CANCER GENETICS, INC
Form 10-Q
May 10, 2016
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-Q

(Mark One)
ý QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended March 31, 2016
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 001-35817

CANCER GENETICS, INC.
(Exact name of registrant as specified in its charter)

Delaware	04-3462475
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

201 Route 17 North 2nd Floor
Rutherford, NJ 07070
(201) 528-9200
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

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 ý 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 ý No ¨

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Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See the definitions of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer ¨	Accelerated filer x
Non-accelerated filer ¨ (Do not check if a smaller reporting company)	Smaller reporting company ¨

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

As of May 1, 2016, there were 13,652,274 shares of common stock, par value $0.0001 of Cancer Genetics, Inc. outstanding.

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PART I — FINANCIAL INFORMATION
Item 1. Financial Statements (Unaudited)
Cancer Genetics, Inc. and Subsidiaries
Consolidated Balance Sheets (Unaudited)
(in thousands, except par value)

	March 31, 2016	December 31, 2015
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	$13,273	$ 19,459
Accounts receivable, net of allowance for doubtful accounts	8,449	6,621
Other current assets	1,823	2,118
Total current assets	23,545	28,198
FIXED ASSETS, net of accumulated depreciation	5,870	6,069
OTHER ASSETS		
Restricted cash	300	300
Patents and other intangible assets, net of accumulated amortization	1,679	1,727
Investment in joint venture	329	341
Goodwill	12,029	12,029
Other	217	220
Total other assets	14,554	14,617
Total Assets	$43,969	$ 48,884
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES		
Accounts payable and accrued expenses	$7,775	$ 7,579
Obligations under capital leases, current portion	106	122
Deferred revenue	630	831
Bank term note, current portion	1,833	1,333
Total current liabilities	10,344	9,865
Obligations under capital leases	251	276
Deferred rent payable and other	309	315
Warrant liability	—	17
Deferred revenue, long-term	622	752
Bank term note	4,146	4,642
Total liabilities	15,672	15,867
STOCKHOLDERS' EQUITY		
Preferred stock, authorized 9,764 shares, $0.0001 par value, none issued	—	—
Common stock, authorized 100,000 shares, $0.0001 par value, 13,652 and 13,652 shares issued and outstanding at March 31, 2016 and December 31, 2015, respectively	1	1
Additional paid-in capital	131,701	131,167
Accumulated (deficit)	(103,405)	(98,151)
Total Stockholders' Equity	28,297	33,017
Total Liabilities and Stockholders' Equity	$43,969	$ 48,884

See Notes to Unaudited Consolidated Financial Statements.

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Cancer Genetics, Inc. and Subsidiaries
Consolidated Statements of Operations (Unaudited)
(in thousands, except per share amounts)

	Three Months Ended March 31,	
	2016	2015
Revenue	$6,068	$4,370
Cost of revenues	4,103	3,141
Gross profit	1,965	1,229
Operating expenses:		
Research and development	1,532	1,278
General and administrative	4,318	2,987
Sales and marketing	1,298	1,116
Total operating expenses	7,148	5,381
Loss from operations	(5,183)	(4,152)
Other income (expense):		
Interest expense	(126)	(34)
Interest income	4	13
Change in fair value of acquisition note payable	34	(90)
Change in fair value of warrant liability	17	(15)
Total other (expense)	(71)	(126)
Net (loss)	$(5,254)	$(4,278)
Basic net (loss) per share	$(0.39)	$(0.44)
Diluted net (loss) per share	$(0.39)	$(0.44)
Basic Weighted-Average Shares Outstanding	13,547	9,704
Diluted Weighted-Average Shares Outstanding	13,547	9,704

See Notes to Unaudited Consolidated Financial Statements.

