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

FORM 10-Q

(Mark One)

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

For the quarterly period ended March 31, 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: 001-38319

QUANTERIX CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	**20-8957988**
(State or other jurisdiction of incorporation or organization)	(IRS Employer Identification No.)
900 Middlesex Turnpike **Billerica, MA**	**01821**
(Address of principal executive offices)	(Zip Code)

Registrant's telephone number, including area code: **(617) 301-9400**

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

Title of each class:	Trading Symbol(s)	Name of each exchange on which registered:
Common Stock, $0.001 par value per share	QTRX	The Nasdaq Global 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	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☒

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

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

As of April 30, 2021, the registrant had 36,336,598 shares of common stock, $0.001 par value per share, outstanding.

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Special Note Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q contains forward-looking statements that involve risks and uncertainties. All statements other than statements of historical facts contained in this Quarterly Report on Form 10-Q are forward-looking statements. In some cases, you can identify forward-looking statements by words such as “anticipate,” “believe,” “contemplate,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “plan,” “potential,” “predict,” “project,” “seek,” “should,” “target,” “will,” “would,” or the negative of these words or other comparable terminology. These forward-looking statements include, but are not limited to, statements about our financial performance, and are subject to a number of risks, uncertainties and assumptions, including those described in this Quarterly Report on Form 10-Q and in “Part I, Item 1A, Risk Factors” of our Annual Report on Form 10-K for the year ended December 31, 2020 or other filings that we make with the Securities and Exchange Commission, or SEC. Moreover, we operate in a very competitive and rapidly changing environment, and new risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this Quarterly Report on Form 10-Q may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance, events or circumstances reflected in the forward-looking statements will be achieved or occur. You should read this Quarterly Report on Form 10-Q, and the documents that we reference herein and have filed with the SEC, with the understanding that our actual future results, levels of activity, performance, and events and circumstances may be materially different from what we expect. We undertake no obligation to update publicly any forward-looking statements for any reason after the date of this Quarterly Report on Form 10-Q to conform these statements to new information, actual results or to changes in our expectations, except as required by law.

Unless the context otherwise requires, the terms “Quanterix,” the “Company,” “we,” “us” and “our” in this Quarterly Report on Form 10-Q refer to Quanterix Corporation and its subsidiaries. “Quanterix,” “Simoa,” “Simoa HD-X,” “Simoa HD-1,” “SR-X,” “SP-X,” “HD-X Analyzer,” “HD-1 Analyzer” and our logo are our trademarks. All other service marks, trademarks and trade names appearing in this Quarterly Report on Form 10-Q are the property of their respective owners. We do not intend our use or display of other companies’ trade names, trademarks or service marks to imply a relationship with, or endorsement or sponsorship of us by, these other companies.

PART I — FINANCIAL INFORMATION

Item 1. Financial Statements

Quanterix Corporation
Condensed Consolidated Balance Sheets
(amounts in thousands, except share and per share data)

	March 31, 2021	December 31, 2020
Assets		
Current assets:		
Cash and cash equivalents	$ 442,672	$ 181,584
Accounts receivable (less allowance for credit losses of $342 and $370 as of March 31, 2021 and December 31, 2020, respectively; including $137 and $172 due from related parties as of March 31, 2021 and December 31, 2020, respectively)	14,936	17,184
Inventory	17,044	14,856
Prepaid expenses and other current assets	7,791	5,981
Total current assets	482,443	219,605
Restricted cash	1,400	1,000
Property and equipment, net	14,183	13,912
Intangible assets, net	12,464	13,716
Goodwill	9,933	10,460
Right-of-use assets	11,870	11,995
Other non-current assets	373	357
Total assets	$ 532,666	$ 271,045
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable (including $6 and $14 to related parties as of March 31, 2021 and December 31, 2020, respectively)	$ 6,503	$ 6,799
Accrued compensation and benefits	7,015	10,777
Other accrued expenses (including $4 and $1,377 to related parties as of March 31, 2021 and December 31, 2020, respectively)	5,603	4,845
Deferred revenue (including $76 and $90 with related parties as of March 31, 2021 and December 31, 2020, respectively)	6,420	5,421
Current portion of long term debt	7,694	7,673
Short term lease liabilities	1,271	1,234
Other current liabilities	1,985	3,054
Total current liabilities	36,491	39,803
Deferred revenue, net of current portion	776	577
Long term lease liabilities	21,552	21,891
Other non-current liabilities	2,378	2,649
Total liabilities	61,197	64,920
Stockholders' equity:		
Common stock, $0.001 par value:		
Authorized—120,000,000 shares as of March 31, 2021 and December 31, 2020; issued and outstanding — 36,294,928 and 31,796,544 shares as of March 31, 2021 and December 31, 2020, respectively	36	32
Additional paid-in capital	728,128	451,433
Accumulated other comprehensive income	1,183	2,434
Accumulated deficit	(257,878)	(247,774)
Total stockholders' equity	471,469	206,125
Total liabilities and stockholders' equity	$ 532,666	$ 271,045

See accompanying notes

Quanterix Corporation
Condensed Consolidated Statements of Operations
(amounts in thousands, except share and per share data)
(Unaudited)

	Three Months Ended March 31,	
	2021	2020
Product revenue (including related party activity of $92 and $120 for the three months ended March 31, 2021 and 2020, respectively)	$ 18,248	$ 9,833
Service and other revenue (including related party activity of $24 for each of the three months ended March 31, 2021 and 2020)	6,409	5,762
Collaboration and license revenue	261	132
Grant revenue	2,291	—
Total revenue	27,209	15,727
Costs of goods sold:		
Cost of product revenue (including related party activity of $570 and $63 for the three months ended March 31, 2021 and 2020, respectively)	7,480	6,186
Cost of services and other revenue (including related party activity of $17 and $0 for the three months ended March 31, 2021 and 2020, respectively)	3,380	2,728
Total costs of goods sold and services	10,860	8,914
Gross profit	16,349	6,813
Operating expenses:		
Research and development (including related party activity of $8 and $0 for the three months ended March 31, 2021 and 2020, respectively)	6,683	4,268
Selling, general, and administrative (including related party activity of $14 and $0 for the three months ended March 31, 2021 and 2020, respectively)	19,455	14,273
Total operating expenses	26,138	18,541
Loss from operations	(9,789)	(11,728)
Interest (expense) income, net	(163)	161
Other expense, net	(194)	(167)
Loss before income taxes	(10,146)	(11,734)
Income tax benefit	42	124
Net loss	$ (10,104)	$ (11,610)
Net loss per share, basic and diluted	$ (0.29)	$ (0.41)
Weighted-average common shares outstanding, basic and diluted	34,434,931	28,179,132

See accompanying notes

Quanterix Corporation
Condensed Consolidated Statements of Comprehensive Loss
(amounts in thousands)
(Unaudited)

	Three Months Ended March 31,	
	2021	2020
Net loss	$ (10,104)	$ (11,610)
Other comprehensive loss:		
Cumulative translation adjustment	(1,251)	(1,047)
Total other comprehensive loss	(1,251)	(1,047)
Comprehensive loss	$ (11,355)	$ (12,657)

See accompanying notes

Quanterix Corporation
Condensed Consolidated Statements of Cash Flows
(amounts in thousands)
(Unaudited)

	Three Months Ended March 31,	
	2021	2020
Operating activities		
Net loss	$ (10,104)	$ (11,610)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization expense	1,151	1,046
Inventory step-up amortization	164	438
Credit loss expense on accounts receivable	20	—
Reduction in the carrying amounts of right-of-use assets	128	—
Stock-based compensation expense	3,386	2,109
Non-cash interest expense	22	22
Loss on disposal of fixed assets	—	69
Changes in operating assets and liabilities:		
Accounts receivable	2,227	(1,174)
Prepaid expenses and other assets	(1,744)	(495)
Inventory	(2,327)	(1,398)
Other non-current assets	(16)	32
Accounts payable	(2,109)	(1,145)
Accrued compensation and benefits, other accrued expenses and other current liabilities	(5,598)	(1,710)
Contract acquisition costs	(72)	(110)
Operating lease liabilities	(307)	253
Other non-current liabilities	(107)	(177)
Deferred revenue	1,197	671
Net cash used in operating activities	(14,089)	(13,179)
Investing activities		
Purchases of property and equipment	(79)	(426)
Proceeds from RADx grant on assets purchased	2,514	—
Net cash provided by (used in) investing activities	2,435	(426)
Financing activities		
Proceeds from stock options exercised	3,076	496
Sale of common stock in underwritten public offering, net	269,718	—
Proceeds from ESPP purchase	519	440
Payments on notes payable	—	(75)
Net cash provided by financing activities	273,313	861
Net increase (decrease) in cash and cash equivalents	261,659	(12,744)
Effect of foreign currency exchange rate on cash	(171)	(78)
Cash, restricted cash, and cash equivalents at beginning of period	182,584	110,181
Cash, restricted cash, and cash equivalents at end of period	$ 444,072	$ 97,359
Supplemental cash flow information		
Cash paid for interest	$ 154	$ 155
Purchases of property and equipment included in accounts payable	$ 3,341	$ 102
Reconciliation of cash, cash equivalents, and restricted cash:		
Cash and cash equivalents	$ 442,672	$ 96,359
Restricted cash	$ 1,400	$ 1,000
Total cash, cash equivalents, and restricted cash	$ 444,072	$ 97,359

See accompanying notes

Quanterix Corporation
Condensed Consolidated Statements of Stockholders' Equity
(amounts in thousands, except share data)
(Unaudited)

	Common stock shares	Common stock value	Additional paid-in capital	Accumulated other comprehensive income (loss)	Accumulated deficit	Total stockholders' equity
Balance at December 31, 2020	**31,796,544**	**$ 32**	**$ 451,433**	**$ 2,434**	**$ (247,774)**	**$ 206,125**
Exercise of common stock option and warrants and vesting of restricted stock	374,017	—	3,076	—	—	3,076
Sale of common stock in underwritten public offering, net	4,107,142	4	269,714	—	—	269,718
ESPP stock purchase	17,225	—	519	—	—	519
Stock-based compensation expense	—	—	3,386	—	—	3,386
Cumulative translation adjustment	—	—	—	(1,251)	—	(1,251)
Net loss	—	—	—	—	(10,104)	(10,104)
Balance at March 31, 2021	**36,294,928**	**$ 36**	**$ 728,128**	**$ 1,183**	**$ (257,878)**	**$ 471,469**

