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 June 30, 2019

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**
(Address of principal executive offices)	**(Zip Code)**

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 Stock Market LLC**

As of July 31, 2019, the registrant had 92,965,751 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 about our business, our results of operations, the industry in which we operate and the beliefs and assumptions of our management. 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 are only predictions 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, 2018, 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)

	June 30, 2019	December 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	$ 174,653	$ 140,544
Short-term marketable securities	370,974	278,417
Accounts receivable	40,363	35,690
Inventory	14,176	9,136
Prepaid expenses and other current assets	4,082	5,204
Total current assets	604,248	468,991
Long-term marketable securities	277,301	77,563
Property and equipment, net	34,811	31,003
Intangible assets	8,987	—
Goodwill	2,935	—
Capitalized license fees	7,313	7,800
Deferred tax assets	1,235	—
Other assets	3,159	2,046
Total Assets[1]	$ 939,989	$ 587,403
LIABILITIES, REDEEMABLE NONCONTROLLING INTEREST AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 15,700	$ 10,642
Accrued compensation	13,687	12,986
Accrued expenses	11,092	7,081
Capital lease, current	74	97
Deferred revenue	16,496	16,138
Total current liabilities	57,049	46,944
Capital lease, net of current portion	80	119
Deferred rent, net of current portion	10,912	7,844
Obligation related to royalty	7,136	7,338
Deferred tax liabilities	1,235	—
Other long-term liabilities	1,303	206
Total Liabilities[1]	77,715	62,451
Commitments and contingencies (Note 8)		
Redeemable noncontrolling interest	46,800	41,800

Stockholders' equity:		
Common stock, par value of $0.00001 per share; 350,000,000 shares authorized as of June 30, 2019 and December 31, 2018; 92,806,252 and 85,832,454 shares issued and outstanding as of June 30, 2019 and December 31, 2018, respectively	1	1
Additional paid-in capital	1,128,938	764,033
Accumulated other comprehensive loss	1,344	(83)
Accumulated deficit	(314,809)	(280,799)
Total Stockholders' Equity	815,474	483,152
Total Liabilities, Redeemable Noncontrolling Interest and Stockholders' Equity	$ 939,989	$ 587,403

(1) As of June 30, 2019 and December 31, 2018, includes $45.1 million and $48.3 million of assets, respectively, that can be used only to settle obligations of the consolidated variable interest entity ("VIE") and VIE's subsidiaries, and $984,000 and $1.2 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.

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 June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Revenue:				
Precision oncology testing	$ 42,064	$ 17,822	$ 70,901	$ 32,013
Development services	11,911	1,560	19,729	4,061
Total revenue	53,975	19,382	90,630	36,074
Costs and operating expenses:				
Cost of precision oncology testing	14,650	9,506	25,673	17,551
Cost of development services	2,183	453	4,695	1,661
Research and development expense	19,532	11,554	35,848	19,809
Sales and marketing expense	19,439	11,575	37,246	22,887
General and administrative expense	13,439	8,997	26,100	15,516
Total costs and operating expenses	69,243	42,085	129,562	77,424
Loss from operations	(15,268)	(22,703)	(38,932)	(41,350)
Interest income	3,099	989	5,584	1,974
Interest expense	(287)	(317)	(580)	(648)
Other income (expense), net	(51)	395	96	4,544
Loss before provision for income taxes	(12,507)	(21,636)	(33,832)	(35,480)
Provision for (benefit from) income taxes	(1,207)	3	(1,181)	3
Net loss	(11,300)	(21,639)	(32,651)	(35,483)
Fair value adjustment of redeemable noncontrolling interest	(300)	—	(5,000)	—
Net loss attributable to Guardant Health, Inc. common stockholders	$ (11,600)	$ (21,639)	$ (37,651)	$ (35,483)
Net loss per share attributable to Guardant Health, Inc. common stockholders, basic and diluted	$ (0.13)	$ (1.75)	$ (0.43)	$ (2.92)
Weighted-average shares used in computing net loss per share attributable to Guardant Health, Inc. common stockholders, basic and diluted	89,036	12,388	87,494	12,155

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 June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
Net loss	$ (11,300)	$ (21,639)	$ (32,651)	$ (35,483)
Other comprehensive income (loss), net of tax impact:				
Unrealized gain (loss) on available-for-sale securities	852	138	1,337	(160)
Foreign currency translation adjustments	159	—	90	—
Other comprehensive income (loss)	1,011	138	1,427	(160)
Comprehensive loss	$ (10,289)	$ (21,501)	$ (31,224)	$ (35,643)
Comprehensive loss attributable to redeemable noncontrolling interest	(300)	—	(5,000)	—
Comprehensive loss attributable to Guardant Health, Inc.	$ (10,589)	$ (21,501)	$ (36,224)	$ (35,643)

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, 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
Fair value 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
Issuance of common stock upon follow-on offering, net of offering costs of $723	—	5,175,000	—	349,709	—	—	349,709
Issuance of common stock upon exercise of stock options	—	1,531,672	—	4,992	—	—	4,992
Vesting of restricted stock units	—	1,106	—	—	—	—	—
Vesting of common stock exercised early	—	—	—	13	—	—	13
Stock-based compensation	—	—	—	3,215	—	—	3,215
Fair value adjustment of redeemable noncontrolling interest	300	—	—	—	—	(300)	(300)
Other comprehensive gain, net of tax impact	—	—	—	—	1,011	—	1,011
Net loss	—	—	—	—	—	(11,300)	(11,300)
Balance as of June 30, 2019	$ 46,800	92,806,252	$ 1	$ 1,128,938	$ 1,344	$ (314,809)	$ 815,474

	Redeemable Noncontrolling Interest	Convertible Preferred Stock		Common Stock		Additional Paid-in Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Total Stockholders' Equity
		Shares	Amount	Shares	Amount				
Balance as of December 31, 2017	$ —	78,627,369	$ 499,974	11,896,882	$ —	$ 4,900	$ (532)	$ (195,736)	$ 308,606
Issuance of common stock upon exercise of stock options	—	—	—	421,264	—	1,103	—	—	1,103
Issuance of common stock upon early exercise of stock options	—	—	—	44,268	—	—	—	—	—
Issuance of common stock upon exercise of warrants	—	—	—	31,713	—	4	—	—	4
Stock-based compensation	—	—	—	—	—	1,277	—	—	1,277
Other comprehensive loss, net of tax impact	—	—	—	—	—	—	(298)	—	(298)
Net loss	—	—	—	—	—	—	—	(13,844)	(13,844)
Balance as of March 31, 2018	—	78,627,369	499,974	12,394,127	—	7,284	(830)	(209,580)	296,848
Issuance of common stock upon exercise of stock options	—	—	—	148,230	—	424	—	—	424
Issuance of common stock upon exercise of warrants	—	—	—	11,922	—	2	—	—	2
Repurchase of common stock	—	—	—	(31,681)	—	(172)	—	—	(172)
Stock-based compensation	—	—	—	—	—	1,180	—	—	1,180
Issuance of equity interests in redeemable noncontrolling interest	41,000	—	—	—	—	—	—	—	
Other comprehensive loss, net of tax impact	—	—	—	—	—	—	138	—	138
Net loss	—	—	—	—	—	—	—	(21,639)	(21,639)
Balance as of June 30, 2018	$ 41,000	78,627,369	$ 499,974	12,522,598	$ —	$ 8,718	$ (692)	$ (231,219)	$ 276,781

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)

	Six Months Ended June 30,	
	2019	**2018**
OPERATING ACTIVITIES:		
Net loss	$ (32,651)	$ (35,483)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	5,011	2,964
Unrealized translation gains on obligation related to royalty	(51)	(205)
Non-cash stock-based compensation	6,397	2,457
Non-cash interest expense	—	(7)
Amortization of discounts on marketable securities	(1,276)	150
Changes in operating assets and liabilities:		
Accounts receivable	234	2,224
Inventory	(5,040)	559
Prepaid expenses and other current assets	1,122	(1,496)
Deferred tax assets	(1,235)	—
Other assets	(1,129)	255
Accounts payable	3,413	823
Accrued compensation	701	51
Accrued expenses and other liabilities	2,939	2,482
Deferred rent	3,068	866
Deferred revenue	358	760
Net cash used in operating activities	(18,139)	(23,600)
INVESTING ACTIVITIES:		
Purchase of marketable securities	(418,841)	(44,070)
Maturity of marketable securities	129,160	75,625
Business acquisitions, net of cash acquired	(9,765)	—
Purchase of property and equipment	(5,752)	(11,360)
Net cash (used in) provided by investing activities	(305,198)	20,195
FINANCING ACTIVITIES:		
Payments made on royalty obligations	(151)	—
Payments made on capital lease obligations	(62)	(399)
Proceeds from issuance of common stock upon exercise of stock options	5,530	1,734
Proceeds from issuance of common stock upon the exercise of warrants	—	6
Repurchase of common stock	—	(172)
Proceeds from issuances of common stock under employee stock purchase plan	1,933	—
Proceeds from follow-on offering, net of underwriting discounts and commissions	350,432	—
Payment of offering costs related to initial public offering and follow-on offering	(326)	(168)
Net proceeds from issuance of equity interests in redeemable noncontrolling interest	—	41,000
Net cash provided by financing activities	357,356	42,001

Net effect of foreign exchange rate changes on cash, cash equivalents, and restricted cash	90	—
Net increase in cash, cash equivalents and restricted cash	34,109	38,596
Cash, cash equivalents and restricted cash - Beginning of period	140,544	72,596
Cash, cash equivalents and restricted cash - End of period	$ 174,653	$ 111,192
Supplemental Disclosures of Cash Flow Information:		
Cash paid for interest	$ 580	$ 51
Supplemental Disclosures of Noncash Investing and Financing Activities:		
Purchases of property and equipment included in accounts payable and accrued expenses	$ 3,874	$ 4,986
Deferred offering costs included in accounts payable and accrued expenses	$ 485	$ 1,794
Initial fair value of contingent consideration at acquisition date	$ 1,135	$ —

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 it 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, it has launched its Guardant360 and GuardantOMNI liquid biopsy-based tests for advanced stage cancer patients, and is developing tests from its LUNAR early detection program to address the needs of early stage cancer patients with adjuvant treatment selection, cancer survivors with surveillance and asymptomatic individuals with screening.

The Company was incorporated in Delaware in December 2011 and is headquartered in Redwood City, California. In April 2018, the Company established 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 June 30, 2019, the Joint Venture has subsidiaries in Singapore and Japan (see Note 3).

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 June 30, 2019 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, estimation of potential credit losses on accounts receivable, the valuation of inventory, 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 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.

Unaudited Interim Condensed Financial Statements

The accompanying condensed consolidated balance sheet as of June 30, 2019, the condensed consolidated statements of operations and comprehensive loss for the three and six months ended June 30, 2019 and 2018, and cash flows for the six months ended June 30, 2019 and 2018, 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, 2018.

