redwood City facilities are located near earthquake fault zones and are vulnerable to damage from earthquakes as well as other types of disasters, including fires, wildfires, floods, power loss, communications failures and similar events. If any disaster, public health crisis or catastrophic event were to occur, our ability to operate our business would be seriously, or potentially completely, impaired. If our facilities or our third-party manufacturer's facilities become unavailable for any reason, we cannot provide assurances that we will be able to secure alternative manufacturing facilities with the necessary capabilities and equipment on acceptable terms, if at all. We may encounter particular difficulties in replacing our Redwood City facilities given the specialized equipment housed within it. The inability to manufacture our instruments or consumables, combined with our limited inventory of manufactured instruments and consumables, may result in the loss of future customers or harm our reputation, and we may be unable to re-establish relationships with those customers in the future. Because our NPs are perishable and must be kept in temperature controlled storage, the loss of power to our facilities, mechanical or other issues with our storage facilities or other events that impact our temperature controlled storage could result in the loss of some or all of such NPs, and we may not be able to replace them without disruption to our customers or at all.

If our research and development program or commercialization program were disrupted by a disaster or catastrophe, the launch of new products, including our Proteograph Product Suite, and the timing of improvements to our products could be significantly delayed and could adversely impact our ability to compete with other available products and solutions. If our or our third-party manufacturer's capabilities are impaired, we may not be able to manufacture and ship our products in a timely manner, which would adversely impact our business. Although we possess insurance for damage to our property and the disruption of our business, this insurance may not be sufficient to cover all of our potential losses and may not continue to be available to us on acceptable terms, or at all.

If we experience a significant disruption in our information technology systems or breaches of data security, our business could be adversely affected.

We rely, or will rely, on information technology systems to keep financial records, facilitate our research and development initiatives, manage our manufacturing operations, maintain quality control, fulfill customer orders, maintain corporate records, communicate with staff and external parties and operate other critical functions. Our information technology systems and those of our vendors and partners are potentially vulnerable to disruption due to breakdown, malicious intrusion and computer viruses or other disruptive events, including, but not limited to, natural disasters and catastrophes. Cyberattacks (including denial of service, ransomware, and other attacks) and other malicious internet-based activity continue to increase and cloud-based platform providers of services have been and are expected to continue to be targeted. Methods of attacks on information technology systems and data security breaches change frequently, are increasingly complex and sophisticated, including social engineering and phishing scams, and can originate from a wide variety of sources. In addition to traditional computer "hackers," malicious code, such as viruses and worms, employee theft or misuse, denial-of-service attacks and sophisticated nation-state and nation-state supported actors now engage in attacks, including advanced persistent threat intrusions. Despite our efforts to create security barriers to such threats, it is virtually impossible for us to entirely mitigate these risks. In addition, we have not finalized our information technology and data security procedures and therefore, our information technology systems may be more susceptible to cybersecurity attacks than if such security procedures were finalized. Despite any of our current or future efforts to protect against cybersecurity attacks and data security breaches, there is no guarantee that our efforts are adequate to safeguard against all such attacks and breaches.

Moreover, it is possible that we may not be able to anticipate, detect, appropriately react and respond to, or implement effective preventative measures against, all cybersecurity incidents.

If our security measures, or those of our vendors and partners, are compromised due to any cybersecurity attacks or data security breaches, including as a result of third-party action, employee or customer error, malfeasance, stolen or fraudulently obtained log-in credentials or otherwise, our reputation could be damaged, our business and reputation may be harmed, we could become subject to litigation and we could incur significant liability. If we were to experience a prolonged system disruption in our information technology systems or those of certain of our vendors and partners, it could negatively impact our ability to serve our customers, which could adversely impact our business, financial condition, results of operations and prospects. If operations at our facilities were disrupted, it may cause a material disruption in our business if we are not capable of restoring functionality on an acceptable timeframe. In addition, our information technology systems, and those of our vendors and partners, are potentially vulnerable to data security breaches, whether by internal bad actors, such as employees or other third parties with legitimate access to our or our third-party providers' systems, or external bad actors, which could lead to the exposure of personal data, sensitive data and confidential information to unauthorized persons. Any such data security breaches could lead to the loss of trade secrets or other intellectual property, or could lead to the exposure of personal information, including sensitive personal information, of our employees, customers and others, any of which could have a material adverse effect on our business, reputation, financial condition and results of operations.

