

VERACYTE, INC.

FORM 10-Q (Quarterly Report)

Filed 07/31/17 for the Period Ending 06/30/17

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Telephone	(650) 243-6300
CIK	0001384101
Symbol	VCYT
SIC Code	8071 - Medical Laboratories
Industry	Biotechnology & Medical Research
Sector	Healthcare
Fiscal Year	12/31

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

FORM 10-Q

(Mark One)

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

For the quarterly period ended **June 30, 2017**

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 **001-36156**

VERACYTE, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

20-5455398

(I.R.S. Employer
Identification No.)

**6000 Shoreline Court, Suite 300
South San Francisco, California 94080**
(Address of principal executive offices, zip code)

(650) 243-6300
(Registrant's telephone number, including area code)

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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post 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. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer

Smaller reporting company

(Do not check if a smaller reporting company)

Emerging growth company

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

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

As of July 28, 2017, there were 33,893,567 shares of common stock, par value \$0.001 per share, outstanding.

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PART I. — FINANCIAL INFORMATION

Item 1. Condensed Financial Statements

VERACYTE, INC.

Condensed Balance Sheets

(In thousands of dollars, except share and per share amounts)

	June 30, 2017	December 31, 2016
	(Unaudited)	(See Note 1)
Assets		
Current assets:		
Cash and cash equivalents	\$ 46,463	\$ 59,219
Accounts receivable	11,027	8,756
Supplies inventory	3,317	3,475
Prepaid expenses and other current assets	1,933	2,057
Restricted cash	120	120
Total current assets	62,860	73,627
Property and equipment, net	10,093	11,480
Finite-lived intangible assets, net	13,600	14,133
Goodwill	1,057	1,057
Restricted cash	603	603
Other assets	134	134
Total assets	\$ 88,347	\$ 101,034
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable	\$ 2,349	\$ 2,424
Accrued liabilities	8,450	9,110
Total current liabilities	10,799	11,534
Long-term debt	24,971	24,918
Capital lease liability, net of current portion	456	599
Deferred rent, net of current portion	4,277	4,402
Total liabilities	40,503	41,453
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, \$0.001 par value; 5,000,000 shares authorized, no shares issued and outstanding as of June 30, 2017 and December 31, 2016	—	—
Common stock, \$0.001 par value; 125,000,000 shares authorized, 33,891,817 and 33,762,278 shares issued and outstanding as of June 30, 2017 and December 31, 2016, respectively	34	34
Additional paid-in capital	243,409	239,631
Accumulated deficit	(195,599)	(180,084)
Total stockholders' equity	47,844	59,581
Total liabilities and stockholders' equity	\$ 88,347	\$ 101,034

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

VERACYTE, INC.

Condensed Statements of Operations and Comprehensive Loss

(Unaudited)

(In thousands of dollars, except share and per share amounts)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
Revenue	\$ 18,406	\$ 14,675	\$ 34,838	\$ 28,225
Operating expenses:				
Cost of revenue	6,960	6,301	13,257	12,580
Research and development	3,603	4,267	7,633	7,728
Selling and marketing	7,994	8,263	15,330	15,329
General and administrative	6,192	6,071	12,211	12,299
Intangible asset amortization	266	267	533	534
Total operating expenses	25,015	25,169	48,964	48,470
Loss from operations	(6,609)	(10,494)	(14,126)	(20,245)
Interest expense	(808)	(785)	(1,608)	(1,152)
Other income, net	119	36	219	79
Net loss and comprehensive loss	\$ (7,298)	\$ (11,243)	\$ (15,515)	\$ (21,318)
Net loss per common share, basic and diluted	\$ (0.22)	\$ (0.40)	\$ (0.46)	\$ (0.77)
Shares used to compute net loss per common share, basic and diluted	33,873,128	27,859,918	33,848,645	27,838,955

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

VERACYTE, INC.

Condensed Statements of Cash Flows

(Unaudited)

(In thousands of dollars)

	Six Months Ended June 30,	
	2017	2016
Operating activities		
Net loss	\$ (15,515)	\$ (21,318)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	1,846	1,703
Bad debt expense	—	68
Loss on disposal of property and equipment	—	12
Genzyme co-promotion fee amortization	—	(721)
Stock-based compensation	3,214	3,173
Conversion of accrued interest on long-term debt	—	192
Amortization and write-off of debt discount and issuance costs	53	119
Interest on debt balloon payment and prepayment penalty	—	206
Changes in operating assets and liabilities:		
Accounts receivable	(2,271)	48
Supplies inventory	158	265
Prepaid expenses and current other assets	25	47
Other assets	—	(13)
Accounts payable	266	(805)
Accrued liabilities and deferred rent	(772)	712
Net cash used in operating activities	<u>(12,996)</u>	<u>(16,312)</u>
Investing activities		
Purchases of property and equipment	(728)	(3,587)
Proceeds from sale of property and equipment	440	—
Change in restricted cash	—	(2)
Net cash used in investing activities	<u>(288)</u>	<u>(3,589)</u>
Financing activities		
Proceeds from the issuance of long-term debt, net of debt issuance costs	—	24,452
Payment of long-term debt	—	(5,000)
Payment of end-of-term debt obligation and prepayment penalty	—	(288)
Proceeds from the issuance of common stock in a public offering, net of costs	200	—
Payment of capital lease liability	(135)	—
Proceeds from the exercise of common stock options and employee stock purchases	463	646
Net cash provided by financing activities	<u>528</u>	<u>19,810</u>
Net decrease in cash and cash equivalents	<u>(12,756)</u>	<u>(91)</u>
Cash and cash equivalents at beginning of period	<u>59,219</u>	<u>39,084</u>
Cash and cash equivalents at end of period	<u>\$ 46,463</u>	<u>\$ 38,993</u>
Supplementary cash flow information of non-cash investing and financing activities:		
Purchases of property and equipment included in accounts payable and accrued liabilities	\$ —	\$ 42

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

VERACYTE, INC.

Notes to Financial Statements

1. Organization and Description of Business

Veracyte, Inc. (“Veracyte” or the “Company”) was incorporated in the state of Delaware on August 15, 2006 as Calderome, Inc. Calderome operated as an incubator until early 2008. On March 4, 2008, the Company changed its name to Veracyte, Inc. The Company’s operations are based in South San Francisco, California and Austin, Texas, and it operates in one segment.

Veracyte is a leading genomic diagnostics company that is fundamentally improving patient care by resolving diagnostic uncertainty with evidence that is trustworthy and actionable. The Company’s products uniquely combine genomic technology, clinical science and machine learning to provide answers that give physicians and patients a clear path forward without risky, costly surgery that is often unnecessary.

Since the Company’s founding in 2008, it has commercialized three genomic tests that it believes are transforming diagnostics:

Afirma Thyroid FNA Analysis - The Afirma genomic classifiers, specifically the Afirma Gene Expression Classifier, or GEC, and the recently commercialized Afirma Genomic Sequencing Classifier, or GSC, employ proprietary gene signatures to determine whether thyroid nodules previously classified by cytopathology as indeterminate can be reclassified as benign, thus enabling the patient to avoid an unnecessary surgery. The new Afirma GSC uniquely combines RNA sequencing and machine learning to leverage more enriched, previously undetectable genomic information. It can identify 30 percent more benign thyroid nodules among those deemed indeterminate following cytopathology.

Percepta Bronchial Genomic Classifier - The 23-gene Percepta classifier improves lung cancer screening and diagnosis by identifying patients at low risk of cancer among those whose lung nodules are not clearly benign or malignant following traditional evaluation. The Percepta classifier analyzes genomic changes that occur in the epithelial cells lining the airways of current or former smokers to assess a patient’s risk of having lung cancer, without the need to test the often-hard-to-reach nodule directly.

Envisia Genomic Classifier - Commercialized in October 2016, the Envisia classifier is designed to improve physicians’ ability to differentiate idiopathic pulmonary fibrosis, or IPF, from other interstitial lung diseases, or ILD, without the need for invasive and potentially risky surgery. The Envisia classifier uses machine learning coupled with powerful, deep RNA sequencing to detect the presence or absence of usual interstitial pneumonia, or UIP, a classic diagnostic pattern whose presence is essential for the diagnosis of IPF.

All of the Company’s testing services are made available through its clinical reference laboratories located in South San Francisco, California and Austin, Texas, which are each certified under the Clinical Laboratory Improvement Amendments of 1988, or CLIA.

Basis of Presentation

The Company’s financial statements have been prepared in accordance with accounting principles generally accepted in the United States (“GAAP”). Certain information and note disclosures normally included in financial statements prepared in accordance with GAAP have been condensed or omitted pursuant to such rules and regulations. The condensed balance sheet as of June 30, 2017, the condensed statements of operations and comprehensive loss for the three and six months ended June 30, 2017 and 2016, and the condensed statements of cash flows for the six months ended June 30, 2017 and 2016 are unaudited, but include all adjustments, consisting only of normal recurring adjustments, which the Company considers necessary for a fair presentation of its financial position, operating results and cash flows for the periods presented. The condensed balance sheet at December 31, 2016 has been derived from audited financial statements. The results for the three and six months ended June 30, 2017 are not necessarily indicative of the results expected for the full year or any other period.

The accompanying interim period condensed financial statements and related financial information included in this Quarterly Report on Form 10-Q should be read in conjunction with the audited financial statements and notes thereto included in the Company’s Annual Report on Form 10-K for the year ended December 31, 2016.

Use of Estimates

The preparation of unaudited interim financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Significant items subject to such estimates include: revenue recognition; contractual allowances; the useful lives of property and equipment; the recoverability of long-lived assets; the estimation of the fair value of intangible assets; stock options; income tax uncertainties, including a valuation allowance for deferred tax assets; and contingencies. The Company bases these estimates on historical and anticipated results, trends and various other assumptions that the Company believes are reasonable under the circumstances, including assumptions as to future events. These estimates form the basis for making judgments about the carrying values of assets and liabilities and recorded revenue and expenses that are not readily apparent from other sources. Actual results could differ from those estimates and assumptions.

Concentrations of Credit Risk and Other Risks and Uncertainties

The majority of the Company's cash and cash equivalents are deposited with one major financial institution in the United States. Deposits in this institution may exceed the amount of insurance provided on such deposits. The Company has not experienced any losses on its deposits of cash and cash equivalents.

Several of the components of the Company's sample collection kit and test reagents are obtained from single-source suppliers. If these single-source suppliers fail to satisfy the Company's requirements on a timely basis, it could suffer delays in being able to deliver its diagnostic solutions, a possible loss of revenue, or incur higher costs, any of which could adversely affect its operating results.

The Company is also subject to credit risk from its accounts receivable related to its sales. The Company generally does not perform evaluations of customers' financial condition and generally does not require collateral.

Through June 30, 2017, all of the Company's revenue has been derived from the sale of Afirma. To date, Afirma has been delivered primarily to physicians in the United States. The Company's third-party payers in excess of 10% of revenue and their related revenue as a percentage of total revenue were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
Medicare	26%	30%	26%	30%
UnitedHealthcare	15%	13%	14%	12%
	41%	43%	40%	42%

The Company's significant third-party payers and their related accounts receivable balance as a percentage of total accounts receivable were as follows:

	June 30, 2017	December 31, 2016
Medicare	17%	18%

No other third-party payer represented more than 10% of the Company's accounts receivable balances as of those dates.

Restricted Cash

The Company had deposits of \$120,000 included in current assets as of June 30, 2017 and December 31, 2016, pledged for corporate credit cards. The Company also had deposits of \$603,000 included in long-term assets as of June 30, 2017 and December 31, 2016, restricted from withdrawal and held by a bank in the form of collateral for an irrevocable standby letter of credit held as security for the lease of the Company's South San Francisco facility signed in April 2015.

Fair Value of Financial Instruments

The carrying amounts of certain financial instruments including cash and cash equivalents, accounts receivable, prepaid expenses and other current assets, accounts payable and accrued liabilities approximate fair value due to their relatively short maturities.

Revenue Recognition

The Company recognizes revenue in accordance with the provision of ASC 954-605, *Health Care Entities — Revenue Recognition* ("ASC 954"). The Company's revenue is generated from the provision of diagnostic services. The service is completed upon the delivery of test results to the prescribing physician, at which time the Company bills for the service. The Company recognizes revenue related to billings for tests delivered on an accrual basis when amounts that will ultimately be realized can be estimated. The estimates of amounts that will ultimately be realized require significant judgment by management. Until a contract has been negotiated with a commercial payer or governmental program, the Company's tests may or may not be covered by these entities' existing reimbursement policies. In addition, patients do not enter into direct agreements with the Company that commit them to pay any portion of the cost of the tests in the event that their insurance declines to reimburse the Company.

The Company may bill the patient directly for these amounts in the form of co-payments and co-insurance in accordance with their insurance carrier and health plans. In the absence of the ability to estimate the amount that will ultimately be realized for the Company's services, revenue is recognized on the cash basis.

Revenue recognized for the three and six months ended June 30, 2017 and 2016 was as follows (in thousands of dollars):

	Three Months Ended June 30,				Six Months Ended June 30,			
	2017	%	2016	%	2017	%	2016	%
Revenue recognized on the accrual basis	\$ 17,611	96%	\$ 9,349	64%	\$ 32,749	94%	\$ 17,575	62%
Revenue recognized on the cash basis	795	4%	5,326	36%	2,089	6%	10,650	38%
Total	\$ 18,406	100%	\$ 14,675	100%	\$ 34,838	100%	\$ 28,225	100%

Prior to July 1, 2016, the Company accrued less than 50% of the billed Afirma genomic classifier test volume per fiscal period. The Company believed it did not have a consistent enough payment history to accrue the remaining Afirma genomic classifier tests delivered to customers and, as noted above, recognized revenue on the cash basis for such tests. The Company has been analyzing the amounts received for tests performed since commercialization, and during the quarter ended September 30, 2016, sufficient information developed to support a reasonable estimate of the amount of revenue to accrue upon test delivery for a number of payers that had been previously recognized on the cash basis. As a result, starting in the quarter ended September 30, 2016, the Company began accruing substantially all of its billed Afirma genomic classifier test volume. In determining the amount to accrue for a particular test, the Company considered factors such as payer coverage, whether there is a reimbursement contract between the payer and the Company, timeliness of payment, payment as a percentage of agreed upon rate (if applicable), amount paid per test and any current developments or changes that could impact reimbursement. As a result, the Company recognized \$3.5 million of incremental revenue during the quarter ended September 30, 2016 upon test delivery that previously would not have been recognized until cash was received. Tests performed prior to July 1, 2016 that did not meet the Company's accrual criteria at the time of delivery will continue to be recognized as revenue on the cash basis. In the quarter ended June 30, 2017, as a result of the related cash collections being higher than previously estimated and cash collection trends, the Company updated its revenue estimates and recognized an additional \$1.0 million of revenue for certain tests performed in the six months ended December 31, 2016.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued ASU 2014-09, *Revenue from Contracts with Customers* (Topic 606), to supersede nearly all existing revenue recognition guidance under GAAP. The core principle of ASU 2014-09 is to recognize revenues when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for those goods or services. ASU 2014-09 defines a five-step process to achieve this core principle and, in doing so, it is possible more judgment and estimates may be required within the revenue recognition process than are required under existing GAAP. The Company will adopt the new revenue standard as of January 1, 2018 using the modified retrospective method. The Company has completed its assessment of the first three steps of this ASU, which include identifying the Company's customers, identifying the Company's performance obligations, and determining transaction prices. The Company

is currently assessing the remainder of the steps and believes the adoption of this ASU will not have a material impact on either the Company's financial position or results of operations.

In February 2016, the FASB issued ASU No. 2016-2, *Leases*. This ASU is aimed at making leasing activities more transparent and comparable, and requires substantially all leases be recognized by lessees on their balance sheet as a right-of-use asset and corresponding lease liability, including leases currently accounted for as operating leases. The ASU will be effective for interim and annual periods beginning after December 15, 2018. Entities are required to use a modified retrospective approach for leases that exist or are entered into after the beginning of the earliest comparative period in the financial statements. Full retrospective application is prohibited and early adoption is permitted. The Company is currently evaluating the potential effect of this standard on its financial statements.

In March 2016, the FASB issued ASU 2016-9, *Compensation - Stock Compensation*, related to the tax effects of share-based awards. The ASU requires that all the tax effects of share-based awards be recorded through the income statement, thereby simplifying the current guidance that requires excess tax benefits and certain excess tax deficiencies to be recorded in equity. This ASU also permits an election for the impact of forfeitures on the recognition of expense for share-based payment awards where forfeitures can be estimated or recognized when they occur. This ASU is effective for interim and annual periods beginning after December 15, 2016. The Company adopted this ASU as of January 1, 2017 and elected to continue using its forfeiture estimation method for share-based payment awards. This ASU was adopted prospectively and the impact of adoption on the Company's financial statements was not material.

In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows - Restricted Cash*. This ASU requires that restricted cash and restricted cash equivalents be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The ASU will be effective for interim and annual periods beginning after December 15, 2017. The Company does not anticipate that the adoption of this ASU will have a significant impact on its financial statements.

2. Net Loss Per Common Share

Basic net loss per common share is calculated by dividing net loss attributable to common stockholders by the weighted-average number of common shares outstanding during the period, without consideration of common stock equivalents. Diluted net loss per common share is computed by dividing net loss attributable to common stockholders by the weighted-average number of common share equivalents outstanding for the period determined using the treasury stock method. The following outstanding common stock equivalents have been excluded from diluted net loss per common share because their inclusion would be anti-dilutive:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
Shares of common stock subject to outstanding options	6,436,953	5,320,885	6,039,791	4,890,309
Employee stock purchase plan	41,044	47,435	35,229	36,942
Restricted stock units	70,000	—	54,834	—
Total common stock equivalents	6,547,997	5,368,320	6,129,854	4,927,251

3. Accrued Liabilities

Accrued liabilities consisted of the following (in thousands of dollars):

	June 30, 2017	December 31, 2016
Accrued compensation expenses	\$ 4,945	\$ 6,120
Accrued other	3,505	2,990
Total accrued liabilities	\$ 8,450	\$ 9,110

4. Fair Value Measurements

The Company recognizes its financial assets and liabilities at fair value. The carrying amounts of certain financial instruments of the Company, including cash and cash equivalents, prepaid expenses and other current assets, accounts payable and accrued liabilities, approximate fair value due to their relatively short maturities. The carrying value of the Company's debt approximates its fair value because the interest rate approximates market rates that the Company could obtain for debt with similar terms. The estimated fair value of the Company's debt is estimated using the net present value of the payments, discounted at an interest rate that is consistent with market interest rates, which is a Level II input. The accounting guidance for fair value provides a framework for measuring fair value, clarifies the definition of fair value, and expands disclosures regarding fair value measurements. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (an exit price) in an orderly transaction between market participants at the reporting date. The accounting guidance establishes a three-tiered hierarchy, which prioritizes the inputs used in the valuation methodologies in measuring fair value as follows:

- Level I: Inputs which include quoted prices in active markets for identical assets and liabilities.
- Level II: Inputs other than Level I 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 III: 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 fair value of the Company's financial assets, which consist only of money market funds, was \$47.1 million and \$58.7 million as of June 30, 2017 and December 31, 2016, respectively, and are Level I assets as described above.

5. Commitments and Contingencies

Operating Leases

The Company leases its headquarters and laboratory facilities in South San Francisco, California under a non-cancelable lease agreement for approximately 59,000 square feet. The lease began in June 2015 and ends in March 2026 and contains extension of lease term and expansion options. In February 2017, the Company relinquished certain expansion rights for a nominal fee. The Company had deposits of \$603,000 included in long-term assets as of June 30, 2017 and December 31, 2016, restricted from withdrawal and held by a bank in the form of collateral for an irrevocable standby letter of credit held as security for the lease of the South San Francisco facility.

The Company also leases laboratory and office space in Austin, Texas under a lease that expires on July 31, 2018. The Company provided a cash security deposit of \$75,000, which is included in other assets in the Company's condensed balance sheets as of June 30, 2017 and December 31, 2016.

Future minimum lease payments under non-cancelable operating leases as of June 30, 2017 are as follows (in thousands of dollars):

<u>Year Ending December 31,</u>		
2017	\$	1,079
2018		2,102
2019		2,026
2020		2,082
2021		2,144
Thereafter		9,812
Total minimum lease payments	\$	<u>19,245</u>

The Company recognizes rent expense on a straight-line basis over the non-cancelable lease period. Rent expense was \$455,000 and \$457,000 for the three months ended June 30, 2017 and 2016, respectively, and \$ 912,000 and \$1.1 million for the six months ended June 30, 2017 and 2016, respectively.

Contingencies

From time to time, the Company may be involved in legal proceedings arising in the ordinary course of business. The Company believes there is no litigation pending that could have, individually or in the aggregate, a material adverse effect on the Company's financial position, results of operations or cash flows.

6. Debt*Credit Agreement*

In March 2016, the Company entered into a credit agreement (the "Credit Agreement") with Visium Healthcare Partners, LP ("Visium"). Under the Credit Agreement, two term loans were available to the Company with an aggregate principal amount of up to \$40.0 million. The Company drew down the initial \$25.0 million term loan (the "Term Loan") on March 30, 2016, of which \$5.0 million was used to pay the outstanding balance of the Company's existing long-term debt, which was cancelled at that date. On or prior to June 30, 2017, the Company was permitted to request a second term loan of up to \$15.0 million; however, the Company did not draw down the second term loan and it expired. The Term Loan matures on March 31, 2022.

The Term Loan bears interest at a fixed rate of 12.0% per annum, payable quarterly at the end of each March, June, September and December. No principal payments will be due during an interest-only period, commencing on the funding date for the Term Loan (the "Borrowing Date") and continuing through and including March 31, 2020. The Company is obligated to repay the outstanding principal amount under the Term Loan in eight equal installments during the final two years under the Credit Agreement. For any quarterly interest payment through and including the 16th interest payment date after the Borrowing Date, so long as no event of default has occurred and is then continuing, the Company may elect to pay interest in cash on the outstanding principal amount of the Term Loan at a fixed rate of 9.0%, with the remaining 3.0% of the 12.0% interest paid-in-kind by adding such paid-in-kind interest to the outstanding principal amount of the Term Loan. The Company elected to pay interest in-kind for the quarters ended June 30, 2016 and September 30, 2016 and has recorded a total of \$385,000 of paid-in-kind interest through June 30, 2017.

The Company may prepay the outstanding principal amount under the Term Loan subject to a minimum of \$5.0 million of principal amount or a whole multiple of \$1.0 million in excess thereof plus accrued and unpaid interest and a prepayment premium. The prepayment premium will be assessed on the principal amount repaid and will equal (i) 24.0% less the aggregate amount of all interest payments in cash, if the prepayment is made on or prior to March 31, 2018, (ii) 4.0%, if the prepayment is made after March 31, 2018 and on or prior to March 31, 2019, (iii) 2.0%, if the prepayment is made after March 31, 2019 and on or prior to March 31, 2020, and (iv) 1.0%, if the prepayment is made after March 31, 2020 and on or prior to March 31, 2021. After March 31, 2021 there is no prepayment premium.

The Company's obligations under the Credit Agreement are secured by a security interest in substantially all of its assets. The Credit Agreement contains customary representations, warranties and events of default, as well as affirmative and negative covenants. The negative covenants include, among other provisions, covenants that limit or restrict the Company's ability to incur liens, make investments, incur indebtedness, merge with or acquire other entities, dispose of assets, make dividends or other distributions to holders of its equity interests, engage in any material new line of business or enter into certain transactions with affiliates, in each case subject to certain exceptions. To the extent the Company forms or acquires certain subsidiaries domiciled in the United States, those subsidiaries are required to be guarantors of the Company's obligations under the Credit Agreement. As of June 30, 2017, the Company was in compliance with the loan covenants.

As of June 30, 2017, the net debt obligation for borrowings made under the Credit Agreement was as follows (in thousands of dollars):

	June 30, 2017
Debt principal	\$ 25,385
Unamortized deferred debt issuance costs	(414)
Net debt obligation	<u>\$ 24,971</u>

Future principal payments under the Credit Agreement are as follows (in thousands of dollars):

Year Ending December 31,

2020	\$	9,519
2021		12,693
2022		3,173
Total	\$	<u>25,385</u>

Loan and Security Agreement

In June 2013, the Company entered into a loan and security agreement as subsequently amended (“2013 Loan Agreement”) with a financial institution that provided for borrowings of up to \$10.0 million in aggregate. Borrowings under the 2013 Loan Agreement totaled \$5.0 million, which was outstanding at January 1, 2016 until March 30, 2016 when it was repaid upon the Company entering into the Credit Agreement discussed above.

Interest Expense

Interest expense was as follows (in thousands of dollars):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
Nominal interest	\$ 769	\$ 758	\$ 1,532	\$ 828
Amortization and write-off of debt discount and debt issuance costs	27	27	53	118
Prepayment penalty	—	—	—	50
End-of-term payment interest	—	—	—	156
Interest on capital lease	12	—	23	—
Total	<u>\$ 808</u>	<u>\$ 785</u>	<u>\$ 1,608</u>	<u>\$ 1,152</u>

7. Stockholders' Equity

Common Stock

The Company had reserved shares of common stock for issuance as follows:

	June 30, 2017	December 31, 2016
Stock options and restricted stock units issued and outstanding	6,394,917	5,251,832
Stock options and restricted stock units available for grant under stock option plans	1,048,850	887,724
Common stock available for the Employee Stock Purchase Plan	525,794	609,053
Total	<u>7,969,561</u>	<u>6,748,609</u>

8. Genzyme Co-Promotion Agreement

In January 2012, the Company and Genzyme Corporation (“Genzyme”) executed a co-promotion agreement for the co-exclusive rights and license to promote and market the Company’s Afirma thyroid diagnostic solution in the United States and in 40 named countries. In exchange, the Company received a \$10.0 million upfront co-promotion fee from Genzyme in February 2012 which was deferred and amortized over the life of the agreement until the agreement was terminated effective September 9, 2016. Under the terms of the agreement, Genzyme received a percentage of U.S. cash receipts that the Company has received related to the Afirma solution as co-promotion fees.