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Cancer Genetics, Inc. and Subsidiaries
Consolidated Statements of Cash Flows (Unaudited)
(in thousands)

	Three Months Ended March 31,	
	2016	2015
CASH FLOWS FROM OPERATING ACTIVITIES		
Net (loss)	$(5,254)	$(4,278)
Adjustments to reconcile net (loss) to net cash (used in) operating activities:		
Depreciation	518	348
Amortization	87	9
Provision for bad debts	—	221
Stock-based compensation	534	696
Change in fair value of acquisition note payable	(34)	90
Change in fair value of Gentris contingent consideration	—	(162)
Change in fair value of warrant liability	(17)	15
Amortization of debt issuance costs	4	—
Loss in equity method investment	12	207
Changes in:		
Accounts receivable	(1,828)	(17)
Other current assets	295	23
Other non-current assets	3	—
Accounts payable, accrued expenses and deferred revenue	(101)	(239)
Deferred rent and other	(6)	(18)
Net cash (used in) operating activities	(5,787)	(3,105)
CASH FLOWS FROM INVESTING ACTIVITIES		
Purchase of fixed assets	(319)	(83)
Patent costs	(39)	(40)
Net cash (used in) investing activities	(358)	(123)
CASH FLOWS FROM FINANCING ACTIVITIES		
Principal payments on capital lease obligations	(41)	(14)
Net cash (used in) financing activities	(41)	(14)
Net (decrease) in cash and cash equivalents	(6,186)	(3,242)
CASH AND CASH EQUIVALENTS		
Beginning	19,459	25,554
Ending	$13,273	$22,312
SUPPLEMENTAL CASH FLOW DISCLOSURE		
Cash paid for interest	$97	$34

See Notes to Unaudited Consolidated Financial Statements.

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Notes to Unaudited Consolidated Financial Statements

Note 1. Organization, Description of Business, Basis of Presentation, Acquisitions and Recent Accounting Pronouncements

We are an emerging leader in the field of personalized medicine, enabling precision medicine in the field of oncology through our diagnostic products and services and molecular markers. We develop, commercialize and provide molecular- and biomarker-based tests and services that enable physicians to personalize the clinical management of each individual patient by providing genomic information to better diagnose, monitor and inform cancer treatment and that enable biopharmaceutical companies engaged in oncology trials to better select candidate populations and reduce adverse drug reactions by providing information regarding genomic factors influencing subject responses to therapeutics. We have a comprehensive, disease-focused oncology testing portfolio. Our tests and techniques target a wide range of cancers, covering eight of the top ten cancers in prevalence in the United States, with additional unique capabilities offered by our Tissue of Origin® test for identifying difficult to diagnose tumor types or poorly differentiated metastatic disease.

We were incorporated in the State of Delaware on April 8, 1999 and have offices and state-of-the-art laboratories located in California, New Jersey, North Carolina, Shanghai (China), and Hyderabad (India). Our laboratories comply with the highest regulatory standards as appropriate for the services they deliver including CLIA, CAP, NY State, California State and NABL (India). Our services are built on a foundation of world-class scientific knowledge and intellectual property in solid and blood-borne cancers, as well as strong academic relationships with major cancer centers such as Memorial Sloan-Kettering, Mayo Clinic, and the National Cancer Institute.

Basis of Presentation

The accompanying unaudited condensed financial statements of the Company have been prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”) for interim financial information and with the instructions for interim reporting as prescribed by the Securities and Exchange Commission. Accordingly, they do not include all of the information and footnotes required by accounting principles generally accepted in the United States of America for complete financial statements. In the opinion of management, all adjustments (consisting of normal recurring accruals) considered necessary to make the financial statements not misleading have been included. As such, the information included in this quarterly report on Form 10-Q should be read in conjunction with the audited consolidated financial statements as of and for the year ended December 31, 2015, filed with the Securities and Exchange Commission on March 10, 2016. The consolidated balance sheet as of December 31, 2015, included herein was derived from the audited financial statements as of that date, but does not include all disclosures including notes required by GAAP. Interim financial results are not necessarily indicative of the results that may be expected for any future interim period or for the year ending December 31, 2016.

Acquisition of Response Genetics, Inc.

On October 9, 2015, we acquired substantially all the assets and assumed certain liabilities of Response Genetics, Inc. (“Response Genetics”), with its principal place of business in California, in a transaction valued at approximately $12.9 million, comprised of $7.5 million in cash and 788,584 shares of the Company’s common stock, with the common stock being valued at $5.4 million.