In addition, any such access, disclosure or other loss or unauthorized use of information or data could result in legal claims or proceedings, regulatory investigations or actions, and other types of liability under laws that protect the privacy and security of personal information, including federal, state and foreign data protection and privacy regulations, violations of which could result in significant penalties and fines. Additionally, a new privacy law, the California Privacy Rights Act (CPRA), was approved by California voters in the election on November 3, 2020. The CPRA will modify the California Consumer Privacy Act significantly, potentially resulting in further uncertainty and requiring us to incur additional costs and expenses in an effort to comply. The CPRA will restrict use of certain categories of sensitive personal information that we may handle, establish restrictions on the retention of personal information, expand the types of data breaches subject to the private right of action, and establish the California Privacy Protection Agency to implement and enforce the new law and impose administrative fines. The majority of the CPRA's provisions will go into effect on January 1, 2023, and additional compliance investment and potential business process changes will likely be required. Similar laws have been proposed in other states and at the federal level, reflecting a trend toward more stringent data privacy and security legislation in the United States. For example, on March 2, 2021, Virginia enacted the Virginia Consumer Data Protection Act, or CDPA, which becomes effective on January 1, 2023, and on June 8, 2021, Colorado enacted the Colorado Privacy Act, or CPA, which takes effect on July 1, 2023. The CPA and CDPA share similarities with the CCPA, CPRA, and legislation proposed in other states. Aspects of these state privacy statutes remain unclear, resulting in further uncertainty and potentially requiring us to modify our data practices and policies and to incur substantial additional costs and expenses in an effort to comply. In addition, U.S. and international laws and regulations that have been applied to protect user privacy (including laws regarding unfair and deceptive practices in the U.S. and GDPR in the EU) may be subject to evolving interpretations or applications. Furthermore, defending a suit, regardless of its merit, could be costly, divert management's attention and harm our reputation. In addition, although we seek to detect and investigate all data security incidents, security breaches and other incidents of unauthorized access to our information technology systems and data can be difficult to detect and any delay in identifying such breaches or incidents may lead to increased harm and legal exposure of the type described above. Moreover, there could be public announcements regarding any cybersecurity incidents and any steps we take to respond to or remediate such incidents, and if securities analysts or investors perceive these announcements to be negative, it could, among other things, have a material adverse effect on the price of our Class A common stock.

The cost of protecting against, investigating, mitigating and responding to potential breaches of our information technology systems and data security breaches and complying with applicable breach notification obligations to individuals, regulators, partners and others can be significant. As cybersecurity incidents continue to evolve, we may be required to expend significant additional resources to continue to modify or enhance our protective measures or to investigate and remediate any information security vulnerabilities. The inability to implement, maintain and upgrade adequate safeguards could have a material adverse effect on our business, financial condition, results of

operations and prospects. Our insurance policies may not be adequate to compensate us for the potential costs and other losses arising from such disruptions, failures or security breaches. In addition, such insurance may not be available to us in the future on economically reasonable terms, or at all, or that any insurer will not deny coverage as to any future claim. The successful assertion of one or more large claims against us that exceed available insurance coverage, or the occurrence of changes in our insurance policies, including premium increases or the imposition of large deductible or co-insurance requirements, could have a material adverse effect on our business, financial condition, results of operations and prospects.

We are currently subject to, and may in the future become subject to additional, U.S. federal and state laws and regulations imposing obligations on how we collect, store and process personal information. Our actual or perceived failure to comply with such obligations could harm our business. Ensuring compliance with such laws could also impair our efforts to maintain and expand our future customer base, and thereby decrease our revenue.