JOBS Act Accounting Election

The Company is an "emerging growth company" within the meaning of the Jumpstart Our Business Act of 2012 (the "JOBS Act"). Section 107(b) of the JOBS Act provides that an emerging growth company can leverage the extended transition period, provided in Section 102(b) of the JOBS Act, for complying with new or revised accounting standards. Thus, an emerging growth company can delay the adoption of new or revised accounting standards that have different effective dates for public and private companies until those standards apply to private companies. The Company has elected to use this extended transition period and, as a result, the consolidated financial statements may not be comparable to companies that comply with public company effective dates. The Company also intends to rely on other exemptions provided by the JOBS Act, including without limitation, not being required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act of 2002. As the market value of the Company's common stock that was held by non-affiliates exceeded $700 million as of June 30, 2019, the Company expects to be classified as a large accelerated filer and cease being an emerging growth company.

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 consolidated statements of operations. For the three and six months ended June 30, 2019, foreign currency translation adjustment was immaterial.

Cash and Cash Equivalents and Restricted Cash

Cash equivalents consist of highly liquid investments with original maturities at the time of purchase of three months or less. Cash equivalents include bank demand deposits and money market accounts that invest primarily in U.S. government-backed securities and treasuries. Cash equivalents are carried at cost, which approximates their fair value.

Restricted cash consists of deposits related to the Company's corporate credit card. Restricted cash balance was included in other assets in the accompanying condensed consolidated balance sheet, and was immaterial as of June 30, 2019 and December 31, 2018.

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.

Significant customers are those which represent more than 10% of the Company's total revenue or accounts receivable balance at each respective condensed consolidated balance sheet date. For each significant customer, revenue as a percentage of revenue and accounts receivable as a percentage of accounts receivable are as follows:

	Revenue				Accounts Receivable	
	Three Months Ended June 30,		Six Months Ended June 30,			
	2019	2018	2019	2018	June 30, 2019	December 31, 2018
	(unaudited)				(unaudited)	
Customer A	*	11%	*	11%	*	*
Customer B	36%	16%	31%	12%	48%	65%
Customer C	12%	*	12%	*	*	*
Customer D	*	11%	*	*	*	*

* less than 10%

Accounts Receivable

Accounts receivable represent valid claims against biopharmaceutical companies, research institutes and international distributors. The Company evaluates the collectability of its accounts receivable and provides for an allowance for potential credit losses based on management's best estimate of the amount of probable credit losses. Accounts receivable are written off when management determines a balance is uncollectible and no longer intends to actively pursue collection of the receivable. For the three and six months ended June 30, 2019 and 2018, the Company did not write off any material accounts receivable.

Upon the adoption of ASC 606 on January 1, 2019, contract assets are reported as part of accounts receivable on the condensed consolidated balance sheets and are discussed in "unbilled receivables" below.

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 the development of new platforms and information solutions, including companion diagnostic development and laboratory services. The Company currently receives payments from commercial third-party payers, certain hospitals and oncology centers and individual patients, as well as biopharmaceutical companies and research institutes.

Effective January 1, 2019, the Company began recognizing revenue in accordance with FASB ASC Topic 606, *Revenue from Contracts with Customers* ("ASC 606"). 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 patients. 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 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.

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.

The Company's precision oncology information 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, in 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 and clinical trials 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. These collaboration arrangements include no royalty obligations. 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. 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 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, 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.

Unbilled receivables

Unbilled receivables, which is a contract asset, 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.

Unbilled receivables are presented under accounts receivable on the Company's consolidated balance sheets. As of June 30, 2019, the Company had unbilled receivables of $5.2 million as compared to $4.9 million as of January 1, 2019. The Company did not record unbilled receivables for its contract assets prior to the adoption of ASC 606 on January 1, 2019.

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 June 30, 2019 and December 31, 2018, the deferred revenue balance was $16.5 million and $16.1 million, respectively, which included $10.4 million and $10.5 million, respectively, related to collaboration development efforts with two pharmaceutical companies to be recognized as the Company performs research and development services in the future periods. Revenue recognized in the six months ended June 30, 2019 that was included in the deferred revenue balance as of January 1, 2019 was $13.6 million, which represented primarily revenue from provision of development services under the collaboration agreement with a 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 applied the practical expedient in accordance with Topic 606 to forego disclosures related to the allocation of consideration to the remaining performance obligations and the timing in which revenues will be recognized from such performance obligations.

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.

Intangible Assets

Purchased intangible assets with finite lives are carried at cost, less accumulated amortization. Amortization is computed over the estimated useful lives of the respective assets. Acquisition-related in-process research and development ("IPR&D") represents the fair value of incomplete research and development projects that have not reached technological feasibility as of the date of acquisition. Initially, these assets are not subject to amortization. Assets related to projects that have been completed are transferred to developed technology, which are subject to amortization.

Impairment of Goodwill, Intangible Assets, and Other Long-Lived Assets

Goodwill is evaluated for impairment on an annual basis during the fourth quarter of the Company's fiscal year, and whenever events or changes in circumstances indicate the carrying amount of goodwill may not be recoverable. The Company has elected to first assess qualitative factors to determine whether it is more likely than not that the fair value of single reporting unit is less than its carrying amount, including goodwill. If it is more likely than not that the fair value of single reporting unit is less than its carrying amount, then the quantitative impairment test will be performed. Under the quantitative impairment test, if the carrying amount of single reporting unit exceeds its fair value, an impairment loss will be recognized in an amount equal to that excess, but limited to the total amount of goodwill.

The Company evaluates long-lived assets, including property and equipment and purchased intangible assets, for impairment whenever events or changes in business circumstances indicate that the carrying amount of the asset may not be fully recoverable. An impairment loss would be recognized when estimated undiscounted future cash flows expected to result from the use of the asset and its eventual disposition are less than its carrying amount. Impairment, if any, is measured as the amount by which the carrying amount of a long-lived asset exceeds its fair value.

As of June 30, 2019, the Company has not recognized any impairment losses on its goodwill, intangible assets, or other long-loved assets.

Stock-Based Compensation

Stock-based compensation related to stock options granted to the Company's employees and directors 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.

In 2018, the Company accounted for stock options issued to nonemployees consultants based on the estimated fair value at the grant date and re-measured at each reporting period. 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. 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.

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, convertible preferred stock, common stock warrants, 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.

Prior to the closing of the Company's initial public offering (the "IPO") in October 2018 and the conversion of its convertible preferred stock into common stock, the Company calculated its basic and diluted net loss per share attributable to common stockholders of the Company in conformity with the two-class method required for companies

with participating securities. The Company considered its convertible preferred stock to be participating securities. In the event a dividend had been declared or paid on the Company's common stock, holders of convertible preferred stock were entitled to a share of such dividend in proportion to the holders of common stock on an as-if converted basis. Under the two-class method, net loss attributable to common stockholders is determined by allocating undistributed earnings between common and preferred stockholders. The net loss attributable to common stockholders was not allocated to the convertible preferred stock under the two-class method as the convertible preferred stock did not have a contractual obligation to share in the Company's losses.

Recent Adopted Accounting Pronouncements

The Company adopted ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)* and all related amendments (collectively "ASC 606") on January 1, 2019 utilizing the modified retrospective method. The cumulative effect of applying the standard to all contracts that were not completed as of the date of initial application was recognized to beginning accumulated deficit as of January 1, 2019. The Company identified certain differences in accounting for revenue recognition as a result of the adoption of ASC 606 which have impacted its financial position and results of operations. These differences are discussed below.

For precision oncology testing revenue with certain clinical customers, the Company historically deferred revenue recognition until cash receipt when the price pursuant to the underlying customer arrangement became fixed and determinable and collectability became reasonably assured. Under the new standard, this is considered variable consideration and revenue is recognized at the estimated transaction price upon delivery. This results in earlier revenue recognition under the new standard as compared to previous revenue recognition.

For development services revenue with certain biopharmaceutical customers, the Company historically limited revenue recognition based on the right to invoice the customer. Under the new standard, for these arrangements, the Company constrains revenue such that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is subsequently resolved. For arrangements with regulatory and other developmental milestone payments, this results in a change to the timing and pattern of revenue recognition under the new standard as compared to previous revenue recognition.

Effective January 1, 2019, the Company recognizes revenue in accordance with ASC 606. Comparative information from prior periods has not been restated and continues to be reported under the accounting standards in effect for those periods.

The cumulative effect of changes made to the condensed consolidated balance sheet as of January 1, 2019 related to the adoption of ASC 606 were as follows:

	Balance as of December 31, 2018	Adjustments Due to ASC 606	Balance as of January 1, 2019
		(in thousands)	
Assets:			
Accounts receivable	$ 35,690	$ 4,907	$ 40,597
Equity:			
Accumulated deficit	$ (280,799)	$ 4,907	$ (275,892)

In accordance with ASC 606 requirements under the modified retrospective method of adoption, the disclosure of the impact of adoption on the Company's condensed consolidated statement of operations and condensed consolidated balance sheet was as follows:

	Three Months Ended June 30, 2019			Six Months Ended June 30, 2019		
	As Reported Under ASC 606	Effect of Change	Balances Without Adoption of ASC606	As Reported Under ASC 606	Effect of Change	Balances Without Adoption of ASC606
			(in thousands)			
Revenue:						
Precision oncology testing	$ 42,064	$ 1,023	$ 43,087	$ 70,901	$ 2,017	$ 72,918
Development services	11,911	(1,362)	10,549	19,729	(1,362)	18,367
Total revenue	53,975	(339)	53,636	90,630	655	91,285

	June 30, 2019		
	As Reported Under ASC 606	Effect of Change	Balances Without Adoption of ASC606
		(in thousands)	
Assets:			
Accounts receivable	$ 40,363	$ 655	$ 41,018
Equity:			
Accumulated deficit	$ (314,809)	$ 655	$ (314,154)

ASC 606 did not have an aggregate impact on the Company's net cash used in operating activities but resulted in offsetting changes in certain assets presented within net cash used in operating activities in the Company's condensed consolidated statement of cash flows, as reflected in the above table.

In June 2018, the FASB issued ASU 2018-07, *Compensation—Stock Compensation (Topic 718): Improvements to Nonemployee Share-Based Payment Accounting*, which expands the scope of Topic 718 to include share-based payment transactions for acquiring goods and services from nonemployees, with certain exceptions. The Company early adopted this new guidance effective January 1, 2019. In accordance with the transition guidance, the Company assessed its outstanding nonemployee awards for which a measurement date had not been established. These outstanding awards were re-measured to fair value as of the January 1, 2019 adoption date. For nonemployee awards that contain performance condition, the measurement is based on the outcome that is probable as opposed to the lowest aggregate fair value within a range of possible outcomes. The adoption of ASU 2018-07 provided administrative relief by fixing the measurement date of nonemployee awards and eliminating the requirement of quarterly re-measurement. The Company adopted this standard on a modified retrospective basis and recorded a cumulative-effect adjustment of $1.3 million as an increase to accumulated deficit and an equal increase to additional paid-in capital as of January 1, 2019.

Recent Accounting Pronouncements Not Yet Adopted

In February 2016, the FASB issued ASU 2016-02, *Leases (Topic 842)*. The new standard requires lessees to recognize most leases on their balance sheets as lease liabilities with corresponding right-of-use assets and eliminates certain real estate-specific provisions. The new guidance will be effective for the Company beginning in 2020, at which time, the new guidance will be adopted on a modified retrospective transition basis for leases existing at, or entered into after, the beginning of the earliest comparative period presented in the consolidated financial statements. The Company is currently evaluating the impact of the new guidance on its condensed consolidated financial statements and anticipates the recognition of additional assets and corresponding liabilities on its condensed consolidated balance sheet related to leases. The adoption of the new standard is also expected to materially impact the Company's condensed consolidated financial statement disclosures related to leases.