The following table provides certain pro forma financial information for the Company as if the acquisition of Response Genetics discussed above occurred on January 1, 2015 (in thousands except per share amounts):

	Three Months

	Ended March 31, 2015
Revenue	$8,161
Net loss	(7,919)
Basic net loss per share	$(0.75)
Diluted net loss per share	(0.75)

The pro forma numbers above are derived from historical numbers of the Company and Response Genetics. Over time the operations of Response Genetics will be integrated into the operations of the Company. This integration may change how

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certain tests are coded and submitted to payers (including Medicare) and, consequently, may result in differences in the future in which revenues and bad debt expenses are recorded when compared with the historical methods of Response Genetics. At the current time, we do not have enough information to prepare a reliable estimate of any possible changes.

The results of operations for the three months ended March 31, 2016 include the operations of Response Genetics, which accounted for approximately $2,163,000 of the Company's consolidated revenue. The net loss of Response Genetics cannot be determined, as its operations are integrated with Cancer Genetics.

Recent Accounting Pronouncements

In March 2016, the FASB issued ASU 2016-09 "Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting." This standard requires the recognition of the income tax effects of awards in the income statement when the awards vest or are settled, thus eliminating additional paid in capital pools. The guidance also allows for the employer to repurchase more of an employee's shares for tax withholding purposes without triggering liability accounting. In addition, the guidance allows for a policy election to account for forfeitures as they occur rather than on an estimated basis. The guidance is effective in 2017 with early adoption permitted. The Company is currently evaluating the impact of this guidance on its consolidated financial statements and the timing of adoption.

Note 2. Revenue and Accounts Receivable

Revenue by service type for the three months ended March 31, 2016 and 2015 is comprised of the following (in thousands):

	Three Months Ended March 31,	
	2016	2015
Biopharma Services	$3,350	$3,331
Clinical Services	2,456	873
Discovery Services	262	166
	$6,068	$4,370

The table above includes approximately $459,000 of biopharma revenue and approximately $1,704,000 of clinical services revenue from our acquisition of Response Genetics for the three months ended March 31, 2016.

Accounts receivable by service type at March 31, 2016 and December 31, 2015 consists of the following (in thousands):

	March 31, 2016	December 31, 2015
Biopharma Services	$ 3,334	$ 3,238
Clinical Services	5,432	3,733
Discovery Services	347	314
Allowance for doubtful accounts	(664)	(664)
	$ 8,449	$ 6,621

Allowance for Doubtful Accounts (in thousands)	
Balance, December 31, 2015	$664
Additions to allowance for doubtful accounts	—
Balance, March 31, 2016	$664

Revenue for Biopharma Services are customized solutions for patient stratification and treatment selection through an extensive suite of DNA-based testing services. Clinical Services are tests performed to provide information on diagnosis, prognosis and theranosis of cancers to guide patient management. These tests can be billed to Medicare, another third party insurer or the referring community hospital or other healthcare facility. Discovery Services are services that provide the tools and testing methods for companies and researchers seeking to identify new DNA-based biomarkers for disease. The breakdown of our Clinical Services revenue (as a percent of total revenue) is as follows:

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	Three Months Ended March 31,	
	2016	2015
Medicare	15%	6%
Other insurers	21%	7%
Other healthcare facilities	4%	7%
	40%	20%

We have historically derived a significant portion of our revenue from a limited number of test ordering sites. Test ordering sites account for all of our Clinical Services and Biopharma Services revenue. Our test ordering sites are largely hospitals, cancer centers, reference laboratories, physician offices and biopharmaceutical companies. Oncologists and pathologists at these sites order the tests on behalf of the needs of their oncology patients or as part of a clinical trial sponsored by a biopharmaceutical company in which the patient is being enrolled. We generally do not have formal, long-term written agreements with such test ordering sites, and, as a result, we may lose a significant test ordering site at any time.

The top five test ordering sites during the three months ended March 31, 2016 and 2015 accounted for 35% and 72%, respectively, of our testing volumes, with 8% and 24%, respectively, of the volume coming from community hospitals. During the three months ended March 31, 2016, there were two biopharmaceutical companies which accounted for approximately 11% and 10% of our total revenue, respectively. During the three months ended March 31, 2015, there were two biopharmaceutical companies which accounted for approximately 29% and 22% of our total revenue, respectively.

Note 3. Earnings Per Share

For purposes of this calculation, stock warrants, outstanding stock options and unvested restricted shares are considered common stock equivalents using the treasury stock method, and are the only such equivalents outstanding.