	Common stock shares	Common stock value	Additional paid-in capital	Accumulated other comprehensive income (loss)	Accumulated deficit	Total stockholders' equity
Balance at December 31, 2019	**28,112,201**	**$ 28**	**$ 345,027**	**$ (153)**	**$ (216,244)**	**$ 128,658**
Exercise of common stock options and vesting of restricted stock	108,548	—	496	—	—	496
ESPP stock purchase	22,693	—	440	—	—	440
Stock-based compensation expense	—	—	2,109	—	—	2,109
Cumulative translation adjustment	—	—	—	(1,047)	—	(1,047)
Net loss	—	—	—	—	(11,610)	(11,610)
Balance at March 31, 2020	**28,243,442**	**$ 28**	**$ 348,072**	**$ (1,200)**	**$ (227,854)**	**$ 119,046**

See accompanying notes

Quanterix Corporation
Notes to condensed consolidated financial statements
(Unaudited)

1. Organization and operations

Quanterix Corporation (Nasdaq: QTRX) (the Company) is a life sciences company that has developed next generation, ultra-sensitive digital immunoassay platforms that advance precision health for life sciences research and diagnostics. The Company's platforms are based on its proprietary digital "Simoa" detection technology. The Company's Simoa bead-based and planar array platforms enable customers to reliably detect protein biomarkers in extremely low concentrations in blood, serum and other fluids that, in many cases, are undetectable using conventional, analog immunoassay technologies, and also allow researchers to define and validate the function of novel protein biomarkers that are only present in very low concentrations and have been discovered using technologies such as mass spectrometry. These capabilities provide the Company's customers with insight into the role of protein biomarkers in human health that has not been possible with other existing technologies and enable researchers to unlock unique insights into the continuum between health and disease. The Company is currently focusing on protein detection, which it believes is an area of significant unmet need and where it has significant competitive advantages. However, in addition to enabling new applications and insights in protein analysis, the Company’s Simoa platforms have also demonstrated applicability across other testing applications, including detection of nucleic acids and small molecules.

The Company launched its first immunoassay platform, the Simoa HD-1, in 2014. The HD-1 is a fully automated immunoassay bead-based platform with multiplexing and custom assay capability, and related assay test kits and consumable materials. The Company launched a second bead-based immunoassay platform (SR-X) in the fourth quarter of 2017 with a more compact footprint than the Simoa HD-1 and less automation designed for lower volume requirements while still allowing multiplexing and custom assay capability. The Company initiated an early-access program for its third instrument (SP-X) on the new Simoa planar array platform in January 2019, with the full commercial launch commencing in April 2019. In July 2019, the Company launched the Simoa HD-X, an upgraded version of the Simoa HD-1 which replaces the HD-1. The HD-X has been designed to deliver significant productivity and operational efficiency improvements, as well as greater user flexibility. The Company began shipping and installing HD-X instruments at customer locations in the third quarter of 2019. The Company also performs research services on behalf of customers to apply the Simoa technology to specific customer needs. The Company's customers are primarily in the research use only market, which includes academic and governmental research institutions, the research and development laboratories of pharmaceutical manufacturers, contract research organizations, and specialty research laboratories.

The Company acquired Aushon Biosystems, Inc. (Aushon) in January 2018. With the acquisition of Aushon, the Company acquired a CLIA certified laboratory, as well as Aushon's proprietary sensitive planar array detection technology. Leveraging its proprietary sophisticated Simoa image analysis and data analysis algorithms, the Company further refined this planar array technology to develop the SP-X instrument to provide the same Simoa sensitivity found in its bead-based platform.

The Company completed the acquisition of UmanDiagnostics AB (Uman), a Swedish company located in Umea, Sweden, in August 2019. Uman supplies neurofilament light (Nf-L) antibodies and ELISA kits, which are widely recognized by researchers and biopharmaceutical and diagnostics companies world-wide as the premier solution for the detection of Nf-L to advance the development of therapeutics and diagnostics for neurodegenerative conditions. With the acquisition of Uman, the Company has secured a long-term source of supply for a critical technology.

Underwritten public offerings

On August 6, 2020, the Company entered into an underwriting agreement with Leerink and Cowen, as representatives of the several underwriters, relating to an underwritten public offering of approximately 3.0 million shares of the Company’s common stock, par value $0.001 per share. The underwritten public offering resulted in gross proceeds of $97.6 million. The Company incurred $6.2 million in issuance costs associated with the underwritten public offering, resulting in net proceeds to the Company of $91.4 million.

On February 3, 2021, the Company entered into an underwriting agreement with Goldman Sachs & Co. LLC, SVB Leerink LLC, and Cowen, as representatives of the several underwriters, relating to an underwritten public offering of approximately 4.1 million shares of the Company's common stock, par value $0.001 per share. The underwritten public offering resulted in gross proceeds of $287.5 million. The Company incurred $17.8 million in issuance costs associated with the underwritten public offering, resulting in net proceeds to the Company of $269.7 million.

Basis of presentation

The interim condensed consolidated financial statements are unaudited. The unaudited condensed consolidated financial statements reflect, in the opinion of the Company's management, all adjustments, consisting of only normal recurring adjustments, necessary for a fair presentation of financial position, results of operations, comprehensive loss and cash flows for each period presented in accordance with United States generally accepted accounting principles (U.S. GAAP) for interim financial information and with the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, certain information and disclosures normally included in financial statements prepared in accordance with U.S. GAAP have been condensed or omitted. These interim condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and related notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2020 filed with the Securities and Exchange Commission on March 5, 2021 (the 2020 Annual Report on Form 10-K). The consolidated financial information as of December 31, 2020 has been derived from the audited 2020 consolidated financial statements included in the 2020 Annual Report on Form 10-K.

2. Significant accounting policies

Principles of consolidation

The condensed consolidated financial statements have been prepared in accordance with U.S. GAAP and include the accounts of Quanterix Corporation and its wholly-owned subsidiaries. All material intercompany transactions and balances have been eliminated in consolidation.

Use of estimates

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 the consolidated financial statements and accompanying notes. In making those estimates and assumptions, the Company bases its estimates on historical experience and on various other assumptions believed to be reasonable. The Company's significant estimates included in the preparation of the consolidated financial statements are related to revenue recognition, fair value of assets acquired and liabilities assumed in acquisitions, valuation allowances recorded against deferred tax assets, and valuation of inventory. Actual results could differ from those estimates.

Foreign currency

The Company translates assets and liabilities of its foreign subsidiaries at rates in effect at the end of the reporting period. Revenues and expenses are translated at average rates in effect during the reporting period. Translation adjustments are included in accumulated other comprehensive income.

Income taxes

The Company recognizes deferred tax assets and liabilities for the expected future tax consequences of events that have been recognized in the Company's consolidated financial statements or tax returns. Under this method, deferred tax assets and liabilities are determined based on differences between the consolidated financial statement carrying amounts and the tax bases of the assets and liabilities using the enacted tax rates in effect in the years in which the differences are expected to reverse. A valuation allowance against deferred tax assets is recorded if, based on the weight of the available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

The Company accounts for uncertain tax positions in accordance with the provisions of Accounting Standards Codification (ASC) 740, *Income Taxes* (ASC 740). When uncertain tax positions exist, the Company recognizes the tax benefit of tax positions to the extent that the benefit will more likely than not be realized. The determination as to whether the tax benefit will more likely than not be realized is based upon the technical merits of the tax position as well as consideration of the available facts and circumstances. As of March 31, 2021 the Company did not have any significant uncertain tax positions.

Business combinations

Under the acquisition method of accounting, the Company generally recognizes the tangible and identifiable intangible assets acquired and liabilities assumed based on their estimated fair values on the date of acquisition. The fair values assigned, defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between willing market participants, are based on estimates and assumptions determined by management. The excess consideration over the aggregate value of tangible and intangible assets, net of liabilities assumed, is recorded as goodwill. These valuations require significant estimates and assumptions, especially with respect to intangible assets.

The Company typically uses the discounted cash flow method to value acquired intangible assets. This method requires significant management judgment to forecast future operating results and establish residual growth rates and discount factors. The estimates used to value and amortize intangible assets are consistent with the plans and estimates that are used to manage the business and are based on available historical information and industry estimates and averages. If the subsequent actual results and updated projections of the underlying business activity change compared with the assumptions and projections used to develop these values, the Company could experience impairment charges. In addition, the Company has estimated the economic lives of certain acquired assets and these lives are used to calculate depreciation and amortization expense. If estimates of the economic lives change, depreciation or amortization expenses could be accelerated or slowed.

Restricted cash

Restricted cash primarily represents collateral for a letter of credit issued as security for the lease for the Company's headquarters in Billerica, Massachusetts, and to secure the Company's corporate credit card program. The restricted cash is long term in nature as the Company will not have access to the funds until more than one year from March 31, 2021.

Recent accounting pronouncements

The Company is considered to be an "emerging growth company" (EGC) as defined in the Jumpstart Our Business Startups Act of 2012, as amended (JOBS Act). The JOBS Act provides that an EGC can take advantage of an extended transition period for complying with new or revised accounting standards. Thus, an EGC can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. The Company may remain an EGC until the last day of the fiscal year in which the fifth anniversary of the closing of the initial public offering occurs, although if the market value the Company's common stock that is held by non-affiliates exceeds $700 million as of any June 30 before that time or if the Company has annual gross revenues of $1.07 billion or more in any fiscal year, the Company would cease to be an EGC as of December 31 of the applicable year. The Company also would cease to be an EGC if it issues more than $1 billion of non-convertible debt over a three-year period. The Company has elected to avail itself of this extended transition period and, as a result, the Company will not be required to adopt new or revised accounting standards on the relevant dates on which adoption of such standards is required for other public companies so long as the Company remains an EGC.

Recently Adopted

In June 2016, the Financial Accounting Standards Board (FASB) established Topic 326, *Financial Instruments — Credit Losses: Measurement of Credit Losses on Financial Instruments* (ASC 326) by issuing Accounting Standards Update (ASU) No. 2016-13 (ASU 2016-13), which amends the impairment model by requiring entities to use a forward-

looking approach based on expected losses to estimate credit losses on certain types of financial instruments, including trade receivables and available-for-sale debt securities. The Company early adopted ASU 2016-13 on January 1, 2021 using the modified retrospective approach. The Company's consolidated financial statements for prior-year periods have not been revised and are reflective of the credit loss requirements which were in effect for that period. The adoption of ASU 2016-13 did not have a material impact on the Company's consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-15, *Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract* (ASU 2018-15). This ASU addresses the accounting for implementation, setup and other upfront costs paid by a customer in a cloud computing or hosting arrangement. The guidance aligns the accounting treatment of these costs incurred in a hosting arrangement treated as a service contract with the requirements for capitalization and amortization costs to develop or obtain internal-use software. The Company adopted ASU 2018-15 on January 1, 2021 using the prospective method. The Adoption of ASU 2018-15 did not have a material impact on the Company's consolidated financial statements.