In June 2016, the FASB issued ASU 2016-13, *Financial Instruments - Credit Losses: Measurement of Credit Losses on Financial Instruments*, which amends the impairment model by requiring entities to use a forward-looking approach based on expected losses to estimate credit losses on certain types of financial instruments, including trade receivables and available for sale debt securities. The new guidance is effective for the Company beginning in 2021, with early adoption permitted. The Company is currently evaluating the impact of the new guidance on its condensed consolidated financial statements.

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 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 June 30, 2019 and December 31, 2018, the Joint Venture had total assets of approximately $45.1 million and $48.3 million, respectively, which were primarily comprised of cash, property and equipment 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 June 30, 2019 and December 31, 2018, 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 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 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. The purchase price per share of the Joint Venture in these situations will be equal to the average closing price of the shares for the 20 trading days ending on the business day immediately preceding the date of the put or call notice, if the shares of the Joint Venture are publicly traded and listed on a national exchange; or 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. As a result of the IPO, the put-call rights for the Company to purchase all shares of the Joint Venture held by SoftBank are exercisable on each subsequent anniversary of the IPO by the Company or SoftBank.

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 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 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.

As of June 30, 2019 and December 31, 2018, the fair value of the redeemable noncontrolling interest held by SoftBank approximated $46.8 million and $41.8 million, respectively. For the three and six months ended June 30, 2019, the Company recorded a fair value adjustment of $0.3 million and $5.0 million , respectively, in its condensed consolidated statements of operations.

As of June 30, 2019, the fair value of the redeemable noncontrolling interest held by SoftBank was determined using the combination of the income approach and the market approach. Determining the fair value of the redeemable noncontrolling interest requires judgment and the use of significant estimates and assumptions. Such estimates and assumptions include future revenue growth rates, gross profit margins, EBITDA margins, future capital expenditures,

weighted average costs of capital and future market conditions, among others. The fair value measurement of the redeemable noncontrolling interest is classified within Level 3 of the fair value hierarchy.

4. Condensed Consolidated Balance Sheet Components

Property and Equipment, Net

Property and equipment, net consisted of the following:

	June 30, 2019	December 31, 2018
	(unaudited)	
	(in thousands)	
Machinery and equipment	$ 26,264	$ 23,440
Computer hardware	5,528	4,949
Leasehold improvements	14,736	13,965
Furniture and fixtures	1,549	1,522
Computer software	741	643
Construction in progress	4,358	3,118
Property and equipment, gross	53,176	47,637
Less: accumulated depreciation and amortization	(18,365)	(16,634)
Property and equipment, net	$ 34,811	$ 31,003

Depreciation and amortization expense related to property and equipment was $2.2 million and $1.3 million for the three months ended June 30, 2019 and 2018, respectively, and $4.3 million and $2.5 million for the six months ended June 30, 2019 and 2018, respectively.

As of June 30, 2019 and December 31, 2018, total property and equipment financed under capital leases was $346,000 and $504,000, net of accumulated amortization of $187,000 and $294,000, respectively. Amortization expense related to total property and equipment financed under capital leases was $21,000 and $41,000 for the three months ended June 30, 2019 and 2018, respectively, and $51,000 and $105,000 for the six months ended June 30, 2019 and 2018, respectively.

Accrued Expenses

Accrued expenses consisted of the following:

	June 30, 2019	December 31, 2018
	(unaudited)	
	(in thousands)	
Accrued royalty obligations	$ 1,324	$ 707
Accrued legal expenses	1,610	814
Accrued tax liabilities	1,713	1,470
Accrued professional services	1,783	1,791
Purchases of property and equipment included in accrued expenses	1,417	343
Other	3,245	1,956
Total accrued expenses	$ 11,092	$ 7,081

5. Fair Value Measurements, Cash Equivalents and Marketable Securities

Financial instruments consist of cash equivalents, marketable securities, prepaid expenses and other current assets, accounts payable, accrued expenses and other long-term liabilities. 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:

	June 30, 2019			
	Fair Value	Level 1	Level 2	Level 3
	(unaudited)			
	(in thousands)			
Financial Assets:				
Money market funds	$ 24,016	$ 24,016	$ —	$ —
U.S. government debt securities	5,007	—	5,007	—
Total cash equivalents	29,023	24,016	5,007	—
Corporate bonds	32,988	—	32,988	—
U.S. government debt securities	332,959	—	332,959	—
U.S. government agency bonds	5,027	—	5,027	—
Total short-term marketable securities	370,974	—	370,974	—
U.S. government debt securities	277,301	—	277,301	—
Total long-term marketable securities	277,301	—	277,301	—
Total	$ 677,298	$ 24,016	$ 653,282	$ —
Financial Liabilities:				
Acquisition-related contingent consideration	$ —	$ —	$ 1,135	$ —
Total	$ —	$ —	$ 1,135	$ —

	December 31, 2018			
	Fair Value	Level 1	Level 2	Level 3
	(in thousands)			
Financial Assets:				
Money market funds	$ 25,796	$ 25,796	$ —	$ —
Total cash equivalents	25,796	25,796	—	—
Corporate bonds	38,397	—	38,397	—
U.S. government debt securities	235,016	—	235,016	—
U.S. government agency bonds	5,004	—	5,004	—
Total short-term marketable securities	278,417	—	278,417	—
Corporate bonds	3,805	—	3,805	—
U.S. government debt securities	73,758	—	73,758	—
Total long-term marketable securities	77,563	—	77,563	—
Total	$ 381,776	$ 25,796	$ 355,980	$ —

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 significant unobservable inputs used in the fair value measurement of the Company's contingent consideration liability include the estimated amount and timing of projected cash flows, and the risk-adjusted discount rate used to present value the cash flows. The use of different inputs in the valuation of the contingent consideration liability could result in materially different fair value estimates.

There were no transfers between Level 1, Level 2 and Level 3 during the periods presented.

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:

	June 30, 2019			
	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Estimated Fair Value
	(unaudited)			
	(in thousands)			
Money market fund	$ 24,016	$ —	$ —	$ 24,016
Corporate bond	32,919	69	—	32,988
U.S. government debt securities	614,082	1,189	(4)	615,267
U.S. government agency bonds	5,025	2	—	$ 5,027
Total	$ 676,042	$ 1,260	$ (4)	$ 677,298

	December 31, 2018			
	Amortized Cost	Gross Unrealized Gain	Gross Unrealized Loss	Estimated Fair Value
	(in thousands)			
Money market fund	$ 25,796	$ —	$ —	$ 25,796
Corporate bond	42,273	—	(71)	42,202
U.S. government debt securities	308,775	235	(236)	308,774
U.S. government agency bonds	5,014	—	(10)	5,004
Total	$ 381,858	$ 235	$ (317)	$ 381,776

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 any other-than-temporary impairment in the three and six months ended June 30, 2019 and 2018. The maturities of the Company's long-term marketable securities range from 1.0 year to 1.8 years as of June 30, 2019.

6. Acquisition of Bellwether Bio

In April 2019, the Company purchased of 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 consideration was $11.4 million, which consisted of i) $10.3 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 June 30, 2019, the Company did not believe the earn-out consideration is probable to be achieved, and therefore, did not record any compensation expense.

The excess purchase consideration over the fair value of assets acquired and liabilities assumed was recorded as goodwill. Goodwill is attributable to future revenue opportunities that we expect to achieve from leveraging Bellwether Bio's existing license and IPR&D, as well as the assembled workforce. The valuation of the intangible assets acquired was determined using currently available information and reasonable assumptions. The purchase price allocation is preliminary as the Company is still in the process of collecting additional information for the valuation of intangible assets, contingent consideration and unrecognized tax benefits. The following table summarizes the preliminary allocation of the total consideration to the estimated fair values of assets acquired and liabilities assumed:

	Amount
	(unaudited)
	(in thousands)
Cash	$ 521
Identified intangible assets	9,200
Goodwill	2,935
Net liabilities assumed	(1,235)
Total	$ 11,421

The following table presents details of the identified intangible assets acquired:

	Fair Value	Estimated Useful Life
	(in thousands)	
Acquired license	$ 5,100	10 years
Covenants not to compete	2,500	6 years
IPR&D	1,600	*
Total	$ 9,200	

* IPR&D assets are not subject to amortization.

Acquisition-related contingent consideration is measured at fair value on a quarterly basis based on additional information as it becomes available, and change in estimated contingent consideration to be paid will be included in other income (expense), net in the consolidated statements of operations. The fair value of acquisition-related contingent consideration is estimated using a multiple-outcome discounted cash flow valuation technique. Contingent consideration is classified within Level 3 of the fair value hierarchy, as it is based on a probability that includes significant unobservable inputs. The significant unobservable inputs include a probability-weighted estimate of achievement of certain commercialization milestones, continued services from certain former employees and consultants, resulting contingent payments, and discount rate to present value the expected payments. A significant change in any of these input factors in isolation could have a material impact to fair value measurement. For the three months ended June 30, 2019, no change in estimated contingent consideration liability was recorded as the information available at period end is similar to those used to estimate the fair value of contingent consideration on the acquisition date. As of June 30, 2019, the acquisition-related contingent consideration liability of $1.1 million was recorded within other long-term liabilities on the condensed consolidated balance sheet.

7. Patent License Agreement

In January 2017, the Company entered into a license agreement with a biotechnology company for an exclusive, non-transferable right to use proprietary technology related to high-throughput screening and identification of mutations in targeted gene sequences. The transaction was treated as an acquisition of an asset and the Company capitalized a total of $9.7 million under the arrangement.

As of June 30, 2019 and December 31, 2018, unamortized capitalized license fees were $7.3 million and $7.8 million, respectively, which will be amortized over the remaining useful life of 7.5 and 8.0 years, respectively. Amortization of capitalized license fees totaled $243,000 and $239,000 for the three months ended June 30, 2019 and 2018, respectively, and $486,000 and $428,000 for the six months ended June 30, 2019 and 2018, respectively.

8. Commitments and Contingencies

Operating Leases

As of June 30, 2019, future minimum payments under the non-cancelable operating lease were as follows:

Year Ending December 31,		(unaudited) (in thousands)
Remainder of 2019	$	2,746
2020		7,280
2021		8,144
2022		8,388
2023		9,022
2024 and thereafter		26,076
Total	$	61,656

Rent expense for the facility leases was $1.6 million and $1.1 million for the three months ended June 30, 2019 and 2018, respectively, and $2.9 million and $2.2 million for the six months ended June 30, 2019 and 2018, respectively.

Capital Leases

As of June 30, 2019, future minimum capital lease payments were as follows:

Year Ending December 31,		(unaudited) (in thousands)
Remainder of 2019	$	54
2020		108
2021		36
Total minimum capital lease payments		198
Less: amount representing interest		(44)
Present value of net minimum capital lease payments		154
Less: current installments of obligations under capital lease		(74)
Obligations under capital lease, excluding current installments	$	80

Patent License Agreements

The Company has agreements with four different parties to in-license patent rights. Under these agreements, the Company has made one-time upfront and milestone payments, which it has capitalized and is amortizing to expense ratably over the useful life of the underlying patent right(s). Under some of these agreements, the Company is obligated to pay low single-digit percentage running royalties on net sales where the licensed patent right(s) are used in the product or service sold, subject to minimum annual royalties or fees in certain agreements.

