UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, DC 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended March 31, 2020

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: 001-38683

GUARDANT HEALTH, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**45-4139254**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

505 Penobscot Dr.
Redwood City, California, 94063
Registrant's telephone number, including area code: (855) 698-8887

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	☐ (Do not check if a smaller reporting company)	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 ☒

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.00001	**GH**	**The Nasdaq Global Select Market**

As of April 30, 2020, the registrant had 94,579,349 shares of common stock, $0.00001 par value per share, outstanding.

GUARDANT HEALTH, INC.
FORM 10-Q

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PART I – FINANCIAL INFORMATION

FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q, including the section titled "*Management's Discussion and Analysis of Financial Condition and Results of Operations*," contains forward-looking statements regarding future events and our future results that are based on our current expectations, estimates, forecasts and projections as well as the current beliefs and assumptions of our management, including about our business, our financial condition, our results of operations, our cash flows, and the industry and environment in which we operate. Statements that include words such as "believe," "may," "will," "estimate," "continue," "anticipate," "would," "could," "should," "intend" and "expect," variations of these words, and similar expressions, are intended to identify forward-looking statements. These forward-looking statements speak only as of the date of this Quarterly Report on Form 10-Q and are subject to risks, uncertainties and assumptions that are difficult to predict. Therefore, actual results may differ materially and adversely from those expressed in any forward-looking statements. Factors that might cause or contribute to such differences include, but are not limited to, those discussed in Part I, Item 1A,"*Risk Factors*" and elsewhere in our Annual Report on Form 10-K for the year ended December 31, 2019, in Part II, Item 1A, "*Risk Factors*" and elsewhere in this Quarterly Report on Form 10-Q, and in other reports we file with the U.S. Securities and Exchange Commission, or the SEC. While forward-looking statements are based on the reasonable expectations of our management at the time that they are made, you should not rely on them. We undertake no obligation to revise or update publicly any forward-looking statements for any reason, whether as a result of new information, future events or otherwise, except as may be required by law.

Each of the terms the "Company," "we," "our," "us" and similar terms used herein refer collectively to Guardant Health, Inc., a Delaware corporation, and its consolidated subsidiaries, unless otherwise stated.

PART I—FINANCIAL INFORMATION

Item 1. Unaudited Condensed Consolidated Financial Statements

Guardant Health, Inc.

Condensed Consolidated Balance Sheets (unaudited)
(in thousands, except share and per share data)

	March 31, 2020	December 31, 2019
ASSETS		
Current assets:		
Cash and cash equivalents	$ 152,239	$ 143,228
Short-term marketable securities	367,853	379,574
Accounts receivable, net	48,015	47,986
Inventory	25,148	15,181
Prepaid expenses and other current assets	14,137	11,389
Total current assets	607,392	597,358
Long-term marketable securities	238,206	268,783
Property and equipment, net	46,685	43,668
Right-of-use assets	30,132	29,140
Intangible assets, net	17,681	8,524
Goodwill	3,290	3,290
Capitalized license fees	60	6,890
Other assets	4,721	4,882
Total Assets[1]	$ 948,167	$ 962,535
LIABILITIES, REDEEMABLE NONCONTROLLING INTEREST AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 24,378	$ 16,197
Accrued compensation	22,935	18,557
Accrued expenses	23,073	25,703
Deferred revenue	11,936	12,277
Total current liabilities	82,322	72,734
Long-term operating lease liabilities	33,773	33,256
Obligation related to royalty	—	6,880
Other long-term liabilities	1,459	1,672
Total Liabilities[1]	117,554	114,542
Redeemable noncontrolling interest	45,500	49,600
Stockholders' equity:		
Common stock, par value of $0.00001 per share; 350,000,000 shares authorized as of March 31, 2020 and December 31, 2019; 94,509,011 and 94,261,414 shares issued and outstanding as of March 31, 2020 and December 31, 2019, respectively	1	1
Additional paid-in capital	1,157,945	1,150,090
Accumulated other comprehensive income	7,705	1,111
Accumulated deficit	(380,538)	(352,809)
Total Stockholders' Equity	785,113	798,393
Total Liabilities, Redeemable Noncontrolling Interest and Stockholders' Equity	$ 948,167	$ 962,535

(1) As of March 31, 2020 and December 31, 2019, includes $42.0 million and $45.1 million of assets, respectively, that can be used only to settle obligations of the consolidated variable interest entity ("VIE") and VIE's subsidiaries, and $4.6 million and $5.7 million of liabilities of the consolidated VIE and VIE's subsidiaries, respectively, for which their creditors do not have recourse to the general credit of the Company. See Note 3, *Investment in Joint Venture*.

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

Guardant Health, Inc.

Condensed Consolidated Statements of Operations (unaudited)
(in thousands, except per share data)

	Three Months Ended March 31,	
	2020	**2019**
Revenue:		
Precision oncology testing	$ 60,246	$ 28,837
Development services	7,264	7,818
Total revenue	67,510	36,655
Costs and operating expenses:		
Cost of precision oncology testing	18,191	11,023
Cost of development services	2,315	2,512
Research and development expense	37,016	16,316
Sales and marketing expense	25,115	17,807
General and administrative expense	19,785	12,661
Total costs and operating expenses	102,422	60,319
Loss from operations	(34,912)	(23,664)
Interest income	3,318	2,485
Interest expense	(12)	(293)
Other (expense) income, net	(209)	147
Loss before provision for income taxes	(31,815)	(21,325)
Provision for income taxes	14	26
Net loss	(31,829)	(21,351)
Adjustment of redeemable noncontrolling interest	4,100	(4,700)
Net loss attributable to Guardant Health, Inc. common stockholders	$ (27,729)	$ (26,051)
Net loss per share attributable to Guardant Health, Inc. common stockholders, basic and diluted	$ (0.29)	$ (0.30)
Weighted-average shares used in computing net loss per share attributable to Guardant Health, Inc. common stockholders, basic and diluted	94,382	85,935

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

Guardant Health, Inc.

Condensed Consolidated Statements of Comprehensive Loss (unaudited)
(in thousands)

	Three Months Ended March 31,	
	2020	**2019**
Net loss	$ (31,829)	$ (21,351)
Other comprehensive income, net of tax impact:		
Unrealized gain on available-for-sale securities	6,571	485
Foreign currency translation adjustments	23	(69)
Other comprehensive income	6,594	416
Comprehensive loss	$ (25,235)	$ (20,935)
Comprehensive gain (loss) attributable to redeemable noncontrolling interest	4,100	(4,700)
Comprehensive loss attributable to Guardant Health, Inc.	$ (21,135)	$ (25,635)

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

Guardant Health, Inc.

Condensed Consolidated Statements of Redeemable Noncontrolling Interest and Stockholders' Equity (unaudited)
(in thousands, except share data)

	Redeemable Noncontrolling Interest	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
		Shares	Amount				
Balance as of December 31, 2019	$ 49,600	94,261,414	$ 1	$ 1,150,090	$ 1,111	$ (352,809)	$ 798,393
Issuance of common stock upon exercise of stock options	—	242,003	—	1,504	—	—	1,504
Vesting of restricted stock units	—	5,594	—	—	—	—	—
Vesting of common stock exercised early	—	—	—	13	—	—	13
Stock-based compensation	—	—	—	6,338	—	—	6,338
Adjustment of redeemable noncontrolling interest	(4,100)	—	—	—	—	4,100	4,100
Other comprehensive gain, net of tax impact	—	—	—	—	6,594	—	6,594
Net loss	—	—	—	—	—	(31,829)	(31,829)
Balance as of March 31, 2020	$ 45,500	94,509,011	$ 1	$ 1,157,945	$ 7,705	$ (380,538)	$ 785,113

	Redeemable Noncontrolling Interest	Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
		Shares	Amount				
Balance as of December 31, 2018	$ 41,800	85,832,454	$ 1	$ 764,033	$ (83)	$ (280,799)	$ 483,152
Cumulative effect adjustment for Topic 606 adoption	—	—	—	—	—	4,907	4,907
Cumulative effect adjustment for ASU 2018-07 adoption	—	—	—	1,266	—	(1,266)	—
Issuance of common stock upon exercise of stock options	—	146,318	—	538	—	—	538
Vesting of common stock exercised early	—	—	—	56	—	—	56
Common stock issued under employee stock purchase plan	—	119,702	—	1,933	—	—	1,933
Stock-based compensation	—	—	—	3,183	—	—	3,183
Adjustment of redeemable noncontrolling interest	4,700	—	—	—	—	(4,700)	(4,700)
Other comprehensive gain, net of tax impact	—	—	—	—	416	—	416
Net loss	—	—	—	—	—	(21,351)	(21,351)
Balance as of March 31, 2019	$ 46,500	86,098,474	$ 1	$ 771,009	$ 333	$ (303,209)	$ 468,134

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

Guardant Health, Inc.

Condensed Consolidated Statements of Cash Flows (unaudited)
(in thousands)

	Three Months Ended March 31,	
	2020	**2019**
OPERATING ACTIVITIES:		
Net loss	$ (31,829)	$ (21,351)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	3,304	2,354
Amortization of right-of-use assets	1,496	802
Charge of in-process research and development costs with no alternative future use	8,500	—
Unrealized translation gains (loss) on obligation related to royalty	—	(144)
Re-valuation of contingent consideration	(190)	—
Non-cash stock-based compensation	6,338	3,182
Amortization of premium (discount) on marketable securities	580	(553)
Others	56	—
Changes in operating assets and liabilities:		
Accounts receivable, net	(179)	11,608
Inventory	(9,967)	(1,120)
Prepaid expenses and other current assets	(2,598)	(947)
Other assets	161	(833)
Accounts payable	9,491	(2,610)
Accrued compensation	4,378	1,697
Accrued expenses	(660)	2,308
Operating lease liabilities	(1,858)	329
Deferred revenue	(341)	975
Other liabilities	36	—
Net cash used in operating activities	(13,282)	(4,303)
INVESTING ACTIVITIES:		
Purchases of marketable securities	(55,760)	(45,966)
Maturity of marketable securities	104,048	64,000
Purchases of property and equipment	(9,598)	(2,705)
Purchase of intangible assets	(17,886)	—
Net cash provided by investing activities	20,804	15,329
FINANCING ACTIVITIES:		
Payments made on royalty obligations	—	(73)
Payments made on capital lease obligations	(38)	(21)
Proceeds from issuance of common stock upon exercise of stock options	1,504	538
Proceeds from issuances of common stock under employee stock purchase plan	—	1,933
Payment of offering costs related to initial public offering and follow-on offering	—	(89)
Net cash provided by financing activities	1,466	2,288
Net effect of foreign exchange rate changes on cash and cash equivalents	23	(69)
Net increase in cash and cash equivalents	9,011	13,245

Cash and cash equivalents—Beginning of period	143,228	140,544
Cash and cash equivalents—End of period	$ 152,239	$ 153,789
Supplemental Disclosures of Cash Flow Information:		
Operating lease liabilities arising from obtaining right-of-use assets	$ 1,957	$ —
Supplemental Disclosures of Noncash Investing and Financing Activities:		
Purchases of property and equipment included in accounts payable and accrued expenses	$ 1,365	$ 490

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

Guardant Health, Inc.

Notes to Unaudited Condensed Consolidated Financial Statements

1. Description of Business

Guardant Health, Inc. (the "Company") is a leading precision oncology company focused on helping conquer cancer globally through use of its proprietary blood tests, vast data sets and advanced analytics. The key to conquering cancer is unprecedented access to its molecular information throughout all stages of the disease, which the Company enables by a routine blood draw, or liquid biopsy. The Guardant Health Oncology Platform is designed to leverage the Company's capabilities in technology, clinical development, regulatory, reimbursement and commercial adoption to improve patient clinical outcomes, lower healthcare costs and accelerate biopharmaceutical drug development. In pursuit of its goal to manage cancer across all stages of the disease, the Company has launched its Guardant360 and GuardantOMNI liquid biopsy-based tests for advanced stage cancer patients, and is developing tests from its LUNAR program which aims to address the needs of early stage cancer patients with neoadjuvant and adjuvant treatment selection, cancer survivors with surveillance, and asymptomatic individuals eligible for cancer screening and individuals at a higher risk for developing cancer with early detection.

The Company was incorporated in Delaware in December 2011 and is headquartered in Redwood City, California. In May 2018, the Company formed and capitalized Guardant Health AMEA, Inc. (the "Joint Venture") in the United States with an entity affiliated with SoftBank. Under the terms of the joint venture agreement, the Company held a 50% ownership interest in the Joint Venture. As of March 31, 2020, the Joint Venture has subsidiaries in Singapore and Japan (see Note 3, *Investment in Joint Venture*) and the Company has a subsidiary in Switzerland, which was incorporated in 2019.

2. Summary of Significant Accounting Policies

Basis of Presentation

The Company's condensed consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP"). The accompanying condensed consolidated financial statements include the accounts of Guardant Health, Inc. and its consolidated Joint Venture. Other stockholders' interests in the Joint Venture are shown in the condensed consolidated financial statements as redeemable noncontrolling interest. All significant intercompany balances and transactions have been eliminated in consolidation.

The Company believes that its existing cash and cash equivalents and marketable securities as of March 31, 2020 will be sufficient to allow the Company to fund its current operating plan through at least a period of one year after the date the accompanying condensed consolidated financial statements are issued. As the Company continues to incur losses, its transition to profitability is dependent upon a level of revenues adequate to support the Company's cost structure. If the Company's transition to profitability is not consistent with its current operating plan, the Company may have to seek additional capital.

Use of Estimates

The preparation of condensed consolidated financial statements in conformity with GAAP requires management to make certain estimates, judgments and assumptions that affect the reported amounts of assets and liabilities and the related disclosures at the date of the condensed consolidated financial statements, as well as the reported amounts of revenues and expenses during the periods presented. The Company bases its estimates on historical experience and other market-specific or other relevant assumptions that it believes to be reasonable under the circumstances. Estimates are used in several areas including, but not limited to, estimation of variable consideration, standalone selling price allocation included in contracts with multiple performance obligations, the fair value of assets acquired and liabilities assumed for business combinations, goodwill and identifiable intangible assets, stock-based compensation, contingencies, certain inputs into the provision for (benefit from) income taxes, including related reserves, valuation of redeemable noncontrolling interest, among others. These estimates generally involve complex issues and require judgments, involve the analysis of historical results and prediction of future trends, can require extended periods of time to resolve and are subject to change from period to period. Actual results may differ materially from management's estimates. The extent to which the COVID-19 pandemic will ultimately impact the Company's business, results of operations, financial conditions, or cash flows is highly uncertain and difficult to predict because it will depend on many factors that are outside the Company's control, such as the duration, scope and severity of the pandemic, steps required or mandated by governments to mitigate the impact of the pandemic, and whether COVID-19 can be effectively prevented, detected, contained and treated, particularly in the markets where the Company operates.

Unaudited Interim Condensed Financial Statements

The accompanying condensed consolidated balance sheet as of March 31, 2020, the condensed consolidated statements of operations and comprehensive loss for the three months ended March 31, 2020 and 2019, the condensed consolidated statements of redeemable noncontrolling interest and stockholders' equity for the three months ended March 31, 2020 and 2019 and cash flows for the three months ended March 31, 2020 and 2019, and the related interim condensed consolidated disclosures are unaudited. The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with GAAP for interim financial information and in accordance with the instructions to Form 10-Q and Rule 10-01 of Regulation S-X of the Securities Act of 1933, as amended (the "Securities Act"). Accordingly, they do not include all of the information and notes required by GAAP for complete financial statements. These unaudited condensed consolidated financial statements include all adjustments, consisting only of normal recurring accruals that the Company believes are necessary to fairly state the financial position and the results of the Company's operations and cash flows for interim periods in accordance with GAAP. Interim-period results are not necessarily indicative of results of operations or cash flows for a full year or any subsequent interim period.

The accompanying condensed consolidated financial statements should be read in conjunction with the Company's audited financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the year ended December 31, 2019.

Foreign Currency Translation

The functional currency of the subsidiaries of the consolidated Joint Venture is the local currency. The assets and liabilities of the subsidiaries are translated into U.S. dollars at exchange rates in effect at each balance sheet date, with the resulting translation adjustments recorded to a separate component of accumulated other comprehensive loss within stockholders' equity. Income and expense accounts are translated at average exchange rates during the period. Foreign currency transaction gains and losses resulting from transactions denominated in a currency other than the functional currency are recognized in the condensed consolidated statements of operations. For the three months ended March 31, 2020 and 2019, foreign currency translation adjustment was immaterial.

Concentration of Risk

The Company is subject to credit risk from its portfolio of cash equivalents held at one commercial bank and investments in marketable securities. The Company limits its exposure to credit losses by investing in money market funds through a U.S. bank with high credit ratings. The Company's cash may consist of deposits held with banks that may at times exceed federally insured limits, however, its exposure to credit risk in the event of default by the financial institution is limited to the extent of amounts recorded on the condensed consolidated balance sheets. The Company performs evaluations of the relative credit standing of these financial institutions to limit the amount of credit exposure.