In December 2019, the FASB issued ASU No. 2019-12, *Simplifying the Accounting for Income Taxes* (ASU 2019-12), which is intended to simplify various areas related to ASC 740, *Income Taxes* (ASC 740). ASU 2019-12 removes certain exceptions for performing intra period tax allocations and calculating income taxes in interim periods. The guidance also simplifies the accounting for transactions that result in a step-up in the tax basis of goodwill and the effect of enacted changes in tax laws or rates in interim periods. The Company early adopted ASU 2019-12 on January 1, 2021. The adoption of ASU 2019-12 did not have a material impact on the Company's consolidated financial statements.

There have been no other material changes to the significant accounting policies and recent accounting pronouncements previously disclosed in the 2020 Annual Report on Form 10-K.

3. Revenue recognition

The Company recognizes revenue when a customer obtains control of a promised good or service. The amount of revenue recognized reflects consideration that the Company expects to be entitled to receive in exchange for these goods and services, incentives and taxes collected from customers, that are subsequently remitted to governmental authorities.

Customers

The Company's customers primarily consist of entities engaged in the life sciences research market that pursue the discovery and development of new drugs for a variety of neurologic, cardiovascular, oncologic and other protein biomarkers associated with diseases. The Company's customer base includes several of the largest biopharmaceutical companies, academic research organizations and distributors who serve certain geographic markets.

Product revenue

The Company's products are composed of analyzer instruments, assay kits and other consumables such as reagents. Products are sold directly to biopharmaceutical and academic research organizations or are sold through distributors in EMEA and Asia Pacific regions. The sales of instruments are generally accompanied by an initial year of implied service-type warranties and may be bundled with assays and other consumables and may also include other items such as training and installation of the instrument and/or an extended service warranty. Revenues from the sale of products are recognized at a point in time when the Company transfers control of the product to the customer, which is upon installation for instruments sold to direct customers, and based upon shipping terms for assay kits and other consumables. Revenue for instruments sold to distributors is generally recognized based upon shipping terms (either upon shipment or delivery).

Service and other revenue

Service revenues are composed of contract research services, initial implied one-year service-type warranties, extended services contracts and other services such as training. Contract research services are provided through the Company's Accelerator Laboratory and generally consist of fixed fee contracts. Revenues from contract research services are recognized at a point in time when the Company completes and delivers its research report on each individually completed study, or over time if the contractual provisions allow for the collection of transaction consideration for costs incurred plus a reasonable margin through the period of performance of the services. Revenues from service-type warranties are recognized ratably over the contract service period. Revenues from other services are immaterial.

Collaboration and license revenue

The Company may enter into agreements to license the intellectual property and know-how associated with its instruments and certain antibodies in exchange for license fees and future royalties (as described below). The license agreements provide the licensee with a right to use the intellectual property with the license fee revenues recognized at a point in time as the underlying license is considered functional intellectual property.

Payment terms

The Company's payment terms vary by the type and location of the customer and the products or services offered. Payment from customers is generally required in a term ranging from 30 to 45 days from date of shipment or satisfaction of the performance obligation. The Company does not provide financing arrangements to its customers.

Disaggregated revenue

When disaggregating revenue, the Company considered all of the economic factors that may affect its revenues. The following tables disaggregate the Company's revenue from contracts with customers by revenue type (in thousands):

	Three Months Ended March 31, 2021			
(in thousands)	NA	EMEA	Asia Pacific	Total
Product revenues				
Instruments	$ 3,756	$ 2,833	$ 372	$ 6,961
Consumable and other products	6,911	3,493	883	11,287
Totals	$ 10,667	$ 6,326	$ 1,255	$ 18,248
Service and other revenues				
Service-type warranties	$ 971	$ 438	$ 62	$ 1,471
Research services	3,558	728	12	4,298
Other services	456	184	—	640
Totals	$ 4,985	$ 1,350	$ 74	$ 6,409
Collaboration and license revenue				
Collaboration and license revenue	$ 187	$ 74	$ —	$ 261
Totals	$ 187	$ 74	$ —	$ 261

(in thousands)	Three Months Ended March 31, 2020 NA	EMEA	Asia Pacific	Total
Product revenues				
Instruments	$ 1,753	$ 726	$ 1,209	$ 3,688
Consumable and other products	2,924	2,704	517	6,145
Totals	$ 4,677	$ 3,430	$ 1,726	$ 9,833
Service and other revenues				
Service-type warranties	$ 748	$ 379	$ 52	$ 1,179
Research services	3,667	82	538	4,287
Other services	231	60	5	296
Totals	$ 4,646	$ 521	$ 595	$ 5,762
Collaboration and license revenue				
Collaboration and license revenue	$ 122	$ 10	$ —	$ 132
Totals	$ 122	$ 10	$ —	$ 132

The Company's contracts with customers may include promises to transfer multiple products and services to a customer. The Company combines any performance obligations that are immaterial with one or more other performance obligations that are material to the contract. For arrangements with multiple performance obligations, the Company allocates the contract transaction price, including discounts, to each performance obligation based on its relative standalone selling price. Judgment is required to determine the standalone selling price for each distinct performance obligation. The Company determines standalone selling prices based on prices charged to customers in observable transactions, and uses a range of amounts to estimate standalone selling prices for each performance obligation. The Company may have more than one range of standalone selling price for certain products and services based on the pricing for different customer classes.

Variable consideration in the Company's contracts primarily relates to (i) sales- and usage-based royalties related to the license of intellectual property in collaboration and license contracts and (ii) certain non-fixed fee research services contracts. ASC 606 provides for an exception to estimating the variable consideration for sales- and usage-based royalties related to the license of intellectual property, such that the sales- and usage-based royalty will be recognized in the period the underlying transaction occurs. The Company recognizes revenue from sales- and usage-based royalty revenue at the later of when the sale or usage occurs and the satisfaction or partial satisfaction of the performance obligation to which the royalty has been allocated.

The aggregate amount of transaction price that is allocated to performance obligations that have not yet been satisfied or are partially satisfied as of March 31, 2021 and 2020 is $7.2 million and $5.8 million, respectively. As of March 31, 2021, of the performance obligations not yet satisfied or partially satisfied, $6.4 million is expected to be recognized as revenue in the next 12 months, with the remainder to be recognized within the 24 months thereafter. The $6.4 million at March 31, 2021 principally consists of amounts billed for undelivered services related to initial and extended service-type warranties and research services, as well as $0.5 million related to undelivered licenses of intellectual property for a diagnostics company (see Note 13).

Changes in deferred revenue from contracts with customers were as follows (in thousands):

	Three Months Ended March 31, 2021
Balance at December 31, 2020	$ 5,998
Deferral of revenue	2,669
Recognition of deferred revenue	(1,471)
Balance at March 31, 2021	$ 7,196

Costs to obtain a contract

The Company's sales commissions are generally based on revenues of the Company. The Company has determined that certain commissions paid under its sales incentive programs meet the requirements to be capitalized as they are incremental and would not have occurred absent a customer contract. The change in the balance of costs to obtain a contract are as follows (in thousands):

	Three Months Ended March 31, 2021
Balance at December 31, 2020	$ 248
Deferral of costs to obtain a contract	88
Recognition of costs to obtain a contract	(160)
Balance at March 31, 2021	$ 176

The Company has classified the balance of capitalized costs to obtain a contract as a component of prepaid expenses and other current assets and classifies the expense as a component of cost of goods sold and selling, general, and administrative expense over the estimated life of the contract. The Company considers potential impairment in these amounts each period.

ASC 606 provides entities with certain practical expedients and accounting policy elections to minimize the cost and burden of adoption.

The Company does not disclose the value of unsatisfied performance obligations for (i) contracts with original expected length of one year or less and (ii) contracts for which revenue is recognized at the amount to which the Company has the right to invoice for services performed.

The Company will exclude from its transaction price any amounts collected from customers related to sales and other similar taxes.

When determining the transaction price of a contract, an adjustment is made if payment from a customer occurs either significantly before or significantly after performance, resulting in a significant financing component. The Company does not assess whether a significant financing component exists if the period between when the Company performs its obligations under the contract and when the customer pays is one year or less. None of the Company's contracts contained a significant financing component as of March 31, 2021 and 2020, respectively.

The Company has elected to account for the shipping and handling as an activity to fulfill the promise to transfer the product, and therefore will not evaluate whether shipping and handling activities are promised services to its customers.

Grant revenue

The Company recognizes grant revenue as it performs services under the arrangement when the funding is committed. Revenues and related research and development expenses are presented gross in the consolidated statements of operations as the Company has determined it is the primary obligor under the arrangement relative to the research and development services.

Accounting for grants does not fall under ASC 606, as the grantor will not benefit directly from the Company's expansion or product development. As there is no authoritative guidance under U.S. GAAP on accounting for government assistance to for-profit business entities, the Company has accounted for grants by analogy to International Accounting Standards (IAS) 20, *Accounting for Government Grants and Disclosure of Government Assistance* (IAS 20).

Grants to the Company contain both monetary amounts granted related to assets and monetary amounts granted related to income, which are grants other than those related to assets. The grants related to assets are for the expansion

and increase of manufacturing capacity. The grants related to income are for additional research and development, as well as other non-asset related scale up costs.

Under IAS 20, grants related to assets shall be presented in the consolidated balance sheets either by recognizing the grant as deferred income (which is recognized in the consolidated statements of operations on a systematic basis over the useful life of the asset), or by deducting the grant in calculating the carrying amount of the asset (which is recognized in the consolidated statements of operations over the life of the depreciable asset as a reduced depreciation expense). Both methods are acceptable under IAS 20. The Company has elected to record grants related to assets as a deduction in calculating the carrying value of the asset.

Under IAS 20, grants related to income are presented as part of the consolidated statements of operations, either separately or under a general heading. Both methods are acceptable under IAS 20. The Company has elected to record grants related to income separately on the consolidated statements of operations as grant revenue. The related expenses are recorded within operating expenses.