Royalty expenses were included in cost of precision oncology testing on the accompanying condensed consolidated statements of operations. The Company recognized royalty expenses of $1.1 million and $445,000, or 3% and 2% of precision oncology testing revenue in each period, for the three months ended June 30, 2019 and 2018, respectively, and $1.7 million and $617,000, or 2% and 2% of precision oncology testing revenue in each period, for the six months ended June 30, 2019 and 2018, respectively.

As of June 30, 2019, future minimum royalty payments were due as follows regardless of sales amounts:

Year Ending December 31,		
		(unaudited)
		(in thousands)
Remainder of 2019	$	710
2020		1,421
2021		1,421
2022		1,705
2023		1,705
2024 and thereafter		5,683
Total future minimum royalty payments		12,645
Less: amount representing interest		(5,509)
Present value of future minimum royalty payments	$	7,136

Indemnification Agreements

The Company has entered into indemnification agreements with certain directors and officers that require the Company, among other things, to indemnify them against certain liabilities that may arise by reason of their status or service as directors or officers. To date, no such matters have arisen and the Company does not believe that the outcome of any claims under indemnification arrangements will have a material adverse effect on its financial positions, results of operations or cash flows. Accordingly, the Company has not recorded a liability related to such indemnifications as of June 30, 2019.

Security Incidents

In July 2018, the Company experienced security incidents involving an unauthorized actor obtaining access to its email system and sending phishing messages. The Company has implemented and continues to implement additional security measures to help prevent future unauthorized access to its systems and the data it maintains, including promptly engaging an independent cybersecurity firm to support its investigation, assess its systems and bolster security thereof. The Company provided timely notices to the U.S. Department of Health and Human Services ("HHS"), certain state regulators and certain credit agencies, as applicable, as well as to the individuals affected. Following such security incidents, the Company received a request for information in January 2019 regarding the incidents from the HHS Office for Civil Rights ("OCR"). The Company has responded to that request in a timely manner but does not know whether OCR will request additional information or pursue any further action. The Company currently cannot predict the ultimate resolution of the security incidents or the OCR inquiry and cannot estimate the amounts or ranges of potential loss that could result therefrom. The Company has insurance coverage in place for certain potential claims, liabilities and costs relating to the security incidents, but this coverage is limited in amount and may not be adequate to protect against all claims, liabilities and costs arising from such incidents, including fines and penalties.

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 litigation loss contingency might include, for example, estimates of potential damages, outside legal fees and other directly related costs expected to be incurred.

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, unenforceabilty 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. In June 2019, the PTAB denied institution of inter partes review for the first of the six petitions filed by Foundation Medicine. 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 N.V. ("Licensor") has breached its patent license agreement with the Company. Licensor counterclaimed that the Company has breached the agreement. The parties are seeking damages, declaratory relief and recovery of costs and fees, among other remedies. At this time, the Company cannot reasonably ascertain the likelihood that any of its claims or Licensor's counterclaims will succeed on the merits.

Other Disputes

In the first quarter of 2018, the Company settled a commercial dispute. In connection with the settlement, the Company received a payment of $4.25 million, which was reported as other income in the condensed consolidated statements of operations for the three months ended March 31, 2018.

9. Common Stock

Common stockholders are entitled to dividends if and when declared by the Company's Board of Directors (the "Board of Directors"). As of June 30, 2019 and December 31, 2018, no dividends on common stock had been declared by the Board of Directors.

Common stock has been reserved for the following potential future issuances:

	June 30, 2019	December 31, 2018
	(unaudited)	
Shares underlying outstanding stock options	5,677,472	7,588,405
Shares underlying unvested restricted stock units	142,217	—
Shares available for issuance under the 2018 Incentive Award Plan	3,358,358	3,556,507
Shares available for issuance under the 2018 Employee Stock Purchase Plan	802,548	922,250
Total	9,980,595	12,067,162

Reverse Stock Split

In September 2018, the Company's Board of Directors and its stockholders approved a 0.7378-for-one reverse stock split of the Company's common stock. The reverse stock split became effective on September 19, 2018. The par value of the common stock was not adjusted as a result of the reverse stock split. Adjustments corresponding to the reverse stock split were made to the ratio at which the convertible preferred stock was convertible into common stock immediately prior to the closing of the IPO. All share and per share amounts in the accompanying condensed consolidated financial statements have been retroactively adjusted for all periods presented to give effect to this reverse stock split.

Initial Public Offering

On October 9, 2018, the Company completed the IPO, in which it issued and sold 14,375,000 shares of its common stock at a price of $19.00 per share. The Company received net proceeds of $249.5 million after deducting underwriting discounts and commissions and offering expenses payable by the Company. All then-outstanding warrants to purchase the Company's common stock were exercised prior to the completion of the IPO. In addition, in connection with the IPO, all shares of the Company's then-outstanding convertible preferred stock were automatically converted into 58,264,577 shares of its common stock, and all then-outstanding warrants to purchase the Company's convertible preferred stock were automatically converted into warrants to purchase 7,636 shares of the Company's common stock.

Follow-on Offering

In May 2019, the Company completed an underwritten public offering, in which it issued and sold 5,175,000 shares of its common stock (including the exercise in full of the underwriters' over-allotment option to purchase 675,000 additional shares) at a price of $71.00 per share. The Company received net proceeds of $349.7 million after deducting underwriting discounts and commissions and offering expenses payable by the Company.

10. Stock-Based Compensation

2012 Stock Plan and 2018 Incentive Award Plan

In June 2012 and September 2018, the Board of Directors adopted and its stockholders approved the Company's 2012 Stock Plan (as amended and restated, the "2012 Plan") and the Company's 2018 Incentive Award Plan (the "2018 Plan"), respectively, under which the Company may grant cash and equity incentive awards such as stock options, restricted shares, stock units and stock appreciation rights to its employees and nonemployees. Stock options granted may be either incentive stock options or nonstatutory stock options. Shares issued under the 2018 Plan may be authorized but unissued shares, or shares purchased in the open market or treasury shares. Upon effectiveness of the 2018 Plan in connection with the IPO in October 2018, the 2012 Plan was terminated and the 508,847 shares remaining available for future grant under the 2012 Plan were not made available for grant under the 2012 Plan or the 2018 Plan. Any outstanding awards granted under the 2012 Plan remained outstanding, subject to the terms of the 2012 Plan and applicable award agreement; and if any of those awards are forfeited or cancelled without payment therefor, the shares covered by those awards will not become available for future grant or issuance under the 2012 Plan or the 2018 Plan. No further grants will be made under the 2012 Plan. As of June 30, 2019, 3,658,602 shares were approved and reserved for issuance under the 2018 Plan.

Stock Option Activity

A summary of the Company's stock option activity under the 2012 Plan and 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, 2018	3,556,507	7,588,405	$ 4.58	8.3	$ 250,495
Granted	(55,712)	55,712	70.53		
Exercised	—	(1,677,990)	3.28		
Canceled	886	(288,655)	6.08		
Restricted stock units granted	(173,733)	—	—		
Restricted stock units canceled	30,410	—	—		
Balance as of June 30, 2019	3,358,358	5,677,472	$ 5.54	8.1	$ 458,782
Vested and Exercisable as of June 30, 2019		2,370,282	$ 4.12	7.7	$ 194,852

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

$108.3 million and $478,000 for the three months ended June 30, 2019 and 2018, respectively, and $116.4 million and $1.8 million for the six months ended June 30, 2019 and 2018, respectively.

Starting January 1, 2019, the Company adopted ASU 2018-07 which aligns the accounting treatment of nonemployee awards with employee awards, and the fair value of stock options issued to employees and nonemployee consultants are both determined as of the grant date. The weighted-average grant date fair value of options granted was $51.94 and $4.24 per share for the three months ended June 30, 2019 and 2018, respectively, and $43.35 and $4.06 per share for the six months ended June 30, 2019 and 2018, respectively.

Future stock-based compensation for unvested options as of June 30, 2019 and December 31, 2018 was $15.3 million and $17.5 million, respectively, which is expected to be recognized over a weighted-average period of 2.3 years and 2.7 years, respectively.

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
Unvested balance as of December 31, 2018	—	$ —
Granted	173,733	55.25
Vested	(1,106)	65.50
Canceled	(30,410)	42.72
Unvested balance as of June 30, 2019	142,217	$ 57.85

Future stock-based compensation for unvested restricted stock units as of June 30, 2019 was $7.4 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 June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
	(unaudited) (in thousands)			
Cost of precision oncology testing	$ 126	$ 79	$ 296	$ 142
Research and development expense	1,428	214	2,638	418
Sales and marketing expense	646	259	1,472	633
General and administrative expense	1,015	628	1,991	1,264
Total stock-based compensation expense	$ 3,215	$ 1,180	$ 6,397	$ 2,457

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 June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
	(unaudited)			
Expected term (in years)	5.50 – 6.16	5.85 – 6.20	5.50 – 6.22	5.01 – 10.00
Expected volatility	66.9% – 68.3%	80.7% – 81.0%	66.7% – 68.3%	80.7% – 86.5%
Risk-free interest rate	1.9%	3.0%	1.9% – 2.7%	2.5% – 2.9%
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:

Expected Term

The expected term represents the period that the options granted are expected to be outstanding. After the adoption of ASU 2018-07 on January 1, 2019, the expected term of stock options issued to employees 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 the Company has concluded that its stock option exercise history does not provide a reasonable basis upon which to estimate expected term. Prior to the adoption of ASU 2018-07, the expected term of stock options issued to employees was determined using the simplified method, and the expected term of stock options issued to nonemployee consultants was based on the contractual term of the award.

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.

The Company derived the expected volatility from the average historical volatilities over a period approximately equal to the expected term of comparable publicly traded companies within its peer group that were deemed to be representative of future stock price trends as the Company has limited trading history for its common stock. The Company will continue to apply this process until a sufficient amount of historical information regarding the volatility of its own stock price becomes available.

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 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. The number of shares may be increased in accordance with the terms of the ESPP.

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. Except for the initial offering period, the ESPP provides for separate six-month offering periods beginning on February 1 and August 1 of each year. The initial offering period ran from October 2, 2018 through January 31, 2019.

For the three and six months ended June 30, 2019, nil and 119,702 shares of common stock were purchased under the ESPP. The total compensation expense related to the ESPP for the three and six months ended June 30, 2019 was $440,000 and $1,006,000. As of June 30, 2019, the unrecognized stock-based compensation expense related to the ESPP was $151,000 which is expected to be recognized over the remaining term of the offering period of 0.1 years.

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. For the six months ended June 30, 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.

Liabilities for Early Exercise of Employee Options

The Company allowed certain stock option holders to exercise unvested options to purchase shares of 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 June 30, 2019 and December 31, 2018, 29,513 and 44,268 shares of common stock were subject to repurchase at weighted-average prices of $4.66 and $4.66 per share, respectively. As of June 30, 2019 and December 31, 2018, the cash proceeds received for unvested shares of common stock of $137,000 and $206,000, respectively, were recorded within other long-term liabilities on the condensed consolidated balance sheet. 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.