In February 2015, the Company entered into an ex-U.S. co-promotion agreement with Genzyme for the promotion of the Afirma solution with exclusivity in five countries outside the United States initially and in other countries agreed to from time to time. The agreement commenced on January 1, 2015 and continued until December 31, 2019, with extension of the agreement possible upon agreement of the parties. Pursuant to the agreement, the Company agreed to pay Genzyme 25% of net revenue from the sale of the Afirma solution in Brazil and Singapore over a five -year period commencing January 1, 2015. These payments have been immaterial for all periods presented. Effective July 6, 2017, the agreement was terminated.

The Company incurred \$2.1 million and \$4.2 million in co-promotion expense, excluding the amortization of the upfront co-promotion fee, in the three and six months ended June 30, 2016 , respectively, which is included in selling and marketing expenses in the condensed statements of operations and comprehensive loss. The Company had no outstanding obligations to Genzyme under the U.S. co-promotion agreement as of June 30, 2017 and December 31, 2016 .

The Company amortized \$290,000 and \$721,000 of the \$10.0 million upfront co-promotion fee in the three and six months ended June 30, 2016 , respectively, which is reflected as a reduction to selling and marketing expenses in the condensed statements of operations and comprehensive loss. No such related costs were incurred during the three and six months ended June 30, 2017 .

9. Thyroid Cytopathology Partners

In 2010, the Company entered into an arrangement with Pathology Resource Consultants, P.A. (“PRC”) to set up and manage a specialized pathology practice to provide testing services to the Company. There is no direct monetary compensation from the Company to PRC as a result of this arrangement. The Company’s service agreement is with the specialized pathology practice, Thyroid Cytopathology Partners (“TCP”), and was effective through December 31, 2015 , and thereafter automatically renews every year unless either party provides notice of intent not to renew at least 12 months prior to the end of the then-current term. Under the service agreement, the Company pays TCP based on a fixed price per test schedule, which is reviewed periodically for changes in market pricing. Subsequent to December 2012, an amendment to the service agreement allows TCP to sublease a portion of the Company’s facility in Austin, Texas. The Company does not have an ownership interest in or provide any form of financial or other support to TCP.

The Company has concluded that TCP represents a variable interest entity and that the Company is not the primary beneficiary as it does not have the ability to direct the activities that most significantly impact TCP’s economic performance. Therefore, the Company does not consolidate TCP. All amounts paid to TCP under the service agreement are expensed as incurred and included in cost of revenue in the condensed statements of operations and comprehensive loss. The Company incurred \$1.2 million and \$1.3 million for the three months ended June 30, 2017 and 2016 , respectively, and \$2.4 million and \$2.6 million for the six months ended June 30, 2017 and 2016, respectively, in cytopathology testing and evaluation services expenses with TCP. The Company’s outstanding obligations to TCP for cytopathology testing services were \$412,000 and \$426,000 as of June 30, 2017 and December 31, 2016 , respectively, and are included in accounts payable on the Company’s condensed balance sheets.

TCP reimburses the Company for TCP’s proportionate share of the Company’s rent and related operating expenses for the leased facility. TCP’s portion of rent and related operating expenses for the shared space at the Austin, Texas facility was \$27,000 and \$23,000 for the three months ended June 30, 2017 and 2016 , respectively, and \$52,000 and \$46,000 for the six months ended June 30, 2017 and 2016 , respectively, and is included in other income, net in the Company’s condensed statements of operations and comprehensive loss.

10. Income Taxes

The Company did not record a provision or benefit for income taxes during the three and six months ended June 30, 2017 and 2016 . The Company continues to maintain a full valuation allowance against its net deferred tax assets.

As of June 30, 2017 , the Company had unrecognized tax benefits of \$2.4 million , none of which would currently affect the Company’s effective tax rate if recognized due to the Company’s net deferred tax assets being fully offset by a valuation allowance. The Company does not anticipate that the amount of unrecognized tax benefits relating to tax positions existing at June 30, 2017 will significantly increase or decrease within the next 12 months. There was no interest expense or penalties related to unrecognized tax benefits recorded through June 30, 2017 .

A number of years may elapse before an uncertain tax position is audited and finally resolved. While it is often difficult to predict the final outcome or the timing of resolution of any particular uncertain tax position, the Company believes that its reserves for income taxes reflect the most likely outcome. The Company adjusts these reserves, as well as the related interest, in light of changing facts and circumstances. Settlement of any particular position could require the use of cash.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of financial condition and results of operations should be read together with the condensed financial statements and the related notes included in Item 1 of Part I of this Quarterly Report on Form 10-Q, and with our audited financial statements and the related notes included in our Annual Report on Form 10-K for the year ended December 31, 2016.

This report contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. When used in this report, the words "expects," "anticipates," "intends," "estimates," "plans," "believes," "continuing," "ongoing," and similar expressions are intended to identify forward-looking statements. These are statements that relate to future events and include, but are not limited to, the factors that may impact our financial results; our expectations regarding our sources of revenue; our expectations with respect to our future research and development, general and administrative and selling and marketing expenses and our anticipated uses of our funds; our expectations regarding capital expenditures; our anticipated cash needs and our estimates regarding our capital requirements; potential future sources of cash; our business strategy and our ability to execute our strategy; our ability to achieve and maintain reimbursement from third-party payers at acceptable levels and our expectations regarding the timing of reimbursement; the estimated size of the global markets for our tests; the attributes and potential benefits of our tests and any future tests we may develop to patients, physicians and payers; the factors we believe drive demand for and reimbursement of our tests; our ability to sustain or increase demand for our tests; our intent to expand into other clinical areas; our ability to develop new tests, and the timeframes for development or commercialization; our ability to get our data and clinical studies accepted in peer-reviewed publications; our dependence on and the terms of our agreement with TCP, and on other strategic relationships, and the success of those relationships; our beliefs regarding our laboratory capacity; the applicability of clinical results to actual outcomes; our expectations regarding our international expansion; the occurrence, timing, outcome or success of clinical trials or studies; the ability of our tests to impact treatment decisions; our beliefs regarding our competitive position; our compliance with federal, state and international regulations; the potential impact of regulation of our tests by the FDA or other regulatory bodies; the impact of new or changing policies, regulation or legislation, or of judicial decisions, on our business; the impact of seasonal fluctuations and economic conditions on our business; our belief that we have taken reasonable steps to protect our intellectual property; the impact of accounting pronouncements and our critical accounting policies, judgments, estimates, models and assumptions on our financial results; and anticipated trends and challenges in our business and the markets in which we operate.

Forward-looking statements are based on our current plans and expectations and involve risks and uncertainties which could cause actual results to differ materially. These risks and uncertainties include, but are not limited to, those risks discussed in Part II, Item 1A of this report, as well as risks and uncertainties related to: our limited operating history and history of losses since inception; our ability to increase usage of and reimbursement for our tests; our dependence on a limited number of payers for a significant portion of our revenue; the complexity, time and expense associated with billing and collecting for our test; current and future laws, regulations and judicial decisions applicable to our business, including potential regulation by the FDA or by regulatory bodies outside of the United States; changes in legislation related to the U.S. healthcare system; our dependence on strategic relationships and collaborations; unanticipated delays in research and development efforts; our ability to develop and commercialize new products, including our GSC classifier, and the timing of commercialization; our ability to successfully enter new product or geographic markets; our ability to conduct clinical studies and the outcomes of such clinical studies; the applicability of clinical results to actual outcomes; trends and challenges in our business; our ability to compete against other companies, products and technologies; our ability to protect our intellectual property; and our ability to obtain capital when needed. These forward-looking statements speak only as of the date hereof. We expressly disclaim any obligation or undertaking to update any forward-looking statements contained herein to reflect any change in our expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based.

When used in this report, all references to "Veracyte," the "company," "we," "our" and "us" refer to Veracyte, Inc.

Veracyte, Afirma, Percepta, Envisia, the Veracyte logo and the Afirma logo are our trademarks. We also refer to trademarks of other corporations or organizations in this report.

This report contains statistical data and estimates that we obtained from industry publications and reports. These publications typically indicate that they have obtained their information from sources they believe to be reliable, but do not guarantee the accuracy and completeness of their information. Some data contained in this report is also based on our internal estimates.

Overview

We are a leading genomic diagnostics company that is fundamentally improving patient care by resolving diagnostic uncertainty with evidence that is trustworthy and actionable. Our products uniquely combine genomic technology, clinical science and machine learning to provide answers that give physicians and patients a clear path forward without risky, costly surgery that is often unnecessary.

Our vision is to lead a transformation of diagnostics with a new genomic standard of truth. Our goal is to drive shareholder value by improving patient outcomes and reducing the cost of healthcare.

The role of genomic information in medical practice is evolving rapidly and has affected the diagnosis of disease as well as treatment decisions. Over the past decade, molecular diagnostic tests that analyze genomic material from surgical tissue samples have emerged as an important complement to evaluations performed by pathologists. Information at the molecular level enables one to understand more fully the makeup and specific subtype of disease to improve diagnosis. In many cases, the genomic information derived from these samples can help guide treatment decisions as part of the standard of care.

While genomic and technological advances are fueling the imagination about what is possible in medicine, we remain focused on delivering tests that change clinical decision making and improve patient outcomes.

We deploy machine learning methods and RNA expression to improve diagnostic clarity for cancer and other diseases. In our thyroid and lung cancer indications, diagnosis can be ambiguous in approximately 15-70% of patients undergoing diagnostic evaluation. Our tests provide clarity of diagnosis that can in turn guide treatment decisions in approximately half of those cases, eliminating costly, risky surgeries and other unnecessary medical procedures, improving the lives of patients and saving the healthcare system money.

Since our founding in 2008, we have commercialized three genomic tests that we believe are transforming diagnostics: the Afirma Gene Expression Classifier, or GEC, and its next-generation test, the Afirma Genomic Sequencing Classifier, or GSC, to determine whether thyroid nodules previously classified by cytopathology as indeterminate can be reclassified as benign; the Percepta Bronchial Genomic Classifier to improve lung cancer screening and diagnosis; and the Envisia Genomic Classifier to improve the physician's ability to differentiate idiopathic pulmonary fibrosis, or IPF, from other interstitial lung diseases, or ILD. Collectively, we believe these tests address a \$2 billion global market opportunity.

Patients typically access our tests through their physician during the diagnostic process. All of our testing services are made available through our clinical reference laboratories located in South San Francisco, California and Austin, Texas, which are each certified under the Clinical Laboratory Improvement Amendments of 1988, or CLIA.

The published evidence supporting our tests demonstrates the robustness of our science and clinical studies. Patients and physicians can access our full list of publications on our website. Nearly 30 clinical studies covering our products have been published, including two landmark clinical validation papers published in *The New England Journal of Medicine*. We continue to build upon our extensive library of clinical evidence. We also expect to continue expanding our offerings in thyroid cancer, lung cancer and interstitial lung diseases such as IPF as well as other cancer indications that we believe will benefit from our technology and approach.

We believe our focus on developing clinically useful tests that change patient care is enabling us to set new standards in genomic test reimbursement. Our flagship product, the Afirma classifier, is now covered for more than 269 million people in the U.S. for use in thyroid cancer diagnosis and our second commercial product, the Percepta classifier, is the first genomic test to gain Medicare coverage for improved lung cancer screening and diagnosis.

Second Quarter 2017 Financial Results

For the three-month period ended June 30, 2017, as compared to the three-month period ended 2016:

- Revenue increased 25% to \$18.4 million;
- Operating Expenses declined 1% to \$25.0 million;
- Net Loss and Comprehensive Loss improved 35% to \$7.3 million;
- Cash Burn (which is defined as net cash used in operating activities and net capital expenditures) improved 41% to \$5.0 million; and
- Cash and Cash Equivalents was \$46.5 million at June 30, 2017.

Second Quarter 2017 and Recent Business Highlights

Commercial Achievements:

- Grew Afirma genomic classifier volume by 11% in the second quarter of 2017, compared to the second quarter of 2016.
- Initiated the transition to the next-generation Afirma Genomic Sequencing Classifier (GSC) that can save an estimated 70% of benign patients from unnecessary thyroid surgery to rule out thyroid cancer.
- Initiated access to the Afirma genomic classifier through Quest/Ameripath division's extensive network of service providers.
- Accepted our first commercial orders for the Percepta genomic classifier that aids in the screening and diagnosis of lung cancer.

Reimbursement Progress:

- Received Anthem and additional Blues coverage for our Afirma classifier, which is now one of the few genomic assays to attain coverage by virtually all health plans in the U.S.
- Signed five new contracts with Regence Blue Cross and Blue Cross of Kansas, bringing the total contracted lives for our Afirma classifier to approximately 163 million.

Clinical Evidence Development:

- Delivered podium presentation at the World Congress on Thyroid Cancer of pivotal clinical validation data for the next-generation Afirma GSC.
- Published a clinical utility study in the *Journal of Thoracic Oncology (JTO)*, demonstrating that adoption of the Percepta classifier in lung cancer screening and diagnosis can meaningfully reduce invasive procedures and associated costs, and is cost-effective across a range of assumptions.
- Presented pivotal clinical validation data for the Envisia Genomic Classifier at the American Thoracic Society 2017 International Conference, demonstrating the classifier's unique ability to identify patients likely to have idiopathic pulmonary fibrosis (IPF) from a non-invasive sample.
- Initiated the Catalyst Study to evaluate the clinical utility of the Envisia classifier in the diagnosis of IPF.

Factors Affecting Our Performance

Reported Molecular Test Volume

Our performance depends on the number of molecular tests that we perform and report as completed in our CLIA laboratories. Factors impacting the number of tests that we report as completed include, but are not limited to:

- the number of samples that we receive that meet the medical indication for each test performed;
- the quantity and quality of the sample received;
- receipt of the necessary documentation, such as physician order and patient consent, required to perform, bill and collect for our tests;
- the patient's ability to pay or provide necessary insurance coverage for the tests performed;
- the time it takes us to perform our tests and report the results; and
- the seasonality inherent in our business, such as the impact of work days per period, timing of industry conferences and the timing of when patient deductibles are exceeded, which also impacts the reimbursement we receive from insurers.

We generate substantially all our revenue from genomic testing services, including the rendering of a cytopathology diagnosis as part of the Afirma solution. We do not accrue revenue for tests performed and reported that do not meet our accrual criteria. For the Afirma classifier, we do not accrue revenue for approximately 5%-10% of the tests that we perform and report as complete due principally to insufficient RNA from which to render a result and tests performed for which we do not reasonably expect to be paid. For tests that we perform that do not meet our accrual criteria, we recognize revenue upon cash receipt.

Continued Adoption of and Reimbursement for our Products

Revenue growth depends on our ability to secure coverage decisions, achieve broader reimbursement at increased levels from third-party payers, expand our base of prescribing physicians and increase our penetration in existing accounts. Because some payers consider our products experimental and investigational, we may not receive payment for tests and payments we receive may not be at acceptable levels. We expect our revenue growth will increase as more payers make a positive coverage decision and as payers enter into contracts with us, which should enhance our accrued revenue and cash collections. To drive increased adoption of Afirma, we increased our sales force over the last several years, along with increasing our marketing efforts. We have hired institutional channel managers to focus on the institutional segment, where accounts generally send us fine needle aspirations, or FNAs, for the Afirma genomic classifier only, and account managers, dedicated to serving existing accounts, thereby freeing up our product specialists to focus on transacting new business. If we are unable to expand the base of prescribing physicians and penetration within these accounts at an acceptable rate, or if we are not able to execute our strategy for increasing reimbursement, we may not be able to effectively increase our revenue.

How We Recognize Revenue

We recognize revenue on an accrual basis when we are able to make a reasonable estimate of reimbursement at the time delivery is complete. In the first period in which revenue is accrued for a particular payer or test, there generally is a one-time increase in revenue. Until we have contracts with payers or can reasonably estimate the amount that will ultimately be received, we recognize the related revenue on the cash basis. As we commercialize new products, we will need to be able to make a reasonable estimate of the amount that will ultimately be received from each payer for each new product offering prior to being able to recognize the related revenue on an accrual basis. Because the timing and amount of cash payments received from payers as well as one-time increases in revenue from newly accrued payers are difficult to predict, we expect that our revenue may fluctuate significantly in any given quarter.

As of June 30, 2017, cumulative amounts billed at list price for tests processed which were not recognized as revenue upon delivery of a patient report because our accrual revenue recognition criteria were not met and for which we have not collected cash or written off as uncollectible, totaled approximately \$159.8 million.

As of December 31, 2016, cumulative amounts billed at list price for tests processed which were not recognized as revenue upon delivery of a patient report because our accrual revenue recognition criteria were not met and for which we have not collected cash or written off as uncollectible, totaled \$161.2 million. Of this amount, we recognized revenue of approximately \$0.7 million and \$1.9 million in the three and six months ended June 30, 2017, respectively, when cash was received.

Generally, cash we receive is collected within 12 months of the date the test is billed. We cannot provide any assurance as to when, if ever, or to what extent any of these amounts will be collected. Notwithstanding our efforts to obtain payment for these tests, payers may deny our claims, in whole or in part, and we may never receive revenue from previously performed but unpaid tests. Revenue from these tests, if any, may not be equal to the billed amount due to a number of factors, including differences in reimbursement rates, the amounts of patient co-payments and co-insurance, the existence of secondary payers and claims denials. Finally, when we increase our list price, as we did in July 2015, it will increase the cumulative amounts billed.

We calculate the average Afirma genomic classifier reimbursement from all payers, whether they are on the cash or an accrual basis, for tests that are on average a year old, since it can take a significant period of time to collect from some payers. We use an average of reimbursement for tests provided over two quarters as it reduces the effects of temporary volatility and seasonal effects. Thus the average reimbursement per Afirma genomic classifier represents the total cash collected to date against Afirma genomic classifier tests performed during the relevant period divided by the number of these tests performed during that same period.

The average Afirma genomic classifier reimbursement rate will change over time due to a number of factors, including medical coverage decisions by payers, the effects of contracts signed with payers, changes in allowed amounts by payers, our ability to successfully win appeals for payment, and our ability to collect cash payments from third-party payers and individual patients. Historical average reimbursement is not necessarily indicative of future average reimbursement. For the quarter ended June 30, 2017, on average we accrued between \$2,400 and \$2,500 for the Afirma genomic classifier tests that met our revenue recognition standard, which was between 90% - 95% of the reported Afirma classifier test volume.

Over the eight quarters ended June 30, 2017, we generated between \$1.7 to \$2.7 million in revenue per quarter from providing cytopathology services associated with our Afirma solution.

We incur expense for tests in the period in which the test is conducted and recognize revenue for tests in the period in which our revenue recognition criteria are met. Accordingly, any revenue that we recognize as a result of cash collection in respect of previously performed but unpaid tests will favorably impact our liquidity and results of operations in future periods.

Development of Additional Products

We currently rely on sales of Afirma to generate all of our revenue. In May 2014, we commercially launched our Afirma Malignancy Classifiers, which we believe enhances our Afirma Thyroid FNA Analysis as a comprehensive way to manage thyroid nodule patients and serve our current base of prescribing physicians. We are also pursuing development or acquisition of products for additional diseases to increase and diversify our revenue. We launched the Percepta classifier in April 2015. Additionally, we introduced in October 2016 a solution for diagnosing interstitial lung disease, our Envisia Genomic Classifier, that will offer an alternative to surgery by developing a genomic signature to classify samples collected through less invasive bronchoscopy techniques. We expect to continue to invest heavily in research and development in order to expand the capabilities of our solutions and to develop additional products. Our success in developing or acquiring new products will be important in our efforts to grow our business by expanding the potential market for our products and diversifying our sources of revenue.

Timing of Our Research and Development Expenses

We deploy state-of-the-art and costly genomic technologies in our biomarker discovery experiments, and our spending on these technologies may vary substantially from quarter to quarter. We also spend a significant amount to secure clinical samples that can be used in discovery and product development as well as clinical validation studies. The timing of these research and development activities is difficult to predict, as is the timing of sample acquisitions. If a substantial number of clinical samples are acquired in a given quarter or if a high-cost experiment is conducted in one quarter versus the next, the timing of these expenses can affect our financial results. We conduct clinical studies to validate our new products as well as on-going clinical studies to further the published evidence to support our commercialized tests. As these studies are initiated, start-up costs for each site can be significant and concentrated in a specific quarter. Spending on research and development, for both experiments and studies, may vary significantly by quarter depending on the timing of these various expenses.

Impact of Genzyme Co-promotion Agreement

From January 2012 through September 9, 2016, we were party to a Co-Promotion Agreement with Genzyme to market the Afirma solution in the United States. The agreement required that we pay a certain percentage of our cash receipts from the sale of the Afirma solution to Genzyme, which percentage decreased over time. We received a \$10.0 million upfront co-promotion fee from Genzyme under the Co-Promotion Agreement, which we deferred and amortized over the life of the agreement until the agreement was terminated effective September 9, 2016. The final payments totaling \$4.0 million under the Agreement were made in September 2016.

Under the ex-U.S. agreement with Genzyme, we agreed to pay Genzyme 25% of net revenue from the sale of the Afirma solution in Brazil and Singapore over a five-year period commencing January 1, 2015. Effective July 6, 2017, the agreement was terminated.

Financial Overview

Revenue

Through June 30, 2017, all of our revenue has been derived from the sale of Afirma. To date, Afirma has been delivered primarily to physicians in the United States. We generally invoice third-party payers upon delivery of a patient report to the prescribing physician. As such, we take the assignment of benefits and the risk of cash collection from the third-party payer and individual patients. Third-party payers in excess of 10% of revenue and their related revenue as a percentage of total revenue were as follows:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2017	2016	2017	2016
Medicare	26%	30%	26%	30%
UnitedHealthcare	15%	13%	14%	12%
	41%	43%	40%	42%

For tests performed, we recognize the related revenue upon delivery of a patient report to the prescribing physician based on the amount that we expect to ultimately receive. We determine the amount we expect to ultimately receive based on a per payer, per contract or agreement basis. Upon ultimate collection, the amount received where reimbursement was estimated is compared to previous estimates and the amount accrued is adjusted accordingly. In other situations, where we cannot reasonably estimate the amount that will be ultimately received, we recognize revenue on the cash basis. Our ability to increase our revenue will depend on our ability to penetrate the market, obtain positive coverage policies from additional third-party payers, obtain reimbursement and/or enter into contracts with additional third-party payers for our current and new tests, and increase reimbursement rates for tests performed. Finally, should we recognize revenue on an accrual basis and later determine the judgments underlying estimated reimbursement change, our financial results could be negatively impacted in future quarters.

Cost of Revenue

The components of our cost of revenue are materials and service costs, including cytopathology testing services, stock-based compensation expense, direct labor costs, equipment and infrastructure expenses associated with testing samples, shipping charges to transport samples, and allocated overhead including rent, information technology, equipment depreciation and utilities. Costs associated with performing tests are recorded as the test is processed regardless of whether and when revenue is recognized with respect to that test. As a result, our cost of revenue as a percentage of revenue may vary significantly from period to period because we do not recognize all revenue in the period in which the associated costs are incurred. We expect cost of revenue in absolute dollars to increase as the number of tests we perform increases. However, we expect that the cost per test will decrease over time due to leveraging fixed costs, efficiencies we may gain as test volume increases and from automation, process efficiencies and other cost reductions. As we introduce new tests, initially our cost of revenue will be high and will increase disproportionately our aggregate cost of revenue until we achieve efficiencies in processing these new tests.

Research and Development

Research and development expenses include costs incurred to develop our technology, collect clinical samples and conduct clinical studies to develop and support our products. These costs consist of personnel costs, including stock-based compensation expense, prototype materials, laboratory supplies, consulting costs, costs associated with setting up and conducting clinical studies at domestic and international sites, and allocated overhead including rent, information technology, equipment depreciation and utilities. We expense all research and development costs in the periods in which they are incurred. We expect to incur significant research and development expenses as we continue to invest in research and development activities related to developing additional products and evaluating various platforms. We incurred research and development expenses in 2016 for the development and launch of Envisia and for the continued development and support of the Afirma and Percepta tests. For the remainder of 2017, we expect to incur research and development expenses on ongoing evidence development for our Afirma, Percepta and Envisia classifiers.

Selling and Marketing

Selling and marketing expenses consist of personnel costs, including stock-based compensation expense, direct marketing expenses, consulting costs, and allocated overhead including rent, information technology, equipment depreciation and utilities. In addition, co-promotion fees paid to Genzyme, net of amortization of the upfront fee received, are included in selling and marketing expenses through the September 9, 2016 termination date of our U.S. co-promotion agreement. We have expanded our internal sales force and increased our marketing spending as we transitioned out of the Genzyme relationship, and expect that these costs will be offset by the elimination of the co-promotion fee. We have also incurred increased selling and marketing expense as a result of investments in our lung product portfolio and believe total selling and marketing expenses will continue to increase as we launch and promote our new tests.