On June 22, 2020, the Company entered into a workplan 1 award (WP1) with the National Institute of Health (NIH), under the Rapid Acceleration of Diagnostics (RADx) program to assess the feasibility of a novel SARS-CoV-2 antigen detection test using the Company's Simoa technology. WP1 was complete as of December 31, 2020.

On September 29, 2020, the Company entered into a workplan 2 award (WP2) with the NIH under its RADx program. WP2, which has a total award value of $18.2 million, accelerates the continued development, scale-up, and deployment of the novel SARS-CoV-2 antigen detection test using the Company's Simoa technology. The contract provides funding to expand assay kit manufacturing capacity and commercial deployment readiness. Release of the $18.2 million of funding under WP2 is based on the achievement of certain milestones, and there is no assurance that the Company can meet all the milestones on a timely basis, if at all. If the Company does not meet all of the milestones, it will not be able access the full $18.2 million in funding under the contract. During the three months ended March 31, 2021 the Company recognized $2.3 million in grant revenue and incurred $1.8 million in research and development expense related to WP2.

The following table summarizes the activity under WP2 (in thousands):

	March 31, 2021	December 31, 2020
Total grant revenue from research and development activities	$ 6,653	$ 4,362
Total proceeds used for assets	4,622	826
Total deferred proceeds for assets	1,159	2,478
Total deferred grant revenue	500	304
Total recognized	$ 12,934	$ 7,970
Total recognized	$ 12,934	$ 7,970
Total amount accrued	(2,961)	(2,968)
Total cash received	$ 9,973	$ 5,002
Total proceeds received	$ 9,973	$ 5,002
Total proceeds reasonably assured	8,227	13,198
Total WP2 grant amount	$ 18,200	$ 18,200

4. Net loss per share

Basic net loss per common share is calculated by dividing the net loss by the weighted-average number of common shares outstanding during the period, without consideration for potentially dilutive securities. Diluted net loss per share is computed by dividing the net loss by the weighted-average number of common shares and potentially

dilutive securities outstanding for the period determined using the treasury-stock and if-converted methods. For purposes of the diluted net loss per share calculation, unvested restricted common stock, restricted stock units, stock options, and warrants are considered to be potentially dilutive securities, but are excluded from the calculation of diluted net loss per share because their effect would be anti-dilutive and therefore basic and diluted net loss per share were the same for all periods presented.

The following table sets forth the outstanding potentially dilutive securities that have been excluded in the calculation of diluted net loss per share because to do so would be anti-dilutive (in common stock equivalent shares):

	March 31,	
	2021	2020
Unvested restricted common stock and restricted stock units	563,810	561,786
Outstanding stock options	2,428,268	2,840,525
Outstanding common stock warrants	—	10,000
Total	2,992,078	3,412,311

As of March 31, 2021 and 2020, the Company had an obligation to issue warrants to purchase an additional 93,341 shares of common stock to a vendor if a contract is terminated prior to a minimum purchase commitment being met. No amounts are presented in the table above for this obligation to issue a warrant as the issuance of the warrant is not considered probable.

5. Fair value of financial instruments

ASC Topic 820, *Fair Value Measurement* (ASC 820), establishes a fair value hierarchy for instruments measured at fair value that distinguishes between assumptions based on market data (observable inputs) and the Company's own assumptions (unobservable inputs). Observable inputs are inputs that market participants would use in pricing the asset or liability based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the inputs that market participants would use in pricing the asset or liability, and are developed based on the best information available in the circumstances.

ASC 820 identifies fair value as the exchange price, or exit price, representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. As a basis for considering market participant assumptions in fair value measurements, ASC 820 establishes a three-tier fair value hierarchy that distinguishes between the following:

Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2 inputs are inputs other than quoted prices that are observable for the asset or liability, either directly or indirectly; and

Level 3 inputs are unobservable inputs that reflect the Company's own assumptions about the assumptions market participants would use in pricing the asset or liability.

Fair value measurements as of March 31, 2021 are as follows (in thousands):

Description	Total	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Financial assets				
Cash equivalents	$ 162,059	$ 162,059	$ —	$ —
	$ 162,059	$ 162,059	$ —	$ —

Fair value measurements as of December 31, 2020 are as follows (in thousands):

Description	Total	Quoted prices in active markets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
Financial assets				
Cash equivalents	$ 162,048	$ 162,048	$ —	$ —
	$ 162,048	$ 162,048	$ —	$ —

6. Inventory

Inventory consists of the following (in thousands):

	March 31, 2021	December 31, 2020
Raw materials	$ 5,608	$ 5,265
Work in process	4,012	3,306
Finished goods	7,424	6,285
Total	$ 17,044	$ 14,856

Inventory comprises commercial instruments, assays, and the materials required to manufacture limited instruments and assays.

7. Allowance for Credit Losses

The Company is exposed to credit losses primarily through sales of products and services. The Company's expected loss allowance methodology for accounts receivable is developed using historical collection experience, current and future economic and market conditions, and a review of the current status of customers' trade accounts receivable. Due to the short-term nature of such receivables, the estimated accounts receivable that may not be collected is based on aging of the accounts receivable balances.

Customers are assessed for credit worthiness upfront through a credit review, which includes assessment based on the Company's analysis of their financial statements when a credit rating is not available. The Company evaluates contract terms and conditions, country, and political risk, and may require prepayment to mitigate risk of loss. Specific allowance amounts are established to record the appropriate provision for customers that have a higher probability of default. The Company monitors changes to the receivables balance on a timely basis, and balances are written off as they are determined to be uncollectable after all collection efforts have been exhausted.

As of March 31, 2021, the Company's accounts receivable balance was $14.9 million, net of $0.3 million of allowance for credit losses. The following table provides a roll-forward of the allowance for credit losses for the three months ended March 31, 2021 that is deducted from the amortized cost basis of accounts receivable to present the net amount expected to be collected (in thousands):

Balance at January 1, 2021	$ 370
Credit loss expense	20
Write-offs charged against allowances	(48)
Balance at March 31, 2021	$ 342

8. Other accrued expenses and other non-current liabilities

Other accrued expenses consist of the following (in thousands):

	March 31, 2021	December 31, 2020
Accrued inventory purchases	$ 878	$ 527
Accrued property and equipment purchases	1,532	670
Accrued royalties	1,124	1,845
Accrued professional services	863	797
Accrued development costs	241	323
Accrued other	965	683
Total accrued expenses	$ 5,603	$ 4,845

Other non-current liabilities consist of the following (in thousands):

	March 31, 2021	December 31, 2020
Deferred tax liabilities	$ 2,378	$ 2,649
Total other non-current liabilities	$ 2,378	$ 2,649

9. Warrants, stock-based compensation, stock options, restricted stock and restricted stock units

Warrants

On January 20, 2021, 10,000 warrants were exercised by a holder on a net, non-cash, basis. Per terms of the warrant agreement, the Company issued 7,347 shares of common stock with a value equal to the holder's gain. The Company had no warrants outstanding as of March 31, 2021.

Stock-based compensation

Stock-based compensation expense for all stock awards consists of the following (in thousands):

	Three Months Ended March 31,	
	2021	2020
Cost of product revenue	$ 90	$ 36
Cost of service and other revenue	110	68
Research and development	399	242
Selling, general, and administrative	2,787	1,763
Total	$ 3,386	$ 2,109

In June 2007, the Company adopted the 2007 Stock Option and Grant Plan (the 2007 Plan), under which it could grant incentive stock options, non-qualified options, restricted stock, and stock grants. In connection with the completion of the IPO, the Company terminated the 2007 Plan. As of March 31, 2021, 736,958 shares were outstanding, and no shares were available for future grant under the 2007 Plan.

In December 2017, the Company adopted the 2017 Employee, Director and Consultant Equity Incentive Plan (the 2017 Plan), under which it may grant incentive stock options, non-qualified stock options, restricted stock, and other stock-based awards. As of December 31, 2017, the 2017 Plan allowed for the issuance of up to 1,042,314 shares of common stock plus up to 2,490,290 shares of common stock represented by awards granted under the 2007 Plan that are forfeited, expire, or are cancelled without delivery of shares or which result in the forfeiture of shares of common stock

back to the Company on or after the date the 2017 Plan became effective. As of March 31, 2021, there were shares available for grant under the 2017 Plan of 1,637,976.

In addition, the 2017 Plan contains an "evergreen" provision, which allows for an annual increase in the number of shares of common stock available for issuance under the 2017 Plan on the first day of each fiscal year during the period beginning in fiscal year 2019 and ending in fiscal year 2027. The annual increase in the number of shares shall be equal to the lowest of: 4% of the number of shares of common stock outstanding as of such date; and an amount determined by the Company's Board of Directors or Compensation Committee. On January 1, 2021, the number of shares of common stock available for issuance under the 2017 plan was automatically increased by 1,273,501 shares.

In December 2017, the Company adopted the 2017 Employee Stock Purchase Plan (the 2017 ESPP). As December 31, 2020, the 2017 ESPP allowed for the issuance of up to 848,269 shares of common stock. As of March 31, 2021, 1,149,407 shares were available for grant under the 2017 ESPP.

In addition, the 2017 ESPP contains an "evergreen" provision, which allows for an increase on the first day of each fiscal year beginning with fiscal year 2018. The increase in the number of shares shall be equal to the lowest of: 1% of the number of shares of common stock outstanding on the last day of the immediately preceding fiscal year or an amount determined by the Company's Board of Directors or Compensation Committee. The number of shares available for grant under the 2017 ESPP increased by 318,375 shares on January 1, 2021 due to this provision.

The 2017 ESPP provides for six-month option periods commencing on March 1 and ending August 31 and commencing September 1 and ending February 28 of each calendar year. The first offering under the 2017 ESPP began on September 1, 2018.

Stock options

Under the 2007 Plan and the 2017 Plan, stock options may not be granted with exercise prices of less than fair market value on the date of the grant. Options generally vest ratably over a four-year period with 25% vesting on the first anniversary and the remaining 75% vesting ratably on a monthly basis over the remaining three years. These options expire ten years after the grant date. Activity under the 2007 Plan and the 2017 Plan was as follows:

	Options	Weighted-average exercise price	Remaining contractual life (in years)	Aggregate intrinsic value (in thousands)
Outstanding at December 31, 2020	2,494,045	$ 17.73	7.27	$ 71,760
Granted	241,713	$ 69.97		
Exercised	(281,324)	$ 10.93		
Cancelled	(26,166)	$ 35.98		
Outstanding at March 31, 2021	2,428,268	$ 23.52	7.37	$ 88,387
Vested and expected to vest at March 31, 2021	2,428,268	$ 23.52	7.37	$ 88,387
Exercisable at March 31, 2021	1,428,652	$ 14.31	6.43	$ 63,050

Using the Black-Scholes option pricing model, the weighted-average fair value of options granted to employees and directors during the three months ended March 31, 2021 and 2020 was $32.83 and $11.82 per share, respectively. The expense related to awards granted to employees was $1.5 million and $1.1 million for the three months ended March 31, 2021 and 2020, respectively. The intrinsic value of stock options exercised was $16.2 million and $1.1 million for the three months ended March 31, 2021 and 2020, respectively. Activity related to non-employee awards was not material to the three months ended March 31, 2021 and 2020.