11. 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 June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
	(unaudited)			
	(in thousands, except per share data)			
Net loss	$ (11,300)	$ (21,639)	$ (32,651)	$ (35,483)
Fair value adjustment of redeemable noncontrolling interest	(300)	—	(5,000)	—
Net loss attributable to Guardant Health, Inc. common stockholders, basic and diluted	$ (11,600)	$ (21,639)	$ (37,651)	$ (35,483)
Net loss per share attributable to Guardant Health, Inc. common stockholders, basic and diluted	$ (0.13)	$ (1.75)	$ (0.43)	$ (2.92)
Weighted-average shares used in computing net loss per share attributable to Guardant Health, Inc. common stockholders, basic and diluted	89,036	12,388	87,494	12,155

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 June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
		(unaudited) (in thousands)		
Convertible preferred stock (on an as if converted basis)	—	58,265	—	58,265
Stock options issued and outstanding	6,313	7,247	6,908	7,352
Unvested restricted stock units	122	—	100	—
ESPP obligation	83	—	71	—
Preferred stock warrants (on an as if converted basis)	—	8	—	8
Common stock warrants	—	279	—	296
Common stock subject to repurchase	32	58	37	38
Total	6,550	65,857	7,116	65,959

12. Income Taxes

The Company's effective income tax rate for the six months ended June 30, 2019 was 3%. The income tax expense for the six months ended June 30, 2019 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, the acquisition of Bellwether Bio, and full valuation allowance against net deferred tax assets.

The benefit from income taxes for the three months ended June 30, 2019 relates primarily to the release of a valuation allowance of $1.2 million associated with nondeductible intangible assets recorded as part of the Bellwether Bio acquisition, partially offset by state minimum income tax and income tax on the Company's earnings in foreign jurisdictions. In connection with the acquisition of Bellwether Bio, a deferred tax liability was established for the book-tax basis differences related to the non-goodwill intangible assets. The net deferred tax liability from this acquisition creates an additional source of income to offset the Company's deferred tax assets. As such, the impact on the acquiring Company's deferred tax assets and liabilities caused by an acquisition are recorded in the acquiring company's consolidated financial statements outside of acquisition accounting. The income tax expense for the three months ended June 30, 2018 relates to state minimum income tax and income tax on the Company's earnings in foreign jurisdictions.

13. Segment and Geographic Information

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
		(unaudited) (in thousands)		
United States	$ 48,997	$ 16,556	$ 80,242	$ 29,458
International(1)	4,978	2,826	10,388	6,616
Total revenue	$ 53,975	$ 19,382	$ 90,630	$ 36,074

(1) No single country outside of the United States accounted for more than 10% of total revenue during the three and six months ended June 30, 2019 and 2018, respectively, except for Germany which accounted for 10% of total revenue during the three months ended June 30, 2018.

As of June 30, 2019 and December 31, 2018, substantially all of the Company's long-lived assets are located in the United States.

14. Related Party Transactions

As discussed in Note 3, in connection with Softbank's purchase of its Series E convertible preferred stock in 2017, the Company entered into a joint venture agreement with an entity affiliated with SoftBank. In May 2018, the Company and SoftBank formed and capitalized the Joint Venture to accelerate commercialization of its products in Asia, the

Middle East and Africa. 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 his Quarterly Report on Form 10-Q contain forward-looking statements that involve risk and uncertainties, such as statements of our plans, objectives, 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, 2018.

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, 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 6,000 oncologists, over 50 biopharmaceutical companies and all 28 National Comprehensive Cancer Network, or NCCN, Centers. Our GuardantOMNI test, launched in 2017, is specifically built for our biopharmaceutical customers as a comprehensive genomic profiling tool to help accelerate clinical development programs in both immuno-oncology and targeted therapy. Our LUNAR early detection program aims to address the needs of early stage cancer patients with adjuvant treatment selection, cancer survivors with surveillance and asymptomatic individuals with screening. In late 2018, we launched our LUNAR assay for research use by biopharmaceutical and academic researchers. In April 2019, at the American Association for Cancer Research, or AACR, annual meeting, we presented exploratory data around the use of our LUNAR assay for potential screening applications in a cohort of 229 recently diagnosed colorectal cancer patients and aged-matched cancer-free controls. This data demonstrated average LUNAR assay sensitivity exceeding 80% with specificity of 94% for patients with stage I/II colorectal cancer in this cohort (76% in stage I and 87% in stage II). In June, 2019, results presented by us, together with the Massachusetts General Hospital Cancer Center, at the American Society of Clinical Oncology, or ASCO, annual meeting, demonstrated the LUNAR assay's ability to identify early-stage colorectal cancer patients with post-operative molecular residual disease who may benefit from adjuvant therapy. To further pursue this potential market opportunity, we are preparing to start a prospective colorectal screening study of over 10,000 patients in the second half of 2019, and we expect to enroll the first patient in the study by the fourth quarter 2019.

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 120 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 and Pfizer.

The FDA granted designation as a breakthrough device for our Guardant360 test in January 2018 for companion diagnostic use, and for our GuardantOMNI test in December 2018 for companion diagnostic use. Breakthrough device designation, among other things, provides for priority review 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.

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. We plan to release a CLIA-validated version of our LUNAR assay for prospective clinical trials by the end of 2019.

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 and multiple Blue Cross Blue Shield plans, which have adopted reimbursement 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. We worked with Palmetto GBA to obtain this positive coverage decision through the submission of a detailed dossier of analytical and clinical data to substantiate that the test meets Medicare's medical necessity requirements. We estimate that approximately 75% of Medicare patients tested for NSCLC are covered by the LCD. Noridian Healthcare Solutions, the MAC responsible for adjudicating claims in California, where our laboratory is located, and a participant in the MolDx, recently finalized its LCD for Guardant360 test. In September 2018, we began to submit claims for reimbursement for Guardant360 clinical testing performed for Medicare beneficiaries covered under the LCDs, and in October 2018, we began to receive payments from Medicare.

For the three months ended June 30, 2019 and 2018, respectively, approximately 46% and 45% of our U.S. clinical tests were for patients tested for NSCLC, and for the six months ended June 30, 2019 and 2018, respectively, approximately 46% and 46% of our U.S. clinical tests were for patients tested for NSCLC.

In March 2019, Palmetto GBA posted a proposed LCD that, if finalized as written, would provide limited Medicare coverage for use of Guardant360 for patients diagnosed with solid cancers of non-central nervous system origin. The coverage requirements necessitate that patients are recurrent, relapsed, refractory, metastatic, or advanced cancer patients who are seeking further treatment and are potential candidates for an FDA-approved or NCCN-recommended (for Category 1 or 2A level of evidence) biomarker targeted therapy. Additionally, the patient must not have had a previous Guardant360 test and must be untreated or not responding on the patient's current therapy. A patient who has previously been tested with Guardant360 and has progressed with new malignant growth since the patient's prior test is considered to have a new primary cancer diagnosis and thus is eligible to have another test. Finally, for qualifying cancers other than NSCLC, tissue-based comprehensive genomic profiling must be infeasible for coverage. NSCLC patients would be eligible for coverage if tissue-based testing is infeasible or if previous tissue-based comprehensive genomic profiling returned no actionable results.

If finalized, we believe the proposed LCD will significantly expand coverage for Medicare patients based on historic physician ordering patterns. Palmetto GBA is accepting and evaluating public comments, after which the draft LCD may be finalized and implemented by MACs that follow MolDx coverage policies. We can provide no assurances, however, that the draft LCD will be finalized as written or implemented by Palmetto GBA or the California MAC. We anticipate approval by the FDA, if obtained, may also support improvements in coverage and reimbursement for the Guardant360 test.

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.

We generated total revenue of $54.0 million and $19.4 million for the three months ended June 30, 2019 and 2018, respectively, and $90.6 million and $36.1 million for the six months ended June 30, 2019 and 2018, respectively. We also incurred net losses of $11.3 million and $21.6 million for the three months ended June 30, 2019 and 2018, respectively, and $32.7 million and $35.5 million for the six months ended June 30, 2019 and 2018, 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. In October 2018, we completed our initial public offering, or the IPO, selling 14,375,000 shares of our common stock and raising $249.5 million net of underwriting discounts and commissions and other expenses payable by us. In May 2019, we completed an underwritten public offering of 5,175,000 shares of our common stock (including the exercise in full of the underwriters' option to purchase 675,000 additional shares) at

a price of $71.00 per share, through which we received net proceeds of approximately $349.7 million after deducting underwriting discounts and commissions and offering expenses payable by us. As of June 30, 2019, we had cash, cash equivalents and marketable securities of $822.9 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 since 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 37% of our U.S. clinical tests for the three months ended June 30, 2019 and 2018, respectively, and approximately 38% and 37% of our U.S. clinical tests for the six months ended June 30, 2019 and 2018, respectively, were for Medicare beneficiaries. Prior to the third quarter of 2018, Medicare did not cover our tests and we did not submit claims for reimbursement. In September 2018, we began to submit claims to Medicare for reimbursement for Guardant360 clinical tests for certain Medicare beneficiaries, and in October 2018, we began to receive payments from Medicare for these clinical tests. In March 2019, Palmetto GBA posted a proposed LCD that, if finalized as written, would provide limited Medicare coverage for use of Guardant360 for qualifying patients diagnosed with solid cancers of non-central nervous system origin. We can provide no assurances, however, that the draft LCD will be finalized as written or implemented by Palmetto GBA or the California MAC.

- ***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. The FDA granted designation as a breakthrough device for our Guardant360 test as a companion diagnostic in January 2018 and for our GuardantOMNI test as a companion diagnostic in December 2018. Breakthrough Device designation, which, supersedes the EAP designation and, among other things, provides for priority review and more interactive communication with the FDA during the development process. While FDA approval is currently not required to market our tests in the United States, we intend to submit an application for a pre-market approval, or PMA, for each of our Guardant360 and GuardantOMNI tests for use as companion diagnostics. In March 2018, the Centers for Medicare and Medicaid Services, or CMS, published a Decision Memorandum for next-generation sequencing tests for patients with advanced cancer who meet certain clinical criteria, or the NGS Decision Memorandum. The NGS Decision Memorandum states that coverage would be available for next-generation sequencing FDA-approved tests offered within the FDA-approved labeling. FDA approval therefore provides a path to reimbursement by Medicare under the NGS Decision Memorandum. 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. Any negative regulatory decisions or changes 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 differs 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. Historically, 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 generally results in higher reimbursement for covered indications and lack of reimbursement for non-covered indications. As a result, the impact of becoming a participating provider with a specific payer will vary based on historical reimbursement as a non-participating provider for that payer, and in some situations, the benefit of increased reimbursement for covered testing could be offset by the loss of reimbursement on tests for non-covered indications previously received when we served as a non-participating provider. Current Procedural Terminology, or CPT, coding plays a significant role in how our Guardant360 test is reimbursed both from commercial and governmental payers. Changes in how the Guardant360 test is coded may result in a significant change in its reimbursement amongst commercial payers. If our Guardant360 test receives approval from the FDA, we may be required to obtain a separate code for the Guardant360 test to bill U.S. based payers. If a coding change were to occur, payments for uncovered Guardant360 testing may be reduced or eliminated by commercial payers. The impact to our revenue may be in proportion to the volume of tests we performed as a non-participating provider. Cigna, Priority Health and multiple Blue Cross Blue Shield plans adopted reimbursement policies that cover our Guardant360 test for the majority of NSCLC patients we test. If their reimbursement 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 for reimbursement at the rate of $3,500 per test with respect to Guardant360 clinical testing performed for NSCLC patients covered under Medicare's Molecular Diagnostic Services Program who meet certain clinical criteria, and in October 2018, we began to receive payments from Medicare. In addition, as of July 1, 2019, our Guardant360 test is a covered benefit for the members of the health plans associated with eviCore, a technology assessment company, as being considered medically necessary to assist in selecting therapy for patients with advanced lung cancer. With added coverage for over 38 million Americans, we estimate total lung cancer coverage in the United States for the Guardant360 test to be a total of more than 160 million lives, including Medicare beneficiaries and members of several health plans. If we fail to obtain or maintain coverage and adequate reimbursement from third-party payers, we may be unable to increase our testing volume and revenue as expected. Retrospective reimbursement adjustments can also negatively impact our revenue and cause our financial results to fluctuate. We have experienced situations where commercial payers proactively reduce the amounts they were willing to reimburse for our tests or determine 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.