Basic net loss and diluted net loss per share data were computed as follows (in thousands except per share data):

	Three Months Ended March 31,	
	2016	2015
Numerator:		
Net (loss) for basic earnings per share	$(5,254)	$(4,278)
Change in fair value of warrant liability	17	—
Net (loss) for diluted earnings per share	$(5,271)	$(4,278)
Denominator:		
Weighted-average basic common shares outstanding	13,547	9,704
Assumed conversion of dilutive securities:		
Common stock purchase warrants	—	—
Potentially dilutive common shares	—	—
Denominator for diluted earnings per share – adjusted weighted-average shares	13,547	9,704
Basic net (loss) per share	$(0.39)	$(0.44)
Diluted net (loss) per share	$(0.39)	$(0.44)

The following table summarizes equivalent units outstanding that were excluded from the earnings per share calculation because their effects were anti-dilutive (in thousands):

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	Three Months Ended March 31,	
	2016	2015
Common stock purchase warrants	4,362	1,136
Stock options	1,928	1,888
Restricted shares of common stock	98	122
	6,388	3,146

Note 4. Bank Term Note and Line of Credit

On May 7, 2015, we entered into a debt financing facility with Silicon Valley Bank ("SVB"). The SVB credit facility provides for a $6.0 million term note ("Term Note") and a revolving line of credit ("Line of Credit") for an amount not to exceed the lesser of (i) $4.0 million or (ii) an amount equal to 80% of eligible accounts receivable. The Term Note requires interest-only payments through April 30, 2016 and beginning May 1, 2016, monthly principal payments of approximately $167,000 will be required plus interest through maturity on April 1, 2019. The interest rate of the Term Note is the Wall Street Journal prime rate plus 2%, with a floor of 5.25% (5.50% at March 31, 2016) and an additional deferred interest payment of $180,000 will be due upon maturity. The Line of Credit requires monthly interest-only payments of the Wall Street Journal prime rate plus 1.5% (5.00% at March 31, 2016) and matures on May 7, 2017. The loan agreement requires maintenance of certain financial ratios and grants SVB a first security interest in substantially all Company assets (other than our intellectual property). At March 31, 2016 the principal balance of the Term Note was $6,000,000 and the principal balance of the Line of Credit was $0. On January 28, 2016, the Line of Credit was amended with SVB and we are no longer able to draw on the Line of Credit until we raise approximately $13 million of additional equity.

The following is a summary of long-term debt (in thousands):

	March 31, 2016	December 31, 2015
Term Note, principal balance	$ 6,000	$ 6,000
Less unamortized debt issuance costs	21	25
Term Note, net	5,979	5,975
Less current maturities	1,833	1,333
Long-term portion	$ 4,146	$ 4,642

Principal maturities of the Term Note as of March 31, 2016 are as follows: 2016 (remaining nine months) - $1,333,333; 2017 - $2,000,000; 2018 - $2,000,000; 2019 - $666,667.

Note 5. Stock-Based Compensation

We have two equity incentive plans: the 2008 Stock Option Plan (the "2008 Plan") and the 2011 Equity Incentive Plan (the "2011 Plan", and together with the 2008 Plan, the "Stock Option Plans"). The Stock Option Plans are meant to provide additional incentive to officers, employees and consultants to remain in our employment. Options granted are generally exercisable for up to 10 years.

At March 31, 2016, 886,151 shares remain available for future awards under the 2011 Plan and 111,455 shares remain available for future awards under the 2008 Plan. As of March 31, 2016, no stock appreciation rights and 275,500 shares of restricted stock have been awarded under the Stock Option Plans.

A summary of employee and non-employee stock option activity for the three months ended March 31, 2016 is as follows:

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	Options Outstanding		Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
	Number of Shares	Weighted-Average Exercise Price		
Outstanding January 1, 2016	1,961	$ 10.55	7.68	$ —
Canceled or expired	(33)	9.91		
Outstanding March 31, 2016	1,928	$ 10.56	7.38	$ —
Exercisable March 31, 2016	1,081	$ 10.34	6.52	$ —

Aggregate intrinsic value represents the difference between the estimated fair value of our common stock and the exercise price of outstanding, in-the-money options.