Restricted stock

Restricted common stock awards represent shares of common stock issued to employees subject to forfeiture if the vesting conditions are not satisfied. Vesting occurs periodically at specified time intervals and specified percentages. In January 2015, the Company issued 781,060 shares of restricted common stock to an executive of the Company under

the 2007 Plan. The majority of these shares were issued subject to a four-year vesting schedule with 25% vesting on the first anniversary and the remaining vesting 75% ratably on a monthly basis over the remaining three years, while another portion was issued subject to performance based vesting. The vesting of performance based awards is dependent upon achievement of specified financial targets of the Company. The majority of the performance criteria were achieved during the years ended December 31, 2016 and 2015 and the remaining unvested awards with performance conditions are not material. No restricted common stock awards were granted or vested during the three months ended March 31, 2021. As of March 31, 2021, the Company had 39,806 shares of unvested restricted common stock with a weighted average grant date fair value of $3.12 per share.

Restricted stock units

Restricted stock units (RSUs) represent the right to receive shares of common stock upon meeting specified vesting requirements. In the three months ended March 31, 2021, the Company issued 140,814 RSUs to employees of the Company under the 2017 Plan. Under the terms of the agreements, 126,007 of the RSUs issued are subject to a four-year vesting schedule with 25% vesting on the first anniversary of the grant date and the remaining vesting 75% ratably on a monthly basis over the remaining three years; 13,620 of the RSUs vest on December 31, 2021; and 1,187 vested immediately upon grant. A summary of RSU activity is as follows:

	Shares	Weighted-average grant date fair value per share
Unvested RSUs as of December 31, 2020	478,581	$ 28.08
Granted	140,814	$ 71.28
Vested	(85,346)	$ 24.50
Cancelled	(10,045)	$ 41.14
Unvested RSUs as of March 31, 2021	524,004	$ 40.02

The expense related to awards granted to employees and directors was $1.7 million and $0.9 million for the three months ended March 31, 2021 and 2020, respectively.

As of March 31, 2021, there was $19.9 million of total unrecognized compensation cost related to unvested RSUs, which is expected to be recognized over the remaining weighted-average vesting period of 3.1 years.

10. Leases

The Company is a lessee under leases of offices, lab spaces, and certain office equipment. Some of the Company's leases include options to extend the lease, and these options are included in the lease term to the extent they are reasonably certain to be exercised.

Summary of all lease costs recognized under ASC 842

The following table contains a summary of the lease costs recognized under ASC 842 and other information pertaining to the Company's operating leases for the three months ended March 31, 2021:

	Three Months Ended March 31,	
Operating leases (in thousands)	**2021**	**2020**
Lease Costs (1)		
Operating lease costs	$ 671	$ 660
Total lease cost	$ 671	$ 660
Other information		
Operating cash flows used for operating leases	$ 846	$ 407
Weighted average remaining lease term (years)	9.6 years	10.3 years
Weighted average discount rate	9.73%	9.73%

(1) Short-term lease costs and variable lease costs incurred by the Company for the three months ended March 31, 2021 and 2020 were immaterial, respectively.

11. Commitments and contingencies

Tufts University

In June 2007, the Company entered into a license agreement (the License Agreement) for certain intellectual property with Tufts University (Tufts). Tufts is a related party to the Company due to Tufts' equity ownership in the Company and because a member of the Company's Board of Directors was affiliated with Tufts. The License Agreement, which was subsequently amended, is exclusive and sublicensable, and will continue in effect on a country-by-country basis as long as there is a valid claim of a licensed patent in a country. The Company is committed to pay license and maintenance fees, prior to commercialization, in addition to low single digit royalties on direct sales and services and a royalty on sublicense income. During the three months ended March 31, 2021 and 2020, the Company recorded royalty expense of $0.5 million and $0.2 million, respectively, in cost of product revenue on the consolidated statements of operations.

Supply agreement

The Company's supply agreement with STRATEC Biomedical requires the Company to purchase a minimum number of commercial units over a seven-year period ending in May 2021. If the Company were to fail to purchase a required number of commercial units, the Company would be obligated to pay termination costs plus a fee based on the shortfall of commercial units purchased compared to the required minimum amount. Based on the number of commercial instruments purchased as of March 31, 2021, the Company has satisfied its required minimum purchase amount per the supply agreement. Also, if the Company terminates the supply agreement under certain circumstances and has not purchased a required number of commercial units, it would be obligated to issue warrants to purchase 93,341 shares of common stock (the Supply Warrants) at $0.003214 per share. The Company believes that it will purchase sufficient units to meet the requirements of the minimum purchase commitment and, therefore, has not accrued for any of the potential cash consideration. The Supply Warrants are accounted for at fair value; however, the fair value of the

Supply Warrants as of March 31, 2021 and December 31, 2020 was insignificant as there was a low probability of the warrants being issued.

Legal contingencies

The Company is subject to claims in the ordinary course of business; however, the Company is not currently a party to any pending or threatened litigation, the outcome of which would be expected to have a material adverse effect on its financial condition or the results of its operations. The Company accrues for contingent liabilities to the extent that the liability is probable and estimable.

12. Notes payable

Loan agreement

On April 14, 2014, the Company executed a loan agreement with a lender, as subsequently amended. As of March 31, 2021, there were no additional amounts available to borrow under the debt facility. The interest rate on this term loan is variable based on the greater of 8% or 8% plus the prime rate less 5.25%. Interest is paid monthly beginning the month following the borrowing date. At loan inception and in connection with the amendments, the Company issued the lender warrants to purchase shares of stock. The loan agreement also contains prepayment penalties and an end of term charge. Fees incurred upon execution of the agreements, and the fair value of warrants on the date of grant were accounted for as a reduction in the book value of debt and accreted through interest expense, using the effective interest rate method, over the term of the debt. Under the amended agreement, the Company is required to pay the loan principal in four equal installments starting July 1, 2021, with the final payment and end of term charge to be made on October 1, 2021.

As of March 31, 2021, debt payment obligations due based on principal payments are as follows (in thousands):

2021	$ 7,688
Total	$ 7,688

Non-cash interest expense related to debt discount amortization and accretion of end of term fees was $0.1 million or less for each of the three months ended March 31, 2021 and 2020.

13. Collaboration and license arrangements

The Company has entered into certain licenses with other companies for use of the Company's technology. These licenses have royalty components which the Company earns and recognizes as collaboration and license revenue throughout the year. The Company recognized revenue of $0.3 million for the three months ended March 31, 2021 and $0.1 million for the three months ended March 31, 2020 associated with these licenses.

As of March 31, 2021 and December 31, 2020, the Company had $0.5 million of deferred revenue related to ongoing negotiations with a diagnostics company.

Abbott Laboratories

On September 29, 2020, the Company entered into a Non-Exclusive License Agreement (the Abbott License Agreement) with Abbott Laboratories (Abbott). Pursuant to the terms of the Abbott License Agreement, the Company granted Abbott a non-exclusive, worldwide, royalty-bearing license, without the right to sublicense, under the Company's bead-based single molecule detection patents (Licensed Patents) in the field of *in vitro* diagnostics. Abbott agreed to pay the Company an initial license fee of $10.0 million in connection with the execution of the Abbott License Agreement, which was recognized as license revenue during the 2020 fiscal year. Abbott has also agreed to pay the Company milestone fees subject to the achievement by Abbott of certain development, regulatory and commercialization milestones and low single-digit royalties on net sales of licensed products.

The Abbott License Agreement includes customary representations and warranties, covenants and indemnification obligations for a transaction of this nature. The Abbot License Agreement became effective upon signing and will continue until expiration of the last-to-expire Licensed Patent, or the agreement is earlier terminated. Under the terms of the Abbott License Agreement, the Company and Abbott each have the right to terminate the agreement for uncured material breach by, or insolvency of, the other party. Abbott may also terminate the Abbott License Agreement at any time without cause upon 60 days' notice.

During the three months ended March 31, 2021, the Company recognized no revenue under the Abbott License Agreement.

14. Employee benefit plans

The Company sponsors a 401(k) savings plan for its employees. The Company may make discretionary contributions for each 401(k) plan year. During the three months ended March 31, 2021 and 2020, the Company made contributions of $0.2 million and $0.1 million, respectively.

15. Goodwill and acquired intangible assets

As of March 31, 2021, the carrying amount of goodwill was $9.9 million. The following is a rollforward of the Company's goodwill balance (in thousands):

	Goodwill
Balance as of December 31, 2020	$ 10,460
Cumulative translation adjustment	(527)
Balance as of March 31, 2021	$ 9,933

Acquired intangible assets as of March 31, 2021 consist of the following (in thousands):

		March 31, 2021				
	Estimated Useful Life (in years)	Gross Carrying Value	Accumulated Amortization	Cumulative Translation Adjustment	Net Carrying Value	Weighted Average Life Remaining (in years)
Know-how	8.5	$ 13,000	$ (2,678)	$ 654	$ 10,976	6.75
Developed technology	7	1,650	(1,100)	—	550	3.84
Customer relationships	8.5 - 10	1,360	(663)	6	703	6.83
Non-compete agreements	5.5	340	(119)	14	235	3.75
Trade names	3	50	(50)	—	—	—
Total		$ 16,400	$ (4,610)	$ 674	$ 12,464	

Acquired intangible assets as of December 31, 2020 consist of the following (in thousands):

		December 31, 2020				
	Estimated Useful Life (in years)	Gross Carrying Value	Accumulated Amortization	Cumulative Translation Adjustment	Net Carrying Value	Weighted Average Life Remaining (in years)
Know-how	8.5	$ 13,000	$ (2,296)	$ 1,374	$ 12,078	6.99
Developed technology	7	1,650	(1,036)	—	614	4.09
Customer relationships	8.5 - 10	1,360	(618)	12	754	7.08
Non-compete agreements	5.5	340	(102)	31	269	3.99
Trade names	3	50	(49)	—	1	0.08
Total		$ 16,400	$ (4,101)	$ 1,417	$ 13,716	

The Company recorded amortization expense of $0.5 million and $0.5 million for the three months ended March 31, 2021 and 2020, respectively. Amortization relating to developed technology is recorded within research and development expenses, amortization of customer relationships is recorded within selling, general, and administrative expenses, amortization of trade names is recorded within selling, general and administrative expenses, amortization of non-compete agreements is recorded within selling, general, and administrative expenses, and amortization of know-how is recorded within cost of product revenue.