- ***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 and for novel target discovery and validation, and to grow into other business opportunities. For example, we believe genomic data, in combination with clinical outcomes or claims data, has revenue-generating potential, including for novel target identification and clinical trial enrollment.

- ***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 early detection program. In particular, we have invested heavily in clinical studies, including more than 40 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 110 peer-reviewed publications. For example, the positive results from the Noninvasive vs. Invasive Lung Evaluation (NILE) study, a head-to-head comparison of the Guardant360 assay to standard-of-care tissue testing for the identification of guideline-recommended biomarkers in first-line advanced NSCLC patients, was published in Clinical Cancer Research. Beyond meeting its primary endpoint of demonstrating that the Guardant360 test was as accurate as standard-of-care tissue testing for the detection of guideline-recommended biomarkers in advanced NSCLC, the NILE study showed that (i) Guardant360 testing resulted in guideline-recommended testing for three times as many patients as standard-of-care tissue testing; (ii) when results for Guardant360 and tissue testing were both available for a patient, they were concordant in more than 90% of cases; (iii) the median time to results for Guardant360 was 9 days versus 15 days for standard-of-care tissue testing, and (iv) the Guardant360 test's clinical sensitivity for EGFR L858R mutations was 90%. In addition, a study recently published in Clinical Cancer Research concluded that microsatellite instability, or MSI, detection using the Guardant360 test is highly concordant with standard-of-care tissue testing, enabling detection of MSI status concurrent with comprehensive genomic profiling and expanding access to immunotherapy for advanced cancer patients for whom current testing practices are inadequate. 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. We believe these studies are critical to gaining physician adoption and driving

favorable coverage decisions by payers, and expect our investments 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.

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, 2018 for more information.

Components of results of operations

Revenue

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

Effective January 1, 2019, we adopted a new revenue recognition standard FASB ASC Topic 606, *Revenue from Contracts with Customers,* or ASC 606, which primarily impacted our recognition of revenue related to patient claims paid by third-party commercial and governmental payors. We adopted ASC 606 using the modified retrospective method, which means that the cumulative effect of applying ASC 606 has been recognized to beginning accumulated deficit at January 1, 2019, the date of adoption of ASC 606, and prior comparative periods were not recast to reflect ASC 606. As a result, revenue for the three and six months ended June 30, 2018 is presented in accordance with FASB ASC Topic 605, *Revenue Recognition*, or ASC 605, whereas revenue for the three and six months ended June 30, 2019 is presented under ASC 606. ASC 606 provides a five-step model for recognizing revenue 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. Precision oncology testing revenue is generated from sales of our Guardant 360 and GuardantOMNI tests. In the United States, through June 30, 2019, 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. Prior to the third quarter of 2018, Medicare did not cover our tests and we did not submit claims for reimbursement for these tests. In September 2018, we began to 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 37% of U.S. tests processed for the three months ended June 30, 2019, respectively, and 2018, and 38% and 37% of U.S. tests processed for the six months ended June 30, 2019 and 2018, respectively. Due to the historical general lack of contracts with U.S. private payers and variability in payments received for claims submitted to them, as well as the limited claims experience to date with Medicare, from inception through the end of 2018 revenue had not been recognized by us at the time the service was performed as the price of the transaction was not fixed or determinable and collectability was not reasonably assured. As we provide precision oncology testing to biopharmaceutical customers under contracts for which all recognition criteria are met, 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. Cost of precision oncology testing revenue included royalty expense of $1.1 million and $0.4 million for the three months ended June 30, 2019 and 2018, respectively, and $1.7 million and $0.6 million for the six months ended June 30, 2019 and 2018, respectively.

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. This expense is expected to increase, particularly to drive our LUNAR program. Long term we expect it to decrease modestly as a percentage of revenue, though it may fluctuate as a percentage of revenue from period to period due to the timing and extent of these expenses.

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. Development of products from our LUNAR program is expensive and we do not expect to generate profits from such products until they reach commercial scale. Sales and marketing 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.

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 in 2019, 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.

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 capital leases and royalty obligations.

Other income (expense), net

In the first quarter of 2018, we settled a commercial legal dispute. In connection with the settlement, we received a payment of $4.25 million, which was recognized as one-time other income for the three months ended March 31, 2018.

Other income (expense), net also consists of foreign currency exchange gains and losses. Foreign currency exchange gains and losses relate to transactions and asset and liability balances denominated in currencies other than the U.S. dollar, primarily comprised of a royalty obligation denominated in Euros. We expect our foreign currency gains and losses to continue to fluctuate in the future due to changes in foreign currency exchange rates.

Joint venture

In connection with SoftBank's purchase of our Series E convertible preferred stock, we agreed to enter into a joint venture agreement with Softbank relating to the commercialization and distribution of products in 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 2017, Iceland, Norway, Switzerland and Turkey, or the JV Territory. Upon the incorporation of the Joint Venture (Guardant Health AMEA, Inc.) in May 2018, SoftBank purchased 40,000 shares of common stock of the Joint Venture in exchange for $41.0 million in cash and we purchased 40,000 shares of common stock of the Joint Venture in exchange for $9.0 million in cash. We also entered into various ancillary agreements with the Joint Venture necessary to operate its business. Under the terms of the joint venture agreement, neither we nor SoftBank is obligated to make any further capital contribution, in cash or otherwise, to the Joint Venture. In the event the Joint Venture requires any additional funding for its operations, the Joint Venture may seek debt financing from financial institutions or additional financing in debt or equity from its shareholders, which will be on a *pro rata* basis among such shareholders unless they agree otherwise.

Initial public offering

On October 9, 2018, we completed an initial public offering, or the IPO, in which we issued and sold 14,375,000 shares of our common stock at a price of $19.00 per share. We received net proceeds of $249.5 million after deducting underwriting discounts and commissions and offering expenses payable by us. All then-outstanding warrants to purchase our common stock were exercised prior to the completion of the IPO. In addition, in connection with the IPO, all shares of our then-outstanding convertible preferred stock were automatically converted into 58,264,577 shares of our common stock, and all then-outstanding warrants to purchase our convertible preferred stock were automatically converted into warrants to purchase 7,636 shares of our common stock.

Follow-on offering

On May 28, 2019, we completed an underwritten public offering of 5,175,000 shares of our common stock (including the exercise in full of the underwriters' option to purchase 675,000 additional shares) at a price of $71.00 per share. We received net proceeds of approximately $349.7 million after deducting underwriting discounts and commissions and offering expenses payable by us.

Results of operations

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
	(unaudited) (in thousands)			
Revenue:				
Precision oncology testing	$ 42,064	$ 17,822	$ 70,901	$ 32,013
Development services	11,911	1,560	19,729	4,061
Total revenue	53,975	19,382	90,630	36,074
Costs and operating expenses:				
Cost of precision oncology testing(1)	14,650	9,506	25,673	17,551
Cost of development services	2,183	453	4,695	1,661
Research and development expense(1)	19,532	11,554	35,848	19,809
Sales and marketing expense(1)	19,439	11,575	37,246	22,887
General and administrative expense(1)	13,439	8,997	26,100	15,516
Total costs and operating expenses	69,243	42,085	129,562	77,424
Loss from operations	(15,268)	(22,703)	(38,932)	(41,350)
Interest income	3,099	989	5,584	1,974
Interest expense	(287)	(317)	(580)	(648)
Other income (expense), net	(51)	395	96	4,544
Loss before provision for income taxes	(12,507)	(21,636)	(33,832)	(35,480)
Provision for (benefit from) income taxes	(1,207)	3	(1,181)	3
Net loss	$ (11,300)	$ (21,639)	$ (32,651)	$ (35,483)

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
	(unaudited) (in thousands)			
Cost of precision oncology testing	$ 126	$ 79	$ 296	$ 142
Research and development expense	1,428	214	2,638	418
Sales and marketing expense	646	259	1,472	633
General and administrative expense	1,015	628	1,991	1,264
Total stock-based compensation expense	$ 3,215	$ 1,180	$ 6,397	$ 2,457

Comparison of the Three Months Ended June 30, 2019 and 2018

Revenue

	Three Months Ended June 30,		Change	
	2019	2018	$	%
	(unaudited)			
	(in thousands)			
Precision oncology testing	$ 42,064	$ 17,822	$ 24,242	136%
Development services	11,911	1,560	10,351	664%
Total revenue	$ 53,975	$ 19,382	$ 34,593	178%

Total revenue was $54.0 million for the three months ended June 30, 2019 compared to $19.4 million for the three months ended June 30, 2018, an increase of $34.6 million, or 178%.

Precision oncology testing revenue increased to $42.1 million for the three months ended June 30, 2019 from $17.8 million for the three months ended June 30, 2018, an increase of $24.2 million, or 136%. This increase in precision oncology testing revenue was primarily due to an increase in tests processed. Tests for clinical customers increased to 11,875 for the three months ended June 30, 2019 from 6,723 for the three months ended June 30, 2018 mainly due to an increase in the number of physicians ordering Guardant360 tests. Precision oncology revenue from tests for clinical customers was $21.8 million in the three months ended June 30, 2019 and $9.6 million in the three months ended June 30, 2018, respectively. Precision oncology testing revenue increased due to increases in test volume for clinical customers, revenue earned from tests reimbursed by Medicare for lung cancer patients starting in the fourth quarter of 2018 and increases in commercial payer payments that were beneficially affected by the Protecting Access to Medicare Act of 2014. The change to accrual basis revenue under ASC 606 decreased precision oncology revenue from clinical customers, as cash basis revenue under ASC 605 for precision oncology revenue from clinical customers in the three months ended June 30, 2019 would have been approximately $22.9 million. Tests for biopharmaceutical customers increased to 5,285 for the three months ended June 30, 2019 from 2,498 for the three months ended June 30, 2018 due to an increase in the number of biopharmaceutical customers and their contracted projects. The average selling price of biopharmaceutical tests was $3,827 for the three months ended June 30, 2019, up from $3,286 for the three months ended June 30, 2018 due to a greater number of such tests being the GuardantOMNI test, which has a higher selling price than the Guardant360 test.