The Company also invests in investment-grade debt instruments and has policy limits for the amount it can invest in any one type of security, except for securities issued or guaranteed by the U.S. government. The goals of the Company's investment policy, in order of priority, are as follows: safety and preservation of principal and diversification of risk; liquidity of investments sufficient to meet cash flow requirements; and a competitive after-tax rate of return. Under its investment policy, the Company limits amounts invested in such securities by credit rating, maturity, investment type and issuer, as a result, the Company is not exposed to any significant concentrations of credit risk from these financial instruments.

The Company is also subject to credit risk from its accounts receivable. The majority of the Company's accounts receivable arises from the provision of precision oncology services in the United States and are primarily with biopharmaceutical companies with high credit ratings. The Company has not experienced any material losses related to receivables from individual customers, or groups of customers. The Company does not require collateral. Accounts receivable are recorded at the invoiced amount and do not bear interest.

A significant customer is a biopharmaceutical customer or a clinical testing payer that represents 10% or more of the Company's total revenue or accounts receivable balance. Revenue attributable to each significant customer, including its affiliated entities, as a percentage of the Company's total revenue, for the respective period, and accounts receivable balance attributable to each significant customers, including its affiliated entities, as a percentage of the Company's total accounts receivable balance, at the respective condensed consolidated balance sheet date, are as follows:

	Revenue		Accounts Receivable, Net	
	Three Months Ended March 31,			
	2020	2019	March 31, 2020	December 31, 2019
	(unaudited)		(unaudited)	
Customer A	20%	24%	38%	40%
Customer B	20%	*	*	*
Customer C	*	*	*	10%

* less than 10%

Accounts Receivable, Net

Accounts receivable represent valid claims against biopharmaceutical companies, research institutes and international distributors. The Company evaluates the collectability of its accounts receivable based on historical collection trends, the financial condition of payment partners, and external market factors and provides for an allowance for potential credit losses based on management's best estimate of the amount of probable credit losses. As of March 31, 2020, the Company recorded $150,000 as allowance for credit losses. As of December 31, 2019, the Company had no allowance for credit losses.

Asset Acquisition

If an acquisition of an asset or group of assets does not meet the definition of a business, the transaction is accounted for as an asset acquisition rather than a business combination. An asset acquisition does not result in the recognition of goodwill and transaction costs are capitalized as part of the cost of the asset or group of assets acquired. The total consideration is allocated to the various intangible assets acquired on a relative fair value basis. Transaction costs associated with the asset acquisition are capitalized. Cash paid in connection of purchase of in-process research and development technology in an asset acquisition is presented within the investing section of the condensed consolidated statement of cash flows.

Goodwill and Intangible Assets, net

Intangible assets related to in-process research and development costs ("IPR&D") are considered to be indefinite-lived until the completion or abandonment of the associated research and development efforts. If and when development is complete, the associated assets would be deemed finite-lived and would then be amortized based on their respective estimated useful lives at that point in time. Prior to completion of the research and development efforts, the assets are considered indefinite-lived. During this period, the assets will not be amortized but will be tested for impairment on an annual basis and between annual tests if we become aware of any events occurring or changes in circumstances that would indicate a reduction in the fair value of the IPR&D projects below their respective carrying amounts.

Goodwill represents the excess of the purchase price over the fair value of net identifiable assets and liabilities. Goodwill and IPR&D are not amortized but are tested for impairment at least annually during the fourth fiscal quarter, or if circumstances indicate their value may no longer be recoverable. The Company continues to operate in one segment, which is considered to be the sole reporting unit and, therefore, goodwill was tested for impairment at the enterprise level. As of March 31, 2020, there has been no impairment of goodwill.

Intangible assets are carried at cost, net of accumulated amortization. The Company does not have intangible assets with indefinite useful lives other than goodwill and the acquired IPR&D. Amortization is recorded on a straight-line basis over the intangible asset's useful life, which is approximately 6-12 years.

Leases

The Company determines if an arrangement contains a lease at inception. Operating lease right-of-use ("ROU") assets and operating leases liabilities are recognized based on the present value of the future minimum lease payments over the lease term at the commencement date. ROU assets also include any initial direct costs incurred and any lease payments made at or before the lease commencement date, less lease incentives received. The Company uses its incremental borrowing rate based on the information available at the commencement date in determining the lease liabilities, as the Company's leases generally do not provide an implicit rate. Lease terms may include options to extend or terminate when the Company is reasonably certain the option will be exercised. Lease expense is recognized on a straight-line basis over the lease term. The Company also has lease arrangements with lease and non-lease components. The Company elected the practical expedient not to separate non-lease components from lease components for the Company's facility leases. The Company also elected to apply the short-term lease measurement and recognition exemption in which ROU assets and lease liabilities are not recognized for leases with terms of 12 months or less.

Revenue Recognition

The Company derives revenue from the provision of precision oncology testing services provided to its ordering physicians and biopharmaceutical customers, as well as from biopharmaceutical research and development services provided to its biopharmaceutical customers. Precision oncology services include genomic profiling and the delivery of other genomic information derived from the Company's platform. Development services include companion diagnostic development, information solutions and laboratory services. The Company currently receives payments from third-party commercial and governmental payers, certain hospitals and oncology centers and individual patients, as well as biopharmaceutical companies and research institutes.

Revenues are recognized when control of services is transferred to customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for those services. ASC 606 provides for a five-step model that includes identifying the contract with a customer, identifying the performance obligations in the contract, determining the transaction price, allocating the transaction price to the performance obligations, and recognizing revenue when, or as, an entity satisfies a performance obligation.

Precision oncology testing

The Company recognizes revenue from the sale of its precision oncology tests for clinical customers, including certain hospitals, cancer centers, other institutions and patients, at the time results of the test are reported to physicians. Most precision oncology tests requested by clinical customers are sold without a written agreement; however, the Company determines an implied contract exists with its clinical customers. The Company identifies each sale of its liquid biopsy test to clinical customer as a single performance obligation. With the exception of certain limited contracted arrangements with insurance carriers and other institutions where the transaction price is fixed, a stated contract price does not exist and the transaction price for each implied contract with clinical customers represents variable consideration. The Company estimates the variable consideration under the portfolio approach and considers the historical reimbursement data from third-party commercial and governmental payers and patients, as well as known or anticipated reimbursement trends not reflected in the historical data. The Company monitors the estimated amount to be collected in the portfolio at each reporting period based on actual cash collections in order to assess whether a revision to the estimate is required. Both the estimate and any subsequent revision contain uncertainty and require the use of judgment in the estimation of the variable consideration and application of the constraint for such variable consideration. The Company analyzes its actual cash collections over the expected reimbursement period and compares it with the estimated variable consideration for each portfolio and any difference is recognized as an adjustment to estimated revenue after the expected reimbursement period, subject to assessment of the risk of future revenue reversal. Revenue from sales of precision oncology tests to biopharmaceutical customers are based on a negotiated price per test or on the basis of an agreement to provide certain testing volume over a defined period. The Company identifies its promise to transfer a series of distinct liquid biopsy tests to biopharmaceutical customers as a single performance obligation. Precision oncology tests to biopharmaceutical customers are generally billed at a fixed price for each test performed. For agreements involving testing volume to be satisfied over a defined period, revenue is recognized over time based on the number of tests performed as the performance obligation is satisfied over time. Results of the Company's precision oncology services are delivered electronically, and as such there are no shipping or handling fees incurred by the Company or billed to customers.

Development services

The Company performs development services for its biopharmaceutical customers utilizing its precision oncology information platform. Development services typically represent a single performance obligation as the Company performs a significant integration service, such as analytical validation and regulatory submissions. The individual

promises are not separately identifiable from other promises in the contracts and, therefore, are not distinct. However, under certain contracts, a biopharmaceutical customer may engage the Company for multiple distinct development services which are both capable of being distinct and separately identifiable from other promises in the contracts and, therefore, distinct performance obligations.

The Company collaborates with pharmaceutical companies in the development of new drugs. As part of these collaborations, the Company provides services related to regulatory filings with the FDA to support companion diagnostic device submissions for the Company's liquid biopsy panels. Under these collaborations, the Company generates revenue from achievement of milestones, as well as provision of on-going support. For development services performed, the Company is compensated through a combination of an upfront fee and performance-based, non-refundable regulatory and other developmental milestone payments. The transaction price of the Company's development services contracts typically represents variable consideration. Application of the constraint for variable consideration to milestone payments is an area that requires significant judgment. The Company evaluates factors such as the scientific, clinical, regulatory, commercial, and other risks that must be managed to achieve the respective milestone and the level of effort and investment required to achieve the respective milestone. In making this assessment, the Company considers its historical experience with similar milestones, the degree of complexity and uncertainty associated with each milestone, and whether achievement of the milestone is dependent on parties other than the Company. The constraint for variable consideration is applied such that it is probable a significant reversal of revenue will not occur when the uncertainty associated with the contingency is resolved. Application of the constraint for variable consideration is updated at each reporting period as a revision to the estimated transaction price.

The Company recognizes development services revenue over the period in which biopharmaceutical research and development services are provided. Specifically, the Company recognizes revenue using an input method to measure progress, utilizing costs incurred to-date relative to total expected costs as its measure of progress. The Company assesses the changes to the total expected cost estimates as well as any incremental fees negotiated resulting from changes to the scope of the original contract in determining the revenue recognition at each reporting period. For development of new products or services under these arrangements, costs incurred before technological feasibility is reached are included as research and development expenses in the Company's condensed consolidated statements of operations, while costs incurred thereafter are recorded as cost of development services.

Contracts with multiple performance obligations

Contracts with biopharmaceutical customers may include multiple distinct performance obligations, such as provision of precision oncology testing, biopharmaceutical research and development services, and clinical trial enrollment assistance, among others. The Company evaluates the terms and conditions included within its contracts with biopharmaceutical customers to ensure appropriate revenue recognition, including whether services are considered distinct performance obligations that should be accounted for separately versus together. The Company first identifies material promises, in contrast to immaterial promises or administrative tasks, under the contract, and then evaluates whether these promises are both capable of being distinct and distinct within the context of the contract. In assessing whether a promised service is capable of being distinct, the Company considers whether the customer could benefit from the service either on its own or together with other resources that are readily available to the customer, including factors such as the research, development, and commercialization capabilities of a third party as well as the availability of the associated expertise in the general marketplace. In assessing whether a promised service is distinct within the context of the contract, the Company considers whether it provides a significant integration of the services, whether the services significantly modify or customize one another, or whether the services are highly interdependent or interrelated.

For contracts with multiple performance obligations, the transaction price is allocated to the separate performance obligations on a relative standalone selling price basis. The Company determines standalone selling price by considering the historical selling price of these performance obligations in similar transactions as well as other factors, including, but not limited to, the price that customers in the market would be willing to pay, competitive pricing of other vendors, industry publications and current pricing practices, and expected costs of satisfying each performance obligation plus appropriate margin.

Contract assets

Contract assets consists primarily of: i) precision oncology testing revenues to clinical customers that are recognized upon delivery of the test results prior to cash collection; and ii) development services revenues to biopharmaceutical customers that are recognized upon the achievement of performance-based milestones but prior to the establishment of billing rights. Contract assets are relieved when the Company receives payments from clinical customers, or when it invoices the biopharmaceutical customers when milestones are achieved, thereby reclassifying the balances from contract assets to accounts receivable. Contract assets are presented under accounts receivable, net and other assets on

the Company's condensed consolidated balance sheets. As of March 31, 2020, the Company had contract assets of $9.1 million of which $150,000 was recorded in other assets. As of December 31, 2019, the Company had contract assets of $6.2 million of which $1.0 million was recorded in other assets.

Deferred revenue

Deferred revenue, which is a contract liability, consists primarily of payments received in advance of revenue recognition from contracts with customers. For example, development services contracts with biopharmaceutical customers often contain upfront payments which results in the recording of deferred revenue to the extent cash is received prior to the Company's performance of the related services. Contract liabilities are relieved as the Company performs its obligations under the contract and revenue is consequently recognized. As of March 31, 2020 and December 31, 2019, the deferred revenue balance was $11.9 million and $12.3 million, respectively, which included $5.5 million and $4.8 million, respectively, related to collaboration development efforts with pharmaceutical companies to be recognized as the Company performs research and development services in the future periods. Revenue recognized in the three months ended March 31, 2020 that was included in the deferred revenue balance as of December 31, 2019 was $4.0 million, which primarily represented revenue from provision of development services under the collaboration agreement with biopharmaceutical company.

Transaction price allocated to the remaining performance obligations

Transaction price allocated to remaining performance obligations represents contracted revenue that has not yet been recognized, which includes deferred revenue and non-cancelable amounts that will be invoiced and recognized as revenues in future periods. The Company expects to recognize substantially all of the remaining transaction price in the next 12 months.

Costs of Precision Oncology Testing

Cost of precision oncology testing generally consists of cost of materials, direct labor including bonus, benefit and stock-based compensation, equipment and infrastructure expenses associated with processing liquid biopsy test samples (including sample accessioning, library preparation, sequencing, quality control analyses and shipping charges to transport blood samples), freight, curation of test results for physicians and license fees due to third parties. Infrastructure expenses include depreciation of laboratory equipment, rent costs, amortization of leasehold improvements and information technology costs. Costs associated with performing the Company's tests are recorded as the tests are performed regardless of whether revenue was recognized with respect to that test. Royalties for licensed technology calculated as a percentage of revenues generated using the associated technology are recorded as expense at the time the related revenues are recognized. One-time royalty payments related to signing of license agreements or other milestones, such as issuance of new patents, are amortized to expense over the expected useful life of the applicable patent rights.

Cost of Development Services

Cost of development service includes costs incurred for the performance of development services requested by the Company's customers. For development of new products, costs incurred before technological feasibility has been achieved are reported as research and development expenses, while costs incurred thereafter are reported as cost of development services.

Research and Development Expenses

Research and development expenses are comprised of costs incurred to develop technology and include compensation and benefits, reagents and supplies used in research and development laboratory work, infrastructure expenses, including allocated facility occupancy and information technology costs, contract services and other outside costs.

Stock-Based Compensation

Stock-based compensation related to stock options granted to the Company's employees, directors and nonemployees is measured at the grant date based on the fair value of the award. The fair value is recognized as expense over the requisite service period, which is generally the vesting period of the respective awards. Compensation expense for stock options with performance metrics is calculated based upon expected achievement of the metrics specified in the grant.

Starting January 1, 2019, upon adoption of Accounting Standards Update ("ASU") 2018-07, Compensation - Stock Compensation (Topic 718), *Improvements to Nonemployee Share-Based Payment Accounting*, the fair value of stock options issued to nonemployee consultants is determined as of the grant date, and compensation expense is being recognized over the period that the related services are rendered.

The Company uses the Black-Scholes option-pricing model to estimate the fair value of its stock options and stock purchase rights under its 2018 Employee Stock Purchase Plan. The Black-Scholes option-pricing model requires assumptions to be made related to expected term of an award, expected volatility, risk-free rate and expected dividend yield. Starting January 1, 2017, forfeitures are accounted for as they occur.

The Company accounts for restricted stock units issued to employees based on the grant date fair value which is determined based on the closing market price of the common stock on the date of grant. The expense is recognized in the Company's condensed consolidated statement of operations on a straight-line basis over the requisite vesting period.

Net Loss Per Share Attributable to Common Stockholders

The Company calculates basic net loss per share attributable to common stockholders by dividing the net loss attributable to common stockholders by the weighted-average number of shares of common stock outstanding for the period. The diluted net loss per share attributable to common stockholders is computed by giving effect to all potential dilutive common stock equivalents outstanding for the period determined using the treasury stock method. For purposes of this calculation, stock options, restricted stock units, shares issuable pursuant to the employee stock purchase plan, shares subject to repurchase from early exercised options and contingently issuable shares are considered common stock equivalents but have been excluded from the calculation of diluted net loss per share attributable to common stockholders as their effect is anti-dilutive.

Accounting Pronouncements Adopted

Financial Instruments

In June 2016, the Financial Accounting Standards Board ("FASB") issued ASU 2016-13, *Financial Instruments—Credit Losses (Topic 326)*, in order to improve financial reporting of expected credit losses on financial instruments and other commitments to extend credit. ASU 2016-13 requires that an entity measure and recognize expected credit losses for financial assets held at amortized cost and replaces the incurred loss impairment model with an expected loss model which requires the use of forward-looking information to calculate credit loss estimates. It also eliminates the concept of other-than-temporary impairment and requires credit losses related to certain available-for-sale debt securities to be recorded through an allowance for credit losses rather than as a reduction in the amortized cost basis of the securities. These changes result in earlier recognition of credit losses. The Company adopted ASU 2016-13 using the modified retrospective approach as of January 1, 2020. The cumulative effect upon adoption was not material to the Company's condensed consolidated financial statements. The Company will continue to monitor the developments pertaining to the recent coronavirus (COVID-19) pandemic and its impact on expected credit losses.