General and Administrative

General and administrative expenses include those from executive, finance and accounting, human resources, legal, billing and client services, and quality and regulatory functions. These expenses include personnel costs, including stock-based compensation expense, audit and legal expenses, consulting costs, costs associated with being a public company, and allocated overhead including rent, information technology, equipment depreciation and utilities. We expect these expenses to continue to increase as we build our general and administration infrastructure and to stabilize thereafter.

Intangible Asset Amortization

Intangible asset amortization began in April 2015 when we launched the Percepta test. The finite-lived intangible asset with a cost of \$16.0 million is being amortized over 15 years, using the straight-line method.

Interest Expense

Interest expense is attributable to our borrowings under our credit agreement and the loan and security agreement that it replaced.

Other Income (Expense), Net

Other income (expense), net consists primarily of sublease rental income and interest income received from payers and from our cash equivalents.

Results of Operations

Comparison of the Three and Six Months Ended June 30, 2017 and 2016 (In Thousands of Dollars, Except Percentages and GECs reported)

	Three Months Ended June 30,				Six Months Ended June 30,			
	2017	2016	Change	%	2017	2016	Change	%
Revenue	\$ 18,406	\$ 14,675	\$ 3,731	25%	\$ 34,838	\$ 28,225	\$ 6,613	23%
Operating expense:								
Cost of revenue	6,960	6,301	659	10%	13,257	12,580	677	5%
Research and development	3,603	4,267	(664)	(16)%	7,633	7,728	(95)	(1)%
Selling and marketing	7,994	8,263	(269)	(3)%	15,330	15,329	1	—%
General and administrative	6,192	6,071	121	2%	12,211	12,299	(88)	(1)%
Intangible asset amortization	266	267	(1)	—%	533	534	(1)	—%
Total operating expenses	25,015	25,169	(154)	(1)%	48,964	48,470	494	1%
Loss from operations	(6,609)	(10,494)	3,885	(37)%	(14,126)	(20,245)	6,119	(30)%
Interest expense	(808)	(785)	(23)	3%	(1,608)	(1,152)	(456)	40%
Other income (expense), net	119	36	83	231%	219	79	140	177%
Net loss and comprehensive loss	\$ (7,298)	\$ (11,243)	\$ 3,945	(35)%	\$ (15,515)	\$ (21,318)	\$ 5,803	(27)%
Other Operating Data:								
GECs reported	6,500	5,832	668	11%	12,334	11,184	1,150	10%

We incurred a net loss of \$7.3 million and \$15.5 million for the three and six months ended June 30, 2017 compared to a net loss of \$11.2 million and \$21.3 million in the same periods in 2016. As of June 30, 2017, we had an accumulated deficit of \$195.6 million.

Revenue

Revenue increased \$3.7 million, or 25%, for the three months ended June 30, 2017 compared to the same period in 2016. The increases were primarily due to additional payers meeting our revenue recognition criteria for accrual and increased adoption of Afirma and the resultant increase in tests delivered. Revenue recognized when cash is received has decreased because payers who were previously recognized on the cash basis have met our revenue recognition criteria and are recognized on an accrual basis.

Revenue increased \$6.6 million, or 23%, for the six months ended June 30, 2017 compared to the same period in 2016. The increases were primarily due to additional payers meeting our revenue recognition criteria for accrual and increased adoption of Afirma and the resultant increase in tests delivered. Revenue recognized when cash is received has decreased because payers who were previously recognized on the cash basis have met our revenue recognition criteria and are recognized on an accrual basis.

Revenue recognized on the accrual basis and cash basis for the three and six months ended June 30, 2017 and 2016 was as follows (in thousands of dollars):

	Three Months Ended June 30,				Six Months Ended June 30,			
	2017	%	2016	%	2017	%	2016	%
Revenue recognized on the accrual basis	\$ 17,611	96%	\$ 9,349	64%	\$ 32,749	94%	\$ 17,575	62%
Revenue recognized on the cash basis	795	4%	5,326	36%	2,089	6%	10,650	38%
Total	\$ 18,406	100%	\$ 14,675	100%	\$ 34,838	100%	\$ 28,225	100%

Prior to July 1, 2016, we accrued less than 50% of the billed Afirma genomic classifier test volume per fiscal period. We believed we did not have a consistent enough payment history to accrue the remaining Afirma genomic classifier tests delivered to customers and, as noted above, recognized revenue on the cash basis for such tests. We have been analyzing the amounts received for tests performed since commercialization, and during the quarter ended September 30, 2016, sufficient information developed to support a reasonable estimate of the amount of revenue to accrue upon test delivery for a number of payers that had been previously recognized on the cash basis. As a result, starting in the quarter ended September 30, 2016, we began accruing substantially all of our billed Afirma genomic classifier test volume. In determining the amount to accrue for a particular test, we considered factors such as payer coverage, whether there is a reimbursement contract between the payer and us, timeliness of payment, payment as a percentage of agreed upon rate (if applicable), amount paid per test and any current developments or changes that could impact reimbursement. As a result, we recognized \$3.5 million of incremental revenue during the quarter ended September 30, 2016 upon test delivery that previously would not have been recognized until cash was received. Tests performed prior to July 1, 2016 that did not meet our accrual criteria at the time of delivery will continue to be recognized as revenue on the cash basis. In the quarter ended June 30, 2017, as a result of the related cash collections being higher than previously estimated and cash collection trends, we updated our revenue estimates and recognized an additional \$1.0 million of revenue for certain tests performed in the six months ended December 31, 2016.

Cost of revenue

Comparison of the three and six months ended June 30, 2017 and 2016 is as follows (in thousands of dollars, except percentages):

	Three Months Ended June 30,				Six Months Ended June 30,			
	2017	2016	Change	%	2017	2016	Change	%
Cost of revenue:								
Reagents, chips, consumables and related costs	\$ 2,801	\$ 2,314	\$ 487	21%	\$ 5,209	\$ 4,606	\$ 603	13%
Cytopathology fees and related costs	1,481	1,508	(27)	(2)%	2,910	2,988	(78)	(3)%
Sample collection	864	885	(21)	(2)%	1,673	1,793	(120)	(7)%
Direct labor	889	784	105	13%	1,620	1,569	51	3%
Other	925	810	115	14%	1,845	1,624	221	14%
Total	\$ 6,960	\$ 6,301	\$ 659	10%	\$ 13,257	\$ 12,580	\$ 677	5%

Cost of revenue increased \$659,000, or 10%, for the three months ended June 30, 2017 compared to the same period in 2016. Given our corporate focus on Afirma genomic classifier growth, Afirma classifier tests increased by 11%, offsetting a 5% decrease in cytopathology tests. The increase in reagents, chips, consumables and related costs is associated primarily with increased Afirma classifier test volume and the related commission expense to a supplier. The decrease in cytopathology fees is related to the volume decrease in FNA samples processed. The decrease in sample collection costs is primarily related to a decrease in overall volume of samples. The increase in direct labor is associated with the mix shift to relatively more Afirma classifier versus cytopathology tests, as more labor hours are incurred on Afirma classifier tests compared to cytopathology tests and at a higher average employee cost, and an average laboratory headcount increase of 14%, partially offset by a reassignment of certain lab personnel as indirect labor, which is included in other costs. Other costs are primarily indirect costs, such as facilities allocation, depreciation and equipment maintenance, which increased as a result of the reassignment of certain lab personnel as indirect labor, and increased equipment related expenses.

Cost of revenue increased \$677,000, or 5%, for the six months ended June 30, 2017 compared to the same period in 2016. Given our corporate focus on Afirma genomic classifier growth, Afirma classifier tests increased by 10%, offsetting a 6% decrease in cytopathology tests. The increase in reagents, chips, consumables and related costs is associated primarily with increased Afirma classifier test volume and the related commission expense to a supplier. The decrease in cytopathology fees is related to the volume decrease in FNA samples processed. The decrease in sample collection costs is primarily related to a decrease in overall volume of samples. The increase in direct labor is associated with the mix shift to relatively more Afirma classifier versus cytopathology tests, as more labor hours are incurred on Afirma classifier tests compared to cytopathology tests and at a higher average employee cost, and an average lab headcount increase of 13%, partially offset by a reassignment of certain lab personnel as indirect labor, which is included in other costs. Other costs are primarily indirect costs, such as facilities allocation, depreciation and equipment maintenance, which increased as a result of the reassignment of certain lab personnel as indirect labor, and increased equipment related expenses.

Research and development

Comparison of the three and six months ended June 30, 2017 and 2016 is as follows (in thousands of dollars, except percentages):

	Three Months Ended June 30,				Six Months Ended June 30,			
	2017	2016	Change	%	2017	2016	Change	%
Research and development expense:								
Personnel-related expense	\$ 1,871	\$ 1,742	\$ 129	7%	\$ 3,836	\$ 3,409	\$ 427	13%
Stock-based compensation expense	374	340	34	10%	727	640	87	14%
Direct research and development expense	577	1,407	(830)	(59)%	1,574	2,221	(647)	(29)%
Other expense	781	778	3	—%	1,496	1,458	38	3%
Total	<u>\$ 3,603</u>	<u>\$ 4,267</u>	<u>\$ (664)</u>	<u>(16)%</u>	<u>\$ 7,633</u>	<u>\$ 7,728</u>	<u>\$ (95)</u>	<u>(1)%</u>

Research and development expense decreased \$664,000 or 16%, for the three months ended June 30, 2017 compared to the same period in 2016. Personnel-related expense increased, primarily due to a 10% increase in average headcount, and stock-based compensation expense increased, reflecting option grants to new and existing employees. These increases were offset by a decrease in direct research and development expense, which was primarily due to a lesser amount of materials purchased for research and development experiments following the completion of several major projects.

Research and development expense decreased \$95,000 or 1%, for the six months ended June 30, 2017 compared to the same period in 2016. Personnel-related expense increased, primarily due to a 16% increase in average headcount, and stock-based compensation expense increased, reflecting option grants to new and existing employees. Direct research and development expense decreased primarily due to a lesser amount of materials purchased for research and development experiments following the completion of several major projects. Other expense increased primarily as a result of increased miscellaneous expenses.

Selling and marketing

Comparison of the three and six months ended June 30, 2017 and 2016 is as follows (in thousands of dollars, except percentages):

	Three Months Ended June 30,				Six Months Ended June 30,			
	2017	2016	Change	%	2017	2016	Change	%
Selling and marketing expense:								
Genzyme co-promotion expense, net	\$ —	\$ 1,886	\$ (1,886)	(100)%	\$ 3	\$ 3,512	\$ (3,509)	(100)%
Personnel-related expense	4,809	4,230	579	14%	9,465	7,966	1,499	19%
Stock-based compensation expense	471	395	76	19%	876	803	73	9%
Direct marketing expense	1,658	998	660	66%	3,046	1,534	1,512	99%
Other expense	1,056	754	302	40%	1,940	1,514	426	28%
Total	<u>\$ 7,994</u>	<u>\$ 8,263</u>	<u>\$ (269)</u>	<u>(3)%</u>	<u>\$ 15,330</u>	<u>\$ 15,329</u>	<u>\$ 1</u>	<u>—%</u>

Selling and marketing expense decreased \$269,000, or 3%, for the three months ended June 30, 2017 compared to the same period in 2016. The decrease in Genzyme co-promotion expense, net, reflects the termination of the Genzyme co-promotion agreement effective September 9, 2016. The increase in personnel-related expense was primarily due to an 18% increase in average headcount mainly from increases of our sales and marketing personnel due to the termination of the Genzyme co-promotion agreement, as well as increased commissions. The increase in stock-based compensation expense reflects option grants to new and existing employees. The increase in direct marketing expense was due to corporate rebranding expenses, and the increase in other expense was mainly due to higher consulting spend on marketing initiatives.

Selling and marketing expense was flat for the six months ended June 30, 2017 compared to the same period in 2016. The decrease in Genzyme co-promotion expense, net, reflects the termination of the Genzyme co-promotion agreement effective September 9, 2016. The increase in personnel-related expense was primarily due to a 22% increase in average headcount mainly from increases of our sales and marketing personnel due to the termination of the Genzyme co-promotion agreement, as well as increased commissions. The increase in stock-based compensation expense reflects option grants to new and existing employees. The increase in direct marketing expense was due to corporate rebranding expenses, and the increase in other expense was mainly due to higher consulting spend on marketing initiatives.

General and administrative

Comparison of the three and six months ended June 30, 2017 and 2016 is as follows (in thousands of dollars, except percentages):

	Three Months Ended June 30,				Six Months Ended June 30,			
	2017	2016	Change	%	2017	2016	Change	%
General and administrative expense:								
Personnel-related expense	\$ 3,366	\$ 3,411	\$ (45)	(1)%	\$ 6,689	\$ 6,437	\$ 252	4%
Stock-based compensation expense	763	909	(146)	(16)%	1,545	1,667	(122)	(7)%
Professional fees expense	1,237	1,052	185	18%	2,417	2,332	85	4%
Rent and other facilities expense	529	502	27	5%	1,048	1,402	(354)	(25)%
Other expense	297	197	100	51%	512	461	51	11%
Total	\$ 6,192	\$ 6,071	\$ 121	2%	\$ 12,211	\$ 12,299	\$ (88)	(1)%

General and administrative expense increased \$121,000, or 2%, for the three months ended June 30, 2017 compared to the same period in 2016. The decrease in personnel-related expense was primarily due to higher employee separation costs in the three months ended June 30, 2016, partially offset by an 8% increase in average headcount for the three months ended June 30, 2017 as compared to the same period in 2016. The decrease in stock-based compensation expense was primarily due to higher costs in the three months ended June 30, 2016 from an employee separation-related option modification. The increase in professional fees expense was mainly due to higher legal expenses, and the increase in rent and other facilities expense was due to higher utilities costs. The increase in other expenses was mainly from the maintenance of our information technology infrastructure.

General and administrative expense decreased \$88,000, or 1%, for the six months ended June 30, 2017 compared to the same period in 2016. The increase in personnel-related expense was primarily due to an 8% increase in average headcount for the six months ended June 30, 2017 as compared to the same period in 2016. The decrease in stock-based compensation expense was primarily due to higher costs in the six months ended June 30, 2016 from an employee separation-related option modification. The increase in professional fees expense was mainly due to higher legal expenses offset by lower finance and accounting related expenses. The decrease in rent and other facilities expense was largely due to incurring facilities expenses for the three months ended March 31, 2016 for our current South San Francisco facility, as well as our previous space, for which the lease ended in March 2016. The increase in other expenses was mainly due to higher depreciation expense in the six months ended June 30, 2017 from assets that were placed in service during the six months ended June 30, 2016.

Interest expense

Interest expense increased \$23,000 for the three months ended June 30, 2017 compared to the same period in 2016 due to our debt principal increasing from our election to pay interest in-kind for the quarters ended June 30, 2016 and September 30, 2016.

Interest expense increased \$456,000 for the six months ended June 30, 2017 compared to the same period in 2016 due to higher interest on the term loan of \$25.0 million under a credit agreement entered into in March 2016, compared to the interest, end-of-term payment, prepayment penalty and write-off of debt issuance costs on the prior loan and security agreement that was paid off in March 2016.

Other income (expense), net

Other income, net, increased \$83,000 for the three months ended June 30, 2017 compared to the same period in 2016 primarily due to higher interest income from our money market investments.

Other income, net, increased \$140,000 for the six months ended June 30, 2017 compared to the same period in 2016 primarily due to higher interest income from our money market investments.

Liquidity and Capital Resources

We have incurred net losses since our inception. For the six months ended June 30, 2017, we had a net loss of \$15.5 million, and we expect to incur additional losses in the remainder of 2017 and at least through 2018. As of June 30, 2017, we had an accumulated deficit of \$195.6 million. We may never achieve revenue sufficient to offset our expenses.

We believe our existing cash and cash equivalents of \$46.5 million as of June 30, 2017 and our revenue during the next 12 months will be sufficient to meet our anticipated cash requirements for at least the next 12 months.

From inception through June 30, 2017, we have received \$250.7 million in net proceeds from various sources to finance our operations, including net proceeds of \$78.6 million from sales of our preferred stock, net proceeds of \$59.2 million from our IPO, net proceeds of \$37.3 million from our sale of common stock in a private placement, net proceeds of \$32.1 million from our sale of common stock in a public offering, \$10.0 million from the Genzyme co-promotion agreement, net borrowings of \$4.9 million under our loan and security agreement which was repaid in full in March 2016, net borrowings of \$24.5 million under our credit agreement described below, \$3.7 million from the exercise of stock options and purchases of stock under our employee stock purchase plan and conversion of accrued interest to long-term debt of \$0.4 million.

In March 2016, we entered into a credit agreement, or Credit Agreement, with Visium Healthcare Partners, LP, or Visium. Under the Credit Agreement, two term loans were available to us with an aggregate principal amount of up to \$40.0 million. We drew down the initial \$25.0 million term loan, or Term Loan, on March 30, 2016. On or prior to June 30, 2017, we were permitted to request a second term loan of up to \$15.0 million; however, we did not draw down the second term loan and it expired. The Term Loan matures on March 31, 2022.

The Term Loan bears interest at a fixed rate of 12.0% per annum, payable quarterly at the end of each March, June, September and December. No principal payments will be due during an interest-only period, commencing on the funding date for the Term Loan, or Borrowing Date, and continuing through and including March 31, 2020. We are obligated to repay the outstanding principal amount under the Term Loan in eight equal installments during the final two years under the Credit Agreement. For any quarterly interest payment through and including the 16th interest payment date after the Borrowing Date, so long as no event of default has occurred and is then continuing, we may elect to pay interest in cash on the outstanding principal amount of the Term Loan at a fixed rate of 9.0%, with the remaining 3.0% of the 12.0% interest paid-in-kind by adding such paid-in-kind interest to the outstanding principal amount of the Term Loan. We elected to pay interest in-kind for the quarters ended June 30, 2016 and September 30, 2016 and have recorded \$385,000 of paid-in-kind interest through June 30, 2017.

We may prepay the outstanding principal amount under the Term Loan subject to a minimum of \$5.0 million of principal amount or a whole multiple of \$1.0 million in excess thereof plus accrued and unpaid interest and a prepayment premium. The prepayment premium will be assessed on the principal amount repaid and will equal (i) 24.0% less the aggregate amount of all interest payments in cash, if the prepayment is made on or prior to March 31, 2018, (ii) 4.0%, if the prepayment is made after March 31, 2018 and on or prior to March 31, 2019, (iii) 2.0%, if the prepayment is made after March 31, 2019 and on or prior to March 31, 2020, and (iv) 1.0%, if the prepayment is made after March 31, 2020 and on or prior to March 31, 2021. After March 31, 2021 there is no prepayment premium.

Our obligations under the Credit Agreement are secured by a security interest in substantially all of our assets. The Credit Agreement contains customary representations, warranties and events of default, as well as affirmative and negative covenants. The negative covenants include, among other provisions, covenants that limit or restrict our ability to incur liens, make investments, incur indebtedness, merge with or acquire other entities, dispose of assets, make dividends or other distributions to holders of its equity interests, engage in any material new line of business or enter into certain transactions with affiliates, in each case subject

to certain exceptions. The Credit Agreement also includes financial covenants requiring minimum cash and cash equivalents balances and minimum revenues. To the extent we form or acquire certain subsidiaries domiciled in the United States, those subsidiaries are required to be guarantors of our obligations under the Credit Agreement. As of June 30, 2017, we were in compliance with the loan covenants.

In June 2013, we entered into a loan and security agreement as subsequently amended, or the 2013 Loan Agreement, with a financial institution that provided for borrowings of up to \$10.0 million in aggregate. Borrowings under the 2013 Loan Agreement totaled \$5.0 million, which was outstanding at January 1, 2015 and into 2016 until such amount was repaid upon us entering into the Credit Agreement discussed above.

We expect that our near- and longer-term liquidity requirements will continue to consist of selling and marketing expenses, research and development expenses, working capital and general corporate expenses associated with the growth of our business. However, we may also use cash to acquire or invest in complementary businesses, technologies, services or products that would change our cash requirements. If we are not able to generate revenue to finance our cash requirements, we will need to finance future cash needs primarily through public or private equity offerings, debt financings, borrowings or strategic collaborations or licensing arrangements. If we raise funds by issuing equity securities, dilution to stockholders could result. Any equity securities issued also may provide for rights, preferences or privileges senior to those of holders of our common stock. The terms of debt securities issued or borrowings could impose significant restrictions on our operations. The incurrence of additional indebtedness or the issuance of certain equity securities could result in increased fixed payment obligations and could also result in restrictive covenants, such as limitations on our ability to incur additional debt or issue additional equity, limitations on our ability to acquire or license intellectual property rights and other operating restrictions that could adversely affect our ability to conduct our business. Our current credit agreement imposes restrictions on our operations, increases our fixed payment obligations and has restrictive covenants. In addition, the issuance of additional equity securities by us, or the possibility of such issuance, may cause the market price of our common stock to decline. In the event that we enter into collaborations or licensing arrangements to raise capital, we may be required to accept unfavorable terms. These agreements may require that we relinquish or license to a third-party on unfavorable terms our rights to technologies or product candidates that we otherwise would seek to develop or commercialize ourselves, or reserve certain opportunities for future potential arrangements when we might be able to achieve more favorable terms. If we are not able to secure additional funding when needed, we may have to delay, reduce the scope of or eliminate one or more research and development programs or selling and marketing initiatives, or forgo potential acquisitions or investments. In addition, we may have to work with a partner on one or more of our products or development programs, which could lower the economic value of those programs to us.

The following table summarizes our cash flows for the six months ended June 30, 2017 and 2016 (in thousands of dollars):

	Six Months Ended June 30,	
	2017	2016
Cash used in operating activities	\$ (12,996)	\$ (16,312)
Cash used in investing activities	(288)	(3,589)
Cash provided by financing activities	528	19,810

Cash Flows from Operating Activities

Cash used in operating activities for the six months ended June 30, 2017 was \$13.0 million. The net loss of \$15.5 million was offset primarily by \$3.2 million of stock-based compensation expense and \$1.8 million of depreciation and amortization, which includes \$0.3 million of intangible asset amortization. Cash used as a result of changes in operating assets and liabilities of \$2.6 million was primarily due to an increase in accounts receivable of \$2.3 million, and a net decrease in accounts payable, accrued liabilities and deferred rent of \$0.5 million, primarily from the payment of annual bonuses.

Cash used in operating activities for the six months ended June 30, 2016 was \$16.3 million. The net loss of \$21.3 million includes non-cash charges of \$0.7 million in amortization of the deferred fee received from Genzyme, offset primarily by \$3.2 million of stock-based compensation expense, \$1.7 million of depreciation and amortization, which includes \$0.5 million of intangible asset amortization, \$0.3 million in interest and prepayment penalty relating to the repayment of our borrowings under our previous loan and security agreement, and \$0.2 million from the conversion of accrued interest to long-term debt. Cash generated as a result of changes in operating assets and liabilities of \$0.3 million was primarily due to a decrease in supplies inventory of \$0.3 million.

Cash Flows from Investing Activities

Cash used in investing activities for the six months ended June 30, 2017 was \$0.7 million for the acquisition of property and equipment, partially offset by \$0.4 million of proceeds from the sale of property and equipment.

Cash used in investing activities for the six months ended June 30, 2016 was \$3.6 million for the acquisition of property and equipment, primarily for the build out of office space and laboratory for our South San Francisco facility.

Cash Flows from Financing Activities

Cash provided by financing activities for the six months ended June 30, 2017 was \$0.5 million, consisting of \$0.5 million in proceeds from the purchase of stock under our ESPP and exercise of options to purchase our common stock and \$0.2 million in cost reimbursements received related to our issuance of common stock in a public offering in the fourth quarter of 2016, offset by capital lease payments of \$0.1 million during the period.

Cash provided by financing activities for the six months ended June 30, 2016 was \$19.8 million. The financing activities for the six months ended June 30, 2016 consisted of \$24.5 million of net proceeds from the draw down of the Term Loan and \$0.6 million from the exercise of options to purchase our common stock, partially offset by the payment of \$5.0 million for the remaining principal balance and a \$0.3 million of end-of-term payment and prepayment penalty related to our previous loan and security agreement that we repaid on March 30, 2016.

Contractual Obligations

There were no material changes during the interim period in the contractual obligations presented in our Form 10-K for the year ended December 31, 2016 filed with the Securities and Exchange Commission on March 1, 2017.

Off-balance Sheet Arrangements

We have not entered into any off-balance sheet arrangements.

Recent Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued ASU 2014-09, *Revenue from Contracts with Customers* (Topic 606), to supersede nearly all existing revenue recognition guidance under GAAP. The core principle of ASU 2014-09 is to recognize revenues when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for those goods or services. ASU 2014-09 defines a five-step process to achieve this core principle and, in doing so, it is possible more judgment and estimates may be required within the revenue recognition process than are required under existing GAAP. We will adopt the new revenue standard as of January 1, 2018 using the modified retrospective method. We have completed our assessment of the first three steps of this ASU, which include identifying our customers, identifying our performance obligations, and determining transaction prices. We are currently assessing the remainder of the steps and believe the adoption of this ASU will not have a material impact on either our financial position or results of operations.

In February 2016, the FASB issued ASU No. 2016-2, *Leases*. This ASU is aimed at making leasing activities more transparent and comparable, and requires substantially all leases be recognized by lessees on their balance sheet as a right-of-use asset and corresponding lease liability, including leases currently accounted for as operating leases. The ASU will be effective for interim and annual periods beginning after December 15, 2018. Entities are required to use a modified retrospective approach for leases that exist or are entered into after the beginning of the earliest comparative period in the financial statements. Full retrospective application is prohibited and early adoption is permitted. We are currently evaluating the potential effect of this standard on our financial statements.