Future estimated amortization expense of acquired intangible assets as of March 31, 2021 is as follows (in thousands):

For the Years Ended December 31,	Estimated Amortization Expense
Current year (2021)	$ 1,504
2022	1,930
2023	1,848
2024	1,733
2025	1,617
Thereafter	3,832
	$ 12,464

16. Related party transactions

The Company entered into the License Agreement for certain intellectual property with Tufts (see Note 11). Tufts is a related party to the Company due to Tufts' equity ownership in the Company and because a member of the Company's Board of Directors was affiliated with Tufts. During the three months ended March 31, 2021 and 2020, the Company recorded royalty expense of $0.5 million and $0.2 million, respectively, in cost of product revenue on the consolidated statements of operations.

During the year ended December 31, 2017, Harvard University became a related party because a member of the Company's Board of Directors is affiliated with Harvard University. Revenue recorded from sales to Harvard University was less than $0.1 million during both the three months ended March 31, 2021 and 2020.

17. Accumulated other comprehensive income (loss)

The following shows the changes in the components of accumulated other comprehensive income (loss) for the three months ended March 31, 2021 and 2020 which consisted of only foreign currency translation adjustments for the periods shown (in thousands):

	Cumulative Translation Adjustment	Accumulated Other Comprehensive Income (Loss)
Balance - December 31, 2020	$ 2,434	$ 2,434
Current period accumulated other comprehensive loss	(1,251)	(1,251)
Balance - March 31, 2021	$ 1,183	$ 1,183

	Cumulative Translation Adjustment	Accumulated Other Comprehensive Loss
Balance - December 31, 2019	$ (153)	$ (153)
Current period accumulated other comprehensive loss	(1,047)	(1,047)
Balance - March 31, 2020	$ (1,200)	$ (1,200)

18. Subsequent events

The Company had no significant subsequent events for the period March 31, 2021 through the filing date of this Quarterly Report on Form 10-Q.

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

You should read the following discussion and analysis of our financial condition and results of operations together with our condensed consolidated financial statements and the related notes included elsewhere in this Quarterly Report on Form 10-Q and our audited financial statements and Management's Discussion and Analysis of Financial Condition and Results of Operations included in our Annual Report on Form 10-K for the year ended December 31, 2020, filed with the SEC. In addition to historical information, the following discussion contains forward-looking statements that involve risks, uncertainties and assumptions. Our actual results, performance or experience could differ materially from what is indicated by any forward-looking statement due to various important factors, risks and uncertainties, including, but not limited to, those set forth under "Special Note Regarding Forward-Looking Statements" included elsewhere in this quarterly report or under "Risk Factors" in Item 1A of Part I of our Annual Report on Form 10-K for the year ended December 31, 2020 as may be updated by "Part II, Item 1A, Risk Factors" of our subsequently filed Quarterly Reports on Form 10-Q.

Overview

We are a life sciences company that has developed next generation, ultra-sensitive digital immunoassay platforms that advance precision health for life sciences research and diagnostics. Our platforms are based on our proprietary digital "Simoa" detection technology. Our Simoa bead-based and planar array platforms enable customers to reliably detect protein biomarkers in extremely low concentrations in blood, serum and other fluids that, in many cases, are undetectable using conventional, analog immunoassay technologies, and also allow researchers to define and validate the function of novel protein biomarkers that are only present in very low concentrations and have been discovered using technologies such as mass spectrometry. These capabilities provide our customers with insight into the role of protein biomarkers in human health that has not been possible with other existing technologies and enable researchers to unlock unique insights into the continuum between health and disease. We believe this greater insight will enable the development of novel therapies and diagnostics and facilitate a paradigm shift in healthcare from an emphasis on treatment to a focus on earlier detection, monitoring, prognosis and, ultimately, prevention. We are currently focusing on protein detection, which we believe is an area of significant unmet need and where we have significant competitive advantages. However, in addition to enabling new applications and insights in protein analysis, our Simoa platforms have also demonstrated applicability across other testing applications, including detection of nucleic acids and small molecules.

We currently sell most of our products for life science research, primarily to laboratories associated with academic and governmental research institutions, as well as pharmaceutical, biotechnology and contract research companies, through a direct sales force and support organizations in North America and Europe, and through distributors or sales agents in other select markets, including Australia, Brazil, China, Czech Republic, India, Israel, Japan, Lebanon, Mexico, Qatar, Saudi Arabia, Singapore, South Korea, and Taiwan.

Our instruments are designed to be used either with assays fully developed by us, including all antibodies and supplies required to run the tests, or with "homebrew" kits where we supply some of the components required for testing, and the customer supplies the remaining required elements. Accordingly, our installed instruments generate a recurring revenue stream. We believe that our recurring consumable revenue is driven by our customers' ability to extract more valuable data using our platform and to process a large number of samples quickly with little hands-on preparation.

We commercially launched our first immunoassay platform, the Simoa HD-1, in January 2014. The HD-1 is based on our bead-based technology, and assays run on the HD-1 are fully automated. We initiated commercial launch of the SR-X instrument in December 2017. The SR-X utilizes the same Simoa bead-based technology and assay kits as the HD-1 in a compact benchtop form with a lower price point, more flexible assay preparation, and a wider range of applications. In July 2019, we launched the Simoa HD-X, an upgraded version of the Simoa HD-1, which replaces the HD-1. The HD-X has been designed to deliver significant productivity and operational efficiency improvements, as well as greater user flexibility. We began shipping and installing HD-X instruments at customer locations in the third quarter of 2019. As the installed base of the Simoa instruments increases, total consumables revenue overall is expected to

increase. We believe that consumables revenue should be subject to less period-to-period fluctuation than our instrument sales revenue, and will become an increasingly important contributor to our overall revenue.

On January 30, 2018, we acquired Aushon Biosystems, Inc. (Aushon) for $3.2 million in cash, with an additional payment of $0.8 million made in July 2018, six months after the acquisition date. With the acquisition of Aushon, we acquired a CLIA certified laboratory, as well as Aushon's proprietary sensitive planar array detection technology. Leveraging our proprietary sophisticated Simoa image analysis and data analysis algorithms, we further refined this planar array technology to develop the SP-X instrument to provide the same Simoa sensitivity found in our Simoa bead-based platform. We initiated an early-access program for the SP-X instrument in January 2019, with the full commercial launch commenced in April 2019.

On August 1, 2019, we completed our acquisition of UmanDiagnostics AB (Uman) for an aggregate purchase price of $21.2 million, comprised of (i) $15.7 million in cash plus (ii) 191,152 shares of our common stock (representing $5.5 million based on the closing prices of our common stock on the Nasdaq Global Market on July 1, 2019 and August 1, 2019, the dates of issuance). The acquisition closed with respect to 95% of the outstanding shares of capital stock of Uman on July 1, 2019 and with respect to the remaining 5% of the outstanding shares of capital stock of Uman on August 1, 2019. Uman supplies neurofilament light (Nf-L) antibodies and ELISA kits, which are widely recognized by researchers and biopharmaceutical and diagnostics companies world-wide as the premier solution for the detection of Nf-L to advance the development of therapeutics and diagnostics for neurodegenerative conditions.

On September 29, 2020, we entered into a Non-exclusive License Agreement (the Abbott License Agreement) with Abbott Laboratories (Abbott). Pursuant to the terms of the Abbott License Agreement, we granted Abbott a non-exclusive, worldwide, royalty-bearing license, without the right to sublicense, under our bead-based single molecule detection patents in the field of *in vitro* diagnostics. Abbott has paid us an initial license fee of $10.0 million in connection with the execution of the Abbott License Agreement, which was recognized as collaboration and license revenue for the three months ended September 30, 2020. In addition, during the three months ended September 30, 2020, we recognized as collaboration and license revenue approximately $1.2 million of previously deferred revenue upon entering into the Abbott License Agreement. Abbott has also agreed to pay us milestone fees subject to the achievement by Abbott of certain development, regulatory and commercialization milestones and low single digit royalties on net sales of licensed products.

We are subject to ongoing uncertainty concerning the SARS-COV-2 (COVID-19) pandemic, including its length and severity and its effect on our business. During the first and second quarters of 2020, we implemented a resiliency plan focused on the health and safety of our employees and maintaining continuity of our operations. We have seen an impact on instrument revenue due to limitations on our ability to access certain customer sites and complete instrument installations, as well as an impact on consumables revenue from interruptions in certain customer laboratories. We expect these COVID-19 related challenges to continue until these customers return to normal operations.

In view of the pandemic, we have adjusted our operations to expand capacity in our Accelerator Laboratory to support customers whose operations have been disrupted and to sustain clinical trials. We also determined that our cytokine assay technology provides researchers with important and differentiated tools to study disease progression, cytokine release syndrome, and patient-treatment response in the fight against COVID-19, and began developing a SARS- CoV-2 semi-quantitative IgG assay and a SARS-CoV-2 antigen detection assay, and prototyping a high-definition multiplex SARS-CoV-2 serology assay. In December 2020, the Food and Drug Administration (FDA) issued an Emergency Use Authorization (EUA) for our Simoa Semi-Quantitative SARS-CoV-2 IgG Antibody Test, and in January 2021, the FDA issued an EUA for our Simoa SARS-CoV-2 N Protein Antigen Test, each of which is run on our HD-X instrument. We currently intend to pursue authorization for additional sample types, including nasal swabs, saliva, and capillary dried blood obtained from a fingerstick. Preliminary clinical research studies suggest the viral antigen may be readily detectable in asymptomatic and pre-symptomatic patients, and we are exploring extending the test to screening applications, home-based sample collection and pooling to enable larger scale testing.

In September 2020, we entered into a workplan 2 award (WP2) with the National Institute of Health (NIH) under the Rapid Acceleration of Diagnostics (RADx) program. This contract, which has a total award value of $18.2

million, is intended to accelerate the continued development, scale-up and deployment of our novel SARS-CoV-2 antigen test. Initial early feasibility of this test was funded in part through the workplan 1 award (WP1) we were granted in June 2020. WP2 supports clinical validation of the test in support of the EUA submissions with the FDA and provides funding to expand assay kit manufacturing capacity and commercial deployment readiness. Contract funding is subject to achievement of pre-defined milestones and the contract period runs through September 2021.