Goodwill

In January 2017, the FASB issued ASU 2017-04, *Intangibles—Goodwill and Other (Topic 350):* Simplifying the Test for Goodwill Impairment which eliminates Step 2 from the goodwill impairment test and instead requires entities to perform its annual or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. The Company adopted this new standard on January 1, 2020. The adoption of this standard did not have a significant impact to the Company's condensed consolidated financial statements.

Fair Value Measurements

In August 2018, the FASB issued ASU 2018-13, Fair Value Measurement (Topic 820): *Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement*, which eliminates, adds and modifies certain disclosure requirements for fair value measurements in ASC 820, *Fair Value Measuremen*t, as part of its disclosure framework project. The Company adopted this new guidance on January 1, 2020. The adoption of this standard did not have a significant impact on the Company's condensed consolidated financial statements.

Cloud Computing Arrangements

In August 2018, the FASB issued ASU 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, which requires a customer in a cloud computing arrangement that is a service contract to follow the internal-use software guidance in ASC Topic 350, *Intangibles—Goodwill and Other*, to determine which implementation costs to capitalize as assets or expense as incurred. The Company adopted this new standard on January 1, 2020 on a prospective basis. The adoption of this standard did not have a significant impact on the Company's condensed consolidated financial statements.

Collaborative Arrangements

In November 2018, the FASB issued ASU 2018-18 -*Collaborative Arrangements (ASC 808)* to clarify that certain transactions between participants in a collaborative arrangement should be accounted for under R*evenue from contracts with customers (Topic ASC 606)* when the counterparty is a customer. The Company adopted this new standard on January 1, 2020. The adoption of this standard did not have a significant impact to the Company's condensed consolidated financial statements.

Income Taxes

In December 2019, the FASB issued ASU 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes*, which simplifies the accounting for income taxes by removing certain exceptions to the general principles in Topic 740. The amendments also improve consistent application of and simplify GAAP for other areas of Topic 740 by clarifying and amending existing guidance. The Company early adopted this new standard on January 1, 2020.The adoption of this standard did not have a significant impact to the Company's condensed consolidated financial statements. Under prior GAAP, the Company historically allocated income tax benefit to continuing operations and an offsetting income tax expense to other comprehensive income under the applicable exception to ASC Topic 740. The new standard eliminates this exception and the Company will now determine the tax effect of pre-tax income or loss from continuing operations without regard to the tax effect of other items. The Company applied the new intraperiod tax allocation guidance prospectively in the period of adoption.

3. Investment in Joint Venture

Variable Interest Entity ("VIE")

In May 2018, the Company and SoftBank formed and capitalized Guardant Health AMEA, Inc. (the "Joint Venture") for the sale, marketing and distribution of the Company's tests in all areas worldwide, outside of North America, Central America, South America, the United Kingdom, all other member states of the European Union as of May 9, 2017, Iceland, Norway, Switzerland and Turkey. The Company expects to rely on the Joint Venture to accelerate commercialization of its products in Asia, the Middle East and Africa, with an initial focus on Japan.

Under the terms of the joint venture agreement, the Company paid $9.0 million for 40,000 shares of common stock, or 50% ownership interest, of the Joint Venture, and the affiliate of SoftBank contributed $41.0 million for 40,000 shares of common stock, or the other 50% ownership interest, of the Joint Venture. Neither party has the obligation to provide additional financial support to the Joint Venture. The Joint Venture is deemed to be a variable interest entity ("VIE") and the Company has been identified as the VIE's primary beneficiary. As the primary beneficiary, the Company has consolidated the financial position, results of operations and cash flows of the Joint Venture in its financial statements and all intercompany balances have been eliminated in consolidation.

As of March 31, 2020 and December 31, 2019, the Joint Venture had total assets of approximately $42.0 million and $45.1 million, respectively, which were primarily comprised of cash, property and equipment, right-of-use assets and security deposits. Although the Company consolidates the Joint Venture, the legal structure of the Joint Venture limits the recourse that its creditors will have over the Company's general credit or assets. Similarly, the assets held in the Joint Venture can be used only to settle obligations of the Joint Venture. As of March 31, 2020 and December 31, 2019, the Company has not provided financial or other support to the Joint Venture that was not previously contracted or required.

Put-call arrangements

The joint venture agreement includes a put-call arrangement with respect to the shares of the Joint Venture held by SoftBank and its affiliates. Under certain specified circumstances and on terms specified in the joint venture agreement, including timely written notice, SoftBank has the right to cause the Company to purchase all shares of the Joint Venture held by SoftBank and its affiliates (the "put right"), and the Company has a right to purchase all such shares (the "call right").

Each of the Company and SoftBank may exercise its respective put-call rights for the Company to purchase all shares of the Joint Venture held by SoftBank in the event of (i) certain material disagreements relating to the Joint Venture or its business that may seriously affect the ability of the Joint Venture to perform its obligations under the joint venture agreement or may otherwise seriously impair the ability of the Joint Venture to conduct its business in an effective matter, other than one relating to the Joint Venture's business plan or to factual matters that may be capable of expert determination; (ii) the effectiveness of the Company's initial public offering, a change in control of the Company, the seventh anniversary of the formation of the Joint Venture, or each subsequent anniversary of each of the foregoing events; or (iii) a material breach of the joint venture agreement by the other party that goes unremedied within 20 business days. Unless the shares of the Joint Venture are publicly traded and listed on a nationally recognized stock exchange, the purchase price per share of the Joint Venture in these situations will be determined by a third-party valuation firm

on the assumption that the sale is on an arm's-length basis on the date of the put or call notice. The third-party valuation firm may evaluate a range of factors and employ assumptions that are subjective in nature, which could result in the fair value of SoftBank's interests in the Joint Venture being determined to be materially different from what has been recorded in the Company's condensed consolidated financial statements.

In the event the Company exercises its call right, the fair value of the Joint Venture will be deemed to be no less than an amount that yields a 20% internal rate of return on each tranche of capital invested by SoftBank and its affiliates in the Joint Venture, taking into account all proceeds received by SoftBank and its affiliates arising from their shares through such date.

In the event SoftBank exercises its put right and the fair value of the Joint Venture is determined to be greater than 40% of the fair value of the Company, the Company will only be required to purchase the number of shares of the Joint Venture held by SoftBank and its affiliates having an aggregate value equal to the product of 40% of the Company's fair value and the pro rata portion of the outstanding shares of the Joint Venture held by SoftBank and its affiliates.

The Company may pay the purchase price for the shares of the Joint Venture in cash, in shares of its capital stock (which may be a non-voting security with senior preferences to all other classes of its equity or, if its common stock is publicly traded on a national exchange, its common stock), or in a combination thereof. In the event the Company exercises the call right, SoftBank will choose the form of consideration. In the event SoftBank exercises the put right, the Company will choose the form of consideration.

The noncontrolling interest held by SoftBank contains embedded put-call redemption features that are not solely within the Company's control and has been classified outside of permanent equity in the consolidated balance sheets. The put-call feature embedded in the redeemable noncontrolling interest do not currently require bifurcation as it does not meet the definition of a derivative and is considered to be clearly and closely related to the redeemable noncontrolling interest. The noncontrolling interest is considered probable of becoming redeemable as SoftBank has the option to exercise its put right to sell its equity ownership in the Joint Venture to the Company on or after the seventh anniversary of the formation of the Joint Venture, on each subsequent anniversary of the Company's initial public offering (the "IPO") and under certain other circumstances. The Company elected to recognize the change in redemption value immediately as they occur as if the put-call redemption feature were exercisable at the end of the reporting period. The carrying value of the redeemable noncontrolling interest is first adjusted for the earnings or losses attributable to the redeemable noncontrolling interest based on the percentage of the economic or ownership interest retained in the consolidated VIE by the noncontrolling parties, and then adjusted to equal to its redemption amount, or the fair value of the noncontrolling interest held by SoftBank, as if the redemption were to occur at the end of the reporting date.

4. Condensed Consolidated Balance Sheet Components

Property and Equipment, Net

Property and equipment, net consist of the following:

	March 31, 2020	December 31, 2019
	(unaudited)	
	(in thousands)	
Machinery and equipment	$ 32,603	$ 29,119
Computer hardware	7,108	6,296
Leasehold improvements	22,233	21,031
Furniture and fixtures	2,601	1,962
Computer software	930	829
Construction in progress	5,939	6,354
Property and equipment, gross	$ 71,414	$ 65,591
Less: accumulated depreciation and amortization	(24,729)	(21,923)
Property and equipment, net	$ 46,685	$ 43,668

Depreciation and amortization expense related to property and equipment was $3.0 million and $2.1 million for the three months ended March 31, 2020 and 2019, respectively.

Accrued Expenses

Accrued expenses consist of the following:

	March 31, 2020	December 31, 2019
	(unaudited)	
	(in thousands)	
Accrued royalty obligations	$ 350	$ 1,564
Accrued legal expenses	2,951	1,046
Accrued tax liabilities	3,362	3,050
Accrued professional services	3,094	3,464
Accrued clinical trials and studies	2,012	2,029
Purchases of property and equipment included in accrued expenses	281	2,424
Operating lease liabilities	7,307	7,140
Other	3,716	4,986
Total accrued expenses	$ 23,073	$ 25,703

5. Fair Value Measurements, Cash Equivalents and Marketable Securities

Financial instruments consist of cash equivalents, marketable securities, accounts receivable, net, prepaid expenses and other current assets, accounts payable and accrued expenses. Cash equivalents and marketable securities are stated at fair value. Prepaid expenses and other current assets, accounts payable and accrued expenses are stated at their carrying value, which approximates fair value due to the short time to the expected receipt or payment date.

Fair value is defined as the exchange price that would be received from sale of an asset or paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The identification of market participant assumptions provides a basis for determining what inputs are to be used for pricing each asset or liability. A financial instrument’s classification within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

A fair value hierarchy has been established which gives precedence to fair value measurements calculated using observable inputs over those using unobservable inputs. This hierarchy prioritized the inputs into three broad levels as follows:

Level 1 - Quoted prices in active markets for identical assets or liabilities.

Level 2 - Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 - Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The Company’s financial assets and liabilities subject to fair value measurements on a recurring basis and the level of inputs used in such measurements were as follows:

	March 31, 2020			
	Fair Value	Level 1	Level 2	Level 3
	(unaudited)			
	(in thousands)			
Financial Assets:				
Money market funds	$ 35,592	$ 35,592	$ —	$ —
Total cash equivalents	$ 35,592	$ 35,592	$ —	$ —
Corporate bonds	$ 4,035	$ —	$ 4,035	$ —
U.S. government debt securities	363,818	—	363,818	—
Total short-term marketable securities	$ 367,853	$ —	$ 367,853	$ —
U.S. government debt securities	$ 238,206	$ —	$ 238,206	$ —
Total long-term marketable securities	$ 238,206	$ —	$ 238,206	$ —
Total	$ 641,651	$ 35,592	$ 606,059	$ —
Financial Liabilities:				
Contingent consideration	$ 1,175	$ —	$ —	$ 1,175
Total	$ 1,175	$ —	$ —	$ 1,175

	December 31, 2019			
	Fair Value	Level 1	Level 2	Level 3
	(in thousands)			
Financial Assets:				
Money market funds	$ 10,734	$ 10,734	$ —	$ —
Total cash equivalents	$ 10,734	$ 10,734	$ —	$ —
Corporate bonds	$ 16,690	$ —	$ 16,690	$ —
U.S. government debt securities	362,884	—	362,884	—
Total short-term marketable securities	$ 379,574	$ —	$ 379,574	$ —
U.S. government debt securities	$ 268,783	$ —	$ 268,783	$ —
Total long-term marketable securities	$ 268,783	$ —	$ 268,783	$ —
Total	$ 659,091	$ 10,734	$ 648,357	$ —
Financial Liabilities:				
Contingent consideration	$ 1,365	$ —	$ —	$ 1,365
Total	$ 1,365	$ —	$ —	$ 1,365

The Company measures the fair value of money market funds based on quoted prices in active markets for identical securities. Corporate bonds, U.S. government debt securities and U.S. government agency bonds are valued taking into consideration valuations obtained from third-party pricing services. The pricing services utilize industry standard valuation models, including both income and market-based approaches, for which all significant inputs are observable, either directly or indirectly, to estimate fair value. These inputs include reported trades of and broker/dealer quotes on the same or similar securities, issuer credit spreads; benchmark securities; prepayment/default projections based on historical data and other observable inputs.

The following table summarizes the activities for the Level 3 financial instruments for the three months ended March 31, 2020 and 2019:

	Redeemable Noncontrolling Interest		Contingent consideration	
	Three Months Ended March 31,		Three Months Ended March 31,	
	2020	2019	2020	2019
	(unaudited)			
	(in thousands)			
Fair value — beginning of period	$ 49,600	$ 41,800	$ 1,365	$ —
Increase (decrease) in fair value	(3,027)	5,022	(190)	—
Net loss for the period	(1,073)	(322)	—	—
Fair value — end of period	$ 45,500	$ 46,500	$ 1,175	$ —

As of March 31, 2020 and December 31, 2019, contingent consideration liability of $1.2 million and $1.4 million, respectively, was recorded within other long-term liabilities on the condensed consolidated balance sheets.

Cash Equivalents and Marketable Securities

The following tables summarizes the Company's cash equivalents and marketable securities' amortized costs, gross unrealized gains, gross unrealized losses and estimated fair values by significant investment category:

	March 31, 2020			
	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Estimated Fair Value
	(unaudited)			
	(in thousands)			
Money market fund	$ 35,592	$ —	$ —	$ 35,592
Corporate bond	4,035	—	—	4,035
U.S. government debt securities	594,064	7,961	—	602,025
Total	$ 633,691	$ 7,961	$ —	$ 641,652

	December 31, 2019			
	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Estimated Fair Value
	(in thousands)			
Money market fund	$ 10,734	$ —	$ —	$ 10,734
Corporate bond	16,679	11	—	16,690
U.S. government debt securities	630,283	1,422	(39)	631,666
Total	$ 657,696	$ 1,433	$ (39)	$ 659,090

There have been no material realized gains or losses on marketable securities for the periods presented. None of the Company's investments in marketable securities has been in an unrealized loss position for more than one year. The Company determined that it did have the ability and intent to hold all marketable securities that have been in a continuous loss position until maturity or recovery, thus there has been no recognition of credit losses in the three months ended March 31, 2020 and 2019, respectively. The maturities of the Company's long-term marketable securities range from 1.0 year to 1.7 years as of March 31, 2020.

6. Intangible Assets, Net and Goodwill

The following table presents details of purchased intangible assets as of March 31, 2020 and December 31, 2019:

	March 31, 2020			
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Remaining Weighted Average Useful Life
	(unaudited)			
	(in thousands)			(in years)
Intangible assets subject to amortization:				
Acquired license	$ 11,886	$ (499)	$ 11,387	10.6
Non-compete agreements and other covenant rights	5,100	(406)	4,694	5.6
Total intangible assets subject to amortization	16,986	(905)	16,081	
Intangible assets not subject to amortization:				
IPR&D	1,600	—	1,600	
Goodwill	3,290	—	3,290	
Total purchased intangible assets	$ 21,876	$ (905)	$ 20,971	

	December 31, 2019			
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Remaining Weighted Average Useful Life
	(in thousands)			(in years)
Intangible assets subject to amortization:				
Acquired license	$ 5,100	$ (373)	$ 4,727	9.5
Non-compete agreements	2,500	(303)	2,197	5.5
Total intangible assets subject to amortization	7,600	(676)	6,924	
Intangible assets not subject to amortization:				
IPR&D	1,600	—	1,600	
Goodwill	3,290	—	3,290	
Total purchased intangible assets	$ 12,490	$ (676)	$ 11,814	

Amortization of finite-lived intangible assets was $229,000 for the three months ended March 31, 2020. No amortization of finite-lived intangible assets was recorded for the three months ended March 31, 2019.

The following table summarizes estimated future amortization expense of finite-lived intangible assets:

Year Ending December 31,	
	(unaudited)
	(in thousands)
Remainder of 2020	$ 1,496
2021	1,909
2022	1,909
2023	1,910
2024	1,915
2025 and thereafter	6,942
Total	$ 16,081

7. Acquisition

Patent License Acquisition

In January 2017, the Company entered into a license agreement with a biotechnology company, KeyGene N.V. ("KeyGene"). An arbitration was initiated between the parties in 2018. In March 2020, the Company and KeyGene entered into a settlement and patent license agreement (the "SPLA") to resolve the dispute and to acquire an extended worldwide non-exclusive license to certain patent rights with respect to KeyGene's Next Generation Sequencing technologies along with certain covenant rights and research and development technology for a one-time payment of $18.5 million, ending all future royalty obligations to KeyGene. This transaction was accounted for as an asset acquisition as the purchase did not meet the definition of a business. The total consideration, including $0.6 million of certain capitalizable transaction costs, was allocated to various components of the SPLA.