In the ordinary course of our business, we currently, and in the future will, collect, store, transfer, use or process sensitive data, including personally identifiable information of employees, and intellectual property and proprietary business information owned or controlled by ourselves and other parties. The secure processing, storage, maintenance, and transmission of this critical information are vital to our operations and business strategy. We are, and may increasingly become, subject to various laws and regulation relating to data privacy and security in the jurisdictions in which we operate. We also may be subject to contractual obligations and may be, or may be asserted to be, subject to industry standards relating to privacy and data security. The regulatory environment related to data privacy and security is increasingly rigorous, with new and constantly changing requirements applicable to our business, and enforcement practices are likely to remain uncertain for the foreseeable future. These laws and regulations may be interpreted and applied differently over time and from jurisdiction to jurisdiction, and it is possible that they will be interpreted and applied in ways that may have a material adverse effect on our business, financial condition, results of operations and prospects.

In the United States, various federal and state regulators, including governmental agencies like the Consumer Financial Protection Bureau and the Federal Trade Commission, have adopted, or are considering adopting, laws and regulations concerning personal information and data security. Certain state laws may be more stringent or broader in scope, or offer greater individual rights, with respect to personal information than federal, international or other state laws, and such laws may differ from each other, all of which may complicate compliance efforts. For example, the California Consumer Privacy Act (CCPA), which increases privacy rights for California residents and imposes obligations on companies that process their personal information, came into effect on January 1, 2020. Among other things, the CCPA requires covered companies to provide new disclosures to California consumers and provide such consumers new data protection and privacy rights, including the ability to opt-out of certain sales of personal information. The CCPA provides for civil penalties for violations, as well as a private right of action for certain data breaches that result in the loss of personal information. This private right of action may increase the likelihood of, and risks associated with, data breach litigation. In addition, laws in all 50 U.S. states require businesses to provide notice to consumers whose personal information has been disclosed as a result of a data breach. State laws are changing rapidly and there is discussion in the U.S. Congress of a new comprehensive federal data privacy law to which we would become subject if it is enacted.

Furthermore, regulations promulgated pursuant to the Health Insurance Portability and Accountability Act of 1996 (HIPAA), establish privacy and security standards that limit the use and disclosure of individually identifiable health information (known as “protected health information”) and require the implementation of administrative, physical and technological safeguards to protect the privacy of protected health information and ensure the confidentiality, integrity and availability of electronic protected health information. Determining whether protected health information has been handled in compliance with applicable privacy standards and our contractual obligations can require complex factual and statistical analyses and may be subject to changing interpretation. Although we take measures to protect sensitive data from unauthorized access, use or disclosure, our information technology and infrastructure may be vulnerable to attacks by hackers or viruses or breached due to employee error, malfeasance or other malicious or inadvertent disruptions. Any such breach or interruption could compromise our networks and the information stored there could be accessed by unauthorized parties, manipulated, publicly disclosed, lost or stolen. Any such access, breach or other loss of information could result in legal claims or proceedings, and liability under

federal or state laws that protect the privacy of personal information, such as the HIPAA, the Health Information Technology for Economic and Clinical Health Act (HITECH), and regulatory penalties. Notice of breaches must be made to affected individuals, the Secretary of the Department of Health and Human Services, and for extensive breaches, notice may need to be made to the media or State Attorneys General. Such a notice could harm our reputation and our ability to compete.

We are in the process of evaluating compliance needs, but do not currently have in place formal policies and procedures related to the storage, collection and processing of information, and have not conducted any internal or external data privacy audits, to ensure our compliance with all applicable data protection laws and regulations. Additionally, we do not currently have policies and procedures in place for assessing our third-party vendors' compliance with applicable data protection laws and regulations. All of these evolving compliance and operational requirements impose significant costs, such as costs related to organizational changes, implementing additional protection technologies, training employees and engaging consultants, which are likely to increase over time. In addition, such requirements may require us to modify our data processing practices and policies, distract management or divert resources from other initiatives and projects, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects. Any failure or perceived failure by us or our third-party vendors, collaborators, contractors and consultants to comply with any applicable federal, state or similar foreign laws and regulations relating to data privacy and security, or could result in damage to our reputation, as well as proceedings or litigation by governmental agencies or other third parties, including class action privacy litigation in certain jurisdictions, which would subject us to significant fines, sanctions, awards, penalties or judgments, all of which could have a material adverse effect on our business, financial condition, results of operations and prospects.