In March 2016, the FASB issued ASU 2016-9, *Compensation - Stock Compensation*, related to the tax effects of share-based awards. The ASU requires that all the tax effects of share-based awards be recorded through the income statement, thereby simplifying the current guidance that requires excess tax benefits and certain excess tax deficiencies to be recorded in equity. This ASU also permits an election for the impact of forfeitures on the recognition of expense for share-based payment awards where forfeitures can be estimated or recognized when they occur. This ASU is effective for interim and annual periods beginning after December 15, 2016. We adopted this ASU as of January 1, 2017 and elected to continue using our forfeiture estimation method for share-based payment awards. This ASU was adopted prospectively and the impact of adoption on our financial statements was not material.

In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows - Restricted Cash*. This ASU requires that restricted cash and restricted cash equivalents be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. The ASU will be effective for interim and annual periods beginning after December 15, 2017. We do not anticipate that the adoption of this ASU will have a significant impact on our financial statements.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risks in the ordinary course of our business. These risks primarily relate to interest rates. We had cash and cash equivalents of \$46.5 million as of June 30, 2017 which include bank deposits and money market funds. Such interest-bearing instruments carry a degree of risk; however, a hypothetical 10% change in interest rates during any of the periods presented would not have had a material impact on our unaudited interim condensed financial statements.

ITEM 4. CONTROLS AND PROCEDURES

(a) Evaluation of Disclosure Controls and Procedures

We maintain “disclosure controls and procedures,” as such term is defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, or Exchange Act, that are designed to ensure that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in Securities and Exchange Commission rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating our disclosure controls and procedures, management recognized that disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are met. Our disclosure controls and procedures have been designed to meet reasonable assurance standards. Additionally, in designing disclosure controls and procedures, our management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible disclosure controls and procedures. The design of any disclosure controls and procedures 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.

Based on their evaluation as of the end of the period covered by this Quarterly Report on Form 10-Q, our Chief Executive Officer and Chief Financial Officer have concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

(b) Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting (as such term is defined in Rule 13a-15(f) under the Exchange Act) identified in connection with the evaluation identified above that occurred during the quarter ended June 30, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. — OTHER INFORMATION

ITEM 1A. RISK FACTORS

Risks Related to Our Business

We are an emerging growth company with a history of losses, and we expect to incur net losses for the foreseeable future and may never achieve or sustain profitability.

We have incurred net losses since our inception. For the six months ended June 30, 2017, we had a net loss of \$15.5 million and we expect to incur additional losses for the remainder of 2017 and at least through 2018. As of June 30, 2017, we had an accumulated deficit of \$195.6 million. We may never achieve revenue sufficient to offset our expenses. Over the next couple of years, we expect to continue to devote substantially all of our resources to increase adoption of, and reimbursement for our Afirma tests, Percepta, our lung cancer test which we launched in April 2015, Envisia, our test for idiopathic pulmonary fibrosis, or IPF, which we launched in October 2016, and the development of additional tests. We may never achieve or sustain profitability, and our failure to achieve and sustain profitability in the future could cause the market price of our common stock to decline.

Our financial results currently depend solely on sales of our Afirma tests, and we will need to generate sufficient revenue from this and other diagnostic solutions to grow our business.

All of our revenue to date has been derived from the sale of our Afirma tests, which are used in the diagnosis of thyroid cancer. Over the next few years, we expect to continue to derive a substantial portion of our revenue from sales of our Afirma tests. In the second half of 2017, we anticipate that we will begin recognizing revenue from the sale of our Percepta test, used in the diagnosis of lung cancer. We also launched our Envisia test to help improve the diagnosis of interstitial lung disease, specifically IPF, in October 2016. Once genomic tests are clinically validated and commercially available for patient testing, we must continue to develop and publish evidence that our tests are informing clinical decisions in order for them to receive positive coverage decisions by payers. Without coverage policies, our tests may not be reimbursed and we will not be able to recognize revenue. We cannot guarantee that tests we commercialize will gain positive coverage decisions and therefore, we may never realize revenue from tests we commercialize. In addition, we are in various stages of research and development for other diagnostic solutions that we may offer, but there can be no assurance that we will be able to identify other diseases that can be effectively addressed or, if we are able to identify such diseases, whether or when we will be able to successfully commercialize solutions for these diseases and obtain the evidence and coverage decisions from payers. If we are unable to increase sales and expand reimbursement for Afirma, or successfully obtain coverage and reimbursement for our Percepta and Envisia tests or develop and commercialize other solutions, our revenue and our ability to achieve and sustain profitability would be impaired, and the market price of our common stock could decline.

If we are not able to successfully transition to our next-generation Afirma GSC, our business, operating results and competitive position could be harmed.

We are in the process of transitioning our customers to our next-generation Afirma Genomic Sequencing Classifier, or GSC, that uses a new technology platform for the Afirma genomic classifier testing. There are risks associated with this transition that include, but are not limited to, operational implementation, reimbursement, and customer adoption risks. If we are unable to effectively transition to the new platform, our business, financial condition and results of operations could be adversely effected and our reputation and competitive position could be harmed.

We depend on a few payers for a significant portion of our revenue and if one or more significant payers stops providing reimbursement or decreases the amount of reimbursement for our tests, our revenue could decline.

Revenue for tests performed on patients covered by Medicare and UnitedHealthcare was 26% and 14%, respectively, of our revenue for the six months ended June 30, 2017, compared with 30% and 12%, respectively, for the six months ended June 30, 2016. The percentage of our revenue derived from significant payers is expected to fluctuate from period to period as our revenue increases, as additional payers provide reimbursement for our tests or if one or more payers were to stop reimbursing for our tests or change their reimbursed amounts. Effective January 2012, Palmetto GBA, the regional Medicare administrative contractor, or MAC, that handled claims processing for Medicare services with jurisdiction at that time, issued coverage and payment determinations for the Afirma Gene Expression Classifier, or GEC. On a five-year rotational basis, Medicare requests bids for its regional MAC services. Any future changes in the MAC processing or coding for Medicare claims for the Afirma GEC or Afirma GSC could result in a change in the coverage or reimbursement rates for such products, or the loss of coverage.

On March 1, 2015, a separate CPT code, or Current Procedural Terminology code, for the Afirma GEC was issued. In November 2016, The Centers for Medicare & Medicaid Services, or CMS, revised its final 2017 gapfill rate for the Afirma GEC and determined that the rate of \$3,200 per test would be maintained in 2017. A decrease in the current Medicare payment rate for our tests will decrease our revenue from Medicare and may also decrease the payment rates for some of our commercial payers if they tie their allowable rates to the Medicare rate, which could have an adverse effect on our business, financial condition and results of operations.

Although we have entered into contracts with certain third-party payers that establish in-network allowable rates of reimbursement for our Afirma tests, payers may suspend or discontinue reimbursement at any time, may require or increase co-payments from patients, or may reduce the reimbursement rates paid to us. Any such actions could have a negative effect on our revenue.

If payers do not provide reimbursement, rescind or modify their reimbursement policies, delay payments for our tests, recoup past payments, or if we are unable to successfully negotiate additional reimbursement contracts, our commercial success could be compromised.

Physicians might not order our tests unless payers reimburse a substantial portion of the test price. There is significant uncertainty concerning third-party reimbursement of any test incorporating new technology, including our tests. Reimbursement by a payer may depend on a number of factors, including a payer's determination that these tests are:

- not experimental or investigational;
- pre-authorized and appropriate for the specific patient;
- cost-effective;
- supported by peer-reviewed publications; and
- included in clinical practice guidelines.

Since each payer makes its own decision as to whether to establish a coverage policy or enter into a contract to reimburse our tests, seeking these approvals is a time-consuming and costly process.

We do not have a contracted rate of reimbursement with many payers for the Afirma or Percepta tests, and we do not have any contracted reimbursement with respect to the Envisia test. Without a contracted rate for reimbursement, our claims are often denied upon submission, and we must appeal the claims. The appeals process is time consuming and expensive, and may not result in payment. In cases where there is no contracted rate for reimbursement, there is typically a greater patient co-insurance or co-payment requirement which may result in further delay or decreased likelihood of collection. Payers may attempt to recoup prior payments after review, sometimes after significant time has passed, which would impact future revenue.

We expect to continue to focus substantial resources on increasing adoption, coverage and reimbursement for the Afirma classifiers, the Percepta classifier, launched in April 2015, and the Envisia classifier, launched in October 2016, as well as any other future tests we may develop. We believe it will take several years to achieve coverage and contracted reimbursement with a majority of third-party payers. However, we cannot predict whether, under what circumstances, or at what payment levels payers will reimburse for our tests. Also, payer consolidation is underway and creates uncertainty as to whether coverage and contracts with existing payers will remain in effect. Finally, commercial payers may tie their allowable rates to Medicare rates, and should Medicare reduce their rates as they did with the Afirma test in September 2016, we may be negatively impacted. Our failure to establish broad adoption of and reimbursement for our tests, or our inability to maintain existing reimbursement from payers, will negatively impact our ability to generate revenue and achieve profitability, as well as our future prospects and our business.

We may experience limits on our revenue if physicians decide not to order our tests.

If we are unable to create or maintain demand for our tests in sufficient volume, we may not become profitable. To generate demand, we will need to continue to educate physicians about the benefits and cost-effectiveness of our tests through published papers, presentations at scientific conferences, marketing campaigns and one-on-one education by our sales force. In addition, our ability to obtain and maintain adequate reimbursement from third-party payers will be critical to generating revenue.

The Afirma genomic classifier is included in most physician practice guidelines in the United States for the assessment of patients with thyroid nodules. However, historical practice recommended a full or partial thyroidectomy in cases where cytopathology results were indeterminate to confirm a diagnosis. Our lung products are not yet integrated into practice guidelines and physicians may be reluctant to order tests that are not recommended in these guidelines. Because our diagnostic services are performed by our certified laboratory under the Clinical Laboratory Improvement Amendments of 1988, or CLIA, rather than by the local laboratory or pathology practice, pathologists may be reluctant to support our testing services as well. Guidelines that include our classifiers currently may subsequently be revised to recommend another testing protocol, and these changes may result in physicians deciding not to use our tests. Lack of guideline inclusion could limit the adoption of our tests and our ability to generate revenue and achieve profitability. To the extent international markets have existing practices and standards of care that are different than those in the United States, we may face challenges with the adoption of our tests in international markets.

Due to how we recognize revenue, our quarterly operating results are likely to fluctuate.

For tests performed where we have an agreed upon reimbursement rate or we are able to reasonably estimate the amount that will ultimately be realized at the time delivery of a patient report is complete, such as in the case of Medicare and certain other payers, we recognize the related revenue upon delivery of the patient report to the prescribing physician based on the amount we expect to ultimately realize. We determine the amount we expect to ultimately realize based on a per payer, per contract or agreement basis. In the first period in which revenue is accrued for a particular payer, a one-time increase in revenue generally occurs. Upon ultimate collection, the amount received from Medicare and other payers where reimbursement was estimated is compared to previous estimates and the amount accrued is adjusted accordingly. In situations where we cannot reasonably estimate the amount that will ultimately be collected, we recognize revenue on the cash basis. We cannot be certain as to when we will receive payment for our diagnostic tests, and we must appeal negative payment decisions, which delays collections. Should we recognize revenue from payers on an accrual basis and later determine the judgments underlying estimated reimbursement change, or were incorrect at the time we accrued such revenue, our financial results could be negatively impacted in future quarters. As a result, comparing our operating results on a period-to-period basis may not be meaningful. You should not rely on our past results as an indication of our future performance. In addition, these fluctuations in revenue may make it difficult for us, for research analysts and for investors to accurately forecast our revenue and operating results. If our revenue or operating results fall below expectations, the price of our common stock would likely decline.

We rely on sole suppliers for some of the reagents, equipment, chips and other materials used to perform our tests, and we may not be able to find replacements or transition to alternative suppliers.

We rely on sole suppliers for critical supply of reagents, equipment, chips and other materials that we use to perform our tests. We also purchase components used in our collection kits from sole-source suppliers. Some of these items are unique to these suppliers and vendors. In addition, we utilize a sole source to assemble and distribute our sample collection kits. While we have developed alternate sourcing strategies for these materials and vendors, we cannot be certain whether these strategies will be effective or the alternative sources will be available when we need them. If these suppliers can no longer provide us with the materials we need to perform the tests and for our collection kits, if the materials do not meet our quality specifications or are otherwise unusable, if we cannot obtain acceptable substitute materials, or if we elect to change suppliers, an interruption in test processing could occur, we may not be able to deliver patient reports and we may incur higher one-time switching costs. Any such interruption may significantly affect our future revenue, cause us to incur higher costs, and harm our customer relationships and reputation. In addition, in order to mitigate these risks, we maintain inventories of these supplies at higher levels than would be the case if multiple sources of supply were available. If our test volume decreases or we switch suppliers, we may hold excess inventory with expiration dates that occur before use which would adversely affect our losses and cash flow position. As we introduce any new test, we may experience supply issues as we ramp test volume.

We depend on a specialized cytopathology practice to perform the cytopathology component of our Afirma test, and our ability to perform our diagnostic solution would be harmed if we were required to secure a replacement.

We rely on Thyroid Cytopathology Partners, P.A., or TCP, to provide cytopathology professional diagnoses on thyroid fine needle aspiration, or FNA, samples pursuant to a pathology services agreement. Pursuant to this agreement, TCP has the exclusive right to provide the cytopathology diagnoses on FNA samples at a fixed price per test. We have also agreed to allow TCP to co-locate in a portion of our facilities in Austin, Texas. Our agreement with TCP was effective through December 31, 2015 and automatically renews every year thereafter unless either party provides notice of intent not to renew at least 12 months prior to the end of the then-current term.

If TCP were not able to support our current test volume or future increases in test volume or to provide the quality of services we require, or if we were unable to agree on commercial terms and our relationship with TCP were to terminate, our business would be harmed until we were able to secure the services of another cytopathology provider. There can be no assurance

that we would be successful in finding a replacement that would be able to conduct cytopathology diagnoses at the same volume or with the same high-quality results as TCP. Locating another suitable cytopathology provider could be time consuming and would result in delays in processing Afirma tests until a replacement was fully integrated with our test processing operations.

If we are unable to support demand for our commercial tests, our business could suffer.

As demand for our tests grows, we will need to continue to scale our testing capacity and processing technology, expand customer service, billing and systems processes and enhance our internal quality assurance program. We will also need additional certified laboratory scientists and other scientific and technical personnel to process higher volumes of our tests. We cannot assure you that any increases in scale, related improvements and quality assurance will be successfully implemented or that appropriate personnel will be available. Failure to implement necessary procedures, transition to new processes or hire the necessary personnel could result in higher costs of processing tests, quality control issues or inability to meet demand. There can be no assurance that we will be able to perform our testing on a timely basis at a level consistent with demand, or that our efforts to scale our operations will not negatively affect the quality of test results. If we encounter difficulty meeting market demand or quality standards, our reputation could be harmed and our future prospects and our business could suffer.

Changes in healthcare policy, including legislation reforming the U.S. healthcare system, may have a material adverse effect on our financial condition and operations.

The Patient Protection and Affordable Care Act, as amended by the Health Care and Education Affordability Reconciliation Act, collectively the ACA, enacted in March 2010, made changes that significantly affected the pharmaceutical and medical device industries and clinical laboratories. Effective January 1, 2013, the ACA included a 2.3% excise tax on the sale of certain medical devices sold outside of the retail setting. Although a moratorium has been imposed on this excise tax for 2016 and 2017, the excise tax is scheduled to be restored in 2018.

Other significant measures contained in the ACA include, for example, coordination and promotion of research on comparative clinical effectiveness of different technologies and procedures, initiatives to revise Medicare payment methodologies, such as bundling of payments across the continuum of care by providers and physicians, and initiatives to promote quality indicators in payment methodologies. The ACA also includes significant new fraud and abuse measures, including required disclosures of financial arrangements with physician customers, lower thresholds for violations and increasing potential penalties for such violations. In addition, the ACA establishes an Independent Payment Advisory Board, or IPAB, to reduce the per capita rate of growth in Medicare spending. The IPAB has broad discretion to propose policies to reduce expenditures, which may have a negative effect on payment rates for services. The IPAB proposals could have affected payments for clinical laboratory services beginning in 2016 and may affect those for hospital services beginning in 2020. We are monitoring the effect of the ACA to determine the trends and changes that may be necessitated by the legislation, any of which may potentially affect our business.

In the beginning of 2017, the U.S. Congress and the Administration took actions to repeal the ACA and indicated an intent to replace it with another act and efforts to repeal or amend the ACA are ongoing. We cannot predict if, or when, the ACA will be repealed or amended, and cannot quantify the effect of new legislation on our business.

In addition to the ACA, various healthcare reform proposals have also periodically emerged from federal and state governments. For example, in February 2012, Congress passed the Middle Class Tax Relief and Job Creation Act of 2012, which in part reset the clinical laboratory payment rates on the Medicare Clinical Laboratory Fee Schedule, or CLFS, by 2% in 2013. In addition, under the Budget Control Act of 2011, which is effective for dates of service on or after April 1, 2013, Medicare payments, including payments to clinical laboratories, are subject to a reduction of 2% due to the automatic expense reductions (sequester) until fiscal year 2024. Reductions resulting from the Congressional sequester are applied to total claims payment made; however, they do not currently result in a rebasing of the negotiated or established Medicare or Medicaid reimbursement rates.

State legislation on reimbursement applies to Medicaid reimbursement and managed Medicaid reimbursement rates within that state. Some states have passed or proposed legislation that would revise reimbursement methodology for clinical laboratory payment rates under those Medicaid programs. We cannot predict whether future healthcare initiatives will be implemented at the federal or state level or in countries outside of the United States in which we may do business, or the effect any future legislation or regulation will have on us. The taxes imposed by the new federal legislation, cost reduction measures and the expansion in the role of the U.S. government in the healthcare industry may result in decreased revenue, lower reimbursement by payers for our tests or reduced medical procedure volumes, all of which may adversely affect our business, financial condition and results of operations. In addition, sales of our tests outside the United States subject our business to foreign regulatory requirements and cost-reduction measures, which may also change over time.

Ongoing calls for deficit reduction at the federal government level and reforms to programs such as the Medicare program to pay for such reductions may affect the pharmaceutical, medical device and clinical laboratory industries. Currently, clinical laboratory services are excluded from the Medicare Part B co-insurance and co-payment as preventative services. Any requirement for clinical laboratories to collect co-payments from patients may increase our costs and reduce the amount ultimately collected.

CMS announced plans to bundle payments for clinical laboratory diagnostic tests together with other services performed during hospital outpatient visits under the Hospital Outpatient Prospective Payment System. For calendar year 2016, CMS maintained an exemption for molecular pathology tests from this bundling provision. It is possible that this exemption could be removed by CMS in future rule making, which might result in lower reimbursement for tests performed in this setting.

The Protecting Access to Medicare Act of 2014, or PAMA, includes a substantial new payment system for clinical laboratory tests under the CLFS. Under PAMA, laboratories that receive the majority of their Medicare revenues from payments made under the CLFS would report initially and then on a subsequent three year basis thereafter (or annually for advanced diagnostic laboratory tests, or ADLTs), private payer payment rates and volumes for their tests. The final PAMA ruling was issued June 17, 2016 indicating that data for reporting for the new PAMA process will begin in 2017 and the new market based rates will take effect January 1, 2018. We submitted the Afirma genomic classifier data required under PAMA before the March 31, 2017 deadline. We believe that the final PAMA regulations are generally favorable to us. The private payer rate will be calculated based on claims whose adjudication is final and will include patient deductible and co-insurance amounts. Additionally, we believe our Afirma genomic classifier as well as our Percepta test, once covered, would be considered ADLTs and that we can determine when to seek ADLT status. We cannot assure you that reimbursement rates under the final regulations for tests like ours will not be adversely affected.

Because of Medicare billing rules, we may not receive reimbursement for all tests provided to Medicare patients.

Under current Medicare billing rules, payment for our tests performed on Medicare beneficiaries who were hospital inpatients at the time the tissue samples were obtained and whose tests were ordered less than 14 days from discharge must be bundled into the payment that the hospital receives for the inpatient services provided. Medicare billing rules also require hospitals to bill for our tests when ordered for hospital outpatients less than 14 days following the date of the hospital procedure where the tissue samples were obtained. Accordingly, we are required to bill individual hospitals for tests performed on Medicare beneficiaries during these time frames. We cannot ensure that hospitals will pay us for tests performed that fall under these rules. We cannot assure you that Medicare will not change this limitation in the future.

If the FDA were to begin regulating our tests, we could incur substantial costs and delays associated with trying to obtain premarket clearance or approval.

Clinical laboratory tests have long been subject to comprehensive regulations under CLIA, as well as by applicable state laws. Most laboratory developed tests, or LDTs, are not currently subject to regulation by the U.S. Food and Drug Administration, or FDA, although reagents, instruments, software or components provided by third parties and used to perform LDTs may be subject to regulation. While the FDA maintains its authority to regulate LDTs, it has chosen to exercise its enforcement discretion not to regulate LDTs as medical devices. We believe that the Afirma, Percepta and Envisia classifiers are LDTs. In October 2014, the FDA issued draft guidance, entitled "Framework for Regulatory Oversight of LDTs," proposing the phased-in enforcement of premarket review requirements for most LDTs. The framework is similar to previously issued guidance. There is no timeframe in which the FDA must issue final guidance documents. If the guidance were enacted, our tests could be required to comply with FDA regulations applicable to medical devices.

In January 2017, the FDA issued a "Discussion Paper on Laboratory Developed Tests" following input it received from multiple stakeholders who had commented on its 2014 draft guidance. While the FDA specifically states in its Discussion Paper that it does not represent a final version of the LDT draft guidance documents that were published in 2014, it is designed to provide a possible approach to spark further dialogue. The suggested LDT framework could grandfather many types of LDTs without requiring new premarket review or quality management requirements. It also suggests a four-year phased implementation of market authorization requirements for some types of tests.

In March 2017, a draft bill titled "The Diagnostics Accuracy and Innovation Act" was released for discussion. The bill proposes a risk-based approach to regulate LDTs and creates a new in vitro clinical test category, which includes LDTs, and a regulatory structure under the FDA. As proposed, the bill grandfathers existing tests and gives companies five years to augment test development pipelines to ensure new tests have the data necessary for FDA approval. We cannot predict if this draft bill will become legislation and cannot quantify the effect of this draft bill on our business.

If the FDA were to require us to seek clearance or approval for our existing tests or any of our future products for clinical use, we may not be able to obtain such approvals on a timely basis, or at all. While we believe our current tests would likely qualify for the “grandfathered” tests treatment, there can be no assurance of what the FDA might ultimately require if it issued final guidance. If premarket reviews were required, our business could be negatively impacted if we were required to stop selling our products pending their clearance or approval. In addition, the launch of any new products that we develop could be delayed by the implementation of future FDA guidance. The cost of complying with premarket review requirements, including obtaining clinical data, could be significant. In addition, future regulation by the FDA could subject our business to further regulatory risks and costs. Failure to comply with applicable regulatory requirements of the FDA could result in enforcement action, including receiving untitled or warning letters, fines, injunctions, or civil or criminal penalties. Any such enforcement action would have a material adverse effect on our business, financial condition and operations. In addition, our sample collection containers are listed as Class I devices with the FDA. If the FDA were to determine that they are not Class I devices, we would be required to file 510(k) applications and obtain FDA clearance to use the containers, which could be time consuming and expensive.

Some of the materials we use for our tests and that we may use for future tests are labeled for research use only. In November 2013, the FDA finalized guidance regarding the sale and use of products labeled for research or investigational-use only. Among other things, the guidance advises that the FDA continues to be concerned about distribution of research or investigational-use only products intended for clinical diagnostic use and that the manufacturer’s objective intent for the product’s intended use will be determined by examining the totality of circumstances, including advertising, instructions for clinical interpretation, presentations that describe clinical use, and specialized technical support, surrounding the distribution of the product in question. The FDA has advised that if evidence demonstrates that a product is inappropriately labeled for research or investigational-use only, the device would be misbranded and adulterated within the meaning of the Federal Food, Drug and Cosmetic Act. Some of the reagents, instruments, software or components obtained by us from suppliers for use in our products are currently labeled as research or investigational-use only products. If the FDA were to undertake enforcement actions, some of our suppliers might cease selling research or investigational-use only products to us, and any failure to obtain an acceptable substitute could significantly and adversely affect our business, financial condition and results of operations, including increasing the cost of testing or delaying, limiting or prohibiting the purchase of reagents, instruments, software or components necessary to perform testing.

If we are unable to compete successfully, we may be unable to increase or sustain our revenue or achieve profitability.

Our principal competition for our tests comes from traditional methods used by physicians to diagnose and manage patient care decisions. For example, with our Afirma test, practice guidelines in the United States have historically recommended that patients with indeterminate diagnoses from cytopathology results be considered for surgery to remove all or part of the thyroid to rule out cancer. This practice has been the standard of care in the United States for many years, and we need to continue to educate physicians about the benefits of the Afirma test to change clinical practice.

We also face competition from companies and academic institutions that use next generation sequencing technology or other methods to measure mutational markers such as BRAF and KRAS, along with numerous other mutations. These organizations include Interpace Diagnostics Group, Inc., Rosetta Genomics Ltd., and others who are developing new products or technologies that may compete with our tests. In the future, we may also face competition from companies developing new products or technologies.