The Company allocated $9.4 million to the patent and covenant rights granted under the SPLA, which have useful lives in the range of 6-12 years. The Company allocated $8.5 million to IPR&D technology, which have no alternative future use and was included in research and development expenses for the three months ended March 31, 2020. The remaining $1.2 million was allocated to the settlement of the prior dispute between the parties and was included in general and administrative expenses for the three months ended March 31, 2020.

Amortization of capitalized license fees relating to the January 2017 license agreement was immaterial for the three months ended March 31, 2020 and $0.2 million for the three months ended March 31, 2019.

Acquisition of Bellwether Bio

In April 2019, the Company purchased all of the outstanding shares of Bellwether Bio, Inc. ("Bellwether Bio"), a privately-held company developing a method for early blood-based cancer detection. The Company accounted for the acquisition as a business combination. The total purchase consideration was $8.7 million, which consisted of i) $7.6 million in cash paid upon closing; and ii) future contingent consideration liability with a fair value of $1.1 million on the acquisition date. The contingent consideration is subject to the achievement of certain commercialization milestones with a maximum payout amount of $10.0 million. The Company will also pay additional earn-out consideration of up to $10.0 million subject to the achievement of certain commercialization milestones and the continued provision of services to the Company by certain former employees and consultants of Bellwether Bio. The contingent consideration and earn-out consideration may be paid, at the Company's election, in cash or in the Company's common stock. As of March 31, 2020, the Company did not believe the earn-out consideration is probable to be achieved, and therefore, did not record any compensation expense. The following table summarizes the allocation of the total consideration to the estimated fair values of assets acquired and liabilities assumed:

	Amount
	(in thousands)
Cash	$ 521
Identified intangible assets	6,700
Goodwill	3,289
Net liabilities assumed	(1,802)
Total	$ 8,708

The following table presents details of the identified intangible assets acquired from the Bellwether Bio acquisition:

	Fair Value	Estimated Useful Life
	(in thousands)	
Acquired license	$ 5,100	10 years
IPR&D	1,600	*
Total	$ 6,700	

* IPR&D assets are not subject to amortization.

In connection with the acquisition of Bellwether Bio, the Company also entered into non-compete agreements with certain key individuals based on their experience and importance to the operation of Bellwether Bio. The Company accounted for the covenants not to compete as purchases of intangible assets separate from the business combination as these non-compete agreements were initiated by the Company to protect its interests. The fair value of acquired

covenants not to compete is estimated to be $2.5 million, which is recorded within intangible assets, net on the condensed consolidated balance sheet and will be amortized over an estimated useful life of 6 years using the straight-line method. Acquisition-related contingent consideration is measured at fair value on a quarterly basis and change in estimated contingent consideration to be paid are included in operating expenses in the condensed consolidated statements of operations.

8. Leases

The Company has entered into various operating lease agreements for office space, with remaining terms ranging from 1 year to 8 years some of which include one or more options to renew. As leases approach maturity, the Company considers various factors such as market conditions and the terms of any renewal options that may exist to determine whether it will renew the lease, as such, the Company does not include renewal options in its lease terms for calculating its lease liability, as the renewal options allow it to maintain operational flexibility and the Company is not reasonably certain it will exercise these renewal options at the time of the lease commencement. Operating lease expense for the three months ended March 31, 2020 and 2019 was $1.5 million and $0.8 million, respectively, which includes both lease and non-lease components (primarily common area maintenance charges and property taxes).

	March 31, 2020	December 31, 2019
	(unaudited)	
Weighted-average remaining lease term (in years)	6.1	6.4
Weighted-average discount rate	7.75%	7.77%

The following table summarizes our future principal contractual obligations for operating lease commitments as of March 31, 2020:

Year Ending December 31,		(in thousands)
Remainder of 2020	$	5,775
2021		7,977
2022		8,145
2023		8,750
2024		8,942
2025 and thereafter		12,651
Total operating lease payments	$	52,240
Less: Imputed Interest		(11,160)
Total operating lease liabilities	$	41,080

Finance leases are not material to the Company's consolidated financial statements.

9. Commitments and Contingencies

Legal Proceedings

The Company is subject to claims and assessments from time to time in the ordinary course of business. The Company will accrue a liability for such matters when it is probable that a liability has been incurred and the amount can be reasonably estimated. When only a range of possible loss can be established, the most probable amount in the range is accrued. If no amount within this range is a better estimate than any other amount within the range, the minimum amount in the range is accrued. The accrual for a loss contingency might include, for example, estimates of potential damages, outside legal fees and other directly related costs expected to be incurred. The Company has not recorded a liability related to such matters as of March 31, 2020.

Patent Disputes

In November 2017, the Company filed separate lawsuits against Foundation Medicine, Inc. (“Foundation Medicine”) and Personal Genome Diagnostics, Inc. (“Personal Genome Diagnostics”) in the United States District Court for the District of Delaware. The Company has alleged that each of the two companies has infringed four of the Company’s digital sequencing technology patents. The two companies have each asserted counterclaims of patent invalidity,

unenforceability under the doctrine of inequitable conduct, and non-infringement. Personal Genome Diagnostics has also alleged antitrust violations related to the enforcement of the Company's patent rights. In each lawsuit, the parties are seeking damages, injunctive relief and attorneys' fees.

In March 2018, Personal Genome Diagnostics filed two petitions for post-grant review with the Patent Trial and Appeal Board ("PTAB") at the United States Patent and Trademark Office, challenging the patentability of two of the patents asserted by the Company. The two post-grant review petitions were dismissed with prejudice in July 2018. Subsequently, Foundation Medicine filed six petitions for inter partes review with the PTAB, challenging the patentability of all four of the patents asserted by the Company. The PTAB denied institution of inter partes review for four of the six petitions filed by Foundation Medicine and instituted inter partes review for the remaining two petitions. The Company plans to vigorously defend its patent rights during such PTAB actions. At this time, the Company cannot reasonably ascertain the likelihood that any of the remaining challenged patents will be found to be invalid or unenforceable.

License Dispute

In November 2018, the Company filed a request for arbitration to the International Chamber of Commerce claiming that KeyGene has breached its 2017 patent license agreement with the Company. KeyGene counterclaimed that the Company has breached the agreement. The parties were seeking damages, declaratory relief and recovery of costs and fees, among other remedies. On March 10, 2020, the Company and KeyGene entered into a settlement and patent license agreement. Pursuant to this agreement, the parties terminated this arbitration without the issuance of an award. See Note 7, *Acquisition*, for additional information.

10. Common Stock

The Company's common stockholders are entitled to dividends if and when declared by the Company's Board of Directors (the "Board of Directors"). As of March 31, 2020 and December 31, 2019, no dividends on common stock had been declared by the Board of Directors.

The Company's common stock has been reserved for the following potential future issuances:

	March 31, 2020	December 31, 2019
	(unaudited)	
Shares underlying outstanding stock options	4,227,990	4,494,889
Shares underlying unvested restricted stock units	488,921	496,131
Shares available for issuance under the 2018 Incentive Award Plan	6,422,345	2,726,225
Shares available for issuance under the 2018 Employee Stock Purchase Plan	1,632,531	689,917
Total	12,771,787	8,407,162

11. Stock-Based Compensation

Stock Option Activity

A summary of the Company's stock option activity under the 2012 Stock Plan (as amended and restated, the "2012 Plan") and the 2018 Incentive Award Plan (the "2018 Plan") and related information is as follows:

		Options Outstanding			
	Shares Available for Grant	Shares Subject to Options Outstanding	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value
					(in thousands)
Balance as of December 31, 2019	2,726,225	4,494,889	$ 10.90	7.7	$ 306,392
2018 plan annual increase[(1)]	3,689,000	—			
Granted	(6,902)	6,902	84.61		
Exercised	—	(242,003)	6.21		
Canceled	12,406	(31,798)	10.90		
Restricted stock units granted	(14,548)	—	—		
Restricted stock units canceled	16,164	—	—		
Balance as of March 31, 2020	6,422,345	4,227,990	$ 11.29	7.5	$ 253,161
Vested and Exercisable as of March 31, 2020		2,034,629	$ 5.77	7.1	$ 130,646

(1) Effective as of January 1, 2020, an additional 3,689,000 shares of common stock became available for issuance under the 2018 Plan, as a result of the operation of an automatic annual increase provision therein.

Aggregate intrinsic value represents the difference between the estimated fair value of the underlying common stock and the exercise price of outstanding, in-the-money options. The total intrinsic value of the options exercised was $17.2 million and $8.1 million for the three months ended March 31, 2020 and 2019, respectively.

The weighted-average grant date fair value of options granted was $55.05 and $25.90 per share for the three months ended March 31, 2020 and 2019, respectively.

Future stock-based compensation for unvested options as of March 31, 2020 was $23.0 million, which is expected to be recognized over a weighted-average period of 2.6 years.

Restricted Stock Units

A summary of the Company's restricted stock unit activity under the 2012 Plan and the 2018 Plan and related information is as follows:

	Restricted Stock Units Outstanding	Weighted-Average Grant Date Fair Value
Balance as of December 31, 2019	496,131	$ 82.08
Granted	14,548	85.30
Vested	(5,594)	67.81
Canceled	(16,164)	71.97
Balance as of March 31, 2020	488,921	$ 82.67

Future stock-based compensation for unvested restricted stock units as of March 31, 2020 was $33.8 million, which is expected to be recognized over a weighted-average period of 3.3 years.

Stock-Based Compensation Expense

The following table presents the effect of employee and non-employee related stock-based compensation expense:

	Three Months Ended March 31,	
	2020	2019
	(unaudited)	
	(in thousands)	
Cost of precision oncology testing	$ 303	$ 170
Research and development expense	2,364	1,210
Sales and marketing expense	1,798	826
General and administrative expense	1,873	976
Total stock-based compensation expense	$ 6,338	$ 3,182

Valuation of Stock Options

The grant date fair value of stock options was estimated using a Black-Scholes option-pricing model with the following weighted-average assumptions:

	Three Months Ended March 31,	
	2020	2019
	(unaudited)	
Expected term (in years)	6.06	6.22
Expected volatility	73.3%	66.7%
Risk-free interest rate	1.6%	2.7%
Expected dividend yield	—%	—%

The determination of the fair value of stock options on the date of grant using a Black-Scholes option-pricing model is affected by the estimated fair value of the Company's common stock, as well as assumptions regarding a number of variables that are complex, subjective and generally require significant judgment to determine. The valuation assumptions were determined as follows**:**

Fair Value of Common Stock

The fair value of the Company's common stock is determined by the closing price, on the date of grant, of its common stock, which is traded on the Nasdaq Global Select Market.

Expected Term

The expected term represents the period that the options granted are expected to be outstanding and is determined using the simplified method (based on the mid-point between the vesting date and the end of the contractual term) as the Company has concluded that its stock option exercise history does not provide a reasonable basis upon which to estimate expected term.

Expected Volatility

Prior to the commencement of trading of the Company's common stock on the Nasdaq Global Select Market on October 4, 2018 in connection with the IPO, there was no active trading market for the Company's common stock. Due to limited historical data for the trading of the Company's common stock, expected volatility is estimated based on the average volatility for comparable publicly traded peer group companies in the same industry plus the Company's expected volatility for the available periods. The comparable companies are chosen based on their similar size, stage in the life cycle or area of specialty.

Risk-Free Interest Rate

The risk-free interest rate is based on the U.S. Treasury rate, with maturities similar to the expected term of the stock options.

Expected Dividend Yield

The Company does not anticipate paying any dividends in the foreseeable future and, therefore, uses an expected dividend yield of zero.

2018 Employee Stock Purchase Plan

In September 2018, the Company's Board of Directors adopted and its stockholders approved the 2018 Employee Stock Purchase Plan (the "ESPP"). A total of 922,250 shares of common stock were initially reserved for issuance under the ESPP. Effective as of January 1, 2020, an additional 942,614 shares of common stock became available for issuance under the ESPP, as a result of the operation of an automatic annual increase provision therein.

Subject to any plan limitations, the ESPP allows eligible employees to contribute, normally through payroll deductions, up to 10% of their earnings for the purchase of the Company's common stock at a discounted price per share. The price at which common stock is purchased under the ESPP is equal to 85% of the fair market value of the Company's common stock on the first or last day of the offering period, whichever is lower. The initial offering period ran from October 2, 2018 to January 31, 2019, the second offering period ran from February 1, 2019 to July 31, 2019, and the third offering period began on August 1, 2019 and ran to November 14, 2019. For subsequent years starting with 2020, the ESPP provides for separate six-month offering periods beginning on May 15 and November 15 of each year.

No shares were purchased under the ESPP for the three months ended March 31, 2020. For the three months ended March 31, 2019, 119,702 shares of common stock were purchased under the ESPP. The total compensation expense related to the ESPP for the three months ended March 31, 2020 and 2019 was $0.5 million and $0.6 million, respectively.

The fair value of the stock purchase right granted under the ESPP was estimated on the first day of each offering period using the Black-Scholes option pricing model. The valuation assumptions used were substantially consistent with the assumption used to value stock options with the exception of the expected term which was based on the term of each purchase period. No ESPP shares were granted for the three months ended March 31, 2020. For the three months ended March 31, 2019, the following assumptions were used to calculate the stock-based compensation for each stock purchase right granted under the ESPP: a weighted-average expected life of 0.5 years; expected volatility of 60.2%; a risk-free interest rate of 2.5%; and a zero dividend yield.

As of March 31, 2020, the unrecognized stock-based compensation expense related to the ESPP was $0.3 million, which is expected to be recognized over the remaining term of the offering period of 0.1 years.

Liabilities for Early Exercise of Employee Options

The Company allowed certain stock option holders to exercise unvested options to purchase shares of the Company's common stock. Shares received from such early exercises are subject to repurchase in the event of the optionee's employment termination, at the original issuance price, until the options are fully vested. As of March 31, 2020 and December 31, 2019, 21,212 shares and 23,981 shares of common stock were subject to repurchase at weighted-average price of $4.66 per share. As of March 31, 2020 and December 31, 2019, the cash proceeds received for unvested shares of common stock of $0.1 million and $0.1 million, respectively, was recorded within other long-term liabilities on the condensed consolidated balance sheet, respectively. The shares issued pursuant to unvested options have been included in shares issued and outstanding on the condensed consolidated balance sheet and condensed consolidated statement of redeemable noncontrolling interest and stockholders' equity as such shares are considered legally outstanding.

12. Net Loss Per Share Attributable to Guardant Health, Inc. Common Stockholders

The following table sets forth the computation of the basic and diluted net loss per share attributable to Guardant Health, Inc. common stockholders:

	Three Months Ended March 31,	
	2020	2019
	(unaudited)	
	(in thousands, except per share data)	
Net loss	$ (31,829)	$ (21,351)
Adjustment of redeemable noncontrolling interest	4,100	(4,700)
Net loss attributable to Guardant Health, Inc. common stockholders, basic and diluted	$ (27,729)	$ (26,051)
Net loss per share attributable to Guardant Health, Inc. common stockholders, basic and diluted	$ (0.29)	$ (0.30)
Weighted-average shares used in computing net loss per share attributable to Guardant Health, Inc. common stockholders, basic and diluted	94,382	85,935

Since the Company was in a loss position for all periods presented, basic net loss per share attributable to Guardant Health, Inc. common stockholders is the same as diluted net loss per share attributable to Guardant Health, Inc. common stockholders, as the inclusion of all potential shares of common stock outstanding would have been anti-dilutive. The following weighted-average common stock equivalents were excluded from the calculation of diluted net loss per share attributable to Guardant Health, Inc. common stockholders for the periods presented as they had an anti-dilutive effect:

	Three Months Ended March 31,	
	2020	2019
	(unaudited)	
	(in thousands)	
Stock options issued and outstanding	4,345	7,503
Restricted stock units	495	78
ESPP obligation	43	59
Common stock subject to repurchase	22	41
Total	4,905	7,681

13. Income Taxes

The income tax expense for the three months ended March 31, 2020 was determined based upon estimates of the Company's effective income tax rates in various jurisdictions. The difference between the Company's effective income tax rate and the U.S. federal statutory rate is primarily attributable to state income taxes, foreign income taxes, the effect of certain permanent differences, and full valuation allowance against net deferred tax assets.

The income tax expense for the three months ended March 31, 2020 relates primarily to state minimum income tax and income tax on the Company's earnings in foreign jurisdictions. The income tax expense for the three months ended March 31, 2019 relates primarily to state minimum income tax.

14. Segment and Geographic Information

The following table sets forth the Company's revenue by geographic areas based on the customers' locations:

	Three Months Ended March 31,	
	2020	2019
	(unaudited)	
	(in thousands)	
United States	$ 64,613	$ 31,245
International (1)	2,897	5,410
Total revenue	$ 67,510	$ 36,655

(1) No single country outside of the United States accounted for more than 10% of total revenue during the three months ended March 31, 2020 and 2019, respectively, except for Germany which accounted for 10% of total revenue during the three months ended March 31, 2019.