As of March 31, 2016, total unrecognized compensation cost related to non-vested stock options granted to employees was $4,165,630 which we expect to recognize over the next 2.85 years.

As of March 31, 2016, total unrecognized compensation cost related to non-vested stock options granted to non-employees was $112,875 which we expect to recognize over the next 1.76 years. The estimate of unrecognized non-employee compensation is based on the fair value of the non-vested options as of March 31, 2016.

The fair value of options granted to employees is estimated on the grant date using the Black-Scholes option valuation model. This valuation model requires us to make assumptions and judgments about the variables used in the calculation, including the expected term (the period of time that the options granted are expected to be outstanding), the volatility of our common stock, a risk-free interest rate, and expected dividends. To the extent actual forfeitures differ from the estimates, the difference will be recorded as a cumulative adjustment in the period estimates are revised. No compensation cost is recorded for options that do not vest. We use the simplified calculation of expected life described in the SEC’s Staff Accounting Bulletin No. 107, Share-Based Payment, and volatility is based on an average of the historical volatilities of the common stock of three entities with characteristics similar to those of the Company. The risk-free rate is based on the U.S. Treasury yield curve in effect at the time of grant for periods corresponding with the expected life of the option. We use an expected dividend yield of zero, as we do not anticipate paying any dividends in the foreseeable future. Expected forfeitures are assumed to be zero due to the small number of plan participants and the plan design which has monthly vesting after an initial cliff vesting period.

The following table presents the weighted-average assumptions used to estimate the fair value of options granted to employees during the periods presented:

	Three Months Ended March 31, 2015
Volatility	68.98%
Risk free interest rate	1.70%
Dividend yield	0.00%
Term (years)	6.31
Weighted-average fair value of options granted during the period	5.83

In May 2014, we issued 200,000 options to our Director, Raju Chaganti, with an exercise price of $15.89. See Note 9 for additional information. The following table presents the weighted-average assumptions used to estimate the fair value of options reaching their measurement date for non-employees during the periods presented:

	Three Months Ended March

	31, 2016	2015
Volatility	75.92%	70.50%
Risk free interest rate	1.56 %	1.88%
Dividend yield	0.00 %	0.00%
Term (years)	8.14	9.09

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Restricted stock awards have been granted to employees, directors and consultants as compensation for services. At March 31, 2016, there was $629,524 of unrecognized compensation cost related to non-vested restricted stock granted to employees; we expect to recognize the cost over 2.29 years.

The following table summarizes the activities for our non-vested restricted stock awards for the three months ended March 31, 2016:

	Non-vested Restricted Stock Awards	
	Number of Shares (in thousands)	Weighted-Average Grant Date Fair Value
Non-vested at January 1, 2016	121	$ 8.25
Vested	(23)	10.18
Non-vested at March 31, 2016	98	$ 7.80

The following table presents the effects of stock-based compensation related to stock option and restricted stock awards to employees and non-employees on our Statement of Operations during the periods presented (in thousands):

	Three Months Ended March 31,	
	2016	2015
Cost of revenues	$69	$49
Research and development	50	95
General and administrative	387	521
Sales and marketing	28	31
Total stock-based compensation	$534	$696

Note 6. Warrants

We have issued certain warrants which contain an exercise price adjustment feature in the event we issue additional equity instruments at a price lower than the exercise price of the warrant. The warrants are described herein as derivative warrants. As of March 31, 2016 all derivative warrants have either expired or have been exercised.

The following table summarizes the warrant activity for the three months ended March 31, 2016 (in thousands, except exercise price):

Issued With / For	Exercise Price	Warrants Outstanding January 1, 2016	2016 Warrants Expired	Warrants Outstanding March 31, 2016
Non-Derivative Warrants:				
Financing	$ 10.00	243	—	243
Financing	15.00	436	—	436
Debt guarantee	15.00	233	—	233
Consulting	10.00	10	(10)	—
2015 Offering	5.00	3,450	—	3,450
Total non-derivative warrants	$ 6.81	B 4,372	(10)	4,362
Derivative Warrants:				

Financing	4.00	A 60	(60	) —
Total derivative warrants	—	B 60	(60	) —
Total	$ 6.81	B 4,432	(70	) 4,362

A These warrants were subject to fair value accounting and contained an exercise price adjustment feature.
B Weighted-average exercise prices are as of March 31, 2016.