The COVID-19 situation remains dynamic and there remains significant uncertainty as to the length and severity of the pandemic, the actions that may be taken by government authorities, the impact to the business of our customers and suppliers, the long-term economic implications and other factors identified in “Part I, Item 1A, Risk Factors” of our Annual Report on Form 10-K for the year ended December 31, 2020 as may be updated by “Part II, Item 1A, Risk Factors” of our subsequently filed Quarterly Reports on Form 10-Q. We will continue to evaluate the nature and extent of the impact to our business, financial condition, and operating results.

As of March 31, 2021, we had cash and cash equivalents of $442.7 million. Other than the third quarter of 2020, since inception, we have incurred net losses. Our net loss was $31.5 million, $40.8 million, and $31.5 million for the years ended December 31, 2020, 2019 and 2018, respectively, and $10.1 million and $11.6 million for the three months ended March 31, 2021 and 2020, respectively. As of March 31, 2021, we had an accumulated deficit of $257.9 million and stockholders' equity of $471.5 million. We expect to continue to incur significant expenses and operating losses at least through the next 24 months. We expect our expenses will increase substantially as we:

- expand our sales and marketing efforts to further commercialize our products;
- strategically acquire companies or technologies that may be complementary to our business;
- expand our research and development efforts to improve our existing products and develop and launch new products, particularly if any of our products are deemed by the United States Food and Drug Administration, or FDA, to be medical devices or otherwise subject to additional regulation by the FDA;
- seek premarket approval, or PMA, or 510(k) clearance, or emergency use authorization, or EUA, from the FDA for our existing products or new products if or when we decide to market products for use in the prevention, diagnosis or treatment of a disease or other condition;
- hire additional personnel and continue to grow our employee headcount;
- enter into collaboration arrangements, if any, or in-license other products and technologies;
- expand assay kit manufacturing capacity and commercial development readiness in connection with the RADx WP2 contract;
- add operational, financial and management information systems; and
- continue to incur increased costs as a result of operating as a public company.

Results of Operations

Comparison of the Three Months Ended March 31, 2021 and March 31, 2020 (dollars in thousands):

	Three Months Ended March 31, 2021	% of revenue	Three Months Ended March 31, 2020	% of revenue	$ change	% change
Product revenue	$ 18,248	67 %	$ 9,833	63 %	$ 8,415	86 %
Service and other revenue	6,409	24 %	5,762	36 %	647	11 %
Collaboration and license revenue	261	1 %	132	1 %	129	98 %
Grant revenue	2,291	8 %	—	— %	2,291	100 %
Total revenue	27,209	100 %	15,727	100 %	11,482	73 %
Cost of goods sold:						
Cost of product revenue	7,480	27 %	6,186	39 %	1,294	21 %
Cost of service revenue	3,380	12 %	2,728	17 %	652	24 %
Total costs of goods sold and services	10,860	40 %	8,914	57 %	1,946	22 %
Gross profit	16,349	60 %	6,813	43 %	9,536	140 %
Operating expenses:						
Research and development	6,683	25 %	4,268	27 %	2,415	57 %
Selling, general, and administrative	19,455	72 %	14,273	91 %	5,182	36 %
Total operating expenses	26,138	96 %	18,541	118 %	7,597	41 %
Loss from operations	(9,789)	(36)%	(11,728)	(75)%	1,939	17 %
Interest (expense) income, net	(163)	(1)%	161	1 %	(324)	(201)%
Other expense, net	(194)	(1)%	(167)	(1)%	(27)	(16)%
Loss before income taxes	(10,146)	(37)%	(11,734)	(75)%	1,588	14 %
Income tax benefit	42	— %	124	1 %	(82)	(66)%
Net loss	$ (10,104)	(37)%	$ (11,610)	(74)%	$ 1,506	13 %

Revenue

Total revenue increased by $11.5 million, or 73%, to $27.2 million for the three months ended March 31, 2021 as compared to $15.7 million for the three months ended March 31, 2020. Product revenue consisted of sales of instruments totaling $7.0 million and sales of consumables and other products of $11.3 million for the three months ended March 31, 2021. Product revenue consisted of sales of instruments totaling $3.7 million and sales of consumables and other products totaling $6.1 million for the three months ended March 31, 2020. The increase in product revenue of $8.4 million was primarily due to increased instrument demand during the three months ended March 31, 2021. In addition, as the installed base of instruments increased from March 31, 2020 to March 31, 2021, the consumable sales increased as customers opened from their COVID-19 related shutdowns. The increase in service and other revenue of $0.6 million was primarily due to our increase in service-type warranties and other services related to the increase in installed base of instruments. We had $0.3 million and $0.1 million in collaboration and license revenue during the three months ended March 31, 2021 and 2020, respectively, related to licensing technology and intellectual property. Grant revenue of $2.3 million consisted of revenue related to WP2 recognized during the three months ended March 31, 2021. We did not have any grant revenue during the three months ended March 31, 2020.

Cost of Goods Sold and Services

Cost of product revenue increased by $1.3 million, or 21%, to $7.5 million for the three months ended March 31, 2021 as compared to $6.2 million for the three months ended March 31, 2020. The increase was primarily due to our increase in product revenue. Cost of service revenue increased to $3.4 million for the three months ended March 31, 2021 from $2.7 million for the three months ended March 31, 2020. The increase was primarily due to increased personnel costs from the build out of our field service organization. Overall cost of goods sold as a percentage

of revenue decreased to 40% of total revenue for the three months ended March 31, 2021 as compared to 57% for the three months ended March 31, 2020, primarily as a result of the significant increase in grant revenue, increased manufacturing efficiencies, and an increase in average selling prices of our instruments.

Research and Development Expense

Research and development expense increased by $2.4 million, or 57%, to $6.7 million for the three months ended March 31, 2021 as compared to $4.3 million for the three months ended March 31, 2020. The increase was primarily due to compensation, development, materials, and other expenses related to work under WP2 incurred during the three months ended March 31, 2021.

Selling, General, and Administrative Expense

Selling, general and administrative expense increased by $5.2 million for the three months ended March 31, 2021 as compared to the same period in 2020. The increase was primarily due to headcount additions in various departments as we build out our organization to support growth.

Interest (Expense) Income, Net and Other Expense, Net

Interest (expense) income, net and other expense, net was an expense of $0.2 million for the three months ended March 31, 2021, as compared to income of $0.2 million for the three months ended March 31, 2020, primarily due to decreased interest income earned on cash equivalents, as COVID-19 unfavorably impacted interest rates on our cash equivalents during the three months ended March 31, 2021.

Income Tax Benefit

Income tax benefit decreased by $0.1 million for the three months ended March 31, 2021 as compared to the same period in 2020. The change is primarily due to the decrease in the tax benefit recorded on the operating results of our foreign subsidiaries.

Liquidity and Capital Resources

To date, we have financed our operations principally through equity offerings, borrowings from credit facilities and revenue from our commercial operations.

Equity Offerings

On August 6, 2020, we entered into an underwriting agreement Leerink and Cowen, as representatives of the several underwriters, relating to an underwritten public offering of approximately 3.0 million shares of common stock, par value $0.001 per share. The underwritten public offering resulted in gross proceeds of $97.6 million. We incurred $6.2 million in issuance costs associated with the underwritten public offering, resulting in net proceeds of $91.4 million.

On February 3, 2021, we entered into an underwriting agreement with Goldman Sachs & Co. LLC, Leerink, and Cowen, as representatives of the several underwriters, relating to an underwritten public offering of 4,107,142 shares of common stock at a public offering price of $70.00 per share. We received $287.5 million in gross proceeds and approximately $269.7 million in net proceeds.

Loan Facility with Hercules

On April 14, 2014, we executed a loan agreement with Hercules Capital, Inc. (Hercules), as subsequently amended most recently in April 2019. As of March 31, 2021 and December 31, 2020, our outstanding long term debt balance was $7.7 million. The interest rate on this term loan was variable based on a calculation of 8% plus the prime rate less 5.25%, with a minimum interest rate of 8%. Interest was to be paid monthly beginning the month following the

borrowing date. Under the amended agreement, we are required to pay the loan principal in four equal installments starting July 1, 2021, with the final principal payment and end of term charge to be made on October 1, 2021.

The loan agreement contains negative covenants restricting our activities, including limitations on dispositions, mergers or acquisitions, incurring indebtedness or liens, paying dividends or making investments and certain other business transactions. There are no financial covenants associated with the loan agreement. The obligations under the loan agreement are subject to acceleration upon the occurrence of specified events of default, including a material adverse change in our business, operations or financial or other condition, which is subjective in nature. We have determined that the risk of subjective acceleration under the material adverse events clause is not probable and therefore have classified the outstanding principal in current and long-term liabilities based on scheduled principal payments.

Debt principal repayments, including the end of term fees, due as of March 31, 2021 are (in thousands):

Year ending December 31, 2021	$ 7,738
	$ 7,738

Cash Flows

The following table presents our cash flows for each period presented (in thousands):

	Three Months Ended March 31,	
	2021	2020
Net cash used in operating activities	$ (14,089)	$ (13,179)
Net cash provided by (used in) investing activities	2,435	(426)
Net cash provided by financing activities	273,313	861
Net increase (decrease) in cash and cash equivalents	$ 261,659	$ (12,744)

Net Cash Used in Operating Activities

We derive cash flows from operations primarily from the sale of our products and services. Our cash flows from operating activities are also significantly influenced by our use of cash for operating expenses to support the growth of our business. We have historically experienced negative cash flows from operating activities as we have developed our technology, expanded our business and built our infrastructure and this may continue in the future.

Net cash used in operating activities was $14.1 million during the three months ended March 31, 2021. The net cash used in operating activities primarily consisted of the net loss of $10.1 million offset by non-cash charges of $3.4 million of stock-based compensation expense and $1.2 million of depreciation and amortization expense. Cash used as a result of changes in operating assets and liabilities of $8.9 million was primarily due to a decrease in accrued compensation and benefits, other accrued expenses and other current liabilities of $5.6 million, and an increase in inventory of $2.3 million.