As of March 31, 2020 and December 31, 2019, substantially all of the Company's long-lived assets and right-of-use assets are located in the United States.

15. Related Party Transactions

As discussed in Note 3, *Investment in Joint Venture*, the Company and SoftBank formed and capitalized the Joint Venture to accelerate commercialization of its products in Asia, the Middle East and Africa, with an initial focus on Japan. The Company has consolidated the financial position, results of operations and cash flows of the Joint Venture in its financial statements and all intercompany balances have been eliminated in consolidation.

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 the unaudited condensed consolidated financial statements and related notes included elsewhere in this Quarterly Report on Form 10-Q. This discussion and other parts of this Quarterly Report on Form 10-Q contain forward-looking statements that involve risk and uncertainties, such as statements of our plans, objectives, beliefs, expectations and intentions. Our actual results could differ materially from those discussed in these forward-looking statements. Factors that could cause or contribute to such differences include, but are not limited to, those discussed in Part I, Item 1A, "Risk Factors," of our Annual Report on Form 10-K for the year ended December 31, 2019 and in Part II, Item 1A, "Risk Factors" of this Quarterly Report on Form 10-Q.

Overview

We are a leading precision oncology company focused on helping conquer cancer globally through use of our proprietary blood tests, vast data sets and advanced analytics. We believe that the key to conquering cancer is unprecedented access to its molecular information throughout all stages of the disease, which we intend to enable by a routine blood draw, or liquid biopsy. Our Guardant Health Oncology Platform is designed to leverage our capabilities in technology, clinical development, regulatory and reimbursement to drive commercial adoption, accelerate drug development, improve patient clinical outcomes and lower healthcare costs. In pursuit of our goal to manage cancer across all stages of the disease, we launched our Guardant360 and GuardantOMNI liquid biopsy-based tests for advanced stage cancer. Our Guardant360 test, launched in 2014, has been used by more than 7,000 oncologists, over 50 biopharmaceutical companies and all 28 National Comprehensive Cancer Network, or NCCN, Centers. Our GuardantOMNI test, launched in 2017, has been used by our biopharmaceutical customers as a comprehensive genomic profiling tool to help accelerate clinical development programs in both immuno-oncology and targeted therapy. These tests fuel development of our LUNAR program, which aims to address the needs of early stage cancer patients with neoadjuvant and adjuvant treatment selection, cancer survivors with surveillance, asymptomatic individuals eligible for cancer screening and individuals at a higher risk for developing cancer with early detection. Our LUNAR-1 assay was launched in 2018 for research use and in late 2019 for investigational use.

Since our inception, we have devoted substantially all of our resources to research and development activities related to our Guardant360 and GuardantOMNI tests and our LUNAR program, including clinical and regulatory initiatives to obtain approval by the U.S. Food and Drug Administration, or the FDA, as well as sales and marketing activities. We have over 50 approved, completed or active clinical outcomes studies, more than 150 peer-reviewed publications and more than 400 scientific abstracts. We are pioneering the clinical comprehensive liquid biopsy market with our

Guardant360 and GuardantOMNI tests, both of which analyze circulating tumor DNA in blood. Our Guardant360 test is a molecular diagnostic test measuring 74 cancer-related genes and has been used by clinicians to help inform which therapy may be effective for advanced stage cancer patients with solid tumors and by biopharmaceutical companies for a range of applications, including identifying target patient populations to accelerate translational science research, clinical trial enrollment, and drug development, and post-approval commercialization. Our GuardantOMNI test has a broader 500-gene panel, including genes associated with homologous recombination repair deficiency and biomarkers for immuno-oncology applications, such as tumor mutational burden and microsatellite instability, and has achieved comparable analytical performance in clinical studies, including for translational science applications in collaboration with several biopharmaceutical companies, including AstraZeneca, Bristol-Myers Squibb, Merck MSD, Merck KGaA of Darmstadt, Germany and Pfizer.

Our Guardant360 and GuardantOMNI tests have each been designated by the FDA as a breakthrough device for use as a companion diagnostic in connection with certain specified therapeutic products of our biopharmaceutical customers. Among other things, designation as a breakthrough device provides for priority review by the FDA and more interactive communication with the FDA during the development process. Our Guardant360 and GuardantOMNI tests are both being developed as companion diagnostics under collaborations with biopharmaceutical companies, including AstraZeneca and Amgen.

We perform our Guardant360, GuardantOMNI and other tests in our clinical laboratory located in Redwood City, California. Our laboratory is certified pursuant to the Clinical Laboratory Improvement Amendments of 1988, or CLIA, accredited by the College of American Pathologists, or CAP, permitted by the New York State Department of Health, or NYSDOH, and licensed in California and four other states.

The analytical and clinical data that we have generated in our efforts to establish clinical utility, combined with the support we have developed with key opinion leaders, or KOLs, in the oncology space have led to positive coverage decisions by a number of commercial payers. Our Guardant360 test is currently covered by Cigna, Priority Health, multiple Blue Cross Blue Shield plans as well as the health plans associated with eviCore, which have adopted policies that specifically cover Guardant360 test for non-small cell lung cancer, or NSCLC, which we believe gives us a competitive advantage with these payers.

In July 2018, Palmetto GBA, the Medicare Administrative Contractor, or MAC, responsible for administering Medicare’s Molecular Diagnostic Services Program, or MolDx, issued a local coverage determination, or LCD, for our Guardant360 test for NSCLC patients who meet certain clinical criteria. Subsequently in 2018, Noridian Healthcare Solutions, or Noridian, a participant in MolDx and the MAC responsible for adjudicating claims in California, where our laboratory is located, also finalized its LCD for our Guardant360 test. Pursuant to this Noridian LCD, in September 2018, we began to submit claims for reimbursement for Guardant360 clinical testing performed for NSCLC patients covered under the LCD who meet certain clinical criteria, and in October 2018, we began to receive payments for these services from Medicare.

We estimate that approximately 75% of Medicare patients tested for NSCLC are covered by the LCDs for NSCLC patients. For the three months ended March 31, 2020 and 2019, respectively, approximately 43% and 47% of our U.S. clinical tests were for patients tested for NSCLC.

In December 2019, Palmetto GBA finalized its expanded LCD for our Guardant360 test to provide limited Medicare coverage for use of Guardant360 for qualifying patients diagnosed with solid tumor cancers of non-central nervous system origin with an effective date in February 2020. In May 2019, Noridian also issued an expanded draft LCD for our Guardant360 test consistent with the expanded draft LCD issued by Palmetto GBA in March 2019. We believe that, in accordance with the 21st Century Cures Act, Noridian needs to finalize its expanded draft LCD by May 16, 2020. We cannot predict whether and when Noridian will be able to issue a final expanded LCD equivalent to the expanded LCD issued by Palmetto GBA. We also cannot predict whether Noridian will retire the current draft expanded LCD if it does not finalize such draft LCD by May 16, 2020, nor whether Noridian will issue another draft expanded LCD if it retires the current draft LCD.

In the United States, we market our tests to clinical customers through our sales organization, which is engaged in sales efforts and promotional activities primarily targeting oncologists and cancer centers. Outside the United States, we market our tests to clinical customers through distributors and direct contracts with healthcare institutions. We also market our tests to biopharmaceutical customers globally through our business development team, which promotes the broad utility of our tests throughout drug development and commercialization. Additionally, we have established a joint venture with SoftBank to accelerate commercialization of our products including in Asia, the Middle East and Africa, with our initial focus being on Japan. Our products are currently marketed in approximately 40 countries.

The recent global outbreak of coronavirus 2019, or COVID-19, has disrupted, and we expect will continue to disrupt, our operations. To protect the health and well-being of our workforce, partners, vendors and customers, we have rolled-out free, voluntary COVID-19 testing for employees working on-site, implemented social distance and building entry policies at work, restricted travel and facility visits, and followed California's "shelter in place" public health orders and the guidance from the Centers for Disease Control and Prevention. Employees who can perform their duties remotely are asked to work from home and those on site are asked to follow our social distance guidelines. Our sales, marketing and business development efforts are also constrained by our operational response to the COVID-19 pandemic. We expect to continue to adjust our operational norms in an effort to help slow the spread of COVID-19 in the coming months, including complying with government directives and guidelines as they are modified and supplemented.

The COVID-19 global pandemic also has started to negatively affect, and we expect will continue to negatively affect, our revenue and our clinical studies. For example, cancer patients may have more limited access to hospitals, healthcare providers and medical resources as they take steps to control the spread of COVID-19. Our biopharmaceutical customers are facing challenges in recruiting patients and in conducting clinical trials to advance their pipelines, for which our tests could be utilized. As a result of the COVID-19 pandemic, beginning in the latter half of March 2020, we have been receiving fewer samples for testing on a daily average basis from our clinical and biopharmaceutical customers than before the outbreak of the COVID-19 pandemic. Further, our clinical studies, especially those such as our ECLIPSE trial and the COBRA study that are deemed as preventive care or are not part of a standard of care, as well as our development services arrangements with our biopharmaceutical customers, are expected to take longer to complete, if at all, than what we expected before the outbreak of the COVID-19 pandemic.

The limited availability of broad-based COVID-19 diagnostic testing has hindered recovery efforts to date. As a result, in early April 2020 we initiated a feasibility assessment that has included our research and development team working to determine our ability to bring a new COVID-19 test to market utilizing our current laboratory facilities, as well as our outreach to potential public and private partners for their assistance in operationalizing such test. However, this assessment is still in progress, and we have not yet determined the scale and financial elements of any program that may result from this assessment.

The ultimate impact of the COVID-19 pandemic on our business and financial condition will depend on many factors, including the duration of the outbreak and the mitigation requirements affecting our operations, and healthcare delivery and society in general. As a result, we expect our revenue and results of operations to be adversely affected until testing, treatments and vaccines substantially eliminate the impact of the COVID-19 pandemic.

We generated total revenue of $67.5 million and $36.7 million for the three months ended March 31, 2020 and 2019, respectively. We also incurred net losses of $31.8 million and $21.4 million for the three months ended March 31, 2020 and 2019, respectively. We have funded our operations to date principally from the sale of our stock and revenue from our precision oncology testing and development services. As of March 31, 2020, we had cash, cash equivalents and marketable securities of $758.3 million.

Factors affecting our performance

We believe there are several important factors that have impacted and that we expect will impact our operating performance and results of operations, including:

- ***Testing volume, pricing and customer mix.*** Our revenue and costs are affected by the volume of testing and mix of customers from period to period. We evaluate both the volume of tests that we perform for patients on behalf of clinicians and the number of tests we perform for biopharmaceutical companies. Our performance depends on our ability to retain and broaden adoption with existing customers, as well as attract new customers. We believe that the test volume we receive from clinicians and biopharmaceutical companies are indicators of growth in each of these customer verticals. Customer mix for our tests has the potential to significantly affect our results of operations, as the average selling price for biopharmaceutical sample testing is currently higher than our average selling price for clinical tests because we are not a contracted provider for, or our tests are not covered by clinical patients' insurance for, the majority of the tests that we perform for patients on behalf of clinicians. Approximately 38% and 38% of our U.S. clinical tests for the three months ended March 31, 2020 and 2019, respectively, were for Medicare beneficiaries.

- ***Regulatory approval.*** Our Guardant360 test was the first comprehensive liquid biopsy test approved by NYSDOH. In addition, we believe our facility was the first comprehensive liquid biopsy laboratory to be CLIA-certified, CAP-accredited and NYSDOH-permitted. In the fourth quarter of 2019, we submitted a premarket approval, or PMA, application to seek the FDA's approval of our Guardant360 test to be used as a companion diagnostic, initially

in connection with one therapeutic product of a biopharmaceutical customer, and to provide tumor mutation profiling for cancer patients with solid tumors. In February 2020, we submitted an additional module of the PMA application for our Guardant360 test to the FDA. Medicare's National Coverage Determination for Next Generation Sequencing established in 2018 and subsequently updated in 2020 provides coverage for molecular diagnostic tests such as our Guardant360 test, if, among other criteria, such tests are offered within their FDA-approved companion diagnostic labeling. We believe that this establishes a competitive advantage for tests receiving FDA approval and that FDA approval will be increasingly necessary for diagnostic tests to gain adoption, both in the United States and abroad. We believe FDA approval, if obtained, will help increase adoption of our tests and facilitate favorable reimbursement decisions by Medicare and commercial payers. We also intend to pursue regulatory approvals in specific markets outside of the United States, including in Europe, Japan and China. Any negative regulatory decisions or changes in regulatory requirements affecting our business could adversely impact our operations and financial results.

- ***Payer coverage and reimbursement.*** Our revenue depends on achieving broad coverage and reimbursement for our tests from third-party payers, including both commercial and government payers. Payment from commercial payers can vary depending on whether we have entered into a contract with the payers as a "participating provider" or do not have a contract and are considered a "non-participating provider." Payers often reimburse non-participating providers, if at all, at a lower amount than participating providers. We have received a substantial portion of our revenue from a limited number of commercial payers, most of which have not contracted with us to be a participating provider. We have received reimbursement for tests of patients with a variety of cancers, though for amounts that on average are significantly lower than for participating providers. We have experienced situations where commercial payers proactively reduced the amounts they were willing to reimburse for our tests, and in other situations, commercial payers have determined that the amounts they previously paid were too high and have sought to recover those perceived excess payments by deducting such amounts from payments otherwise being made. When we contract with a payer to serve as a participating provider, reimbursements by the payer are generally made pursuant to a negotiated fee schedule and are limited to only covered indications or where prior approval has been obtained. Becoming a participating provider can result in higher reimbursement amounts for covered uses of our test and, potentially, no reimbursement for non-covered uses identified under the payer's policies or the contract. As a result, the potential for more favorable reimbursement associated with becoming a participating provider may be offset by a potential loss of reimbursement for non-covered uses of our tests. Current Procedural Terminology, or CPT, coding plays a significant role in how our Guardant360 test is reimbursed both from commercial and governmental payers. Changes to the codes used to report the Guardant360 test to payers may result in significant changes in its reimbursement. If our Guardant360 test receives approval from the FDA, we may be required to obtain a new code to report the Guardant360 test on claims submitted to U.S. payers. If a coding change were to occur, payments for certain uses of the Guardant360 test could be reduced or eliminated by such payers. Cigna, Priority Health, multiple Blue Cross Blue Shield plans as well as the health plans associated with eviCore adopted policies that cover our Guardant360 test for the majority of NSCLC patients we test. If their policies were to change in the future to cover additional cancer indications, we anticipate that our total reimbursement would increase. In September 2018, we began to submit claims to Medicare for reimbursement with respect to Guardant360 clinical tests performed for NSCLC patients covered under the 2018 Noridian LCD who meet certain clinical criteria, and in October 2018, we began to receive payments from Medicare for these clinical tests. In March 2020, we began to receive reimbursement from Medicare for claims submitted, in accordance with the draft expanded LCD issued by Noridian, with respect to Guardant360 clinical tests performed for qualifying patients diagnosed with solid tumor cancers of non-central nervous system origin other than NSCLC. Because Noridian has not finalized the draft expanded LCD, we cannot guarantee that Medicare reimbursement for clinical tests of solid tumor cancers other than NSCLC will continue, especially after May 16, 2020, the deadline we believe for Noridian to finalize the draft expanded LCD. If such Medicare reimbursement for clinical tests of solid tumor cancers other than NSCLC is disrupted or reduced, it could have a material adverse impact on our business and results of operations. . We estimate total coverage in the United States for the Guardant360 test to be more than 170 million lives, including Medicare beneficiaries and members of several commercial health plans. If we fail to obtain or maintain coverage and adequate reimbursement from third-party payers, including from Medicare, we may be unable to increase our testing volume and revenue as expected. Retrospective reimbursement adjustments, such as deductions from further payments and clawbacks, can also negatively impact our revenue and cause our financial results to fluctuate. Due to the inherent variability of the insurance landscape, historic success of, and payments from, appeals of reimbursement denials by payers are not indicative of future success of and payments from such appeals.

- ***Biopharmaceutical customers.*** Our revenue also depends on our ability to attract new, and to maintain and expand relationships with existing, biopharmaceutical customers, and we expect to increase our sales and marketing expense in furtherance of this goal. As we continue to develop these relationships, we expect to support a growing

number of clinical trials both in the United States and internationally. If our relationships expand with biopharmaceutical customers, we believe we may continue to have opportunities to offer our platform to such customers for companion diagnostic development, novel target discovery and validation as well as clinical trial enrollment, and to grow into other business opportunities. For example, we believe that our genomic data, in combination with clinical outcomes or claims data, has revenue-generating potential, supporting novel drug development and companion diagnostic development.