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Note 7. Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. The Fair Value Measurements and Disclosures Topic of the FASB Accounting Standards Codification requires the use of valuation techniques that are consistent with the market approach, the income approach and/or the cost approach. Inputs to valuation techniques refer to the assumptions that market participants would use in pricing the asset or liability. Inputs may be observable, meaning those that reflect the assumptions market participants would use in pricing the asset or liability developed based on market data obtained from independent sources, or unobservable, meaning those that reflect our own assumptions about the assumptions market participants would use in pricing the asset or liability developed based on the best information available in the circumstances. In that regard, the Topic establishes a fair value hierarchy for valuation inputs that give the highest priority to quoted prices in active markets for identical assets or liabilities and the lowest priority to unobservable inputs. The fair value hierarchy is as follows:

Level 1: Quoted prices (unadjusted) for identical assets or liabilities in active markets that we have the ability to access as of the measurement date.

Level 2: Significant other observable inputs other than Level 1 prices 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.

Level 3: Significant unobservable inputs that reflect our own assumptions about the assumptions that market participants would use in pricing an asset or liability.

The following table summarizes the financial liabilities measured at fair value on a recurring basis segregated by the level of valuation inputs within the fair value hierarchy utilized to measure fair value (in thousands):

	March 31, 2016			
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Notes payable	$232	$ —	$ —	$ 232

	December 31, 2015			
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Warrant liability	$17	$ —	$ —	$ 17
Notes payable	266	—	—	266
	$283	$ —	$ —	$ 283

The ultimate payment to VenturEast will be the value of 84,278 shares of common stock at the time of payment. The value of the note payable to VenturEast was determined using the fair value of our common stock less a discount for credit risk. During the three months ended March 31, 2016, we recognized a gain of approximately $34,000 due to the change in value of the note.

During the three months ended March 31, 2016, we recognized a gain of approximately $17,000 due to the expiration of all remaining warrants underlying the warrant liability.

Realized and unrealized gains and losses related to the change in fair value of the VenturEast note and warrant liability are included in other income (expense) on the Consolidated Statement of Operations.

The following table summarizes the activity of the notes payable to VenturEast and the warrant liability, which were measured at fair value using Level 3 inputs (in thousands):

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	Note Payable to VenturEast	Warrant Liability
Fair value at December 31, 2015	$ 266	$ 17
Change in fair value	(34)	(17)
Fair value at March 31, 2016	$ 232	$ —

Note 8. Joint Venture Agreement

In November 2011, we entered into an affiliation agreement with the Mayo Foundation for Medical Education and Research (“Mayo”), subsequently amended. Under the agreement, we formed a joint venture with Mayo in May 2013 to focus on developing oncology diagnostic services and tests utilizing next generation sequencing. The joint venture is a limited liability company, with each party initially holding fifty percent of the issued and outstanding membership interests of the new entity (the “JV”). In exchange for our membership interest in the JV, we made an initial capital contribution of $1.0 million in October 2013. In addition, we issued 10,000 shares of our common stock to Mayo pursuant to our affiliation agreement and recorded an expense of approximately $175,000. We also recorded additional expense of approximately $231,000 during the fourth quarter of 2013 related to shares issued to Mayo in November 2011 as the JV achieved certain performance milestones. In the third quarter of 2014, we made an additional $1.0 million capital contribution.

The agreement also requires aggregate total capital contributions by us of up to an additional $4.0 million. We currently anticipate that we will make capital contributions of $1.0 million later in 2016. The timing of the remaining installments is subject to the JV's achievement of certain operational milestones agreed upon by the board of governors of the JV. In exchange for its membership interest, Mayo’s capital contribution takes the form of cash, staff, services, hardware and software resources, laboratory space and instrumentation, the fair market value of which will be approximately equal to
$6.0 million. Mayo’s continued contribution will also be conditioned upon the JV’s achievement of certain milestones.

Our share of the JV’s net loss was approximately $12,000 and $207,000 for the three months ended March 31, 2016 and 2015, respectively, and is included in research and development expense on the Consolidated Statement of Operations. We have a net receivable due from the JV of approximately $10,000 at March 31, 2016, which is included in other current assets in the Consolidated Balance Sheets.