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

Unregistered Sales of Equity Securities

None during the nine months ended September 30, 2021.

Use of Proceeds from Public Offering of Common Stock

On December 8, 2020, we closed our initial public offering, or IPO, of 10,592,106 shares of common stock (inclusive of 1,381,579 shares of common stock from the full exercise of the overallotment option of shares granted to the underwriters). The offer and sale of all of the shares in the initial public offering were registered under the Securities Act pursuant to a registration statement on Form S-1 (File Nos. 333-250035 and 333-251116), which was declared effective by the SEC on December 3, 2020. J.P. Morgan Securities LLC, Morgan Stanley & Co. LLC, BofA Securities, Inc. and Cowen and Company, LLC acted as the underwriters. The public offering price of the shares sold in the offering was $19.00 per share. The total gross proceeds from the offering were $201.3 million.

After deducting underwriting discounts and commissions of $14.1 million and offering expenses paid or payable by us of approximately $3.3 million, the net proceeds from the offering were approximately $183.9 million.

There has been no material change in the planned use of proceeds from our IPO as described in our final IPO prospectus filed with the SEC on December 4, 2020 pursuant to rule 424(b) of the Securities Act. We invested the funds received in short-term and long-term, interest-bearing investment-grade securities and government securities.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosure

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

Exhibit Number	Description	Form	File No.	Exhibit	Filing Date
31.1†	Certification of Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
31.2†	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.				
32.1†	Certification of Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
32.2†	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.				
101.INS	XBRL Instance Document				
101.SCH	XBRL Taxonomy Extension Schema Document				
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document				
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document				
101.LAB	XBRL Taxonomy Extension Label Linkbase Document				
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document				

† The certifications attached as Exhibit 31.1, 31.2, 32.1 and 32.2 that accompany this Quarterly Report on Form 10-Q, are deemed furnished and not filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of the Registrant under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended, whether made before or after the date of this Quarterly Report on Form 10-Q, irrespective of any general incorporation language contained in such filing.

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.

SEER, INC.

Date: November 9, 2021

By: /s/ Omid Farokhzad, M.D.

Omid Farokhzad, M.D.
Chief Executive Officer and
Chair of the Board of Directors
(*Principal Executive Officer*)

Date: November 9, 2021

By: /s/ David R. Horn

David R. Horn
Chief Financial Officer
(*Principal Financial Officer and Accounting Officer*)

Ex. 31.1

CERTIFICATION PURSUANT TO RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Omid Farokhzad, certify that:

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

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

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

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

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

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

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

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

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

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

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

Ex. 31.1

Date: November 9, 2021

By: /s/ Omid Farokhzad
Omid Farokhzad
Chief Executive Officer and Chair of the Board of Directors
(Principal Executive Officer)

Ex. 31.2

CERTIFICATION PURSUANT TO RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934, AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, David Horn, certify that:

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

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

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

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

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

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

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

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

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

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

Ex. 31.2

Date: November 9, 2021

By: /s/ David Horn
David Horn
Chief Financial Officer
(Principal Financial and Accounting Officer)

Ex. 32.1

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

In connection with the Quarterly Report of Seer, Inc. (the "Company") on Form 10-Q for the period ended September 30, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Omid Farokhzad, hereby certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; 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, 2021

By: /s/ Omid Farokhzad
Omid Farokhzad
Chief Executive Officer and Chair of the Board of Directors
(Principal Executive Officer)

Ex. 32.2

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER 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 of Seer, Inc. (the "Company") on Form 10-Q for the period ended September 30, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, David Horn, hereby certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; 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, 2021

By: /s/ David Horn
David Horn
Chief Financial Officer
(Principal Financial Officer and Accounting Officer)