With the Percepta and Envisia tests, we believe our primary competition will similarly come from traditional methods used by physicians to diagnose the related diseases. For the Percepta test, we expect competition from companies focused on lung cancer such as Integrated Diagnostics, Inc. We also anticipate facing potential competition from companies offering or developing approaches for assessing malignancy risk in patients with lung nodules using alternative samples, such as blood, urine or sputum. However, such “liquid biopsies” are often used earlier in the diagnostic paradigm — for instance, to screen for cancer — or to gauge risk of recurrence or response to treatment.

In general, we also face competition from commercial laboratories, such as Laboratory Corporation of America Holdings and Sonic Healthcare USA, with strong infrastructure to support the commercialization of diagnostic services. We face potential competition from companies such as Illumina, Inc. and Thermo Fisher Scientific Inc., both of which have entered the clinical diagnostics market. Other potential competitors include companies that develop diagnostic products, such as Roche Diagnostics, a division of Roche Holding Ltd, Siemens AG and Qiagen N.V.

In addition, competitors may develop their own versions of our solutions in countries we may seek to enter where we do not have patents or where our intellectual property rights are not recognized and compete with us in those countries, including encouraging the use of their solutions by physicians in other countries.

To compete successfully, we must be able to demonstrate, among other things, that our diagnostic test results are accurate and cost effective, and we must secure a meaningful level of reimbursement for our products.

Many of our potential competitors have widespread brand recognition and substantially greater financial, technical and research and development resources, and selling and marketing capabilities than we do. Others may develop products with prices lower than ours that could be viewed by physicians and payers as functionally equivalent to our solutions, or offer solutions at prices designed to promote market penetration, which could force us to lower the list price of our solutions and affect our ability to achieve profitability. If we are unable to change clinical practice in a meaningful way or compete successfully against current and future competitors, we may be unable to increase market acceptance and sales of our products, which could prevent us from increasing our revenue or achieving profitability and could cause the market price of our common stock to decline. As we add new tests and services, we will face many of these same competitive risks for these new tests.

The loss of members of our senior management team or our inability to attract and retain key personnel could adversely affect our business.

Our success depends largely on the skills, experience and performance of key members of our executive management team and others in key management positions. The efforts of each of these persons together will be critical to us as we continue to develop our technologies and test processes and focus on our growth. If we were to lose one or more of these key employees, we may experience difficulties in competing effectively, developing our technologies and implementing our business strategy.

In addition, our research and development programs and commercial laboratory operations depend on our ability to attract and retain highly skilled scientists. We may not be able to attract or retain qualified scientists and technicians in the future due to the intense competition for qualified personnel among life science businesses, particularly in the San Francisco Bay Area. Our success in the development and commercialization of advanced diagnostics requires a significant medical and clinical staff to conduct studies and educate physicians and payers on the merits of our tests in order to achieve adoption and reimbursement. We are in a highly competitive industry to attract and retain this talent. As a public company located in the San Francisco Bay Area, we also face intense competition for highly skilled finance and accounting personnel. If we are unable to attract and retain finance and accounting personnel experienced in public company financial reporting, we risk being unable to close our books and file our public documents on a timely basis. Additionally, our success depends on our ability to attract and retain qualified sales people. We recently significantly expanded our sales force as we transitioned out of our Genzyme Corporation co-promotion agreement in the United States. There can be no assurance that we will be successful in maintaining and growing our business. Additionally, as we increase our sales channels for new tests we commercialize, including the Percepta and Envisia tests, we may have difficulties recruiting and training additional sales personnel or retaining qualified salespeople, which could cause a delay or decline in the rate of adoption of our tests. Finally, our business requires specialized capabilities in reimbursement, billing, and other areas and there may be a shortage of qualified individuals. If we are not able to attract and retain the necessary personnel to accomplish our business objectives, we may experience constraints that could adversely affect our ability to support our research and development, clinical laboratory, sales and reimbursement, billing and finance efforts. All of our employees are at will, which means that either we or the employee may terminate their employment at any time. We do not carry key man insurance for any of our employees.

We may be unable to manage our future growth effectively, which could make it difficult to execute our business strategy.

In addition to the need to scale our testing capacity, future growth, including our transition to a multi-product company with international operations, will impose significant added responsibilities on management, including the need to identify, recruit, train and integrate additional employees with the necessary skills to support the growing complexities of our business. Rapid and significant growth may place strain on our administrative, financial and operational infrastructure. Our ability to manage our business and growth will require us to continue to improve our operational, financial and management controls, reporting systems and procedures. We have implemented an internally-developed data warehouse, which is critical to our ability to track our diagnostic services and patient reports delivered to physicians, as well as to support our financial reporting systems. The time and resources required to optimize these systems is uncertain, and failure to complete optimization in a timely and efficient manner could adversely affect our operations. If we are unable to manage our growth effectively, it may be difficult for us to execute our business strategy and our business could be harmed.

Billing for our diagnostic tests is complex, and we must dedicate substantial time and resources to the billing process to be paid.

Billing for clinical laboratory testing services is complex, time-consuming and expensive. Depending on the billing arrangement and applicable law, we bill various payers, including Medicare, insurance companies and patients, all of which have different billing requirements. We generally bill third-party payers for our diagnostic tests and pursue reimbursement on a case-by-case basis where pricing contracts are not in place. To the extent laws or contracts require us to bill patient co-payments or co-

insurance, we must also comply with these requirements. We may also face increased risk in our collection efforts, including potential write-offs of doubtful accounts and long collection cycles, which could adversely affect our business, results of operations and financial condition.

Several factors make the billing process complex, including:

- differences between the list price for our tests and the reimbursement rates of payers;
- compliance with complex federal and state regulations related to billing Medicare;
- risk of government audits related to billing Medicare;
- disputes among payers as to which party is responsible for payment;
- differences in coverage and in information and billing requirements among payers, including the need for prior authorization and/or advanced notification;
- the effect of patient co-payments or co-insurance;
- changes to billing codes used for our tests;
- incorrect or missing billing information; and
- the resources required to manage the billing and claims appeals process.

Standard industry billing codes, known as CPT codes, that we use to bill for cytopathology do not generally exist for our proprietary molecular diagnostic tests. Therefore, until such time that we are awarded and are able to use a designated CPT code specific to our tests, we use “miscellaneous” codes for claim submissions. These codes can change over time. When codes change, there is a risk of an error being made in the claim adjudication process. These errors can occur with claims submission, third-party transmission or in the processing of the claim by the payer. Claim adjudication errors may result in a delay in payment processing or a reduction in the amount of the payment received. Coding changes, therefore, may have an adverse effect on our revenues. Even when we receive a designated CPT code specific to our tests, such as the one for the Afirma GEC that became effective January 1, 2016, there can be no assurance that payers will recognize these codes in a timely manner or that the process of transitioning to such a code and updating their billing systems and ours will not result in errors, delays in payments and a related increase in accounts receivable balances.

As we introduce new tests, we will need to add new codes to our billing process as well as our financial reporting systems. Failure or delays in effecting these changes in external billing and internal systems and processes could negatively affect our collection rates, revenue and cost of collecting.

Additionally, our billing activities require us to implement compliance procedures and oversight, train and monitor our employees, challenge coverage and payment denials, assist patients in appealing claims, and undertake internal audits to evaluate compliance with applicable laws and regulations as well as internal compliance policies and procedures. Payers also conduct external audits to evaluate payments, which add further complexity to the billing process. If the payer makes an overpayment determination, there is a risk that we may be required to return some portion of prior payments we have received. These billing complexities, and the related uncertainty in obtaining payment for our tests, could negatively affect our revenue and cash flow, our ability to achieve profitability, and the consistency and comparability of our results of operations.

We rely on a third-party provider to transmit claims to payers, and any delay in transmitting claims could have an adverse effect on our revenue.

While we manage the overall processing of claims, we rely on a third-party provider to transmit the actual claims to payers based on the specific payer billing format. We have previously experienced delays in claims processing when our third-party provider made changes to its invoicing system, and again when it did not submit claims to payers within the timeframe we require. Additionally, coding for diagnostic tests may change, and such changes may cause short-term billing errors that may take significant time to resolve. If claims are not submitted to payers on a timely basis or are erroneously submitted, or if we are required to switch to a different provider to handle claim submissions, we may experience delays in our ability to process these claims and receipt of payments from payers, or possibly denial of claims for lack of timely submission, which would have an adverse effect on our revenue and our business.

Our future success will depend in part on our ability to successfully transition from our relationship with Genzyme to co-promote Afirma in the United States.

We sell Afirma in the United States through our internal sales team and, until recently, also through a co-promotion agreement with Genzyme Corporation, which we terminated effective September 9, 2016. In connection with the transition, we have hired additional sales personnel to sell our Afirma tests. If we are unsuccessful in transitioning the sales and marketing of the Afirma test from Genzyme solely to our internal sales and marketing personnel, we may experience declining test volumes and associated declines in revenue. We may not be able to market or sell the Afirma test effectively enough to maintain or increase demand for the test, or without significant additional sales and marketing efforts and expense. Our failure to do so successfully without the benefit of Genzyme's efforts could have an adverse effect on our business, financial condition and results of operations.

Developing new products involves a lengthy and complex process, and we may not be able to commercialize on a timely basis, or at all, other products we are developing.

We continually seek to develop enhancements to our current test offerings and additional diagnostic solutions that requires us to devote considerable resources to research and development. There can be no assurance that we will be able to identify other diseases that can be effectively addressed with our molecular cytology platform. In addition, if we identify such diseases, we may not be able to develop products with the diagnostic accuracy necessary to be clinically useful and commercially successful. We may face challenges obtaining sufficient numbers of samples to validate a genomic signature for a molecular diagnostic product. We launched the Percepta test in April 2015 and the Envisia test in October 2016. We still must complete studies that meet the clinical evidence required to obtain reimbursement, which studies are currently underway.

In order to develop and commercialize diagnostic tests, we need to:

- expend significant funds to conduct substantial research and development;
- conduct successful analytical and clinical studies;
- scale our laboratory processes to accommodate new tests; and
- build the commercial infrastructure to market and sell new products.

Our product development process involves a high degree of risk and may take several years. Our product development efforts may fail for many reasons, including:

- failure to identify a genomic signature in biomarker discovery;
- inability to secure sufficient numbers of samples at an acceptable cost and on an acceptable timeframe to conduct analytical and clinical studies; or
- failure of clinical validation studies to support the effectiveness of the test.

Typically, few research and development projects result in commercial products, and success in early clinical studies often is not replicated in later studies. At any point, we may abandon development of a product candidate or we may be required to expend considerable resources repeating clinical studies, which would adversely affect the timing for generating potential revenue from a new product and our ability to invest in other products in our pipeline. If a clinical validation study fails to demonstrate the prospectively-defined endpoints of the study or if we fail to sufficiently demonstrate analytical validity, we might choose to abandon the development of the product, which could harm our business. In addition, competitors may develop and commercialize competing products or technologies faster than us or at a lower cost.

If we are unable to develop products to keep pace with rapid technological, medical and scientific change, our operating results and competitive position could be harmed.

In recent years, there have been numerous advances in technologies relating to diagnostics, particularly diagnostics that are based on genomic information. These advances require us to continuously develop our technology and to work to develop new solutions to keep pace with evolving standards of care. Our solutions could become obsolete unless we continually innovate and expand our product offerings to include new clinical applications. If we are unable to develop new products or to demonstrate the applicability of our products for other diseases, our sales could decline and our competitive position could be harmed.

We may acquire businesses or assets, form joint ventures or make investments in other companies or technologies that could harm our operating results, dilute our stockholders' ownership, increase our debt or cause us to incur significant expense.

We acquired Allegro Diagnostics Corp. in September 2014, and we may pursue additional acquisitions of complementary businesses or assets, as well as technology licensing arrangements as part of our business strategy. We also may pursue strategic alliances that leverage our core technology and industry experience to expand our offerings or distribution, or make investments in other companies. To date, we have limited experience with respect to acquisitions and the formation of strategic alliances and joint ventures. We may not be able to integrate acquisitions successfully into our existing business, and we could assume unknown or contingent liabilities. In addition, we may not realize the expected benefits of an acquisition or investment. Any acquisitions made by us also could result in significant write-offs or the incurrence of debt and contingent liabilities, any of which could harm our operating results. Integration of acquired companies or businesses we may acquire in the future also may require management resources that otherwise would be available for ongoing development of our existing business. We may not identify or complete these transactions in a timely manner, on a cost-effective basis, or at all, and we may not realize the anticipated benefits of any acquisition, technology license, strategic alliance, joint venture or investment.

To finance any acquisitions or investments, we may choose to issue shares of our stock as consideration, which would dilute the ownership of our stockholders. If the price of our common stock is low or volatile, we may not be able to acquire other companies for stock. Alternatively, it may be necessary for us to raise additional funds for these activities through public or private financings. Additional funds may not be available on terms that are favorable to us, or at all. If these funds are raised through the sale of equity or convertible debt securities, dilution to our stockholders could result. Our current credit agreement contains covenants that could limit our ability to sell debt securities or obtain additional debt financing arrangements, which could affect our ability to finance acquisitions or investments other than through the issuance of stock.

If we fail to comply with federal and state licensing requirements, we could lose the ability to perform our tests or experience disruptions to our business.

We are subject to CLIA, a federal law that regulates clinical laboratories that perform testing on specimens derived from humans for the purpose of providing information for the diagnosis, prevention or treatment of disease. CLIA regulations mandate specific quality standards, personnel qualifications and responsibilities, facility administration, general laboratory systems, quality assessment, quality control, pre-analytic, analytic, and post-analytic systems and proficiency testing. CLIA certification is also required for us to be eligible to bill state and federal healthcare programs, as well as many private third-party payers. To renew these certifications, we are subject to survey and inspection every two years. Moreover, CLIA inspectors may make random inspections of our clinical reference laboratories.

We are also required to maintain state licenses to conduct testing in our laboratories. California, New York, Texas, among other states' laws, require that we maintain a license and comply with state regulation as a clinical laboratory. Other states may have similar requirements or may adopt similar requirements in the future. In addition, both of our clinical laboratories are required to be licensed on a test-specific basis by New York State. We have received approval for the Afirma and Percepta tests. We will be required to obtain approval for other tests we may offer in the future. If we were to lose our CLIA certificate or California license for our South San Francisco laboratory, whether as a result of revocation, suspension or limitation, we would no longer be able to perform our molecular tests, which would eliminate our primary source of revenue and harm our business. If we were to lose our CLIA certificate for our Austin laboratory, we would need to move the receipt and storage of FNAs, as well as the slide preparation for cytopathology, to South San Francisco, which could result in a delay in processing tests during that transition and increased costs. If we were to lose our licenses issued by New York or by other states where we are required to hold licenses, we would not be able to test specimens from those states. New tests we may develop may be subject to new approvals by regulatory bodies such as New York State, and we may not be able to offer our new tests until such approvals are received.

We may experience limits on our revenue if patients decide not to use our tests.

Some patients may decide not to use our tests because of price, all or part of which may be payable directly by the patient if the patient's insurer denies reimbursement in full or in part. There is a growing trend among insurers to shift more of the cost of healthcare to patients in the form of higher co-payments or premiums, and this trend is accelerating which puts patients in the position of having to pay more for our tests. Implementation of provisions of the ACA has also resulted in increases in premiums and reductions in coverage for some patients. These events may result in patients delaying or forgoing medical checkups or treatment due to their inability to pay for our tests, which could have an adverse effect on our revenue.

Complying with numerous statutes and regulations pertaining to our business is an expensive and time-consuming process, and any failure to comply could result in substantial penalties.

Our operations are subject to other extensive federal, state, local, and foreign laws and regulations, all of which are subject to change. These laws and regulations currently include, among others:

- the Federal Health Insurance Portability and Accountability Act of 1996, or HIPAA, which established comprehensive federal standards with respect to the privacy and security of protected health information and requirements for the use of certain standardized electronic transactions, and amendments made in 2013 to HIPAA under the Health Information Technology for Economic and Clinical Health Act, or HITECH, which strengthen and expand HIPAA privacy and security compliance requirements, increase penalties for violators, extend enforcement authority to state attorneys general, and impose requirements for breach notification;
- Medicare billing and payment regulations applicable to clinical laboratories;
- the Federal Anti-Kickback Statute, which prohibits knowingly and willfully offering, paying, soliciting, or receiving remuneration, directly or indirectly, in exchange for or to induce either the referral of an individual, or the furnishing, arranging for, or recommending of an item or service that is reimbursable, in whole or in part, by a federal healthcare program;
- the Federal Stark physician self-referral law (and state equivalents), which prohibits a physician from making a referral for certain designated health services covered by the Medicare program, including laboratory and pathology services, if the physician or an immediate family member has a financial relationship with the entity providing the designated health services, unless the financial relationship falls within an applicable exception to the prohibition;
- the Federal Civil Monetary Penalties Law, which prohibits, among other things, the offering or transfer of remuneration to a Medicare or state health care program beneficiary if the person knows or should know it is likely to influence the beneficiary's selection of a particular provider, practitioner, or supplier of services reimbursable by Medicare or a state health care program, unless an exception applies;
- the Federal False Claims Act, which imposes liability on any person or entity that, among other things, knowingly presents, or causes to be presented, a false or fraudulent claim for payment to the federal government;
- other federal and state fraud and abuse laws, such as anti-kickback laws, prohibitions on self-referral, fee-splitting restrictions, prohibitions on the provision of products at no or discounted cost to induce physician or patient adoption, and false claims acts, which may extend to services reimbursable by any third-party payer, including private insurers;
- the prohibition on reassignment of Medicare claims, which, subject to certain exceptions, precludes the reassignment of Medicare claims to any other party;
- the rules regarding billing for diagnostic tests reimbursable by the Medicare program, which prohibit a physician or other supplier from marking up the price of the technical component or professional component of a diagnostic test ordered by the physician or other supplier and supervised or performed by a physician who does not "share a practice" with the billing physician or supplier;
- state laws that prohibit other specified practices related to billing such as billing physicians for testing that they order, waiving co-insurance, co-payments, deductibles, and other amounts owed by patients, and billing a state Medicaid program at a price that is higher than what is charged to other payers;
- the Foreign Corrupt Practices Act of 1977, and other similar laws, which apply to our international activities; and
- unclaimed property (escheat) laws and regulations, which may require us to turn over to governmental authorities the property of others held by us that has been unclaimed for a specified period of time.

We have adopted policies and procedures designed to comply with applicable laws and regulations. In the ordinary course of our business, we conduct internal reviews of our compliance with these laws. Our compliance with some of these laws and regulations is also subject to governmental review. The growth of our business and sales organization and our expansion outside of the United States may increase the potential of violating these laws or our internal policies and procedures. We believe that we are in material compliance with all statutory and regulatory requirements, but there is a risk that one or more government agencies

could take a contrary position. These laws and regulations are complex and are subject to interpretation by the courts and by government agencies. If one or more such agencies alleges that we may be in violation of any of these requirements, regardless of the outcome, it could damage our reputation and adversely affect important business relationships with third parties, including managed care organizations and other commercial third-party payers. Any action brought against us for violation of these or other laws or regulations, even if we successfully defend against it, could cause us to incur significant legal expenses and divert our management's attention from the operation of our business. If our operations are found to be in violation of any of these laws and regulations, we may be subject to any applicable penalty associated with the violation, including civil and criminal penalties, damages and fines, we could be required to refund payments received by us, and we could be required to curtail or cease our operations. Any of the foregoing consequences could seriously harm our business and our financial results.

International expansion of our business exposes us to business, regulatory, political, operational, financial and economic risks associated with doing business outside of the United States.

Our business strategy includes international expansion in select countries, and may include developing and maintaining physician outreach and education capabilities outside of the United States, establishing agreements with laboratories, and expanding our relationships with international payers. Doing business internationally involves a number of risks, including:

- multiple, conflicting and changing laws and regulations such as tax laws, privacy laws, export and import restrictions, employment laws, regulatory requirements and other governmental approvals, permits and licenses;
- failure by us to obtain regulatory approvals where required for the use of our solutions in various countries;
- complexities associated with managing multiple payer reimbursement regimes, government payers or patient self-pay systems;
- logistics and regulations associated with shipping tissue samples, including infrastructure conditions and transportation delays;
- challenges associated with establishing laboratory partners, including proper sample collection techniques, inventory management, sample logistics, billing and promotional activities;
- limits on our ability to penetrate international markets if we are not able to process tests locally;
- financial risks, such as longer payment cycles, difficulty in collecting from payers, the effect of local and regional financial crises, and exposure to foreign currency exchange rate fluctuations;
- natural disasters, political and economic instability, including wars, terrorism, and political unrest, outbreak of disease, boycotts, curtailment of trade and other business restrictions; and
- regulatory and compliance risks that relate to maintaining accurate information and control over activities that may fall within the purview of the Foreign Corrupt Practices Act of 1977, including both its books and records provisions and its anti-bribery provisions.

Any of these factors could significantly harm our future international expansion and operations and, consequently, our revenue and results of operations.

If we are sued for product liability or errors and omissions liability, we could face substantial liabilities that exceed our resources.

The marketing, sale and use of our current or future tests could lead to product liability claims if someone were to allege that the tests failed to perform as they were designed. We may also be subject to liability for errors in the results we provide to physicians or for a misunderstanding of, or inappropriate reliance upon, the information we provide. Our Afirma classifiers are performed on FNA samples that are diagnosed as indeterminate by standard cytopathology review. We report results as benign or suspicious to the prescribing physician. Under certain circumstances, we might report a result as benign that later proves to have been malignant. This could be the result of the physician having poor nodule sampling in collecting the FNA, performing the FNA on a different nodule than the one that is malignant or failure of the classifier to perform as intended. We may also be subject to similar types of claims related to our Percepta and Envisia tests, as well as tests we may develop in the future. A product liability or errors and omissions liability claim could result in substantial damages and be costly and time consuming for us to defend. Although we maintain product liability and errors and omissions insurance, we cannot assure you that our insurance would fully

protect us from the financial impact of defending against these types of claims or any judgments, fines or settlement costs arising out of any such claims. Any product liability or errors and omissions liability claim brought against us, with or without merit, could increase our insurance rates or prevent us from securing insurance coverage in the future. Additionally, any product liability lawsuit could cause injury to our reputation or cause us to suspend sales of our products and solutions. The occurrence of any of these events could have an adverse effect on our business and results of operations.

If our laboratory in South San Francisco becomes inoperable due to an earthquake or either of our laboratories becomes inoperable for any other reason, we will be unable to perform our testing services and our business will be harmed.

We perform all of the Afirma, Percepta and Envisia genomic classifier testing at our laboratory in South San Francisco, California. Our laboratory in Austin, Texas accepts and stores substantially all FNA samples pending transfer to our California laboratory for genomic test processing. The laboratories and equipment we use to perform our tests would be costly to replace and could require substantial lead time to replace and qualify for use if they became inoperable. Either of our facilities may be harmed or rendered inoperable by natural or man-made disasters, including earthquakes, flooding and power outages, which may render it difficult or impossible for us to perform our testing services for some period of time or to receive and store samples. The inability to perform our tests for even a short period of time may result in the loss of customers or harm our reputation, and we may be unable to regain those customers in the future. Although we maintain insurance for damage to our property and the disruption of our business, this insurance may not be sufficient to cover all of our potential losses and may not continue to be available to us on acceptable terms, if at all.

If we cannot enter into new clinical study collaborations, our product development and subsequent commercialization could be delayed.

In the past, we have entered into clinical study collaborations, and our success in the future depends in part on our ability to enter into additional collaborations with highly regarded institutions. This can be difficult due to internal and external constraints placed on these organizations. Some organizations may limit the number of collaborations they have with any one company so as to not be perceived as biased or conflicted. Organizations may also have insufficient administrative and related infrastructure to enable collaboration with many companies at once, which can extend the time it takes to develop, negotiate and implement a collaboration. Moreover, it may take longer to obtain the samples we need which could delay our trials, publications, and product launches and reimbursement. Additionally, organizations often insist on retaining the rights to publish the clinical data resulting from the collaboration. The publication of clinical data in peer-reviewed journals is a crucial step in commercializing and obtaining reimbursement for our diagnostic tests, and our inability to control when and if results are published may delay or limit our ability to derive sufficient revenue from them.

If we use hazardous materials in a manner that causes contamination or injury, we could be liable for resulting damages.

We are subject to federal, state and local laws, rules and regulations governing the use, discharge, storage, handling and disposal of biological material, chemicals and waste. We cannot eliminate the risk of accidental contamination or injury to employees or third parties from the use, storage, handling or disposal of these materials. In the event of contamination or injury, we could be held liable for any resulting damages, remediation costs and any related penalties or fines, and any liability could exceed our resources or any applicable insurance coverage we may have. The cost of compliance with these laws and regulations may become significant, and our failure to comply may result in substantial fines or other consequences, and either could negatively affect our operating results.

Our inability to raise additional capital on acceptable terms in the future may limit our ability to develop and commercialize new solutions and technologies and expand our operations.