- ***Research and development.*** A significant aspect of our business is our investment in research and development, including the development of new products, such as those being developed as part of our LUNAR program. In particular, we have invested heavily in clinical studies, including more than 50 clinical outcomes studies, the largest-ever liquid-to-tissue concordance study, and a prospective interventional clinical utility study demonstrating clinical overall response rates in line with tissue biopsy approaches. Our clinical research has resulted in over 150 peer-reviewed publications. With respect to our LUNAR program, we initiated a prospective screening study, which we refer to as the ECLIPSE trial, aiming to recruit approximately 10,000 patients and evaluate the performance of our LUNAR-2 assay in detecting colorectal cancer in average-risk adults, and in collaboration with a National Clinical Trials Network group, initiated a prospective multi-center randomized controlled trial, which we refer to as the COBRA study, in approximately 1,400 patients with resected stage II colon cancer to use our LUNAR-1 assay to evaluate recurrence-free survival in patients who receive ctDNA-directed therapy as compared to the current standard-of-care active surveillance. Furthermore, we are collaborating with investigators from multiple academic cancer centers, including MD Anderson Cancer Center, the University of Colorado, Memorial Sloan Kettering Cancer Center, Massachusetts General Cancer Center, Wake Forest Cancer Center and the University of California San Francisco, as well as several international institutions. The COVID-19 global pandemic has negatively impacted, and is expected to continue to negatively impact, the recruitment for clinical studies, especially those that are deemed as preventive care or are not part of a standard of care, including the ECLIPSE trial and the COBRA study. We believe these studies are critical to gaining physician adoption and driving favorable coverage decisions by payers, and expect our investments in clinical studies to increase. We expect to increase our research and development expense with the goal of fueling further innovation.

- ***International expansion.*** A component of our long-term growth strategy is to expand our commercial footprint internationally, and we expect to increase our sales and marketing expense to execute on this strategy. We currently offer our tests in countries outside the United States primarily through distributor relationships or direct contracts with hospitals. In May 2018, we formed and capitalized a joint venture, Guardant Health AMEA, Inc., which we refer to as the Joint Venture, with SoftBank, relating to the sale, marketing and distribution of our tests generally outside the Americas and Europe. We expect to rely on the Joint Venture to accelerate commercialization of our products in Asia, the Middle East and Africa, with our initial focus being on Japan. That effort could be negatively impacted by the COVID-19 global pandemic.

While each of these areas presents significant opportunities for us, they also pose significant risks and challenges that we must address. See Part I, Item 1A, “Risk Factors” of our Annual Report on Form 10-K for the year ended December 31, 2019, and Part II, Item 1A, “Risk Factors” of this Quarterly Report on Form 10-Q, for more information.

Components of results of operations

Revenue

We derive our revenue from two sources: (i) precision oncology testing and (ii) development services.

Precision oncology testing. Precision oncology testing revenue is generated from sales of our Guardant 360 and GuardantOMNI tests to clinical and biopharmaceutical customers. In the United States, through March 31, 2020, we generally performed tests as an out-of-network service provider without contracts with health insurance companies. We submit claims for payment for tests performed for patients covered by U.S. private payers. We submit claims to Medicare for reimbursement for Guardant360 clinical testing performed for NSCLC patients covered under Medicare’s Molecular Diagnostic Services Program who meet certain clinical criteria. Tests for patients covered by Medicare represented approximately 38% and 38% of U.S. tests processed for the three months ended March 31, 2020 and 2019, respectively. We also provide precision oncology testing to biopharmaceutical customers under contracts for which all recognition criteria are met, and we have recognized revenue on an accrual basis for those services.

Development services. Development services revenue represents services, other than precision oncology testing, that we provide to biopharmaceutical companies and large medical institutions. It includes companion diagnostic development and regulatory approval services, clinical trial referrals and liquid biopsy testing development and support. We collaborate with biopharmaceutical companies in the development and clinical trials of new drugs. As part of these

collaborations, we provide services related to regulatory filings with the FDA to support companion diagnostic device submissions for our liquid biopsy panels. Under these arrangements, we generate revenue from progression of our collaboration efforts, as well as from provision of on-going support. Development services revenue can vary over time as different projects start and complete.

Costs and operating expenses

Cost of precision oncology testing. Cost of precision oncology testing generally consists of cost of materials, direct labor, including bonus, benefit and stock-based compensation; equipment and infrastructure expenses associated with processing liquid biopsy test samples, including sample accessioning, library preparation, sequencing, quality control analyses and shipping charges to transport blood samples; freight; curation of test results for physicians; and license fees due to third parties. Infrastructure expenses include depreciation of laboratory equipment, rent costs, amortization of leasehold improvements and information technology costs. Costs associated with performing our tests are recorded as the tests are performed regardless of whether revenue was recognized with respect to the tests. Royalties for licensed technology are calculated as a percentage of revenues generated using the associated technology and recorded as expense at the time the related revenue is recognized. One-time royalty payments related to signing of license agreements or other milestones, such as issuance of new patents, are amortized to expense over the expected useful life of the patents. While we do not believe the technologies underlying these licenses are necessary to permit us to provide our tests, we do believe these technologies are potentially valuable and of possible strategic importance to us or our competitors.

We expect the cost of precision oncology testing to generally increase in line with the increase in the number of tests we perform, but the cost per test to decrease modestly over time due to the efficiencies we may gain as test volume increases, and from automation and other cost reductions.

Cost of development services. Cost of development services includes costs incurred for the performance of development services requested by our customers. For development of new products, costs incurred before technological feasibility has been achieved are reported as research and development expenses, while costs incurred thereafter are reported as cost of revenue. Cost of development services will vary depending on the nature, timing and scope of customer projects.

Research and development expense. Research and development expenses consist of costs incurred to develop technology and include salaries and benefits, reagents and supplies used in research and development laboratory work, infrastructure expenses, including allocated facility occupancy and information technology costs, contract services, other outside costs and costs to develop our technology capabilities. Research and development expenses also include costs related to activities performed under contracts with biopharmaceutical companies before technological feasibility has been achieved. Research and development costs are expensed as incurred. Payments made prior to the receipt of goods or services to be used in research and development are deferred and recognized as expense in the period in which the related goods are received or services are rendered. Costs to develop our technology capabilities are recorded as research and development unless they meet the criteria to be capitalized as internal-use software costs.

We expect that our research and development expenses will continue to increase in absolute dollars as we continue to innovate and develop additional products, expand our genomic and medical data management resources and conduct our ongoing and new clinical trials with a particular focus on our LUNAR program.

Sales and marketing expense. Our sales and marketing expenses are expensed as incurred and include costs associated with our sales organization, including our direct sales force and sales management, client services, marketing and reimbursement, medical affairs, as well as business development personnel who are focused on our biopharmaceutical customers. These expenses consist primarily of salaries, commissions, bonuses, employee benefits, travel expenses and stock-based compensation, as well as marketing and educational activities and allocated overhead expenses.

We expect our sales and marketing expenses to increase in absolute dollars as we expand our sales force, increase our presence within and outside of the United States, and increase our marketing activities to drive further awareness and adoption of our Guardant360 and GuardantOMNI tests.

General and administrative expense. Our general and administrative expenses include costs for our executive, accounting and finance, legal and human resources functions. These expenses consist principally of salaries, bonuses, employee benefits, travel expenses and stock-based compensation, as well as professional services fees such as consulting, audit, tax and legal fees, and general corporate costs and allocated overhead expenses.

We expect that our general and administrative expenses will continue to increase in absolute dollars, primarily due to increased headcount and costs associated with operating as a public company, including expenses related to legal, accounting, regulatory, maintaining compliance with exchange listing and requirements of the SEC, director and officer insurance premiums and investor relations. These expenses, though expected to increase in absolute dollars, are expected

to decrease modestly as a percentage of revenue in the long term, though they may fluctuate as a percentage of revenue from period to period due to the timing and extent of these expenses being incurred.

Interest income

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

Interest expense

Interest expense consists primarily of interest from finance leases or capital leases and royalty obligations.

Other income (expense), net

Other income (expense), net also consists of foreign currency exchange gains and losses. We expect our foreign currency gains and losses to continue to fluctuate in the future due to changes in foreign currency exchange rates.

Results of operations

The following table set forth the significant components of our results of operations for the periods presented.

	Three Months Ended March 31,	
	2020	2019
	(unaudited) (in thousands)	
Revenue:		
Precision oncology testing	$ 60,246	$ 28,837
Development services	7,264	7,818
Total revenue	67,510	36,655
Costs and operating expenses:		
Cost of precision oncology testing[(1)]	18,191	11,023
Cost of development services	2,315	2,512
Research and development expense[(1)]	37,016	16,316
Sales and marketing expense[(1)]	25,115	17,807
General and administrative expense[(1)]	19,785	12,661
Total costs and operating expenses	102,422	60,319
Loss from operations	(34,912)	(23,664)
Interest income	3,318	2,485
Interest expense	(12)	(293)
Other income (expense), net	(209)	147
Loss before provision for income taxes	(31,815)	(21,325)
Provision for income taxes	14	26
Net loss	$ (31,829)	$ (21,351)

(1) Amounts include stock-based compensation expense as follows:

	Three Months Ended March 31,	
	2020	2019
	(unaudited)	
	(in thousands)	
Cost of precision oncology testing	$ 303	$ 170
Research and development expense	2,364	1,210
Sales and marketing expense	1,798	826
General and administrative expense	1,873	976
Total stock-based compensation expense	$ 6,338	$ 3,182

Comparison of the Three Months Ended March 31, 2020 and 2019

Revenue

	Three Months Ended March 31,		Change	
	2020	2019	$	%
	(unaudited)			
	(in thousands)			
Precision oncology testing	$ 60,246	$ 28,837	$ 31,409	109 %
Development services	7,264	7,818	(554)	(7)%
Total revenue	$ 67,510	$ 36,655	$ 30,855	84 %

Total revenue was $67.5 million for the three months ended March 31, 2020 compared to $36.7 million for the three months ended March 31, 2019, an increase of $30.9 million, or 84%.

Precision oncology testing revenue increased to $60.2 million for the three months ended March 31, 2020 from $28.8 million for the three months ended March 31, 2019, an increase of $31.4 million, or 109%. This increase in precision oncology testing revenue was primarily due to an increase in tests processed as well as increase in average selling price per test. Precision oncology revenue from tests for clinical customers was $38.0 million in the three months ended March 31, 2020 and $17.1 million in the three months ended March 31, 2019, respectively. Tests for clinical customers increased to 15,257 for the three months ended March 31, 2020 from 9,521 for the three months ended March 31, 2019 mainly due to an increase in the number of physicians ordering Guardant360 tests. In March 2020, we began to receive reimbursement from Medicare for claims submitted, in accordance with the draft expanded LCD issued by Noridian in May 2019, with respect to Guardant360 clinical tests performed for qualifying patients diagnosed with solid tumor cancers of non-central nervous system origin other than NSCLC. Commencement of Medicare reimbursement for clinical tests of solid tumor cancers other than NSCLC was the main driver of the increase in average selling price per clinical test for the three months ended March 31, 2019. Medicare reimbursement for clinical tests of solid tumor cancers other than NSCLC could be disrupted if Noridian does not finalize their expanded draft LCD.

Precision oncology revenue from tests for biopharmaceutical customers was $22.3 million in the three months ended March 31, 2020 and $11.7 million in the three months ended March 31, 2019, respectively. Tests for biopharmaceutical customers increased to 5,266 for the three months ended March 31, 2020 from 3,762 for the three months ended March 31, 2019 due to an increase in the number of biopharmaceutical customers and their contracted projects. The average selling price of biopharmaceutical tests was $4,230 for the three months ended March 31, 2020, up from $3,109 for the three months ended March 31, 2019 due to a greater number of such tests being the GuardantOMNI test, which has a higher selling price than the Guardant360 test. As a result of the COVID-19 pandemic, beginning in the latter half of March 2020, we have been receiving fewer samples for testing on a daily average basis from our clinical and biopharmaceutical customers than before the outbreak of the COVID-19 pandemic. Our sample volumes and precision oncology revenue may be adversely impacted by the COVID-19 pandemic for the affected periods.

Development services revenue decreased to $7.3 million for the three months ended March 31, 2020 from $7.8 million for the three months ended March 31, 2019, a decrease of $0.6 million, or 7%. This decrease in development services revenue was due to a slower progression in projects from biopharmaceutical customers for companion diagnostic development and regulatory approval services during the three months ended March 31, 2020. We expect our development services arrangements with biopharmaceutical customers and development services revenue to be adversely impacted by the COVID-19 pandemic for the affected periods.

Cost of Revenue and Gross Margin

	Three Months Ended March 31,		Change	
	2020	2019	$	%
	(unaudited)			
	(dollars in thousands)			
Cost of revenue	$ 20,506	$ 13,535	$ 6,971	52%
Gross profit	$ 47,004	$ 23,120		
Gross margin	70%	63%		

Cost of revenue was $20.5 million for the three months ended March 31, 2020 compared to $13.5 million for the three months ended March 31, 2019, an increase of $7.0 million, or 52%.

Cost of precision oncology testing revenue was $18.2 million for the three months ended March 31, 2020 compared to $11.0 million for the three months ended March 31, 2019, an increase of $7.2 million, or 65%. This increase in cost of precision oncology testing was attributable to an increase in sample volumes and was primarily due to a $3.8 million increase in production labor and overhead costs and a $3.2 million increase in material costs.

Cost of development services was $2.3 million for the three months ended March 31, 2020 compared to $2.5 million for the three months ended March 31, 2019, a decrease of $0.2 million, or 8%. This decrease in cost of development services was due to slower progression in development programs during the three months ended March 31, 2020 which resulted in lower material and labor costs related to companion diagnostic development and regulatory approval service contracts.

Gross margin for the three months ended March 31, 2020 was 70% compared to 63% for the three months ended March 31, 2019. Gross margin improvement reflects the impact of, higher sample volumes, increased average selling price per test, and cost efficiencies. We expect our gross margin to be adversely impacted by the COVID-19 pandemic for the affected periods.

Operating Expenses

Research and development expense

	Three Months Ended March 31,		Change	
	2020	2019	$	%
	(unaudited)			
	(in thousands)			
Research and development	$ 37,016	$ 16,316	$ 20,700	127%

Research and development expenses were $37.0 million for the three months ended March 31, 2020 compared to $16.3 million for the three months ended March 31, 2019, an increase of $20.7 million, or 127%. This increase in research and development expense was primarily due to an increase of $8.5 million relating to IPR&D technology expensed in connection with a patent license acquisition that took place in March 2020, $4.4 million in personnel-related costs for employees in our research and development group, including a $1.2 million increase in stock-based compensation, as we increased our headcount to support continued investment in our technology. The increase is also attributable to an increase of $3.6 million in development consulting fees, an increase of $2.5 million in material costs and an increase of $0.8 million related to allocated facility and information technology infrastructure costs.

Sales and marketing expense

	Three Months Ended March 31,		Change	
	2020	2019	$	%
	(unaudited)			
	(in thousands)			
Sales and marketing	$ 25,115	$ 17,807	$ 7,308	41%

Selling and marketing expenses were $25.1 million for the three months ended March 31, 2020 compared to $17.8 million for the three months ended March 31, 2019, an increase of $7.3 million, or 41%. This increase was primarily due to an increase of $4.4 million in personnel-related costs, including a $1.0 million increase in stock-based compensation, associated with the expansion of our commercial organization, an increase of $0.8 million in travel expense, an increase of $0.8 million in professional service expenses related to marketing activities and an increase of $0.8 million related to allocated facility and information technology infrastructure costs.

General and administrative expense

	Three Months Ended March 31,		Change	
	2020	2019	$	%
	(unaudited)			
	(in thousands)			
General and administrative	$ 19,785	$ 12,661	$ 7,124	56%

General and administrative expenses were $19.8 million for the three months ended March 31, 2020 compared to $12.7 million for the three months ended March 31, 2019, an increase of $7.1 million, or 56%. This increase was primarily due to an increase of $2.8 million in personnel-related costs, including a $0.9 million increase in stock-based compensation related to an increase in our headcount, an increase of $1.2 million related to settlement costs in connection with a patent license acquisition that took place in March 2020, an increase of $0.8 million in professional service expenses related to outside legal, accounting, consulting and IT services, and an increase of $1.1 million related to allocated facilities and information technology infrastructure costs.

Interest income

	Three Months Ended March 31,		Change	
	2020	2019	$	%
	(unaudited)			
	(in thousands)			
Interest income	$ 3,318	$ 2,485	$ 833	34%

Interest income was $3.3 million for the three months ended March 31, 2020 compared to $2.5 million for the three months ended March 31, 2019, an increase of $0.8 million, or 34%. This increase was primarily due to a significant increase in cash, cash equivalents and marketable securities related to the receipt of cash proceeds from our follow-on offering completed in May 2019.

Interest expense

	Three Months Ended March 31,		Change	
	2020	2019	$	%
	(unaudited)			
	(in thousands)			
Interest expense	$ 12	$ 293	$ (281)	(96)%

Interest expense was immaterial for the three months ended March 31, 2020 compared to $0.3 million for the three months ended March 31, 2019, a decrease of $0.3 million, or 96%. This decrease was primarily due to a reduction in our royalty obligation during the three months ended March 31, 2020 related to the termination of a prior patent license agreement.