Net cash used in operating activities was $13.2 million during the three months ended March 31, 2020. The net cash used in operating activities primarily consisted of the net loss of $11.6 million offset by non-cash charges of $2.1 million of stock-based compensation expense and $1.0 million of depreciation and amortization expense. Cash used as a result of changes in operating assets and liabilities of $5.3 million was primarily due to an increase in accounts receivable of $1.2 million, an increase in inventory of $1.4 million, an increase in accounts payable of $1.1 million, and an increase in accrued compensation and benefits, other accrued expenses and other current liabilities of $1.7 million.

Net Cash Provided by (Used in) Investing Activities

Historically, our primary investing activities have consisted of capital expenditures for the purchase of capital equipment to support our expanding infrastructure and work force. We expect to continue to incur additional costs for capital expenditures related to these efforts in future periods.

Investing activities provided $2.4 million of cash during the three months ended March 31, 2021 primarily related to $2.5 million in grant proceeds related to WP2.

We used $0.4 million of cash in investing activities during the three months ended March 31, 2020 for the purchase of property and equipment.

Net Cash Provided by Financing Activities

Historically, we have financed our operations principally through private placements of our stock, borrowings from credit facilities, and revenues from our commercial operations.

Financing activities provided $273.3 million of cash during the three months ended March 31, 2021, primarily from $269.7 million in net proceeds from our underwritten public offering during the first quarter of 2021, and $3.1 million in proceeds from common stock option exercises.

Financing activities provided $0.9 million of cash during the three months ended March 31, 2020, primarily from $0.5 million in proceeds from stock options exercised and $0.4 million in proceeds from stock purchases through our 2017 ESPP.

Capital Resources

Other than the third quarter of 2020, since inception, we have incurred net losses, and we also expect that our operating expenses will increase as we continue to increase our marketing efforts to drive adoption of our commercial products. Additionally, as a public company, we have incurred and will continue to incur significant audit, legal and other expenses that we did not incur as a private company. Our liquidity requirements have historically consisted, and we expect that they will continue to consist, of sales and marketing expenses, research and development expenses, working capital, debt service and general corporate expenses.

We believe cash generated from commercial sales, our current cash and cash equivalents, and interest income we earn on these balances will be sufficient to meet our anticipated operating cash requirements for at least the next 12 months. In the future, we expect our operating and capital expenditures to increase as we increase headcount, expand our sales and marketing activities and grow our customer base. Our estimates of the period of time through which our financial resources will be adequate to support our operations and the costs to support research and development and our sales and marketing activities are forward-looking statements and involve risks and uncertainties and actual results could vary materially and negatively as a result of a number of factors, including the factors discussed in Item 1A, "Risk Factors" of our Annual Report on Form 10-K for the year ended December 31, 2020. We have based our estimates on assumptions that may prove to be wrong and we could utilize our available capital resources sooner than we currently expect. Our future funding requirements will depend on many factors, including:

- market acceptance of our products, including our SP-X and HD-X instruments;
- the cost and timing of establishing additional sales, marketing and distribution capabilities;
- the cost of our research and development activities;
- our ability to enter into collaborations in the future, and the success of any such collaborations;
- the cost and timing of potential regulatory clearances or approvals that may be required in the future for our products;
- the effects of the COVID-19 pandemic; and
- the effect of competing technological and market developments.

If the conditions for raising capital are favorable, we may seek to finance future cash needs through public or private equity or debt offerings or other financings. On November 6, 2020, we filed an automatically effective shelf registration statement with the SEC. Each issuance of securities under the shelf registration statement will require the filing of a prospectus supplement identifying the amount and terms of securities to be issued. The registration statement does not limit the amount of securities that may be issued thereunder. Our ability to issue securities is subject to market conditions and other factors. This registration statement will expire on November 6, 2023, three years after its date of effectiveness. However, we cannot assure you that we will be able to obtain additional funds on acceptable terms, or at all. If we raise additional funds by issuing equity or equity-linked securities, our stockholders may experience dilution. Future debt financing, if available, may involve covenants restricting our operations or our ability to incur additional debt. Any debt or equity financing that we raise may contain terms that are not favorable to us or our stockholders. If we raise additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish some rights to our technologies or our products, or grant licenses on terms that are not favorable to us. If we do not have or are not able to obtain sufficient funds, we may have to delay development or commercialization of our products. We also may have to reduce marketing, customer support or other resources devoted to our products or cease operations.

Contractual Obligations and Commitments

As of March 31, 2021, there have been no material changes to our contractual obligations and commitments from those described under “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included in our Annual Report on Form 10-K for the year ended December 31, 2020.

Off-Balance Sheet Arrangements

We did not have, during the periods presented, and we do not currently have, any off-balance sheet arrangements, as defined under applicable Securities and Exchange Commission (SEC) rules.

Critical Accounting Policies, Significant Judgments and Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States, or U.S. GAAP, requires management to make estimates and assumptions that impact the reported amounts of assets, liabilities, revenues, and expenses and the disclosure of assets and liabilities in our financial statements and accompanying notes. The most significant assumptions used in the financial statements are the underlying assumptions used in revenue recognition, fair value of assets acquired and liabilities assumed in acquisitions, valuation allowances recorded against deferred tax assets, and valuation of inventory. We base estimates and assumptions on historical experience when available and on various factors that we determined to be reasonable under the circumstances. We evaluate our estimates and assumptions on an ongoing basis. Our actual results may differ from these estimates under different assumptions or conditions.

Our critical accounting policies and significant estimates that involve a higher degree of judgment and complexity are described under “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Policies, Significant Judgments and Estimates” included in our Annual Report on Form 10-K for the year ended December 31, 2020. There have been no material changes to our critical accounting policies and estimates as disclosed therein, with the exception of our adoption of recent accounting pronouncements, as discussed below.

Recent Accounting Pronouncements

We adopted the Financial Accounting Standards Board (FASB) Accounting Standards Update (ASU) No. 2016-13, *Financial Instruments — Credit Losses: Measurement of Credit Losses on Financial Instruments (ASU 2016-13)*. See Notes 2 and 7 to our unaudited financial statements included elsewhere in this Quarterly Report on Form 10-Q for more information.

We adopted the FASB ASU No. 2018-15, *Intangibles - Goodwill and Other - Internal-Use Software (Subtopic 350-40): Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That Is a Service Contract (ASU 2018-15)*. See Note 2 to our unaudited financial statements included elsewhere in this Quarterly Report on Form 10-Q for more information.

We adopted the FASB ASU No. 2019-12, *Simplifying the Accounting for Income Taxes (ASU 2019-12)*. See Note 2 to our unaudited financial statements included elsewhere in this Quarterly Report on Form 10-Q for more information.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

At March 31, 2021, there have been no material changes to the market risk information described under "Quantitative and Qualitative Disclosures About Market Risk" included in the Annual Report on Form 10-K for the year ended December 31, 2020.

Item 4. Controls and Procedures

(a) *Evaluation of Disclosure Controls and Procedures.* Our principal executive officer and principal financial officer, after evaluating the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934, as amended, or the Exchange Act) as of the end of the period covered by this Quarterly Report on Form 10-Q, have concluded that, based on such evaluation, our disclosure controls and procedures were effective to ensure that information required to be disclosed by us in the reports that 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 is accumulated and communicated to our management, including our principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

(b) *Changes in Internal Control over Financial Reporting.* There were no changes in our internal control over financial reporting identified in connection with the evaluation of such internal control that occurred during the three months ended March 31, 2021 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II — OTHER INFORMATION

Item 1. Legal Proceedings

We are not currently a party to any material legal proceedings.

Item 1A. Risk Factors

There have been no material changes to the risk factors described in our Annual Report on Form 10-K for the year ended December 31, 2020, filed with the SEC on March 5, 2021.

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

On January 20, 2021, 10,000 warrants were exercised by a consultant on a net, non-cash, basis. Per the terms of the warrant agreement, we issued 7,347 shares of common stock. The shares were issued in a private placement exempt from registration under Section 4(a)(2) of the Securities Act of 1933, as amended, or the Securities Act, and Rule 506(b) of Regulation D promulgated thereunder, because the offer and sale of the shares did not involve a "public offering" as defined in Section 4(a)(2) of the Securities Act, and other applicable requirements were met.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

Not applicable.

Item 6. Exhibits

The following is a list of exhibits filed as part of this Quarterly Report on Form 10-Q.

Exhibit Number		Exhibit Description	Filed Herewith	Incorporated by Reference herein from Form or Schedule	Filing Date	SEC File/ Reg. Number
31.1		Certification of the Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	X			
31.2		Certification of the Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.	X			
32.1		Certifications of the Principal Executive Officer and Principal Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.	X			
101	.INS	XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.	X			
	.SCH	XBRL Taxonomy Extension Schema Document.	X			
	.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.	X			
	.DEF	XBRL Taxonomy Extension Definition.	X			
	.LAB	XBRL Taxonomy Extension Label Linkbase Document.	X			
	PRE	XBRL Taxonomy Extension Presentation Linkbase Document.	X			
104		Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).	X			

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.

QUANTERIX CORPORATION

Dated: May 5, 2021

By: /s/ E. Kevin Hrusovsky
E. Kevin Hrusovsky
Chairman, President and Chief Executive Officer
(principal executive officer)

Dated: May 5, 2021

By: /s/ Amol Chaubal
Amol Chaubal
Chief Financial Officer
(principal financial officer and principal accounting officer)

Exhibit 31.1

CERTIFICATIONS UNDER SECTION 302

I, E. Kevin Hrusovsky, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Quanterix Corporation;

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

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

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) 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(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

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

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

Date: May 5, 2021

/s/ E.Kevin Hrusovsky
E. Kevin Hrusovsky
Chairman, President and Chief Executive Officer
(principal executive officer)

Exhibit 31.2

CERTIFICATIONS UNDER SECTION 302

I, Amol Chaubal, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Quanterix Corporation;

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

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

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) 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(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

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

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

Date: May 5, 2021

/s/ Amol Chaubal
Amol Chaubal
Chief Financial Officer
(principal financial officer and principal accounting officer)

Exhibit 32.1

CERTIFICATIONS UNDER SECTION 906

Pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code), each of the undersigned officers of Quanterix Corporation, a Delaware corporation (the "Company"), does hereby certify, to such officer's knowledge, that:

The Quarterly Report for the period ended March 31, 2021 (the "Form 10-Q") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: May 5, 2021

/s/ E. Kevin Hrusovsky
E. Kevin Hrusovsky
Chairman, President and Chief Executive Officer

Dated: May 5, 2021

/s/ Amol Chaubal
Amol Chaubal
Chief Financial Officer