We expect continued capital expenditures and operating losses over the next few years as we expand our infrastructure, commercial operations and research and development activities. We may seek to raise additional capital through equity offerings, debt financings, collaborations or licensing arrangements. Additional funding may not be available to us on acceptable terms, or at all. If we raise funds by issuing equity securities, dilution to our stockholders could result. Any equity securities issued also may provide for rights, preferences or privileges senior to those of holders of our common stock. The terms of debt securities issued or borrowings could impose significant restrictions on our operations. The incurrence of additional indebtedness or the issuance of certain equity securities could result in increased fixed payment obligations and could also result in restrictive covenants, such as limitations on our ability to incur additional debt or issue additional equity, limitations on our ability to acquire or license intellectual property rights, and other operating restrictions that could adversely affect our ability to conduct our business. Our current credit agreement imposes restrictions on our operations, increases our fixed payment obligations, and has restrictive covenants. In addition, the issuance of additional equity securities by us, or the possibility of such issuance, may cause the market price of our common stock to decline. In the event that we enter into collaborations or licensing arrangements to raise capital, we

may be required to accept unfavorable terms. These agreements may require that we relinquish or license to a third-party on unfavorable terms our rights to technologies or product candidates that we otherwise would seek to develop or commercialize ourselves, or reserve certain opportunities for future potential arrangements when we might be able to achieve more favorable terms. If we are not able to secure additional funding when needed, we may have to delay, reduce the scope of or eliminate one or more research and development programs or selling and marketing initiatives. In addition, we may have to work with a partner on one or more of our products or development programs, which could lower the economic value of those programs to our company.

Security breaches, loss of data and other disruptions to us or our third-party service providers could compromise sensitive information related to our business or prevent us from accessing critical information and expose us to liability, which could adversely affect our business and our reputation.

In the ordinary course of our business, we and our third-party service providers collect and store sensitive data, including legally protected health information, personally identifiable information about our patients, credit card information, intellectual property, and our proprietary business and financial information. We manage and maintain our applications and data utilizing a combination of on-site systems, managed data center systems and cloud-based data center systems. We face a number of risks related to our protection of, and our service providers' protection of, this critical information, including loss of access, inappropriate disclosure and inappropriate access, as well as risks associated with our ability to identify and audit such events.

The secure processing, storage, maintenance and transmission of this critical information is vital to our operations and business strategy, and we devote significant resources to protecting such information. Although we take measures to protect sensitive information from unauthorized access or disclosure, our information technology and infrastructure may be vulnerable to attacks by hackers or viruses or otherwise breached due to employee error, malfeasance or other activities. While we are not aware of any such attack or breach, if such event would occur and cause interruptions in our operations, our networks would be compromised and the information we store on those networks could be accessed by unauthorized parties, publicly disclosed, lost or stolen. Any such access, disclosure or other loss of information could result in legal claims or proceedings, liability under laws that protect the privacy of personal information, such as HIPAA, and regulatory penalties. Unauthorized access, loss or dissemination could also disrupt our operations, including our ability to process tests, provide test results, bill payers or patients, process claims and appeals, provide customer assistance services, conduct research and development activities, collect, process and prepare company financial information, provide information about our tests and other patient and physician education and outreach efforts through our website, manage the administrative aspects of our business and damage our reputation, any of which could adversely affect our business.

In addition, the interpretation and application of consumer, health-related and data protection laws in the United States, Europe and elsewhere are often uncertain, contradictory and in flux. It is possible that these laws may be interpreted and applied in a manner that is inconsistent with our practices. If so, this could result in government-imposed fines or orders requiring that we change our practices, which could adversely affect our business. In addition, in October 2015, the European Court of Justice invalidated a safe-harbor agreement between the United States and European Union member-states, which addressed how U.S. companies handle personal information of European customers. On May 4, 2016, the European Commission published a new Regulation and a new Directive regarding personal data privacy. The Regulation went into force on May 24, 2016 and shall apply beginning May 25, 2018. The Directive went into force on May 5, 2016 and EU member states must transpose it into their national law by May 6, 2018. As a result, we may need to modify the way we treat such information. Complying with these various laws could cause us to incur substantial costs or require us to change our business practices, systems and compliance procedures in a manner adverse to our business.

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

In the future, we may license third-party technology to develop or commercialize new products. In return for the use of a third-party's technology, we may agree to pay the licensor royalties based on sales of our solutions. Royalties are a component of cost of revenue and affect the margins on our solutions. We may also need to negotiate licenses to patents and patent applications after introducing a commercial product. Our business may suffer if we are unable to enter into the necessary licenses on acceptable terms, or at all, if any necessary licenses are subsequently terminated, if the licensors fail to abide by the terms of the license or fail to prevent infringement by third parties, or if the licensed patents or other rights are found to be invalid or unenforceable.

If we are unable to protect our intellectual property effectively, our business would be harmed.

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

We apply for and in-license patents covering our products and technologies and uses thereof, as we deem appropriate, however we may fail to apply for patents on important products and technologies in a timely fashion or at all, or we may fail to apply for patents in potentially relevant jurisdictions. We have thirteen issued patents that expire between 2029 and 2032 related to methods used in the Afirma diagnostic platform, in addition to fifteen pending U.S. utility patent applications, two pending Patent Cooperation Treaty, or PCT, patent applications and two U.S. provisional patent applications. Some of these U.S. utility patent applications have pending foreign counterparts. We also exclusively licensed intellectual property, including rights to four issued patents that will expire between 2030 and 2032, and three pending U.S. utility patent applications in the thyroid space that would expire between 2030 and 2033 once issued, related to methods that are used in the Afirma diagnostic test, some of which have foreign counterparts. In the lung diagnostic space, we exclusively license intellectual property rights to seven pending patent applications and one issued patent in the United States and abroad. Patents issuing from the licensed portfolio will expire between 2024 and 2028. In addition, we own a pending U.S. application and foreign counterpart applications pending in Australia, Canada, China, Europe, Japan, and South Korea related to our Percepta test. We also own one application related to another lung disease, and two pending U.S. applications, five ex-U.S. applications, and two provisional U.S. applications related to Envisia. Any patents granted from our current lung cancer patent applications will expire no earlier than 2035 and those from the interstitial lung disease patent applications will expire no earlier than from 2034 to 2037. It is possible that none of our pending patent applications will result in issued patents in a timely fashion or at all, and even if patents are granted, they may not provide a basis for intellectual property protection of commercially viable products, may not provide us with any competitive advantages, or may be challenged and invalidated by third parties. It is possible that others will design around our current or future patented technologies. We may not be successful in defending any challenges made against our patents or patent applications. Any successful third-party challenge to our patents could result in the unenforceability or invalidity of such patents and increased competition to our business. The outcome of patent litigation can be uncertain and any attempt by us to enforce our patent rights against others may not be successful, or, if successful, may take substantial time and result in substantial cost, and may divert our efforts and attention from other aspects of our business.

The patent positions of life sciences companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in such companies' patents has emerged to date in the United States or elsewhere. Courts frequently render opinions in the biotechnology field that may affect the patentability of certain inventions or discoveries, including opinions that may affect the patentability of methods for analyzing or comparing nucleic acids.

In particular, the patent positions of companies engaged in the development and commercialization of genomic diagnostic tests are particularly uncertain. Various courts, including the U.S. Supreme Court, have rendered decisions that affect the scope of patentability of certain inventions or discoveries relating to certain diagnostic tests and related methods. These decisions state, among other things, that patent claims that recite laws of nature (for example, the relationship between blood levels of certain metabolites and the likelihood that a dosage of a specific drug will be ineffective or cause harm) are not themselves patentable. What constitutes a law of nature is uncertain, and it is possible that certain aspects of genomic diagnostics tests would be considered natural laws. Accordingly, the evolving case law in the United States may adversely affect our ability to obtain patents and may facilitate third-party challenges to any owned and licensed patents.

The laws of some foreign countries do not protect intellectual property rights to the same extent as the laws of the United States, and we may encounter difficulties protecting and defending such rights in foreign jurisdictions. The legal systems of many other countries do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biotechnology, which could make it difficult for us to stop the infringement of our patents in such countries. Proceedings to enforce our patent rights in foreign jurisdictions could result in substantial cost and divert our efforts and attention from other aspects of our business.

Changes in either the patent laws or in interpretations of patent laws in the United States or other countries may diminish the value of our intellectual property. We cannot predict the breadth of claims that may be allowed or enforced in our patents or in third-party patents. We may not develop additional proprietary products, methods and technologies that are patentable.

In addition to pursuing patents on our technology, we take steps to protect our intellectual property and proprietary technology by entering into agreements, including confidentiality agreements, non-disclosure agreements and intellectual property assignment agreements, with our employees, consultants, academic institutions, corporate partners and, when needed, our advisors. Such agreements may not be enforceable or may not provide meaningful protection for our trade secrets or other proprietary information in the event of unauthorized use or disclosure or other breaches of the agreements, and we may not be able to prevent such unauthorized disclosure. If we are required to assert our rights against such party, it could result in significant cost and distraction.

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

We may also be subject to claims that our employees have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers, or to claims that we have improperly used or obtained such trade secrets. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property rights and face increased competition to our business. A loss of key research personnel work product could hamper or prevent our ability to commercialize potential products, which could harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

Further, competitors could attempt to replicate some or all of the competitive advantages we derive from our development efforts, willfully infringe our intellectual property rights, design around our protected technology or develop their own competitive technologies that fall outside of our intellectual property rights. Others may independently develop similar or alternative products and technologies or replicate any of our products and technologies. If our intellectual property does not adequately protect us against competitors' products and methods, our competitive position could be adversely affected, as could our business.

We have not registered certain of our trademarks in all of our potential markets. If we apply to register these trademarks, our applications may not be allowed for registration in a timely fashion or at all, and our registered trademarks may not be maintained or enforced. In addition, opposition or cancellation proceedings may be filed against our trademark applications and registrations, and our trademarks may not survive such proceedings. If we do not secure registrations for our trademarks, we may encounter more difficulty in enforcing them against third parties than we otherwise would.

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

We may be involved in litigation related to intellectual property, which could be time-intensive and costly and may adversely affect our business, operating results or financial condition.

We may receive notices of claims of direct or indirect infringement or misappropriation or misuse of other parties' proprietary rights from time to time. Some of these claims may lead to litigation. We cannot assure you that we will prevail in such actions, or that other actions alleging misappropriation or misuse by us of third-party trade secrets, infringement by us of third-party patents and trademarks or other rights, or the validity of our patents, trademarks or other rights, will not be asserted or prosecuted against us.

We might not have been the first to make the inventions covered by each of our pending patent applications and we might not have been the first to file patent applications for these inventions. To determine the priority of these inventions, we may have to participate in interference proceedings, derivation proceedings, or other post-grant proceedings declared by the U.S. Patent and Trademark Office that could result in substantial cost to us. No assurance can be given that other patent applications will not have priority over our patent applications. In addition, recent changes to the patent laws of the United States allow for various post-grant opposition proceedings that have not been extensively tested, and their outcome is therefore uncertain. Furthermore, if third parties bring these proceedings against our patents, we could experience significant costs and management distraction.

Litigation may be necessary for us to enforce our patent and proprietary rights or to determine the scope, coverage and validity of the proprietary rights of others. The outcome of any litigation or other proceeding is inherently uncertain and might not be favorable to us, and we might not be able to obtain licenses to technology that we require on acceptable terms or at all. Further, we could encounter delays in product introductions, or interruptions in product sales, as we develop alternative methods

or products. In addition, if we resort to legal proceedings to enforce our intellectual property rights or to determine the validity, scope and coverage of the intellectual property or other proprietary rights of others, the proceedings could be burdensome and expensive, even if we were to prevail. Any litigation that may be necessary in the future could result in substantial costs and diversion of resources and could have a material adverse effect on our business, operating results or financial condition.

As we move into new markets and applications for our products, incumbent participants in such markets may assert their patents and other proprietary rights against us as a means of slowing our entry into such markets or as a means to extract substantial license and royalty payments from us. Our competitors and others may now and, in the future, have significantly larger and more mature patent portfolios than we currently have. In addition, future litigation may involve patent holding companies or other adverse patent owners who have no relevant product revenue and against whom our own patents may provide little or no deterrence or protection. Therefore, our commercial success may depend in part on our non-infringement of the patents or proprietary rights of third parties. Numerous significant intellectual property issues have been litigated, and will likely continue to be litigated, between existing and new participants in our existing and targeted markets and competitors may assert that our products infringe their intellectual property rights as part of a business strategy to impede our successful entry into or growth in those markets. Third parties may assert that we are employing their proprietary technology without authorization. In addition, our competitors and others may have patents or may in the future obtain patents and claim that making, having made, using, selling, offering to sell or importing our products infringes these patents. We could incur substantial costs and divert the attention of our management and technical personnel in defending against any of these claims. Parties making claims against us may be able to obtain injunctive or other relief, which could block our ability to develop, commercialize and sell products, and could result in the award of substantial damages against us. In the event of a successful claim of infringement against us, we may be required to pay damages and ongoing royalties, and obtain one or more licenses from third parties, or be prohibited from selling certain products. We may not be able to obtain these licenses on acceptable terms, if at all. We could incur substantial costs related to royalty payments for licenses obtained from third parties, which could negatively affect our financial results. In addition, we could encounter delays in product introductions while we attempt to develop alternative methods or products to avoid infringing third-party patents or proprietary rights. Defense of any lawsuit or failure to obtain any of these licenses could prevent us from commercializing products, and the prohibition of sale of any of our products could materially affect our business and our ability to gain market acceptance for our products.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, during the course of this kind of litigation, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock.

In addition, our agreements with some of our customers, suppliers or other entities with whom we do business require us to defend or indemnify these parties to the extent they become involved in infringement claims, including the types of claims described above. We could also voluntarily agree to defend or indemnify third parties in instances where we are not obligated to do so if we determine it would be important to our business relationships. If we are required or agree to defend or indemnify third parties in connection with any infringement claims, we could incur significant costs and expenses that could adversely affect our business, operating results, or financial condition.

Our ability to use our net operating loss carryforwards may be limited and may result in increased future tax liability to us.

We have incurred net losses since our inception and may never achieve profitability. To the extent that we continue to generate taxable losses, unused losses will carry forward to offset future taxable income, if any, until such unused losses expire. We may be unable to use these losses to offset income before those unused losses expire. Generally, a change of more than 50% in the ownership of a corporation's stock, by value, over a three-year period constitutes an ownership change for U.S. federal income tax purposes. An ownership change may limit a company's ability to use its net operating loss carryforwards attributable to the period prior to such change. In the event we have undergone an ownership change under Section 382 of the Internal Revenue Code, if we earn net taxable income, our ability to use our pre-change net operating loss carryforwards to offset U.S. federal taxable income may become subject to limitations, which could potentially result in increased future tax liability to us.

Risks Related to Being a Public Company

We will continue to incur increased costs and demands on management as a result of compliance with laws and regulations applicable to public companies, which could harm our operating results.

As a public company, we will continue to incur significant legal, accounting, consulting and other expenses that we did not incur as a private company, including costs associated with public company reporting requirements. In addition, the Sarbanes-Oxley Act of 2002 and the Dodd-Frank Act of 2010, as well as rules implemented by the Securities and Exchange Commission, or the SEC, and The NASDAQ Stock Market, impose a number of requirements on public companies, including with respect to corporate governance practices. Our management and other personnel will need to devote a substantial amount of time to these compliance and disclosure obligations. Moreover, these rules and regulations have and will continue to increase our legal, accounting and financial compliance costs and make some activities more complex, time-consuming and costly. We also expect that it will continue to be expensive for us to maintain director and officer liability insurance.

If we are unable to implement and maintain effective internal control over financial reporting, investors may lose confidence in the accuracy and completeness of our reported financial information and the market price of our common stock may be negatively affected.

As a public company, we are required to maintain internal control over financial reporting and to report any material weaknesses in such internal control. Section 404 of the Sarbanes-Oxley Act of 2002 requires that we evaluate and determine the effectiveness of our internal control over financial reporting and provide a management report on our internal controls on an annual basis. If we have material weaknesses in our internal control over financial reporting, we may not detect errors on a timely basis and our financial statements may be materially misstated. We have only recently compiled the systems, processes and documentation necessary to comply with Section 404 of the Sarbanes-Oxley Act. We will need to maintain and enhance these processes and controls as we grow, and we will require additional management and staff resources to do so. Additionally, even if we conclude our internal controls are effective for a given period, we may in the future identify one or more material weaknesses in our internal controls, in which case our management will be unable to conclude that our internal control over financial reporting is effective. Moreover, when we are no longer an emerging growth company, our independent registered public accounting firm will be required to issue an attestation report on the effectiveness of our internal control over financial reporting. Even if our management concludes that our internal control over financial reporting is effective, our independent registered public accounting firm may conclude that there are material weaknesses with respect to our internal controls or the level at which our internal controls are documented, designed, implemented or reviewed.

If we are unable to conclude that our internal control over financial reporting is effective, or when we are no longer an emerging growth company, if our auditors were to express an adverse opinion on the effectiveness of our internal control over financial reporting because we had one or more material weaknesses, investors could lose confidence in the accuracy and completeness of our financial disclosures, which could cause the price of our common stock to decline. Irrespective of compliance with Section 404, any failure of our internal control over financial reporting could have a material adverse effect on our reported operating results and harm our reputation. Internal control deficiencies could also result in a restatement of our financial results.

We are an emerging growth company and may elect to comply with reduced public company reporting requirements applicable to emerging growth companies, which could make our common stock less attractive to investors.

We are an emerging growth company, as defined under the Securities Act of 1933, or the Securities Act. We will remain an emerging growth company until December 31, 2018, although if our revenue exceeds \$1 billion in any fiscal year before that time, we would cease to be an emerging growth company as of the end of that fiscal year. In addition, if the market value of our common stock that is held by non-affiliates exceeds \$700 million as of the last business day of our second fiscal quarter of any fiscal year before the end of that five-year period, we would cease to be an emerging growth company as of December 31 of that year. As an emerging growth company, we may choose to take advantage of exemptions from various reporting requirements applicable to certain other public companies, including not being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, reduced financial statement and financial-related disclosures, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements, and exemptions from the requirement of holding a nonbinding advisory vote on executive compensation and obtaining stockholder approval of any golden parachute payments not previously approved by our stockholders. If some investors find our common stock less attractive as a result of any choices to reduce future disclosure we may make, there may be a less active trading market for our common stock and our stock price may be more volatile.

Risks Related to Our Common Stock

Our stock price may be volatile, and you may not be able to sell shares of our common stock at or above the price you paid.

The trading price of our common stock is likely to continue to be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. These factors include:

- actual or anticipated variations in our and our competitors' results of operations;
- announcements by us or our competitors of new products, commercial relationships or capital commitments;
- changes in reimbursement by current or potential payers, including governmental payers;
- issuance of new securities analysts' reports or changed recommendations for our stock;
- fluctuations in our revenue, due in part to the way in which we recognize revenue;
- actual or anticipated changes in regulatory oversight of our products;
- developments or disputes concerning our intellectual property or other proprietary rights;
- commencement of, or our involvement in, litigation;
- announced or completed acquisitions of businesses or technologies by us or our competitors;
- any major change in our management; and
- general economic conditions and slow or negative growth of our markets.

In addition, the stock market in general, and the market for stock of life sciences companies and other emerging growth companies in particular, has experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of those companies. Broad market and industry factors may seriously affect the market price of our common stock, regardless of our actual operating performance. These fluctuations may be even more pronounced if the trading volume of our stock remains low. In addition, in the past, following periods of volatility in the overall market and the market price of a particular company's securities, securities class action litigation has often been instituted against these companies. This litigation, if instituted against us, could result in substantial costs and a diversion of our management's attention and resources.

If securities or industry analysts issue an adverse opinion regarding our stock or do not publish research or reports about our company, our stock price and trading volume could decline.

The trading market for our common stock will depend in part on the research and reports that equity research analysts publish about us, our business and our competitors. We do not control these analysts or the content and opinions or financial models included in their reports. Securities analysts may elect not to provide research coverage of our company, and such lack of research coverage may adversely affect the market price of our common stock. The price of our common stock could also decline if one or more equity research analysts downgrade our common stock or if those analysts issue other unfavorable commentary or cease publishing reports about us or our business. If one or more equity research analysts cease coverage of our company, we could lose visibility in the market, which in turn could cause our stock price to decline.

Insiders have substantial control over us and will be able to influence corporate matters.

As of July 28, 2017, directors and executive officers and their affiliates beneficially owned, in the aggregate, 23% of our outstanding capital stock. As a result, these stockholders will be able to exercise significant influence over all matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions, such as a merger or other sale of our company or its assets. This concentration of ownership could limit stockholders' ability to influence corporate matters and may have the effect of delaying or preventing a third-party from acquiring control over us.

Anti-takeover provisions in our charter documents and under Delaware law could discourage, delay or prevent a change in control and may affect the trading price of our common stock.

Provisions in our restated certificate of incorporation and our amended and restated bylaws may have the effect of delaying or preventing a change of control or changes in our management. Our restated certificate of incorporation and amended and restated bylaws include provisions that:

- authorize our board of directors to issue, without further action by the stockholders, up to 5.0 million shares of undesignated preferred stock;
- require that any action to be taken by our stockholders be effected at a duly called annual or special meeting and not by written consent;
- specify that special meetings of our stockholders can be called only by our board of directors, our chairman of the board, or our chief executive officer;
- establish an advance notice procedure for stockholder approvals to be brought before an annual meeting of our stockholders, including proposed nominations of persons for election to our board of directors;
- establish that our board of directors is divided into three classes, Class I, Class II and Class III, with each class serving staggered terms;
- provide that our directors may be removed only for cause;
- provide that vacancies on our board of directors may, except as otherwise required by law, be filled only by a majority of directors then in office, even if less than a quorum;
- specify that no stockholder is permitted to cumulate votes at any election of directors; and
- require a super-majority of votes to amend certain of the above-mentioned provisions.

In addition, we are subject to the provisions of Section 203 of the Delaware General Corporation Law regulating corporate takeovers. Section 203 generally prohibits us from engaging in a business combination with an interested stockholder subject to certain exceptions.

We have never paid dividends on our capital stock, and we do not anticipate paying dividends in the foreseeable future.

We have never paid dividends on any of our capital stock and currently intend to retain any future earnings to fund the growth of our business. In addition, our credit agreement restricts our ability to pay cash dividends on our common stock and we may also enter into credit agreements or other borrowing arrangements in the future that will restrict our ability to declare or pay cash dividends on our common stock. Any determination to pay dividends in the future will be at the discretion of our board of directors and will depend on our financial condition, operating results, capital requirements, general business conditions and other factors that our board of directors may deem relevant. As a result, capital appreciation, if any, of our common stock will be the sole source of gain for the foreseeable future.

ITEM 6. EXHIBITS

The exhibits listed in the accompanying Exhibit Index are filed or incorporated by reference as part of this Quarterly Report on Form 10-Q.

SIGNATURES

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

Date: July 31, 2017

VERACYTE, INC.

By: /s/ KEITH S. KENNEDY
Keith S. Kennedy
Chief Financial Officer
(Principal Financial and Accounting Officer)

EXHIBIT INDEX

Exhibit Number	Description
10.1 #*	2013 Stock Incentive Plan (as amended on May 23, 2017)
31.1	Principal Executive Officer's Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Principal Financial Officer's Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1 **	Certification Pursuant to 18 U.S.C. § 1350 (Section 906 of the Sarbanes-Oxley Act of 2002)
32.2 **	Certification Pursuant to 18 U.S.C. § 1350 (Section 906 of the Sarbanes-Oxley Act of 2002)
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase

Indicates management contract or compensatory plan or arrangement.

* Filed herewith.

** In accordance with Item 601(b)(32)(ii) of Regulation S-K and SEC Release No. 34-47986, the certifications furnished in Exhibits 32.1 and 32.2 hereto are deemed to accompany this Form 10-Q and will not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934 (the "Exchange Act") or deemed to be incorporated by reference into any filing under the Exchange Act or the Securities Act of 1933 except to the extent that the registrant specifically incorporates it by reference.

VERACYTE, INC.
2013 STOCK INCENTIVE PLAN

(Adopted by the Board of Directors on October 2, 2013)

(As amended by the Board of Directors on May 23, 2017)

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VERACYTE, INC.

2013 STOCK INCENTIVE PLAN

SECTION 1. ESTABLISHMENT AND PURPOSE.

The Plan was adopted by the Board of Directors on October 2, 2013, and shall be effective immediately prior to the closing of the initial offering of Stock to the public pursuant to a registration statement filed by the Company with the Securities and Exchange Commission (the “*Effective Date*”). The purpose of the Plan is to promote the long-term success of the Company and the creation of stockholder value by (a) encouraging Employees, Outside Directors and Consultants to focus on critical long-range objectives, (b) encouraging the attraction and retention of Employees, Outside Directors and Consultants with exceptional qualifications and (c) linking Employees, Outside Directors and Consultants directly to stockholder interests through increased stock ownership. The Plan seeks to achieve this purpose by providing for Awards in the form of restricted shares, stock units, options (which may constitute incentive stock options or nonstatutory stock options), stock appreciation rights or cash-based awards.

SECTION 2. DEFINITIONS.

(a) “*Affiliate*” shall mean any entity other than a Subsidiary, if the Company and/or one or more Subsidiaries own not less than 50% of such entity.

(b) “*Award*” shall mean any award of an Option, a SAR, a Restricted Share, a Stock Unit or a Cash-Based Award under the Plan.

(c) “*Award Agreement*” shall mean the agreement between the Company and the recipient of an Award which contains the terms, conditions and restrictions pertaining to such Award.

(d) “*Board of Directors*” or “*Board*” shall mean the Board of Directors of the Company, as constituted from time to time.

(e) “*Cash-Based Award*” shall mean an Award that entitles the Participant to receive a cash-denominated payment.