Development services revenue increased to $11.9 million for the three months ended June 30, 2019 from $1.6 million for the three months ended June 30, 2018, an increase of $10.4 million, or 664%. This increase in development services revenue was due to new projects in 2019 and was mainly received from biopharmaceutical customers for companion diagnostic development and regulatory approval services.

Costs and operating expenses

Cost of precision oncology testing

	Three Months Ended June 30,		Change	
	2019	2018	$	%
	(unaudited)			
	(in thousands)			
Cost of precision oncology testing	$ 14,650	$ 9,506	$ 5,144	54%

Cost of precision oncology testing revenue was $14.7 million for the three months ended June 30, 2019 compared to $9.5 million for the three months ended June 30, 2018, an increase of $5.1 million, or 54%. This increase in cost of precision oncology testing was primarily due to a $2.5 million increase in material costs, a $1.5 million increase in other costs including freight, royalties and curation of test results for physicians and a $1.2 million increase in production labor and overhead costs.

Cost of development services

	Three Months Ended June 30,		Change	
	2019	2018	$	%
	(unaudited)			
	(in thousands)			
Cost of development services	$ 2,183	$ 453	$ 1,730	382%

Cost of development services was $2.2 million for the three months ended June 30, 2019 compared to $0.5 million for the three months ended June 30, 2018, an increase of $1.7 million, or 382%. Costs include material and labor costs incurred after technological feasibility was achieved on the development programs.

Research and development expense

	Three Months Ended June 30,		Change	
	2019	2018	$	%
	(unaudited)			
	(in thousands)			
Research and development	$ 19,532	$ 11,554	$ 7,978	69%

Research and development expenses were $19.5 million for the three months ended June 30, 2019 compared to $11.6 million for the three months ended June 30, 2018, an increase of $8.0 million, or 69%. This increase in research and development expense was primarily due to an increase of $4.8 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 $1.5 million in material costs, an increase of $0.5 million in development consulting fees, and an increase of $0.3 million related to allocated facilities and information technology infrastructure costs.

Sales and marketing expense

	Three Months Ended June 30,		Change	
	2019	2018	$	%
	(unaudited)			
	(in thousands)			
Sales and marketing	$ 19,439	$ 11,575	$ 7,864	68%

Selling and marketing expenses were $19.4 million for the three months ended June 30, 2019 compared to $11.6 million for the three months ended June 30, 2018, an increase of $7.9 million, or 68%. This increase was primarily due to an increase of $4.7 million in personnel-related costs, including a $0.4 million increase in stock-based compensation, associated with the expansion of our commercial organization, an increase of $1.1 million in travel expense, an increase of $0.9 million in professional service expenses related to marketing activities, and an increase of $0.3 million related to allocated facilities and information technology infrastructure costs.

General and administrative expense

	Three Months Ended June 30,		Change	
	2019	2018	$	%
	(unaudited)			
	(in thousands)			
General and administrative	$ 13,439	$ 8,997	$ 4,442	49%

General and administrative expenses were $13.4 million for the three months ended June 30, 2019 compared to $9.0 million for the three months ended June 30, 2018, an increase of $4.4 million, or 49%. This increase was primarily due

to an increase of $2.5 million in personnel-related costs, including a $0.4 million increase in stock-based compensation related to an increase in our headcount, an increase of $0.3 million in professional service expenses related to outside legal, accounting, consulting and IT services, and an increase of $0.7 million related to allocated facilities and information technology infrastructure costs.

Interest income

	Three Months Ended June 30,		Change	
	2019	2018	$	%
	(unaudited)			
	(in thousands)			
Interest income	$ 3,099	$ 989	$ 2,110	213%

Interest income was $3.1 million for the three months ended June 30, 2019 compared to $1.0 million for the three months ended June 30, 2018, an increase of $2.1 million, or 213%. This increase was primarily due to a significant increase in cash, cash equivalents and marketable securities during the three months ended June 30, 2019 primarily as a result of cash proceeds from our initial public offering and follow-on offering.

Interest expense

	Three Months Ended June 30,		Change	
	2019	2018	$	%
	(unaudited)			
	(in thousands)			
Interest expense	$ 287	$ 317	$ (30)	(9)%

Interest expense was $0.3 million for the three months ended June 30, 2019 compared to $0.3 million for the three months ended June 30, 2018, a decrease of $30,000, or (9)%. This decrease was primarily due to reduced outstanding balance of an obligation related to a royalty in connection with a license agreement entered into in January 2017.

Other income (expense), net

	Three Months Ended June 30,		Change	
	2019	2018	$	%
	(unaudited)			
	(in thousands)			
Other income (expense), net	$ (51)	$ 395	$ (446)	(113)%

Other income (expense), net also included foreign currency exchange losses of $0.1 million for the three months ended June 30, 2019 and foreign currency exchange gains of $0.4 million for the three months ended June 30, 2018. This increase was primarily due to an obligation denominated in Euros in connection with a license agreement entered into in January 2017.

Provision for income taxes

	Three Months Ended June 30,		Change	
	2019	2018	$	%
	(unaudited)			
	(in thousands)			
Provision for (benefit from) income taxes	$ (1,207)	$ 3	$ (1,210)	*

* Not meaningful

Benefit from income taxes for the three months ended June 30, 2019 relates primarily to the release of a valuation allowance of $1.2 million associated with nondeductible intangible assets recorded as part of the acquisition of Bellwether Bio, Inc., partially offset by state minimum income tax and income tax on our earnings in foreign jurisdictions. Provision for income taxes was very small for the three months ended June 30, 2018 due to the losses incurred by us.

Comparison of the Six Months Ended June 30, 2019 and 2018

Revenue

	Six Months Ended June 30,		Change	
	2019	2018	$	%
	(unaudited)			
	(in thousands)			
Precision oncology testing	$ 70,901	$ 32,013	$ 38,888	121%
Development services	19,729	4,061	15,668	386%
Total revenue	$ 90,630	$ 36,074	$ 54,556	151%

Total revenue was $90.6 million for the six months ended June 30, 2019 compared to $36.1 million for the six months ended June 30, 2018, an increase of $54.6 million, or 151%.

Precision oncology testing revenue increased to $70.9 million for the six months ended June 30, 2019 from $32.0 million for the six months ended June 30, 2018, an increase of $38.9 million, or 121%. This increase in precision oncology testing revenue was primarily due to an increase in tests processed. Tests for clinical customers increased to 21,396 for the six months ended June 30, 2019 from 13,969 for the six months ended June 30, 2018 mainly due to an increase in the number of physicians ordering Guardant360 tests. Precision oncology revenue from tests for clinical customers was $39.0 million in the six months ended June 30, 2019 and $16.9 million in the six months ended June 30, 2018, respectively. Precision oncology testing for clinical customers revenue increased due to increases in test volume for clinical customers, revenue earned from tests reimbursed by Medicare for lung cancer patients starting in the fourth quarter of 2018 and increases in commercial payer payments that were beneficially affected by the Protecting Access to Medicare Act of 2014. The change to accrual basis revenue under ASC 606 decreased precision oncology revenue from clinical customers, as cash basis revenue under ASC 605 for precision oncology revenue from clinical customers in the six months ended June 30, 2019 would have been approximately $41.0 million. Tests for biopharmaceutical customers increased to 9,046 for the six months ended June 30, 2019 from 4,832 for the six months ended June 30, 2018 due to an increase in the number of biopharmaceutical customers and their contracted projects. The average selling price of biopharmaceutical tests was $3,529 for the six months ended June 30, 2019, up from $3,131 for the six months ended June 30, 2018 due to a greater number of such tests being the GuardantOMNI test, which has a higher selling price than the Guardant360 test.

Development services revenue increased to $19.7 million for the six months ended June 30, 2019 from $4.1 million for the six months ended June 30, 2018, an increase of $15.7 million, or 386%. This increase in development services revenue was due to new projects in 2019 and was mainly received from biopharmaceutical customers for companion diagnostic development and regulatory approval services.

Costs and operating expenses

Cost of precision oncology testing

	Six Months Ended June 30,		Change	
	2019	2018	$	%
	(unaudited)			
	(in thousands)			
Cost of precision oncology testing	$ 25,673	$ 17,551	$ 8,122	46%

Cost of precision oncology testing revenue was $25.7 million for the six months ended June 30, 2019 compared to $17.6 million for the six months ended June 30, 2018, an increase of $8.1 million, or 46%. This increase in cost of precision oncology testing was primarily due to a $4.2 million increase in material costs, a $2.4 million increase in other costs including freight, royalties and curation of test results for physicians and a $1.6 million increase in production labor and overhead costs.

Cost of development services

	Six Months Ended June 30,		Change	
	2019	2018	$	%
	(unaudited)			
	(in thousands)			
Cost of development services	$ 4,695	$ 1,661	$ 3,034	183%

Cost of development services was $4.7 million for the six months ended June 30, 2019 compared to $1.7 million for the six months ended June 30, 2018, an increase of $3.0 million, or 183%. Costs include material and labor costs incurred after technological feasibility was achieved on the development programs.

Research and development expense

	Six Months Ended June 30,		Change	
	2019	2018	$	%
	(unaudited)			
	(in thousands)			
Research and development	$ 35,848	$ 19,809	$ 16,039	81%

Research and development expenses were $35.8 million for the six months ended June 30, 2019 compared to $19.8 million for the six months ended June 30, 2018, an increase of $16.0 million, or 81%. This increase in research and development expense was primarily due to an increase of $9.6 million in personnel-related costs for employees in our research and development group, including a $2.2 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 $3.2 million in material costs, an increase of $1.1 million in development consulting fees, and an increase of $0.7 million related to allocated facilities and information technology infrastructure costs.

Sales and marketing expense

	Six Months Ended June 30,		Change	
	2019	2018	$	%
	(unaudited)			
	(in thousands)			
Sales and marketing	$ 37,246	$ 22,887	$ 14,359	63%

Selling and marketing expenses were $37.2 million for the six months ended June 30, 2019 compared to $22.9 million for the six months ended June 30, 2018, an increase of $14.4 million, or 63%. This increase was primarily due to an increase of $9.5 million in personnel-related costs, including a $0.8 million increase in stock-based compensation, associated with the expansion of our commercial organization, an increase of $1.8 million in travel expense, an increase of $1.1 million in professional service expenses related to marketing activities, and an increase of $0.6 million related to allocated facilities and information technology infrastructure costs.

General and administrative expense

	Six Months Ended June 30,		Change	
	2019	2018	$	%
	(unaudited)			
	(in thousands)			
General and administrative	$ 26,100	$ 15,516	$ 10,584	68%

General and administrative expenses were $26.1 million for the six months ended June 30, 2019 compared to $15.5 million for the six months ended June 30, 2018, an increase of $10.6 million, or 68%. This increase was primarily due to an increase of $4.7 million in personnel-related costs, including a $0.7 million increase in stock-based compensation related to an increase in our headcount, an increase of $2.9 million in professional service expenses related to outside legal, accounting, consulting and IT services, and an increase of $1.5 million related to allocated facilities and information technology infrastructure costs.