Other income (expense), net

	Three Months Ended March 31,		Change	
	2020	2019	$	%
	(unaudited)			
	(in thousands)			
Other income (expense), net	$ (209)	$ 147	$ (356)	(242)%

Other income (expense), net included foreign currency exchange losses of $0.2 million for the three months ended March 31, 2020 and foreign currency exchange gains of $0.1 million for the three months ended March 31, 2019.

Provision for income taxes

	Three Months Ended March 31,		Change	
	2020	2019	$	%
	(unaudited)			
	(in thousands)			
Provision for income taxes	$ 14	$ 26	$ (12)	*

* Not meaningful

Provision for income taxes was immaterial for the three months ended March 31, 2020 and 2019.

Liquidity and capital resources

We have incurred losses and negative cash flows from operations since our inception, and as of March 31, 2020, we had an accumulated deficit of $380.5 million. We expect to incur additional operating losses in the near future and our operating expenses will increase as we continue to invest in clinical trials and develop new product offerings from our research programs, including our LUNAR program, expand our sales organization, and increase our marketing efforts to drive market adoption of our Guardant360 and GuardantOMNI tests. Our capital expenditure requirements could also increase if we build additional laboratory capacity.

We have funded our operations to date principally from the sale of stock, and revenue from precision oncology testing and development. As of March 31, 2020, we had cash and cash equivalents of $152.2 million and marketable securities of $606.1 million. Cash in excess of immediate requirements is invested in accordance with our investment policy, primarily with a view to provide liquidity while ensuring capital preservation. Currently, our funds are held in marketable securities consisting of United States treasury securities and corporate bonds.

Based on our current business plan, we believe our current cash, cash equivalents and marketable securities and anticipated cash flows from operations, will be sufficient to meet our anticipated cash requirements over at least the next 12 months from the date of this report. We may consider raising additional capital to expand our business, to pursue strategic investments, to take advantage of financing opportunities or for other reasons. As revenue from precision oncology testing and development service is expected to grow long-term, we expect our accounts receivable and inventory balances to increase. Any increase in accounts receivable and inventory may not be completely offset by increases in accounts payable and accrued expenses, which could result in greater working capital requirements.

If our available cash, cash equivalents and marketable securities and anticipated cash flows from operations are insufficient to satisfy our liquidity requirements including because of lower demand for our products as a result of lower than currently expected rates of reimbursement from our customers or other risks described in this report, we may seek to sell additional common or preferred equity or convertible debt securities, enter into a credit facility or another form of third-party funding or seek other debt financing. The sale of equity and convertible debt securities may result in dilution to our stockholders and, in the case of preferred equity securities or convertible debt, those securities

could provide for rights, preferences or privileges senior to those of our common stock. The terms of debt securities issued or borrowings pursuant to a credit agreement could impose significant restrictions on our operations. If we raise funds through collaborations and licensing arrangements, we might be required to relinquish significant rights to our platform technologies or products or grant licenses on terms that are not favorable to us. Additional capital may not be available to us on reasonable terms, or at all.

Cash flows

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

	Three Months Ended March 31,	
	2020	2019
	(unaudited)	
	(in thousands)	
Cash used in operating activities	$ (13,282)	$ (4,303)
Cash provided by investing activities	$ 20,804	$ 15,329
Cash provided by financing activities	$ 1,466	$ 2,288

Operating activities

Cash used in operating activities during the three months ended March 31, 2020 was $13.3 million, which resulted from a net loss of $31.8 million and net change in our operating assets and liabilities of $1.6 million, partially offset by non-cash charges of $21.1 million. Non-cash charges primarily consisted of $8.5 million of charge of in-process research and development costs with no alternative future use, $6.3 million of stock-based compensation, $3.3 million of depreciation and amortization, $1.5 million of right-of-use assets amortization, and $0.6 million of amortization of premium on investment. The net change in our operating assets and liabilities was primarily the result of a $10.0 million increase in inventory due to higher testing volumes, a $2.6 million increase in prepaid expenses and other current assets, a $1.9 million payment of operating lease liabilities and a $0.7 million decrease in accrued expenses, partially offset by a $9.5 million increase in accounts payable and a $4.4 million increase in accrued compensation due to increased personnel.

Cash used in operating activities during the three months ended March 31, 2019 was $4.3 million, which resulted from a net loss of $21.4 million, partially offset by non-cash charges of $5.6 million and net change in our operating assets and liabilities of $11.4 million. Non-cash charges primarily consisted of $2.4 million of depreciation and amortization, $3.2 million of stock-based compensation, and $0.8 million of right-of-use assets amortization, partially offset by $0.6 million of amortization of discount on investment. The net change in our operating assets and liabilities was primarily the result of a $11.6 million decrease in accounts receivable due to collection from our biopharmaceutical customers, a $2.3 million increase in accrued expenses, a $1.7 million increase in accrued compensation due to increased personnel, a $1.0 million increase in deferred revenue, and a $0.3 million receipt of tenant improvement allowance net of payment of operating lease liabilities, partially offset by a $2.6 million decrease in accounts payable due to timing of payment, a $1.1 million increase in inventory due to higher testing volumes, a $0.9 million increase in prepaid and other current assets, and a $0.8 million increase in other assets.

Investing activities

Cash provided by investing activities during the three months ended March 31, 2020 was $20.8 million, which resulted primarily from maturities of marketable securities of $104.0 million, partially offset by purchases of marketable securities of $55.8 million, purchases of intangible assets and capitalized license obligations of $17.9 million and purchases of property and equipment of $9.6 million.

Cash provided by investing activities during the three months ended March 31, 2019 was $15.3 million, which resulted primarily from maturities of marketable securities of $64.0 million, partially offset by purchases of marketable securities of $46.0 million and purchases of property and equipment of $2.7 million.

Financing activities

Cash provided by financing activities during the three months ended March 31, 2020 was $1.5 million, which was primarily due to proceeds from exercise of stock options.

Cash provided by financing activities during the three months ended March 31, 2019 was $2.3 million, which was primarily due to proceeds from issuances of common stock under employee stock purchase plan and exercise of stock options.

Contractual obligations and commitments

Except as set forth in Note 9, *Commitments and Contingencies*, of the notes to our condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q, there have been no material changes outside the ordinary course of business to our contractual obligations and commitments as described in "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" in our Annual Report on Form 10-K for the year ended December 31, 2019.

Off-balance sheet arrangements

As of March 31, 2020, we have not had any off-balance sheet arrangements as defined in the rules and regulations of the SEC.

Critical accounting policies and estimates

We have prepared our financial statements in accordance with accounting principles generally accepted in the United States of America ("GAAP"). Our preparation of these financial statements requires us to make estimates, assumptions and judgments that affect the reported amounts of assets, liabilities, expenses and related disclosures at the date of the financial statements, as well as revenue and expenses recorded during the reporting periods. We evaluate our estimates and judgments on an ongoing basis. We base our estimates on historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results could therefore differ materially from these estimates under different assumptions or conditions.

While our significant accounting policies are described in more detail in Note 2 to our unaudited condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q, we believe the following accounting policies to be critical to the judgments and estimates used in the preparation of our financial statements.

Revenue recognition

We derive revenue from the provision of precision oncology testing services provided to our ordering physicians and biopharmaceutical customers, as well as from biopharmaceutical research and development services provided to our biopharmaceutical customers. Precision oncology services include genomic profiling and the delivery of other genomic information derived from our platform. Development services include companion diagnostic development, information solutions and laboratory services. We currently receive payments from commercial third-party payors, certain hospitals and oncology centers and individual patients, as well as biopharmaceutical companies and research institutes.

Effective January 1, 2019, we began recognizing revenue in accordance with ASC Topic 606, *Revenue from Contracts with Customers*, or ASC 606. Revenues are recognized when control of services is transferred to customers, in an amount that reflects the consideration we expect to be entitled to in exchange for those services. ASC 606 provides for a five-step model that includes identifying the contract with a customer, identifying the performance obligations in the contract, determining the transaction price, allocating the transaction price to the performance obligations, and recognizing revenue when, or as, an entity satisfies a performance obligation.

Precision oncology testing

We recognize revenue from the sale of our precision oncology tests for clinical customers, including certain hospitals, cancer centers, other institutions and patients, at the time results of the test are reported to physicians. Most precision oncology tests requested by clinical customers are sold without a written agreement; however, we determine an implied contract exists with our clinical customers. We identify each sale of our liquid biopsy test to clinical customer as a single performance obligation. With the exception of certain limited contracted arrangements with insurance carriers and other institutions where the transaction price is fixed, a stated contract price does not exist and the transaction price for each implied contract with our clinical customers represents variable consideration. We estimate the variable consideration under the portfolio approach and consider the historical reimbursement data from third-party payers and patients, as well as known current or anticipated reimbursement trends not reflected in the historical data. We monitor the estimated amount to be collected in the portfolio at each reporting period based on actual cash collections in order to assess whether a revision to the estimate is required. Both the estimate and any subsequent revision contain uncertainty

and require the use of judgment in the estimation of the variable consideration and application of the constraint for such variable consideration. We analyze actual cash collections over the expected reimbursement period and compare it with the estimated variable consideration for each portfolio and any difference is recognized as an adjustment to estimated revenue after the expected reimbursement period, subject to assessment of the risk of future revenue reversal.

Revenue from sales of precision oncology tests to biopharmaceutical customers are based on a negotiated price per test or on the basis of an agreement to provide certain testing volume over a defined period. We identify our promise to transfer a series of distinct liquid biopsy tests to biopharmaceutical customers as a single performance obligation. Precision oncology tests to biopharmaceutical customers are generally billed at a fixed price for each test performed. For agreements involving testing volume to be satisfied over a defined period, revenue is recognized over time based on the number of tests performed as the performance obligation is satisfied over time.

Results of our precision oncology services are delivered electronically, and as such there are no shipping or handling fees incurred by us or billed to customers.

Development services

We perform development services for our biopharmaceutical customers utilizing our precision oncology information platform. Development services typically represent a single performance obligation as we perform a significant integration service, such as analytical validation and regulatory submissions. The individual promises are not separately identifiable from other promises in the contracts and, therefore, are not distinct. However, under certain contracts, a biopharmaceutical customer may engage us for multiple distinct development services which are both capable of being distinct and separately identifiable from other promises in the contracts and, therefore, distinct performance obligations.

We collaborate with pharmaceutical companies in the development and clinical trials of new drugs. As part of these collaborations, we provide services related to regulatory filings with the FDA to support companion diagnostic device submissions for our liquid biopsy panels. Under these collaborations, we generate revenue from achievement of milestones, as well as provision of on-going support. These collaboration arrangements include no royalty obligations. For development services performed, we are compensated through a combination of an upfront fee and performance-based non-refundable regulatory and other developmental milestone payments. The transaction price of our development services contracts typically represents variable consideration. Application of the constraint for variable consideration to milestone payments is an area that requires significant judgment. We evaluate factors such as the scientific, clinical, regulatory, commercial, and other risks that must be managed to achieve the respective milestone and the level of effort and investment required to achieve the respective milestone. In making this assessment, we consider our historical experience with similar milestones, the degree of complexity and uncertainty associated with each milestone, and whether achievement of the milestone is dependent on parties other than us. The constraint for variable consideration is applied such that it is probable a significant reversal of revenue will not occur when the uncertainty associated with the contingency is resolved. Application of the constraint for variable consideration is updated at each reporting period as a revision to the estimated transaction price.

We recognize development services revenue over the period in which biopharmaceutical research and development services are provided. Specifically, we recognize revenue using an input method to measure progress, utilizing costs incurred to-date relative to total expected costs as its measure of progress. We also assess the changes to the total expected cost estimates as well as any incremental fees negotiated resulting from changes to the scope of the original contract in determining the revenue recognition at each reporting period. For development of new products or services under these arrangements, costs incurred before technological feasibility is reached are included as research and development expenses in our condensed consolidated statements of operations, while costs incurred thereafter are recorded as cost of development services.

Contracts with multiple performance obligations

Contracts with biopharmaceutical customers may include multiple distinct performance obligations, such as provision of precision oncology testing, biopharmaceutical research and development services, and clinical trial enrollment assistance, among others. We evaluate the terms and conditions included within our contracts with biopharmaceutical customers to ensure appropriate revenue recognition, including whether services are considered distinct performance obligations that should be accounted for separately versus together. We first identify material promises, in contrast to immaterial promises or administrative tasks, under the contract and then evaluates whether these promises are both capable of being distinct and distinct within the context of the contract. In assessing whether a promised service is capable of being distinct, we consider whether the customer could benefit from the service either on its own or together with other resources that are readily available to the customer, including factors such as the research, development, and commercialization capabilities of a third party and the availability of the associated expertise in the general marketplace. In assessing whether a promised service is distinct within the context of the contract, we consider whether we provide

a significant integration of the services, whether the services significantly modify or customize one another, or whether the services are highly interdependent or interrelated.

For contracts with multiple performance obligations, the transaction price is allocated to the separate performance obligations on a relative standalone selling price basis. We determine standalone selling price by considering the historical selling price of these performance obligations in similar transactions as well as other factors, including, but not limited to, the price that customers in the market would be willing to pay, competitive pricing of other vendors, industry publications and current pricing practices, and expected costs of satisfying each performance obligation plus appropriate margin.

Variable interest entity

We review agreements we enter into with third party entities, pursuant to which we may have a variable interest in the entity, in order to determine if the entity is a variable interest entity, or VIE. If the entity is a VIE, we assess whether or not we are the primary beneficiary of that entity. In determining whether we are the primary beneficiary of an entity, we apply a qualitative approach that determines whether we have both (1) the power to direct the economically significant activities of the entity and (2) the obligation to absorb losses of, or the right to receive benefits from, the entity that could potentially be significant to that entity. If we determine we are the primary beneficiary of a VIE, we consolidate the statements of operations and financial condition of the VIE into our consolidated financial statements. Accounting for the consolidation is based on our determination if the VIE meets the definition of a business or and asset. Assets, liabilities and noncontrolling interests, excluding goodwill, of VIEs that are not determined to be businesses are recorded at fair value in our financial statements upon consolidation. Assets and liabilities that we have transferred to a VIE, after, or shortly before the date we became the primary beneficiary are recorded at the same amount at which the assets and liabilities would have been measured if they had not been transferred. Our determination about whether we should consolidate such VIEs is made continuously as changes to existing relationships or future transactions may result in a consolidation or deconsolidation event.

In May 2018, we and SoftBank formed and capitalized the Joint Venture for the sale, marketing and distribution of our tests in the JV Territory. We expect to rely on the Joint Venture to accelerate commercialization of our products in Asia, the Middle East and Africa, with an initial focus on Japan. The Joint Venture is deemed to be a VIE and we are identified as the primary beneficiary of the VIE. Consequently, we have consolidated the financial position, results of operations and cash flows of the Joint Venture in our financial statements and all intercompany balances have been eliminated in consolidation.

The joint venture agreement also includes a put-call arrangement with respect to the shares of the Joint Venture held by SoftBank and its affiliates. SoftBank will have a put right to cause us to purchase all shares of the Joint Venture held by SoftBank and its affiliates, and we will have a call right to purchase all such shares in the event of (i) certain material disagreement relating to the Joint Venture or its business that may seriously affect the ability of the Joint Venture to perform its obligations under the joint venture agreement or may otherwise seriously impair the ability of the Joint Venture to conduct its business in an effective matter, other than one relating to the Joint Venture's business plan or to factual matters that may be capable of expert determination; (ii) the effectiveness of our initial public offering, a change in control, the seventh anniversary of the formation of the Joint Venture, or each subsequent anniversary of each of the foregoing events; or (iii) a material breach of the joint venture agreement by the other party that goes unremedied within 20 business days. Unless the shares of the Joint Venture are publicly traded and listed on a nationally recognized stock exchange; the purchase price per share of the Joint Venture in these situations will be determined by a third-party valuation firm on the assumption that the sale is on an arm's-length basis on the date of the put or call notice. The third-party valuation firm may evaluate a range of factors and employ assumptions that are subjective in nature, which could result in the fair value of SoftBank's interest in the Joint Venture being determined to be materially different from what has been recorded in our condensed consolidated financial statements, including those included elsewhere in this Quarterly Report on Form 10-Q.

In the event we exercise our call right, the fair value of the Joint Venture will be deemed to be no less than an amount that yields a 20% internal rate of return on each tranche of capital invested by SoftBank and its affiliates in the Joint Venture, taking into account all proceeds received by SoftBank and its affiliates arising from their shares through such date.

In the event SoftBank exercises its put right and the fair value of the Joint Venture is determined to be greater than 40% of our fair value, we will only be required to purchase the number of shares of the Joint Venture held by SoftBank and its affiliates having an aggregate value equal to the product of 40% of our fair value and the pro rata portion of the outstanding shares of the Joint Venture held by SoftBank and its affiliates.