(f) “*Change in Control*” shall mean the occurrence of any of the following events:

(i) A change in the composition of the Board of Directors occurs, as a result of which fewer than one-half of the incumbent directors are directors who either:

(A) Had been directors of the Company on the “look-back date” (as defined below) (the “original directors”); or

(B) Were elected, or nominated for election, to the Board of Directors with the affirmative votes of at least a majority of the aggregate of the original directors who were still in office at the time of the election or nomination and the directors whose election or nomination was previously so approved (the “continuing directors”);

provided, however, that for this purpose, the “original directors” and “continuing directors” shall not include any individual whose initial assumption of office occurred as a result of an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents, by or on behalf of a person other than the Board; or

(ii) Any “person” (as defined below) who by the acquisition or aggregation of securities, is or becomes the “beneficial owner” (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing 50% or more of the combined voting power of the Company’s then outstanding securities ordinarily (and apart from rights accruing under special circumstances) having the right to vote at elections of directors (the “Base Capital Stock”); except that any change in the relative beneficial ownership of the Company’s securities by any person resulting solely from a reduction in the aggregate number of outstanding shares of Base Capital Stock, and any decrease thereafter in such person’s ownership of securities, shall be disregarded until such person increases in any manner, directly or indirectly, such person’s beneficial ownership of any securities of the Company; or

(iii) The consummation of a merger or consolidation of the Company or a Subsidiary of the Company with or into another entity or any other corporate reorganization, if persons who were not stockholders of the Company immediately prior to such merger, consolidation or other reorganization own immediately after such merger, consolidation or other reorganization 50% or more of the voting power of the outstanding securities of each of (A) the Company (or its successor) and (B) any direct or indirect parent corporation of the Company (or its successor); or

(iv) The sale, transfer or other disposition of all or substantially all of the Company’s assets.

For purposes of subsection (e)(i) above, the term “look-back” date shall mean the later of (1) the Effective Date or (2) the date 24 months prior to the date of the event that may constitute a Change in Control.

For purposes of subsection (e)(ii) above, the term “person” shall have the same meaning as when used in Sections 13(d) and 14(d) of the Exchange Act but shall exclude (1) a trustee or other fiduciary holding securities under an employee benefit plan maintained by the Company or a Parent or Subsidiary and (2) a corporation owned directly or indirectly by the stockholders of the Company in substantially the same proportions as their ownership of the Stock.

Any other provision of this Section 2(e) notwithstanding, a transaction shall not constitute a Change in Control if its sole purpose is to change the state of the Company’s incorporation or to create a holding company that will be owned in substantially the same proportions by the persons who held the Company’s securities immediately before such transaction, and a Change in Control shall not be deemed to occur if the Company files a registration statement with the United States Securities and

Exchange Commission for the initial or secondary public offering of securities or debt of the Company to the public.

- (g) “ **Code** ” shall mean the Internal Revenue Code of 1986, as amended.
- (h) “ **Committee** ” shall mean the Compensation Committee as designated by the Board of Directors, which is authorized to administer the Plan, as described in Section 3 hereof.
- (i) “ **Company** ” shall mean Veracyte, Inc., a Delaware corporation.
- (j) “ **Consultant** ” shall mean a consultant or advisor who provides bona fide services to the Company, a Parent, a Subsidiary or an Affiliate as an independent contractor (not including service as a member of the Board of Directors) or a member of the board of directors of a Parent or a Subsidiary, in each case who is not an Employee.
- (k) “ **Employee** ” shall mean any individual who is a common-law employee of the Company, a Parent, a Subsidiary or an Affiliate.
- (l) “ **Exchange Act** ” shall mean the Securities Exchange Act of 1934, as amended.
- (m) “ **Exercise Price** ” shall mean, in the case of an Option, the amount for which one Share may be purchased upon exercise of such Option, as specified in the applicable Stock Option Agreement. “Exercise Price,” in the case of a SAR, shall mean an amount, as specified in the applicable SAR Agreement, which is subtracted from the Fair Market Value of one Share in determining the amount payable upon exercise of such SAR.
- (n) “ **Fair Market Value** ” with respect to a Share, shall mean the market price of one Share, determined by the Committee as follows:
 - (i) If the Stock was traded over-the-counter on the date in question, then the Fair Market Value shall be equal to the last transaction price quoted for such date by the OTC Bulletin Board or, if not so quoted, shall be equal to the mean between the last reported representative bid and asked prices quoted for such date by the principal automated inter-dealer quotation system on which the Stock is quoted or, if the Stock is not quoted on any such system, by the OTC Link Quote system;
 - (ii) If the Stock was traded on any established stock exchange (such as the New York Stock Exchange or The NASDAQ Stock Market) or national market system on the date in question, then the Fair Market Value shall be equal to the closing price reported for such date by the applicable exchange or system; and
 - (iii) If none of the foregoing provisions is applicable, then the Fair Market Value shall be determined by the Committee in good faith on such basis as it deems appropriate.In all cases, the determination of Fair Market Value by the Committee shall be conclusive and binding on all persons.

- (o) “ **ISO** ” shall mean an employee incentive stock option described in Section 422 of the Code.
- (p) “ **Nonstatutory Option** ” or “ **NSO** ” shall mean an employee stock option that is not an ISO.
- (q) “ **Option** ” shall mean an ISO or Nonstatutory Option granted under the Plan and entitling the holder to purchase Shares.
- (r) “ **Outside Director** ” shall mean a member of the Board of Directors who is not a common-law employee of, or paid consultant to, the Company, a Parent or a Subsidiary.
- (s) “ **Parent** ” shall mean any corporation (other than the Company) in an unbroken chain of corporations ending with the Company, if each of the corporations other than the Company owns stock possessing 50% or more of the total combined voting power of all classes of stock in one of the other corporations in such chain. A corporation that attains the status of a Parent on a date after the adoption of the Plan shall be a Parent commencing as of such date.
- (t) “ **Participant** ” shall mean a person who holds an Award.
- (u) “ **Performance Based Award** ” shall mean any Restricted Share Award, Stock Unit Award or Cash-Based Award granted to a Participant that is intended to qualify as “performance-based compensation” under Section 162(m) of the Code.
- (v) “ **Plan** ” shall mean this 2013 Stock Incentive Plan of Veracyte, Inc., as amended from time to time.
- (w) “ **Purchase Price** ” shall mean the consideration for which one Share may be acquired under the Plan (other than upon exercise of an Option), as specified by the Committee.
- (x) “ **Restricted Share** ” shall mean a Share awarded under the Plan.
- (y) “ **SAR** ” shall mean a stock appreciation right granted under the Plan.
- (z) “ **Service** ” shall mean service as an Employee, Consultant or Outside Director, subject to such further limitations as may be set forth in the Plan or the applicable Award Agreement. Service does not terminate when an Employee goes on a bona fide leave of absence, that was approved by the Company in writing, if the terms of the leave provide for continued Service crediting, or when continued Service crediting is required by applicable law. However, for purposes of determining whether an Option is entitled to ISO status, an Employee’s employment will be treated as terminating three months after such Employee went on leave, unless such Employee’s right to return to active work is guaranteed by law or by a contract. Service terminates in any event when the approved leave ends, unless such Employee immediately returns to active work. The Company determines which leaves of absence count toward Service, and when Service terminates for all purposes under the Plan.

(aa) “ **Share** ” shall mean one share of Stock, as adjusted in accordance with Section 12 (if applicable).

(bb) “ **Stock** ” shall mean the Common Stock of the Company.

(cc) “ **Stock Unit** ” shall mean a bookkeeping entry representing the Company’s obligation to deliver one Share (or distribute cash) on a future date in accordance with the provisions of a Stock Unit Award Agreement.

(dd) “ **Subsidiary** ” shall mean any corporation, if the Company and/or one or more other Subsidiaries own not less than 50% of the total combined voting power of all classes of outstanding stock of such corporation. A corporation that attains the status of a Subsidiary on a date after the adoption of the Plan shall be considered a Subsidiary commencing as of such date.

(ee) “ **Total and Permanent Disability** ” shall mean any permanent and total disability as defined by Section 22(e)(3) of the Code.

SECTION 3. ADMINISTRATION.

(a) Committee Composition. The Plan shall be administered by a Committee appointed by the Board, or by the Board acting as the Committee. The Committee shall consist of two or more directors of the Company. In addition, to the extent required by the Board, the composition of the Committee shall satisfy (i) such requirements as the Securities and Exchange Commission may establish for administrators acting under plans intended to qualify for exemption under Rule 16b-3 (or its successor) under the Exchange Act; and (ii) such requirements as the Internal Revenue Service may establish for outside directors acting under plans intended to qualify for exemption under Section 162(m)(4)(C) of the Code.

(b) Committee for Non-Officer Grants. The Board may also appoint one or more separate committees of the Board, each composed of one or more directors of the Company who need not satisfy the requirements of Section 3(a), who may administer the Plan with respect to Employees who are not considered officers or directors of the Company under Section 16 of the Exchange Act, may grant Awards under the Plan to such Employees and may determine all terms of such Awards. Within the limitations of the preceding sentence, any reference in the Plan to the Committee shall include such committee or committees appointed pursuant to the preceding sentence. To the extent permitted by applicable laws, the Board of Directors may also authorize one or more officers of the Company to designate Employees, other than officers under Section 16 of the Exchange Act, to receive Awards and/or to determine the number of such Awards to be received by such persons; provided, however, that the Board of Directors shall specify the total number of Awards that such officers may so grant.

(c) Committee Procedures. The Board of Directors shall designate one of the members of the Committee as chairman. The Committee may hold meetings at such times and places as it shall determine. The acts of a majority of the Committee members present at meetings at which a quorum exists, or acts reduced to or approved in writing (including via email) by all Committee members, shall be valid acts of the Committee.

(d) Committee Responsibilities. Subject to the provisions of the Plan, the Committee shall have full authority and discretion to take the following actions:

- (i) To interpret the Plan and to apply its provisions;
- (ii) To adopt, amend or rescind rules, procedures and forms relating to the Plan;
- (iii) To adopt, amend or terminate sub-plans established for the purpose of satisfying applicable foreign laws including qualifying for preferred tax treatment under applicable foreign tax laws;
- (iv) To authorize any person to execute, on behalf of the Company, any instrument required to carry out the purposes of the Plan;
- (v) To determine when Awards are to be granted under the Plan;
- (vi) To select the Participants to whom Awards are to be granted;
- (vii) To determine the type of Award and number of Shares or amount of cash to be made subject to each Award;
- (viii) To prescribe the terms and conditions of each Award, including (without limitation) the Exercise Price and Purchase Price, and the vesting or duration of the Award (including accelerating the vesting of Awards, either at the time of the Award or thereafter, without the consent of the Participant), to determine whether an Option is to be classified as an ISO or as a Nonstatutory Option, and to specify the provisions of the agreement relating to such Award;
- (ix) To amend any outstanding Award Agreement, subject to applicable legal restrictions and to the consent of the Participant if the Participant's rights or obligations would be materially impaired;
- (x) To prescribe the consideration for the grant of each Award or other right under the Plan and to determine the sufficiency of such consideration;
- (xi) To determine the disposition of each Award or other right under the Plan in the event of a Participant's divorce or dissolution of marriage;
- (xii) To determine whether Awards under the Plan will be granted in replacement of other grants under an incentive or other compensation plan of an acquired business;
- (xiii) To correct any defect, supply any omission, or reconcile any inconsistency in the Plan or any Award Agreement;

(xiv) To establish or verify the extent of satisfaction of any performance goals or other conditions applicable to the grant, issuance, exercisability, vesting and/or ability to retain any Award; and

(xv) To take any other actions deemed necessary or advisable for the administration of the Plan.

Subject to the requirements of applicable law, the Committee may designate persons other than members of the Committee to carry out its responsibilities and may prescribe such conditions and limitations as it may deem appropriate, except that the Committee may not delegate its authority with regard to the selection for participation of or the granting of Awards under the Plan to persons subject to Section 16 of the Exchange Act. All decisions, interpretations and other actions of the Committee shall be final and binding on all Participants and all persons deriving their rights from a Participant. No member of the Committee shall be liable for any action that he has taken or has failed to take in good faith with respect to the Plan or any Award under the Plan.

SECTION 4. ELIGIBILITY.

(a) General Rule. Only Employees, Consultants and Outside Directors shall be eligible for the grant of Awards. Only common-law employees of the Company, a Parent or a Subsidiary shall be eligible for the grant of ISOs.

(b) Automatic Grants to Outside Directors.

(i) Each Outside Director who first joins the Board of Directors on or after the Effective Date, and who was not previously an Employee, shall receive a Nonstatutory Option, subject to approval of the Plan by the Company's stockholders, to purchase 35,000 Shares (subject to adjustment under Section 12), on the date of his or her election to the Board of Directors. Options granted under this Section 4(b)(i) following May 23, 2017 shall vest as follows: one-third (1/3) of the Shares subject to each Option granted under this Section 4(b)(i) shall vest and become exercisable on each of the first, second and third annual anniversaries of the date of grant. Notwithstanding the foregoing, each such Option shall become vested and exercisable in full if a Change in Control occurs with respect to the Company during the Participant's Service.

(ii) On the first business day following the conclusion of each regular annual meeting of the Company's stockholders, commencing with the annual meeting occurring after the Effective Date, each Outside Director who was not elected to the Board for the first time at such meeting and who will continue serving as a member of the Board of Directors thereafter shall receive an Option to purchase 10,000 Shares (subject to adjustment under Section 12), provided that such Outside Director has served on the Board of Directors for at least six months. Each Option granted under this Section 4(b)(ii) shall vest and become exercisable on the first anniversary of the date of grant; provided, however, that each such Option shall become vested and exercisable in full immediately prior to the next regular annual meeting of the Company's stockholders following such date of grant in the event such meeting occurs prior to such first anniversary date. Notwithstanding the foregoing, each Option granted under this Section 4(b)(ii) shall become vested and exercisable in full if a Change in Control occurs with respect to the Company during the Participant's Service.

(iii) The Exercise Price of all Nonstatutory Options granted to an Outside Director under this Section 4(b) shall be equal to 100% of the Fair Market Value of a Share on the date of grant, payable in one of the forms described in Section 8(a), (b), (d), (e), (f) or (h).

(iv) All Nonstatutory Options granted to an Outside Director under this Section 4(b) shall terminate on the earlier of (A) the day before the tenth anniversary of the date of grant of such Options or (B) the date twelve months after the termination of such Outside Director's Service for any reason; provided, however, that any such Options that are not vested upon the termination of the Outside Director's Service as a member of the Board of Directors for any reason shall terminate immediately and may not be exercised.

(v) The Board of Directors or the Committee in its discretion may change and otherwise revise the terms of the Nonstatutory Options granted to Outside Directors under this Section 4(b), including, without limitation, the number of Shares subject thereto, the type of Award to be granted under this Section 4(b), for Options or other Awards granted on or after the date the Board of Directors or Committee determines to make any such change or revision.

(c) Ten-Percent Stockholders. An Employee who owns more than 10% of the total combined voting power of all classes of outstanding stock of the Company, a Parent or Subsidiary shall not be eligible for the grant of an ISO unless such grant satisfies the requirements of Section 422(c)(5) of the Code.

(d) Attribution Rules. For purposes of Section 4(c) above, in determining stock ownership, an Employee shall be deemed to own the stock owned, directly or indirectly, by or for such Employee's brothers, sisters, spouse, ancestors and lineal descendants. Stock owned, directly or indirectly, by or for a corporation, partnership, estate or trust shall be deemed to be owned proportionately by or for its stockholders, partners or beneficiaries.

(e) Outstanding Stock. For purposes of Section 4(c) above, "outstanding stock" shall include all stock actually issued and outstanding immediately after the grant. "Outstanding stock" shall not include shares authorized for issuance under outstanding options held by the Employee or by any other person.

SECTION 5. STOCK SUBJECT TO PLAN.

(a) Basic Limitation. Shares offered under the Plan shall be authorized but unissued Shares or treasury Shares. The aggregate number of Shares authorized for issuance as Awards under the Plan shall not exceed the sum of (x) 1,700,000 Shares, plus (y) the sum of the number of Shares subject to outstanding awards under the Company's 2008 Stock Plan (the "Predecessor Plan") on the Effective Date that are subsequently forfeited or terminated for any reason before being exercised or settled, plus the number of Shares subject to vesting restrictions under the Predecessor Plan on the Effective Date that are subsequently forfeited, plus the number of reserved Shares not issued or subject to outstanding grants under the Predecessor Plan on the Effective Date, plus (z) an annual increase on the first day of each fiscal year, for a period of not more than ten years, beginning on January 1, 2014,

and ending on (and including) January 1, 2023, in an amount equal to the lesser of (i) 4% of the outstanding Shares on the last day of the immediately preceding fiscal or (ii) if the Board acts prior to the first day of the fiscal year, such lesser amount (including zero) that the Board determines for purposes of the annual increase for that fiscal year. Notwithstanding the foregoing, the number of Shares that may be delivered in the aggregate pursuant to the exercise of ISOs granted under the Plan shall not exceed 9,500,000 Shares plus, to the extent allowable under Section 422 of the Code and the Treasury Regulations promulgated thereunder, any Shares that become available for issuance under the Plan pursuant to Section 5(c). The limitations of this Section 5(a) shall be subject to adjustment pursuant to Section 12. The number of Shares that are subject to Awards outstanding at any time under the Plan shall not exceed the number of Shares which then remain available for issuance under the Plan. The Company shall at all times reserve and keep available sufficient Shares to satisfy the requirements of the Plan.

(b) Section 162(m) Award Limitation. Notwithstanding any contrary provisions of the Plan, and subject to the provisions of Section 12, during any time when the transition period relief under Treasury Regulation Section 1.162-27(f)(2) has lapsed or does not apply, and with respect to any Option or SAR intended to qualify as “performance-based compensation” under Section 162(m) of the Code, no Participant eligible for an Award may receive Options or SARs under the Plan in any calendar year that relate to an aggregate of more than 1,000,000 Shares, and no more than two times this amount in the first year of employment. To the extent required by Section 162(m) of the Code or the regulations thereunder, in applying the foregoing limitation with respect to a Participant, if any Option or SAR is canceled, the canceled Option or SAR shall continue to count against the maximum number of Shares with respect to which Options and SARs may be granted to the Participant. For this purpose, the repricing of an Option or SAR shall be treated as the cancellation of the existing Option or SAR and the grant of a new Option or SAR.

(c) Additional Shares. If Restricted Shares or Shares issued upon the exercise of Options are forfeited, then such Shares shall again become available for Awards under the Plan. If Stock Units, Options or SARs are forfeited or terminate for any reason before being exercised or settled, or an Award is settled in cash without the delivery of Shares to the holder, then any Shares subject to the Award shall again become available for Awards under the Plan. Only the number of *Shares* (if any) actually issued in settlement of Awards (and not forfeited) shall reduce the number available in Section 5(a) and the balance shall again become available for Awards under the Plan. Any Shares withheld to satisfy the grant or exercise price or tax withholding obligation pursuant to any Award shall again become available for Awards under the Plan. Notwithstanding the foregoing provisions of this Section 5(c), Shares that have actually been issued shall not again become available for Awards under the Plan, except for Shares that are forfeited and do not become vested.

(d) Substitution and Assumption of Awards. The Committee may make Awards under the Plan by assumption, substitution or *replacement* of stock options, stock appreciation rights, stock units or similar awards granted by another entity (including a Parent or Subsidiary), if such assumption, substitution or replacement is in connection with an asset acquisition, stock acquisition, merger, consolidation or similar transaction involving the Company (and/or its Parent or Subsidiary) and such other entity (and/or its affiliate). The terms of such assumed, substituted or replaced Awards shall be

as the Committee, in its discretion, determines is appropriate. Any such substitute or assumed Awards shall not count against the Share limitation set forth in Section 5(a).

SECTION 6. RESTRICTED SHARES.

(a) Restricted Share Award Agreement. Each grant of Restricted Shares under the Plan shall be evidenced by a Restricted Share Award Agreement between the Participant and the Company. Such Restricted Shares shall be subject to all applicable terms of the Plan and may be subject to any other terms that are not inconsistent with the Plan. The provisions of the various Restricted Share Award Agreements entered into under the Plan need not be identical.

(b) Payment for Awards. Restricted Shares may be sold or awarded under the Plan for such consideration as the Committee *may* determine, including (without limitation) cash, cash equivalents, full-recourse promissory notes, past services and future services.

(c) Vesting. Each Award of Restricted Shares may or may not be subject to vesting. Vesting shall occur, in full or in installments, upon satisfaction of the conditions specified in the Restricted Share Award Agreement. A Restricted Share Award Agreement may provide for accelerated vesting in the event of the Participant's death, disability or retirement or other events. The Committee may determine, at the time of granting Restricted Shares or thereafter, that all or part of such Restricted Shares shall become vested in the event that a Change in Control occurs with respect to the Company.

(d) Voting and Dividend Rights. The holders of Restricted Shares awarded under the Plan shall have the same voting, dividend and other rights as the Company's other stockholders. A Restricted Share Award Agreement, however, may require that the holders of Restricted Shares invest any cash dividends received in additional Restricted Shares. Such additional Restricted Shares shall be subject to the same conditions and restrictions as the Award with respect to which the dividends were paid.

(e) Restrictions on Transfer of Shares. Restricted Shares shall be subject to such rights of repurchase, rights of first refusal or other *restrictions* as the Committee may determine. Such restrictions shall be set forth in the applicable Restricted Share Award Agreement and shall apply in addition to any general restrictions that may apply to all holders of Shares.

SECTION 7. TERMS AND CONDITIONS OF OPTIONS.

(a) Stock Option Award Agreement. Each grant of an Option under the Plan shall be evidenced by a Stock Option Award Agreement *between* the Participant and the Company. Such Option shall be subject to all applicable terms and conditions of the Plan and may be subject to any other terms and conditions which are not inconsistent with the Plan and which the Committee deems appropriate for inclusion in a Stock Option Award Agreement. The Stock Option Award Agreement shall specify whether the Option is an ISO or an NSO. The provisions of the various Stock Option Award Agreements entered into under the Plan need not be identical.

(b) Number of Shares. Each Stock Option Award Agreement shall specify the number of Shares that are subject to the Option and shall *provide* for the adjustment of such number in accordance with Section 12.

(c) Exercise Price. Each Stock Option Award Agreement shall specify the Exercise Price. The Exercise Price of an ISO shall not be less than 100% of the Fair Market Value of a Share on the date of grant, except as otherwise provided in 4(c), and the *Exercise Price* of an NSO shall not be less 100% of the Fair Market Value of a Share on the date of grant. Notwithstanding the foregoing, Options may be granted with an Exercise Price of less than 100% of the Fair Market Value per Share on the date of grant pursuant to a transaction described in, and in a manner consistent with, Section 424(a) of the Code. Subject to the foregoing in this Section 7(c), the Exercise Price under any Option shall be determined by the Committee in its sole discretion. The Exercise Price shall be payable in one of the forms described in Section 8.

(d) Withholding Taxes. As a condition to the exercise of an Option, the Participant shall make such arrangements as the Committee may *require* for the satisfaction of any federal, state, local or foreign withholding tax obligations that may arise in connection with such exercise. The Participant shall also make such arrangements as the Committee may require for the satisfaction of any federal, state, local or foreign withholding tax obligations that may arise in connection with the disposition of Shares acquired by exercising an Option.

(e) Exercisability and Term. Each Stock Option Award Agreement shall specify the date when all or any installment of the Option is to become exercisable. The Stock Option Award Agreement shall also specify the term of the Option; provided that the *term* of an ISO shall in no event exceed 10 years from the date of grant (five years for ISOs granted to Employees described in Section 4(c)). A Stock Option Award Agreement may provide for accelerated exercisability in the event of the Participant's death, disability, or retirement or other events and may provide for expiration prior to the end of its term in the event of the termination of the Participant's Service. Options may be awarded in combination with SARs, and such an Award may provide that the Options will not be exercisable unless the related SARs are forfeited. Subject to the foregoing in this Section 7(e), the Committee at its sole discretion shall determine when all or any installment of an Option is to become exercisable and when an Option is to expire.

(f) Exercise of Options. Each Stock Option Award Agreement shall set forth the extent to which the Participant shall have the right to exercise the Option following termination of the Participant's Service with the Company and its Subsidiaries, and the right to exercise the Option of any executors or administrators of the Participant's estate or any person who has acquired such Option(s) directly from the Participant by bequest or inheritance. Such provisions shall be determined in the sole discretion of the Committee, need not be uniform among all Options issued pursuant to the Plan, and may reflect distinctions based on the reasons for termination of Service.

(g) Effect of Change in Control. The Committee may determine, at the time of granting an Option or thereafter, that such Option *shall* become exercisable as to all or part of the Shares subject to such Option in the event that a Change in Control occurs with respect to the Company.

(h) No Rights as a Stockholder. A Participant shall have no rights as a stockholder with respect to any Shares covered by his Option until the date of the issuance of a stock certificate for such Shares. No adjustments shall be made, except as provided in Section 12.

(i) Modification, Extension and Renewal of Options. Within the limitations of the Plan, the Committee may modify, extend or renew outstanding options or may accept the cancellation of outstanding options (to the extent not previously exercised), whether or not granted hereunder, in return for the grant of new Options for the same or a different number of Shares and at the same or a different Exercise Price, or in return for the grant of a different Award for the same or a different number of Shares, without stockholder approval. The foregoing notwithstanding, no modification of an Option shall, without the consent of the Participant, materially impair his or her rights or obligations under such Option.

(j) Restrictions on Transfer of Shares. Any Shares issued upon exercise of an Option shall be subject to such special forfeiture conditions, rights of repurchase, rights of first refusal and other transfer restrictions as the Committee may determine. Such restrictions shall be set forth in the applicable Stock Option Award Agreement and shall apply in addition to any general restrictions that may apply to all holders of Shares.