Interest income

	Six Months Ended June 30,		Change	
	2019	2018	$	%
	(unaudited)			
	(in thousands)			
Interest income	$ 5,584	$ 1,974	$ 3,610	183%

Interest income was $5.6 million for the six months ended June 30, 2019 compared to $2.0 million for the six months ended June 30, 2018, an increase of $3.6 million, or 183%. This increase was primarily due to a significant increase in cash, cash equivalents and marketable securities during the six months ended June 30, 2019 primarily as a result of cash proceeds from our initial public offering and follow-on offering.

Interest expense

	Six Months Ended June 30,		Change	
	2019	2018	$	%
	(unaudited)			
	(in thousands)			
Interest expense	$ 580	$ 648	$ (68)	(10)%

Interest expense was $0.6 million for the six months ended June 30, 2019 compared to $0.6 million for the six months ended June 30, 2018, a decrease of $68,000, or 10%. This decrease was primarily due to reduced outstanding balance of an obligation related to a royalty in connection with a license agreement entered into in January 2017.

Other income (expense), net

	Six Months Ended June 30,		Change	
	2019	2018	$	%
	(unaudited)			
	(in thousands)			
Other income (expense), net	$ 96	$ 4,544	$ (4,448)	(98)%

Other income (expense), net included a gain of $4.25 million for settlement of a commercial legal dispute for the three months ended March 31, 2018. There was no similar charge or gain for the three months ended June 30, 2019.

Other income (expense), net also included foreign currency exchange gains of $59,000 for the six months ended June 30, 2019 and $198,000 for the six months ended June 30, 2018. This decrease was primarily due to an obligation denominated in Euros in connection with a license agreement entered into in January 2017.

Provision for income taxes

	Six Months Ended June 30,		Change	
	2019	2018	$	%
	(unaudited)			
	(in thousands)			
Provision for (benefit from) income taxes	$ (1,181)	$ 3	$ (1,184)	*

* Not meaningful

Benefit from income taxes for the six months ended June 30, 2019 relates primarily to the release of a valuation allowance of $1.2 million associated with nondeductible intangible assets recorded as part of the acquisition of Bellwether Bio, Inc., partially offset by state minimum income tax and income tax on our earnings in foreign jurisdictions. Provision for income taxes was very small for the six months ended June 30, 2018 due to the losses incurred by us.

Liquidity and capital resources

We have incurred losses and negative cash flows from operations since our inception, and as of June 30, 2019, we had an accumulated deficit of $314.8 million. We expect to incur additional operating losses in the near future and our operating expenses will increase as we continue to expand our sales organization, increase our marketing efforts to drive market adoption of our Guardant360 and GuardantOMNI tests, invest in clinical trials and develop new product offerings from our research programs, including our LUNAR program. As demand for Guardant360 and GuardantOMNI tests are expected to continue to increase from physicians and biopharmaceutical companies, we anticipate that our capital expenditure requirements will also increase in order to build additional capacity. Moreover, we expect to continue to incur additional costs associated with operating as a public company, including expenses related to legal, accounting, regulatory, maintaining compliance with exchange listing and SEC requirements, director and officer insurance premiums, and investor relations.

We have funded our operations to date principally from the sale of stock, revenue from precision oncology testing and development service and the incurrence of indebtedness. As of June 30, 2019, we had cash and cash equivalents of $174.7 million and marketable securities of $648.3 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 flow 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, 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 balances and anticipated cash flow 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 an additional 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 on reasonable terms, or at all.

Cash flows

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

	Six Months Ended June 30,	
	2019	2018
	(unaudited)	
	(in thousands)	
Cash used in operating activities	$ (18,139)	$ (23,600)
Cash (used in) provided by investing activities	$ (305,198)	$ 20,195
Cash provided by financing activities	$ 357,356	$ 42,001

Operating activities

Cash used in operating activities during the six months ended June 30, 2019 was $18.1 million, which resulted from a net loss of $32.7 million, partially offset by non-cash charges of $10.1 million and net change in our operating assets and liabilities of $4.4 million. Non-cash charges primarily consisted of $5.0 million of depreciation and amortization and $6.4 million of stock-based compensation, partially offset by $1.3 million of amortization of discount on investment. The net change in our operating assets and liabilities was primarily the result of a $3.4 million increase in accounts payable due to timing of payment, a $3.1 million increase in deferred rent, a $2.9 million increase in accrued expenses and other liabilities, and a $0.7 million increase in accrued compensation due to increased personnel, partially offset by a $5.0 million increase in inventory due to higher testing volumes and a $1.2 million increase in deferred tax assets due to our Bellwether Bio acquisition.

Cash used in operating activities during the six months ended June 30, 2018 was $23.6 million, which resulted from a net loss of $35.5 million, partially offset by non-cash charges of $5.4 million and net change in our operating assets and liabilities of $6.5 million. Non-cash charges primarily consisted of $3.0 million of depreciation and amortization and $2.5 million of stock-based compensation. The net change in our operating assets and liabilities was primarily the result of a $2.2 million decrease in accounts receivable due to timing of collection which is not expected to recur, a $2.5 million increase in accrued expenses and other current liabilities, a $0.9 million increase in deferred rent and a $0.8 million increase in accounts payable due to increases in operating activities to support growing revenue.

Investing activities

Cash used in investing activities during the six months ended June 30, 2019 was $305.2 million, which resulted primarily from purchases of marketable securities of $418.8 million, business acquisition, net of cash acquired, of $9.8 million and purchases of property and equipment of $5.8 million, partially offset by maturities of marketable securities of $129.2 million.

Cash provided by investing activities during the six months ended June 30, 2018 was $20.2 million, which resulted primarily from maturities of marketable securities of $75.6 million, partially offset by purchases of marketable securities of $44.1 million and purchases of property and equipment of $11.4 million.

Financing activities

Cash provided by financing activities during the six months ended June 30, 2019 was $357.4 million, which was primarily due to proceeds from a public offering of our common stock, net of underwriting discounts and commissions and offering expenses payable by the Company, of $349.7 million, proceeds from exercise of stock options of $5.5 million, and proceeds from issuances of common stock under employee stock purchase plan of $1.9 million.

Cash provided by financing activities during the six months ended June 30, 2018 was $42.0 million, which was primarily due to net proceeds from sale of equity interests in noncontrolling interests of $41.0 million.

Contractual obligations and commitments

Except as set forth in Note 8, 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, 2018.

Off-balance sheet arrangements

As of June 30, 2019, 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 the development of new platforms and information solutions, including companion diagnostic development 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 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 patients. 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.

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.

Our precision oncology information 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, in 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. 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 noncotnrolling 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. As of March 31, 2018, 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. The purchase price per share of the Joint Venture in these situations will be equal to the average closing price of the shares for the 20 trading days ending on the business day immediately preceding the date of the put or call notice, if the shares of the Joint Venture are publicly traded and listed on a national exchange; or 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. As a result of the IPO, the put-call rights for us to purchase all shares of the Joint Venture held by SoftBank are exercisable on each subsequent anniversary of the IPO by us or SoftBank.

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.

We estimate the fair value of stock options granted to our employees, directors and nonemployee consultants 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 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 over a period equal to the expected term of the stock option grants. 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 for stock options granted were as follows for the periods presented:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2019	2018	2019	2018
			(unaudited)	
Expected term (in years)	5.50 – 6.16	5.85 – 6.20	5.50 – 6.22	5.01 – 10.00
Expected volatility	66.9% – 68.3%	80.7% – 81.0%	66.7% – 68.3%	80.7% – 86.5%
Risk-free interest rate	1.9%	3.0%	1.9% – 2.7%	2.5% – 2.9%
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): *Improvements to Employee Share-Based Payment Accounting*.

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.

As of June 30, 2019, we had unrecognized stock-based compensation of $22.7 million related to unvested employee stock options and restricted stock units which is expected to be recognized over a weighted-average period of 2.7 years.

JOBS Act accounting election

We are an "emerging growth company," or EGC, within the meaning of the Jumpstart Our Business Act of 2012, or JOBS Act. Section 107(b) of the JOBS Act provides that an EGC can leverage the extended transition period, provided in Section 102(b) of the JOBS Act, for complying with new or revised accounting standards. Thus, an EGC can delay the adoption of new or revised accounting standards that have different effective dates for public and private companies until those standards apply to private companies. We have elected to use this extended transition period and, as a result, our financial statements may not be comparable to companies that comply with public company effective dates. We also intend to rely on other exemptions provided by the JOBS Act, including without limitation, not being required to comply with the auditor attestation requirements of Section 404(b) of the Sarbanes-Oxley Act of 2002.

We will remain an EGC until the earliest of (1) the last day of the fiscal year following the fifth anniversary of the consummation of the IPO, (2) the last day of the fiscal year in which we have total annual gross revenue of at least $1.07 billion, (3) the last day of the fiscal year in which we are deemed to be a "large accelerated filer" as defined in Rule 12b-2 under the Exchange Act, which would occur if the market value of our common stock held by non-affiliates exceeded $700.0 million as of the last business day of the second fiscal quarter of such year or (4) the date on which we have issued more than $1.0 billion in non-convertible debt securities during the prior three-year period. As the market value of our common stock held by non-affiliates exceeded $700 million as of June 30, 2019, we will cease to be an EGC and will become a large accelerated filer as of December 31, 2019. As a result, we will need to comply with additional legal, financial and accounting requirements, which could result in substantial costs and additional risks for us and divert management's attention.

Recent accounting pronouncements

See Note 2 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 June 30, 2019, we had cash and cash equivalents of $174.7 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 June 30, 2019, we had short-term marketable securities of $371.0 million and long-term marketable securities of $277.3 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 June 30, 2019, a hypothetical 100 basis point increase in interest rates would have resulted in an approximate $5.5 million decline 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.

Our capital lease obligation bears a fixed interest rate. Therefore, we are not exposed to material risks from changes in interest rates on our outstanding indebtedness.

Foreign currency risk

The majority of our revenue is generated in the United States. Through June 30, 2019, 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. Our obligation related to a royalty denominated in Euros is subject to foreign currency risk. As of June 30, 2019, the effect of a hypothetical 10% change in foreign currency exchange rates would result in a foreign exchange gains or losses of $0.7 million, on total cumulative balance of obligations. 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 June 30, 2019, 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.

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 8 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, 2018 filed with the SEC on March 19, 2019. 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. While we believe there have been no material changes in our risk factors from those disclosed in the Annual 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.

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.

Not applicable.

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	XBRL Instance Document					*
101.SCH	XBRL Taxonomy Extension Schema Document					*
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document					*
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document					*
101.LAB	XBRL Taxonomy Extension Label Linkbase Document					*
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document					*

* 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: August 6, 2019

By: /s/ Derek Bertocci

Name: Derek Bertocci

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

Exhibit 31.1

CERTIFICATION OF THE CHIEF 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)) 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) 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

   (c) 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: August 6, 2019

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

Exhibit 31.2

CERTIFICATION OF THE CHIEF 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)) 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) 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

   (c) 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: August 6, 2019

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

Exhibit 32.1

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

In connection with the Quarterly Report of Guardant Health, Inc. (the "Company") on Form 10-Q for the period ending June 30, 2019 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: August 6, 2019

/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 ending June 30, 2019 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: August 6, 2019

/s/ Derek Bertocci
Derek Bertocci
Chief Financial Officer
(Principal Financial Officer and
Principal Accounting 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.