We may pay the purchase price for the shares of the Joint Venture in cash, in shares of our common stock, or in a combination thereof. In the event we exercise the call right, SoftBank will choose the form of consideration. In the event SoftBank exercises the put right, we will choose the form of consideration.

The noncontrolling interest held by SoftBank contains embedded put-call redemption features that are not solely within our control and has been classified outside of permanent equity in our consolidated balance sheets. The put-call feature embedded in the redeemable noncontrolling interest do not currently require bifurcation as it does not meet the definition of a derivative and is considered to be clearly and closely related to the redeemable noncontrolling interest. The noncontrolling interest is considered probable of becoming redeemable as SoftBank has the option to exercise its put right to sell its equity ownership in the Joint Venture to us on or after the seventh anniversary of the formation of the Joint Venture, on each subsequent anniversary of the IPO and under certain other circumstances. We elected to recognize the change in redemption value immediately as they occur as if the put-call redemption feature were exercisable at the end of the reporting period.

Stock-based compensation

After the adoption of Accounting Standards Update 2018-07, Compensation—Stock Compensation (Topic 718): *Improvements to Nonemployee Share-Based Payment Accounting* on January 1, 2019, we measure stock-based compensation expense for stock options granted to our employees, directors, and nonemployee consultants on the date of grant and recognize the corresponding compensation expense of those awards over the period that the related services are rendered, which is generally the vesting period of the respective award. Compensation expense for stock options with performance metrics is calculated based upon expected achievement of the metrics specified in the grant.

We estimate the fair value of stock options granted to our employees, directors, and nonemployee consultants and stock purchase rights under our 2018 Employee Stock Purchase Plan on the grant date using the Black-Scholes option-pricing model. The Black-Scholes option-pricing model requires the use of assumptions regarding a number of variables that are complex, subjective and generally require significant judgment to determine. The assumptions used to calculate the fair value of our stock options were:

Expected term

Our expected term represents the period that our stock options are expected to be outstanding. After the adoption of Accounting Standards Update 2018-07, Compensation—Stock Compensation (Topic 718): *Improvements to Nonemployee Share-Based Payment Accounting* on January 1, 2019, the expected term of stock options issued to employees, directors and nonemployee consultants is determined using the simplified method (based on the mid-point between the vesting date and the end of the contractual term), as we do not have sufficient historical data to use any other method to estimate expected term.

Expected volatility

Prior to the commencement of trading of our common stock on the Nasdaq Global Select Market on October 4, 2018 in connection with the IPO, there was no active trading market for our common stock. Due to limited historical data for the trading of our common stock, expected volatility is estimated based on the average volatility for comparable publicly traded peer group companies in the same industry plus our expected volatility for the available periods. The comparable companies are chosen based on their similar size, stage in the life cycle or area of specialty.

Risk-free interest rate

The risk-free interest rate is based on the U.S. treasury zero coupon issues in effect at the time of grant for periods corresponding with the expected term of the stock option grants.

Expected dividend yield

We have never paid dividends on our common stock and have no plans to pay dividends on our common stock. Therefore, we use an expected dividend yield of zero.

Black-Scholes assumptions

The weighted-average assumptions used in our Black-Scholes option-pricing model were as follows for stock option granted to our employees, directors and nonemployees for the periods presented:

	Three Months Ended March 31,	
	2020	2019
	(unaudited)	
Expected term (in years)	6.06	6.22
Expected volatility	73.3%	66.7%
Risk-free interest rate	1.6%	2.7%
Expected dividend yield	—%	—%

We recognize stock-based compensation expense net of forfeitures as they occur in accordance with Accounting Standards Update 2016-09, Compensation - Stock Compensation (Topic 718).

We will continue to use judgment in evaluating the assumptions related to our stock-based compensation on a prospective basis. As we continue to accumulate additional data related to our common stock, we may have refinements to our estimates, which could materially impact our future stock-based compensation expense.

Recent accounting pronouncements

See Note 2, *Summary of Significant Accounting Policies*, to our unaudited condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q for more information.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We are exposed to market risk in the ordinary course of our business. Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates.

Interest rate risk

We are exposed to market risk for changes in interest rates related primarily to our cash and cash equivalents and marketable securities. As of March 31, 2020, we had cash and cash equivalents of $152.2 million held primarily in cash deposits and money market funds. Our marketable securities are held in U.S. government debt securities, U.S. government agency bonds and corporate bonds. As of March 31, 2020, we had short-term marketable securities of $367.9 million and long-term marketable securities of $238.2 million. Our primary exposure to market risk is interest income sensitivity, which is affected by changes in the general level of the interest rates in the United States. As of March 31, 2020, a hypothetical 100 basis point increase in interest rates would have resulted in an approximate $5.0 million decline of the fair value of our available-for-sale securities and a hypothetical 100 basis point decrease in interest rates would have resulted in an approximate $0.8 million increase of the fair value of our available-for-sale securities. This estimate is based on a sensitivity model that measures market value changes when changes in interest rates occur.

Foreign currency risk

The majority of our revenue is generated in the United States. Through March 31, 2020, we have generated an insignificant amount of revenues denominated in foreign currencies. As we expand our presence in the international market, our results of operations and cash flows are expected to increasingly be subject to fluctuations due to changes in foreign currency exchange rates and may be adversely affected in the future due to changes in foreign exchange rates. As of March 31, 2020, the effect of a hypothetical 10% change in foreign currency exchange rates would not be material to our financial condition or results of operations. To date, we have not entered into any hedging arrangements with respect to foreign currency risk. As our international operations grow, we will continue to reassess our approach to manage our risk relating to fluctuations in currency rates.

Item 4. Controls and Procedures

Evaluation of disclosure controls and procedures

Our management, with the participation of our chief executive officer, or CEO, and chief financial officer, or CFO, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or Exchange Act), as of the end of the period covered by this Quarterly Report on Form 10-Q. Based on that evaluation, our CEO and CFO have concluded that as of March 31, 2020, our disclosure controls and procedures are designed at a reasonable assurance level and are effective to provide

reasonable assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the rules and forms of the SEC, and that such required information is accumulated and communicated to our management, including our CEO and CFO, as appropriate, to allow timely decisions regarding required disclosures.

Changes in internal control

There was no change in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the period covered by this Quarterly Report on Form 10-Q that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. We have not experienced any material impact to our internal controls over financial reporting despite the fact that a number of our employees are working remotely due to the COVID-19 pandemic. We are continually monitoring and assessing the COVID-19 situation on our internal controls to minimize the impact on their design and operating effectiveness.

Limitations on effectiveness of controls and procedures

Our management, including our CEO and CFO, believes that our disclosure controls and procedures and internal control over financial reporting are designed to provide reasonable assurance of achieving their objectives and are effective at the reasonable assurance level. However, our management does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of the controls. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

PART II—OTHER INFORMATION

Item 1. Legal Proceedings

We may from time to time be involved in various legal proceedings and other matters arising in the normal course of business. For example, we have received, and may in the future continue to, receive letters, claims or complaints from others alleging false advertising, patent infringement, violation of employment practices and trademark infringement. We have also instituted, and may in the future institute additional, legal proceedings to enforce our rights and seek remedies, such as monetary damages, injunctive relief and declaratory relief. We cannot predict the results of any such disputes, and despite the potential outcomes, the existence thereof may have an adverse material impact on us because of diversion of management time and attention as well as the financial costs related to resolving such disputes.

The information under the caption "*Commitments and Contingencies - Legal Proceedings*" in Note 9 to the unaudited condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q, concerning certain legal proceedings in which we are involved, is hereby incorporated by reference. The resolution of any such legal proceeding is subject to inherent uncertainty and could have a material adverse effect on our financial condition, cash flows or results of operations.

Item 1A. Risk Factors

Our business, financial condition and operating results are affected by a number of factors, whether currently known or unknown, including risks specific to us or the healthcare industry as well as risks that affect businesses in general. In addition to the information set forth in this Quarterly Report on Form 10-Q, you should consider carefully the factors discussed in Part I, Item 1A, "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2019 filed with the SEC on March 2, 2020. The risks and uncertainties disclosed in such Annual Report and in this Quarterly Report could materially adversely affect our business, financial condition, cash flows or results of operations and thus our stock price. Besides risk factors disclosed in the Annual Report and this Quarterly Report, additional risks and uncertainties not currently known or we currently deem to be immaterial may also materially adversely affect our business, financial condition or results of operations.

These risk factors may be important to understanding other statements in this Quarterly Report and should be read in conjunction with the unaudited condensed consolidated financial statements and related notes in Part I, Item 1, "*Financial Statements*" and Part I, Item 2, "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" of this Quarterly Report. Because of such risk factors, as well as other factors affecting our financial condition and operating results, past financial performance should not be considered to be a reliable indicator of future performance, and investors should not use historical trends to anticipate results or trends in future periods.

The following risk factors are provided to update the risk factors previously disclosed in Part I, Item 1A, "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2019.

The recent COVID-19 global pandemic and the worldwide attempts to contain it could harm our business and our results of operations have been and could continue to be adversely impacted by such pandemic.

The recent global outbreak of coronavirus 2019, or COVID-19, and the various attempts throughout the world to contain it, have created significant volatility, uncertainty and disruption. In response to government directives and guidelines, health care advisories and employee and customer concerns, we have altered certain aspects of our operations. A number of our employees have had to work remotely from home and those on site have had to follow our social distance guidelines, which could impact their productivity. Travel and visits related to our business have been severely curtailed.

We have also experienced significant reduction in access to our customers, including restrictions on our ability to market and distribute our tests and to collect samples. Our partners, vendors and customers have similarly had their operations altered or temporarily suspended. Due to impacts and measures resulting from the COVID-19 pandemic, we have experienced and could continue to experience unpredictable reductions in the demand for our tests as healthcare customers divert medical resources and priorities toward the treatment of the virus. Our biopharmaceutical customers are facing challenges in recruiting patients and in conducting clinical trials to advance their product development pipelines, for which our tests could be utilized. To the extent the COVID-19 pandemic continues to cause severe disruption, vendors of equipment and reagents for our operations could also reduce productions or even go out of business, resulting in supply constraints for us. The COVID-19 pandemic has resulted in, and could continue to cause, increased costs or delays to production and development of our products, including tests from our LUNAR program. For example, our ability to enroll suitable patients in clinical studies, including our ECLIPSE trial and COBRA study,

to advance our LUNAR program has been negatively impacted and is expected to continue to be adversely affected by the COVID-19 pandemic.

The full extent to which the COVID-19 pandemic and the various responses to it impacts our business, operations and financial results will depend on numerous evolving factors that we may not be able to accurately predict, including: the duration and scope of the pandemic; governmental, business and individuals' actions that have been and continue to be taken in response to the pandemic; the availability and cost to access COVID-19 tests and medicines; the effect on our customers and customer demand for and ability to pay for our tests; disruptions or restrictions on our employees' ability to work and travel; interruptions or restrictions related to the distribution of our tests, including impacts on logistics of shipping and receiving blood collection kits; and any stoppages, disruptions or increased costs associated with development, production and marketing of our products. During the COVID-19 pandemic, we may not be able to maintain the same level of customer outreach and service, which could negatively impact our customers' perception of us. We will continue to actively monitor the issues raised by the COVID-19 pandemic and may take further actions that alter our operations, as may be required by federal, state, local or foreign authorities, or that we determine are in the best interests of our employees, customers and stockholders. It is not clear what the potential effects any such alterations or modifications may have on our business, including the effects on our financial results.

The COVID-19 pandemic has also led to uncertainties related to our growth, forecast and trends. Our historic results such as revenues, operating margins, net income, cash flows, tests performed, and other financial and operating metrics, may not be indicative of our results for future periods. Any past increases in the number of clinical tests and/or biopharmaceutical tests performed by us may reflect the acceleration of growth that we have experienced but may not see in subsequent periods given the COVID-19 pandemic. Even if government and other restrictions are relaxed, our growth may slow or reverse, including due to a slow recovery. The COVID-19 pandemic and its future developments present uncertainties with respect to our performance, financial condition, volume of business, results of operations, and cash flows. Due to the uncertain scope and duration of the COVID-19 pandemic and uncertain timing of any recovery or normalization, we are currently unable to estimate the resulting impacts on our operations and financial results. As a result, we have withdrawn our full year 2020 financial guidance. In addition to the impacts to our business, the global economy is likely to be significantly weakened as a result of actions taken in response to the COVID-19 pandemic. To the extent that such a weakened global economy impacts customers' ability or willingness to pay for our tests, our business and results of operation could be negatively impacted.

Developing a new COVID-19 test and bringing it to market involve a high degree of risk and we may not be successful.

In early April 2020, our research and development team began work to determine whether we could develop a new test to support COVID-19 testing utilizing our current laboratory facilities. Because our work is preliminary, we have not yet determined the scale and financial elements of this program. Our efforts to develop a COVID-19 diagnostic test and to bring the test to market involves a high degree of risk, and our efforts may fail for many reasons, including:

- failure of the test to perform as expected, including defects and errors;
- lack of validation data;
- failure to demonstrate the utility and accuracy of the test; or
- failure to obtain the necessary regulatory approvals or clearances.

Additionally, even if we are successful in developing an effective COVID-19 diagnostic test and securing the regulatory approvals or clearances needed to bring such test to market, there can be no assurances as to the commercial success of such test. We have made, and expect to continue to make, significant investments in the development of a new COVID-19 test, which is expected to increase our capital expenditures and expenses and may not be accretive to our future financial results.

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

None.

Item 3. Defaults Upon Senior Securities.

Not applicable.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

On May 6, 2020, Michael Wiley resigned as our Chief Legal Officer in order to assume a new role as Head of Corporate Affairs where he will advance our efforts across strategic initiatives and public policy advocacy.

On May 6, 2020, our Board of Directors approved the appointment of John Saia as our Senior Vice President, General Counsel and Corporate Secretary, effective immediately. Mr. Saia most recently served as Senior Vice President, General Counsel and Corporate Secretary for WageWorks, Inc. from January 2019 until its acquisition by HealthEquity, Inc. in August 2019. Prior to that, Mr. Saia served as General Counsel and Corporate Secretary for AcelRx Pharmaceuticals, Inc., where he led all legal and compliance activities worldwide, and he spent a decade in numerous leadership roles on the legal team at McKesson Corporation, including Corporate Secretary and Associate General Counsel. In addition to holding positions at several highly respected law firms, Mr. Saia also held roles at the Securities and Exchange Commission and Department of Justice. Mr. Saia graduated cum laude from Santa Clara University and holds a Juris Doctorate from The George Washington School of Law.

Item 6. Exhibits.

Exhibit Number	Description	Form	File No.	Exhibit	Filing Date	Filed/Furnished Herewith
3.1	Amended and Restated Certificate of Incorporation	8-K	001-38683	3.1	10/9/2018	
3.2	Amended and Restated Bylaws	8-K	001-38683	3.2	10/9/2018	
31.1	Certification of the Chief Executive Officer pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					*
31.2	Certification of the Chief Financial Officer pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002					*
32.1	Certification of the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					**
32.2	Certification of the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002					**
101.INS	Inline 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					*
101.SCH	Inline XBRL Taxonomy Extension Schema Document					*
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document					*
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document					*
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document					*
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document					*
104	Cover Page Interactive Data File (formatted as inline XBRL with applicable taxonomy extension information contained in Exhibits 101)					*

* Filed herewith.
** Furnished herewith.

SIGNATURES

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

GUARDANT HEALTH, INC.

Dated: May 7, 2020

By: /s/ Derek Bertocci

Name: Derek Bertocci

Title: Chief Financial Officer (Principal Financial and Accounting Officer)

Exhibit 31.1

CERTIFICATION OF THE PRINCIPAL EXECUTIVE OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Helmy Eltoukhy, certify that:

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

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

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

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) 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 7, 2020

/s/ Helmy Eltoukhy
Helmy Eltoukhy
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION OF THE PRINCIPAL FINANCIAL OFFICER
PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Derek Bertocci, certify that:

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

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

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

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) 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 7, 2020

/s/ Derek Bertocci
Derek Bertocci
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

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

In connection with the Quarterly Report of Guardant Health, Inc. (the "Company") on Form 10-Q for the period ended March 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

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

2. The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: May 7, 2020

/s/ Helmy Eltoukhy
Helmy Eltoukhy
Chief Executive Officer
(Principal Executive Officer)

The foregoing certification is being furnished solely to accompany the Report pursuant to 18 U.S.C. § 1350, and is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not to be incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing.

Exhibit 32.2

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

In connection with the Quarterly Report of Guardant Health, Inc. (the "Company") on Form 10-Q for the period ended March 31, 2020 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

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

2. The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: May 7, 2020

/s/ Derek Bertocci
Derek Bertocci
Chief Financial Officer
(Principal Financial Officer)

The foregoing certification is being furnished solely to accompany the Report pursuant to 18 U.S.C. § 1350, and is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and is not to be incorporated by reference into any filing of the Company, whether made before or after the date hereof, regardless of any general incorporation language in such filing.