(k) Buyout Provisions. The Committee may at any time (a) offer to buy out for a payment in cash or cash equivalents an Option previously granted or (b) authorize a Participant to elect to cash out an Option previously granted, in either case at *such* time and based upon such terms and conditions as the Committee shall establish.

SECTION 8. PAYMENT FOR SHARES.

(a) General Rule. The entire Exercise Price or Purchase Price of Shares issued under the Plan shall be payable in lawful money of the *United States* of America at the time when such Shares are purchased, except as provided in Section 8(b) through Section 8(h) below.

(b) Surrender of Stock. To the extent that a Stock Option Award Agreement so provides, payment may be made all or in part by surrendering, or attesting to the ownership of, Shares which have already been owned by the Participant or his representative. Such Shares shall be valued at their Fair Market Value on the date when the new Shares are purchased under the Plan. The Participant shall not surrender, or attest to the ownership of, Shares in payment of the Exercise Price if such action would cause the Company to recognize compensation expense (or additional compensation expense) with respect to the Option for financial reporting purposes.

(c) Services Rendered. At the discretion of the Committee, Shares may be awarded under the Plan in consideration of services rendered to the Company or a Subsidiary. If Shares are awarded without the payment of a Purchase Price in cash, the Committee shall make a determination (at the time of the Award) of the value of the services rendered by the Participant and the sufficiency of the consideration to meet the requirements of Section 6(b).

(d) Cashless Exercise. To the extent that a Stock Option Award Agreement so provides, payment may be made all or in part by delivery (on a form prescribed by the Committee) of an irrevocable direction to a securities broker to sell Shares and to deliver all or part of the sale proceeds to the Company in payment of the aggregate Exercise Price.

(e) Exercise/Pledge. To the extent that a Stock Option Award Agreement so provides, payment may be made all or in part by delivery (on a form prescribed by the Committee) of an irrevocable direction to a securities broker or lender to pledge *Shares*, as security for a loan, and to deliver all or part of the loan proceeds to the Company in payment of the aggregate Exercise Price.

(f) Net Exercise. To the extent that a Stock Option Award Agreement so provides, by a “net exercise” arrangement pursuant to which *the* number of Shares issuable upon exercise of the Option shall be reduced by the largest whole number of Shares having an aggregate Fair Market Value that does not exceed the aggregate exercise price (plus tax withholdings, if applicable) and any remaining balance of the aggregate exercise price (and/or applicable tax withholdings) not satisfied by such reduction in the number of whole Shares to be issued shall be paid by the Optionee in cash other form of payment permitted under the Stock Option Agreement.

(g) Promissory Note. To the extent that a Stock Option Award Agreement or Restricted Share Award Agreement so provides, payment may be made all or in part by delivering (on a form prescribed by the Company) a full-recourse promissory note.

(h) Other Forms of Payment. To the extent that a Stock Option Award Agreement or Restricted Share Award Agreement so provides, payment may be made in any other form that is consistent with applicable laws, regulations and rules.

(i) Limitations under Applicable Law. Notwithstanding anything herein or in a Stock Option Award Agreement or Restricted Share Award Agreement to the contrary, payment may not be made in any form that is unlawful, as determined by the Committee in its sole discretion.

SECTION 9. STOCK APPRECIATION RIGHTS.

(a) SAR Award Agreement. Each grant of a SAR under the Plan shall be evidenced by a SAR Award Agreement between the Participant and the Company. Such SAR shall be subject to all applicable terms of the Plan and may be subject to any other terms that are not inconsistent with the Plan. The provisions of the various SAR Award Agreements entered into under the Plan need not be identical.

(b) Number of Shares. Each SAR Award Agreement shall specify the number of Shares to which the SAR pertains and shall provide for the adjustment of such number in accordance with Section 12.

(c) Exercise Price. Each SAR Award Agreement shall specify the Exercise Price. The Exercise Price of a SAR shall not be less *than* 100% of the Fair Market Value of a Share on the date of grant. Notwithstanding the foregoing, SARs may be granted with an Exercise Price of less than

100% of the Fair Market Value per Share on the date of grant pursuant to a transaction described in, and in a manner consistent with, Section 424(a) of the Code. Subject to the foregoing in this Section 9(c), the Exercise Price under any SAR shall be determined by the Committee in its sole discretion.

(d) Exercisability and Term. Each SAR Award Agreement shall specify the date when all or any installment of the SAR is to *become* exercisable. The SAR Award Agreement shall also specify the term of the SAR. A SAR Award Agreement may provide for accelerated exercisability in the event of the Participant's death, disability or retirement or other events and may provide for expiration prior to the end of its term in the event of the termination of the Participant's service. SARs may be awarded in combination with Options, and such an Award may provide that the SARs will not be exercisable unless the related Options are forfeited. A SAR may be included in an ISO only at the time of grant but may be included in an NSO at the time of grant or thereafter. A SAR granted under the Plan may provide that it will be exercisable only in the event of a Change in Control.

(e) Effect of Change in Control. The Committee may determine, at the time of granting a SAR or thereafter, that such SAR shall become fully exercisable as to all Common Shares subject to such SAR in the event that a Change in Control occurs with respect to the Company.

(f) Exercise of SARs. Upon exercise of a SAR, the Participant (or any person having the right to exercise the SAR after his or her death) shall receive from the Company (a) Shares, (b) cash or (c) a combination of Shares and cash, as the Committee shall determine. The amount of cash and/or the Fair Market Value of Shares received upon exercise of SARs shall, in the aggregate, be equal to the amount by which the Fair Market Value (on the date of surrender) of the Shares subject to the SARs exceeds the Exercise Price.

(g) Modification or Assumption of SARs. Within the limitations of the Plan, the Committee may modify, extend or assume outstanding SARs or may accept the cancellation of outstanding SARs (whether granted by the Company or by another issuer) in return for the grant of new SARs for the same or a different number of shares and at the same or a different exercise price, or in return for the grant of a different Award for the same or a different number of Shares, without stockholder approval. The foregoing notwithstanding, no modification of a SAR shall, without the consent of the holder, materially impair his or her rights or obligations under such SAR.

(h) Buyout Provisions. The Committee may at any time (a) offer to buy out for a payment in cash or cash equivalents a SAR previously granted, or (b) authorize a Participant to elect to cash out a SAR previously granted, in either case at such time and based upon such terms and conditions as the Committee shall establish.

SECTION 10. STOCK UNITS.

(a) Stock Unit Award Agreement. Each grant of Stock Units under the Plan shall be evidenced by a Stock Unit Award Agreement between the Participant and the Company. Such Stock Units shall be subject to all applicable terms of the Plan and may be subject to any other terms that are not inconsistent with the Plan. The provisions of the various Stock Unit Award Agreements entered into under the Plan need not be identical.

(b) Payment for Awards. To the extent that an Award is granted in the form of Stock Units, no cash consideration shall be required of the Award recipients.

(c) Vesting Conditions. Each Award of Stock Units may or may not be subject to vesting. Vesting shall occur, in full or in installments, upon satisfaction of the conditions specified in the Stock Unit Award Agreement. A Stock Unit Award Agreement may provide for accelerated vesting in the event of the Participant's death, disability or retirement or other events. The Committee may determine, at the time of granting Stock Units or thereafter, that all or part of such Stock Units shall become vested in the event that a Change in Control occurs with respect to the Company.

(d) Voting and Dividend Rights. The holders of Stock Units shall have no voting rights. Prior to settlement or forfeiture, any Stock Unit awarded under the Plan may, at the Committee's discretion, carry with it a right to dividend equivalents. Such right entitles the holder to be credited with an amount equal to all cash dividends paid on one Share while the Stock Unit is outstanding. Dividend equivalents may be converted into additional Stock Units. Settlement of dividend equivalents may be made in the form of cash, in the form of Shares, or in a combination of both. Prior to distribution, any dividend equivalents which are not paid shall be subject to the same conditions and restrictions (including without limitation, any forfeiture conditions) as the Stock Units to which they attach.

(e) Form and Time of Settlement of Stock Units. Settlement of vested Stock Units may be made in the form of (a) cash, (b) Shares or (c) any combination of both, as determined by the Committee. The actual number of Stock Units eligible for settlement may be larger or smaller than the number included in the original Award, based on predetermined performance factors. Methods of converting Stock Units into cash may include (without limitation) a method based on the average Fair Market Value of Shares over a series of trading days. A Stock Unit Award Agreement may provide that vested Stock Units may be settled in a lump sum or in installments. A Stock Unit Award Agreement may provide that the distribution may occur or commence when all vesting conditions applicable to the Stock Units have been satisfied or have lapsed, or it may be deferred to any later date, subject to compliance with Section 409A of the Code. The amount of a deferred distribution may be increased by an interest factor or by dividend equivalents. Until an Award of Stock Units is settled, the number of such Stock Units shall be subject to adjustment pursuant to Section 12.

(f) Death of Participant. Any Stock Unit Award that becomes payable after the Participant's death shall be distributed to the Participant's beneficiary or beneficiaries. Each recipient of a Stock Unit Award under the Plan shall designate one or more beneficiaries for this purpose by filing the prescribed form with the Company. A beneficiary designation may be changed by filing the prescribed form with the Company at any time before the Participant's death. If no beneficiary was designated or if no designated beneficiary survives the Participant, then any Stock Units Award that becomes payable after the Participant's death shall be distributed to the Participant's estate.

(g) Creditors' Rights. A holder of Stock Units shall have no rights other than those of a general creditor of the Company. Stock Units represent an unfunded and unsecured obligation of the Company, subject to the terms and conditions of the applicable Stock Unit Award Agreement.

SECTION 11. CASH-BASED AWARDS

The Committee may, in its sole discretion, grant Cash-Based Awards to any Participant in such number or amount and upon such terms, and subject to such conditions, as the Committee shall determine at the time of grant and specify in an applicable Award Agreement. The Committee shall determine the maximum duration of the Cash-Based Award, the amount of cash which may be payable pursuant to the Cash-Based Award, the conditions upon which the Cash-Based Award shall become vested or payable, and such other provisions as the Committee shall determine. Each Cash-Based Award shall specify a cash-denominated payment amount, formula or payment ranges as determined by the Committee. Payment, if any, with respect to a Cash-Based Award shall be made in accordance with the terms of the Award and may be made in cash or in shares of Stock, as the Committee determines.

SECTION 12. ADJUSTMENT OF SHARES.

(a) Adjustments. In the event of a subdivision of the outstanding Stock, a declaration of a dividend payable in Shares, a declaration of a dividend payable in a form other than Shares in an amount that has a material effect on the price of Shares, a combination or consolidation of the outstanding Stock (by reclassification or otherwise) into a lesser number of Shares, a recapitalization, a spin-off or a similar occurrence, the Committee shall make appropriate and equitable adjustments in:

- (i) The number of Shares available for future Awards under Section 5;
- (ii) The limitations set forth in Sections 5(a) and (b) and Section 19;
- (iii) The number of NSOs to be granted to Outside Directors under Section 4(b);
- (iv) The number of Shares covered by each outstanding Award; and
- (v) The Exercise Price under each outstanding Option and SAR.

(b) Dissolution or Liquidation. To the extent not previously exercised or settled, Options, SARs and Stock Units shall terminate immediately prior to the dissolution or liquidation of the Company.

(c) Reorganizations. In the event that the Company is a party to a merger or other reorganization, outstanding Awards shall be subject to the agreement of merger or reorganization. Subject to compliance with Section 409A of the Code, such agreement shall provide for:

- (i) The continuation of the outstanding Awards by the Company, if the Company is a surviving corporation;
- (ii) The assumption of the outstanding Awards by the surviving corporation or its parent or subsidiary;

(iii) The substitution by the surviving corporation or its parent or subsidiary of its own awards for the outstanding Awards;

(iv) Immediate vesting, exercisability and settlement of outstanding Awards followed by the cancellation of such Awards upon or immediately prior to the effectiveness of such transaction; or

(v) Settlement of the intrinsic value of the outstanding Awards (whether or not then vested or exercisable) in cash or cash equivalents or equity (including cash or equity subject to deferred vesting and delivery consistent with the vesting restrictions applicable to such Awards or the underlying Shares) followed by the cancellation of such Awards (and, for the avoidance of doubt, if as of the date of the occurrence of the transaction the Committee determines in good faith that no amount would have been attained upon the exercise of such Award or realization of the Participant's rights, then such Award may be terminated by the Company without payment); in each case without the Participant's consent. Any acceleration of payment of an amount that is subject to section 409A of the Code will be delayed, if necessary, until the earliest time that such payment would be permissible under Section 409A without triggering any additional taxes applicable under Section 409A.

The Company will have no obligation to treat all Awards, all Awards held by a Participant, or all Awards of the same type, similarly.

(d) Reservation of Rights. Except as provided in this Section 12, a Participant shall have no rights by reason of any subdivision or consolidation of shares of stock of any class, the payment of any dividend or any other increase or decrease in the number of shares of stock of any class. Any issue by the Company of shares of stock of any class, or securities convertible into shares of stock of any class, shall not affect, and no adjustment by reason thereof shall be made with respect to, the number or Exercise Price of Shares subject to an Award. The grant of an Award pursuant to the Plan shall not affect in any way the right or power of the Company to make adjustments, reclassifications, reorganizations or changes of its capital or business structure, to merge or consolidate or to dissolve, liquidate, sell or transfer all or any part of its business or assets. In the event of any change affecting the Shares or the Exercise Price of Shares subject to an Award, including a merger or other reorganization, for reasons of administrative convenience, the Company in its sole discretion may refuse to permit the exercise of any Award during a period of up to thirty (30) days prior to the occurrence of such event.

SECTION 13. DEFERRAL OF AWARDS.

(a) Committee Powers. Subject to compliance with Section 409A of the Code, the Committee (in its sole discretion) may permit or require a Participant to:

(i) Have cash that otherwise would be paid to such Participant as a result of the exercise of a SAR or the settlement of Stock Units credited to a deferred compensation account established for such Participant by the Committee as an entry on the Company's books;

(ii) Have Shares that otherwise would be delivered to such Participant as a result of the exercise of an Option or SAR converted into an equal number of Stock Units; or

(iii) Have Shares that otherwise would be delivered to such Participant as a result of the exercise of an Option or SAR or the settlement of Stock Units converted into amounts credited to a deferred compensation account established for such Participant by the Committee as an entry on the Company's books. Such amounts shall be determined by reference to the Fair Market Value of such Shares as of the date when they otherwise would have been delivered to such Participant.

(b) General Rules. A deferred compensation account established under this Section 13 may be credited with interest or other forms of investment return, as determined by the Committee. A Participant for whom such an account is established shall have no rights other than those of a general creditor of the Company. Such an account shall represent an unfunded and unsecured obligation of the Company and shall be subject to the terms and conditions of the applicable agreement between such Participant and the Company. If the deferral or conversion of Awards is permitted or required, the Committee (in its sole discretion) may establish rules, procedures and forms pertaining to such Awards, including (without limitation) the settlement of deferred compensation accounts established under this Section 13.

SECTION 14. AWARDS UNDER OTHER PLANS.

The Company may grant awards under other plans or programs. Such awards may be settled in the form of Shares issued under this Plan. Such Shares shall be treated for all purposes under the Plan like Shares issued in settlement of Stock Units and shall, when issued, reduce the number of Shares available under Section 5.

SECTION 15. PAYMENT OF DIRECTOR'S FEES IN SECURITIES.

(a) Effective Date. No provision of this Section 15 shall be effective unless and until the Board has determined to implement such provision.

(b) Elections to Receive NSOs, SARs, Restricted Shares or Stock Units. An Outside Director may elect to receive his or her annual retainer payments and/or meeting fees from the Company in the form of cash, NSOs, SARs, Restricted Shares or Stock Units, or a combination thereof, as determined by the Board. Alternatively, the Board may mandate payment in any of such alternative forms. Such NSOs, SARs, Restricted Shares and Stock Units shall be issued under the Plan. An election under this Section 15 shall be filed with the Company on the prescribed form.

(c) Number and Terms of NSOs, SARs, Restricted Shares or Stock Units. The number of NSOs, SARs, Restricted Shares or Stock Units to be granted to Outside Directors in lieu of annual retainers and meeting fees that would otherwise be paid in cash shall be calculated in a manner determined by the Board. The terms of such NSOs, SARs, Restricted Shares or Stock Units shall also be determined by the Board.

SECTION 16. LEGAL AND REGULATORY REQUIREMENTS.

Shares shall not be issued under the Plan unless the issuance and delivery of such Shares complies with (or is exempt from) all applicable requirements of law, including (without limitation) the Securities Act of 1933, as amended, the rules and regulations promulgated thereunder, state

securities laws and regulations and the regulations of any stock exchange on which the Company's securities may then be listed, and the Company has obtained the approval or favorable ruling from any governmental agency which the Company determines is necessary or advisable. The Company shall not be liable to a Participant or other persons as to: (a) the non-issuance or sale of Shares as to which the Company has not obtained from any regulatory body having jurisdiction the authority deemed by the Company's counsel to be necessary to the lawful issuance and sale of any Shares under the Plan; and (b) any tax consequences expected, but not realized, by any Participant or other person due to the receipt, exercise or settlement of any Award granted under the Plan.

SECTION 17. TAXES.

(a) Withholding Taxes. To the extent required by applicable federal, state, local or foreign law, a Participant or his or her successor shall make arrangements satisfactory to the Company for the satisfaction of any withholding tax obligations that arise in connection with the Plan. The Company shall not be required to issue any Shares or make any cash payment under the Plan until such obligations are satisfied.

(b) Share Withholding. The Committee may permit a Participant to satisfy all or part of his or her withholding or income tax obligations by having the Company withhold all or a portion of any Shares that otherwise would be issued to him or her or by surrendering all or a portion of any Shares that he or she previously acquired. Such Shares shall be valued at their Fair Market Value on the date when taxes otherwise would be withheld in cash. In no event may a Participant have Shares withheld that would otherwise be issued to him or her in excess of the number necessary to satisfy the minimum legally required tax withholding.

(c) Section 409A. Each Award that provides for "nonqualified deferred compensation" within the meaning of Section 409A of the Code shall be subject to such additional rules and requirements as specified by the Committee from time to time in order to comply with Section 409A. If any amount under such an Award is payable upon a "separation from service" (within the meaning of Section 409A) to a Participant who is then considered a "specified employee" (within the meaning of Section 409A), then no such payment shall be made prior to the date that is the earlier of (i) six months and one day after the Participant's separation from service, or (ii) the Participant's death, but only to the extent such delay is necessary to prevent such payment from being subject to interest, penalties and/or additional tax imposed pursuant to Section 409A. In addition, the settlement of any such Award may not be accelerated except to the extent permitted by Section 409A.

SECTION 18. TRANSFERABILITY.

Unless the agreement evidencing an Award (or an amendment thereto authorized by the Committee) expressly provides otherwise, no Award granted under this Plan, nor any interest in such Award, may be sold, assigned, conveyed, gifted, pledged, hypothecated or otherwise transferred in any manner (prior to the vesting and lapse of any and all restrictions applicable to Shares issued under such Award), other than by will or the laws of descent and distribution; provided, however, that an ISO may be transferred or assigned only to the extent consistent with Section 422 of the Code. Any purported assignment, transfer or encumbrance in violation of this Section 18 shall be void and unenforceable against the Company.

SECTION 19. PERFORMANCE BASED AWARDS .

The number of Shares or other benefits granted, issued, retainable and/or vested under an Award may be made subject to the attainment of performance goals. The Committee may utilize any performance criteria selected by it in its sole discretion to establish performance goals; provided, however, that in the case of any Performance Based Award, the following conditions shall apply:

(i) The amount potentially available under a Performance Based Award shall be subject to the attainment of pre-established, objective performance goals relating to a specified period of service based on one or more of the following performance criteria: (a) cash flow (including operating cash flow), (b) earnings per share, (c) earnings before any combination of interest, taxes, depreciation or amortization, (d) return on equity, (e) total stockholder return, (f) share price performance, (g) return on capital, (h) return on assets or net assets, (i) revenue, (j) income or net income, (k) operating income or net operating income, (l) operating profit or net operating profit, (m) operating margin or profit margin, (n) return on operating revenue, (o) return on invested capital, (p) market segment shares, (q) costs, (r) expenses, (s) achievement of target levels of discovery and/or development of products or services, including but not limited to research or regulatory achievements, (t) third party coverage and/or reimbursement objectives, or (u) test volume metrics (“Qualifying Performance Criteria”), any of which may be measured either individually, alternatively or in any combination, applied to either the Company as a whole or to a business unit or Subsidiary, either individually, alternatively or in any combination, and measured either annually or cumulatively over a period of years, on an absolute basis or relative to a pre-established target, to previous years’ results or to a designated comparison group or index, in each case as specified by the Committee in the Award;

(ii) Unless specified otherwise by the Committee at the time the performance goals are established or otherwise within the time prescribed by Section 162(m) of the Code, the Committee shall appropriately adjust the method of evaluating performance under a Qualifying Performance Criteria for a performance period as follows: (i) to exclude asset write-downs, (ii) to exclude litigation or claim judgments or settlements, (iii) to exclude the effect of changes in tax law, accounting principles or other such laws or provisions affecting reported results, (iv) to exclude accruals for reorganization and restructuring programs, (v) to exclude any extraordinary nonrecurring items as determined under generally accepted accounting principles and/or described in managements’ discussion and analysis of financial condition and results of operations appearing in the Company’s annual report to stockholders for the applicable year, (vi) to exclude the dilutive effects of acquisitions or joint ventures, (vii) to assume that any business divested by the Company achieved performance objectives at targeted levels during the balance of a performance period following such divestiture, (viii) to exclude the effect of any change in the outstanding shares of common stock of the Company by reason of any stock dividend or split, stock repurchase, reorganization, recapitalization, merger, consolidation, spin-off, combination or exchange of shares or other similar corporate change, or any distributions to common stockholders other than regular cash dividends, (ix) to exclude the effects of stock based compensation and the award of bonuses under the Company’s bonus plans; and (x) to exclude costs incurred in connection with potential acquisitions or divestitures that are required to be expensed under generally accepted accounting principles, in each case in compliance with Section 162(m);

(iii) The Committee shall establish the applicable performance goals in writing and an objective method for determining the Award earned by a Participant if the goals are attained, while the outcome is substantially uncertain and not later than the 90th day of the performance period (but in no event after 25% of the period of service with respect to which the performance goals relate has elapsed), and shall determine and certify in writing, for each Participant, the extent to which the performance goals have been met prior to payment or vesting of the Award; and

(iv) The Committee may not in any event increase the amount of compensation payable under the Plan upon the attainment of the pre-established performance goals to a Participant who is a “covered employee” within the meaning of Section 162(m) of the Code.

(v) The maximum aggregate number of Shares that may be subject to Performance Based Awards granted to a Participant in any calendar year is 1,000,000 Shares (subject to adjustment under Section 12), and no more than two times this amount in the first year of employment, and the maximum aggregate amount of cash that may be payable to a Participant under Performance Based Awards granted to a Participant in any calendar year that are Cash-Based Awards is \$2,000,000.

SECTION 20. NO EMPLOYMENT RIGHTS.

No provision of the Plan, nor any Award granted under the Plan, shall be construed to give any person any right to become, to be treated as, or to remain an Employee or Consultant. The Company and its Subsidiaries reserve the right to terminate any person’s Service at any time and for any reason, with or without notice.

SECTION 21. DURATION AND AMENDMENTS.

(a) Term of the Plan. The Plan, as set forth herein, shall come into existence on the date of its adoption by the Board of Directors; provided, however, that no Award may be granted hereunder prior to the Effective Date. The Board of Directors may suspend or terminate the Plan at any time. No ISOs may be granted after the tenth anniversary of the earlier of (i) the date the Plan is adopted by the Board of Directors, or (ii) the date the Plan is approved the stockholders of the Company.

(b) Right to Amend the Plan. The Board of Directors may amend the Plan at any time and from time to time. Rights and obligations under any Award granted before amendment of the Plan shall not be materially impaired by such amendment, except with consent of the Participant. An amendment of the Plan shall be subject to the approval of the Company’s stockholders only to the extent required by applicable laws, regulations or rules.

(c) Effect of Termination. No Awards shall be granted under the Plan after the termination thereof. The termination of the Plan shall not affect Awards previously granted under the Plan.

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

I, Bonnie H. Anderson, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Veracyte, Inc. for the quarter ended June 30, 2017 ;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 31, 2017

/s/ Bonnie H. Anderson

Bonnie H. Anderson

Chairman and Chief Executive Officer

(Principal Executive Officer)

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

I, Keith S. Kennedy, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Veracyte, Inc. for the quarter ended June 30, 2017 ;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: July 31, 2017

/s/ Keith S. Kennedy

Keith S. Kennedy

Chief Financial Officer

(Principal Financial and Accounting Officer)

**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 Veracyte, Inc. (the “Company”) on Form 10-Q for the quarter ended June 30, 2017 , as filed with the Securities and Exchange Commission on the date hereof (the “Report”), the undersigned officer of the Company certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to such officer’s knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: July 31, 2017

/s/ Bonnie H. Anderson

Bonnie H. Anderson

Chairman and Chief Executive Officer

(Principal Executive Officer)

**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 Veracyte, Inc. (the "Company") on Form 10-Q for the quarter ended June 30, 2017, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned officer of the Company certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to such officer's knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: July 31, 2017

/s/ Keith S. Kennedy

Keith S. Kennedy

Chief Financial Officer

(Principal Financial and Accounting Officer)