The joint venture is considered a variable interest entity under ASC 810-10, but we are not the primary beneficiary as we do not have the power to direct the activities of the JV that most significantly impact its performance. Our evaluation of ability to impact performance is based on our equal board membership and voting rights and day-to-day management functions which are performed by the Mayo personnel.

Note 9. Related Party Transactions

John Pappajohn, our Chairman of the Board of Directors and stockholder, has 232,312 warrants outstanding at $15.00 per share at March 31, 2016, granted in consideration for personally guaranteeing our revolving line of credit through March 31, 2014. Mr. Pappajohn also loaned money to us prior to our IPO and was granted warrants in consideration. At March 31, 2016, Mr. Pappajohn retained 436,079 of these warrants at $15.00 per share. In January 2014, the Board of Directors appointed Mr. Pappajohn to serve as the Chairman of the Board. As compensation for serving as Chairman of the Board, the Company pays Mr. Pappajohn $100,000 per year and granted to Mr. Pappajohn 25,000 restricted shares of the Company’s common stock and options to purchase an aggregate of 100,000 shares of the Company's common stock.

In April 2014, we entered into a consulting agreement with Equity Dynamics, Inc. (“EDI”), an entity controlled by Mr. Pappajohn, pursuant to which EDI received a monthly fee of $10,000. Total expenses for the three months ended March 31, 2016 and 2015 were $30,000. As of March 31, 2016, we owed EDI $0.

In 2010, we entered into a three-year consulting agreement with Dr. Chaganti, which was subsequently renewed through December 31, 2016 pursuant to which Dr. Chaganti receives $5,000 per month for providing consulting and technical support services. Pursuant to the terms of the renewed consulting agreement, Dr. Chaganti received an option to purchase 200,000 shares of our common stock at a purchase price of $15.89 per share vesting over a period of four years. Total non-cash stock-based compensation recognized under the consulting agreement for each of the three months ended March 31, 2016 and 2015 was $16,125 and $62,500, respectively. Also pursuant to the consulting agreement, Dr. Chaganti assigned to us all rights to any inventions which he may invent during the course of rendering consulting services to us. In exchange for this assignment, if the USPTO issues a patent for an invention on which Dr. Chaganti is listed as an inventor, we are required to pay Dr. Chaganti (i) a

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one-time payment of $50,000 and (ii) 1% of any net revenues we receive from any licensed sales of the invention. In the first quarter of 2016, we paid Dr. Chaganti $50,000 which was recognized as an expense in fiscal 2015 when one patent was issued.

Note 10. Contingencies

In the normal course of business, the Company may become involved in various claims and legal proceedings. In the opinion of management, the ultimate liability or disposition thereof is not expected to have a material adverse effect on our financial condition, results of operations, or liquidity.

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

As used herein, the “Company,” “we,” “us,” “our” or similar terms, refer to Cancer Genetics, Inc. and its wholly owned subsidiaries: Cancer Genetics Italia, S.r.l., Gentris, LLC and BioServe Biotechnologies (India) Private Limited, except as expressly indicated or unless the context otherwise requires. The following Management’s Discussion and Analysis of Financial Condition and Results of Operations (“MD&A”) is intended to help facilitate an understanding of our financial condition and our historical results of operations for the periods presented. This MD&A should be read in conjunction with the audited consolidated financial statements and notes thereto included in our annual report on Form 10-K filed with the SEC on March 10, 2016. This MD&A may contain forward-looking statements that involve risks and uncertainties. See “Cautionary Note Regarding Forward-Looking Statements” below.

Overview

We are an emerging leader in the field of personalized medicine, enabling precision medicine in the field of oncology through our diagnostic products and services and molecular markers. We develop, commercialize and provide molecular- and biomarker-based tests and services that enable physicians to personalize the clinical management of each individual patient by providing genomic information to better diagnose, monitor and inform cancer treatment and that enable biopharmaceutical companies engaged in oncology trials to better select candidate populations and reduce adverse drug reactions by providing information regarding genomic factors influencing subject responses to therapeutics. We have a comprehensive, disease-focused oncology testing portfolio. Our tests and techniques target a wide range of cancers, covering eight of the top ten cancers in prevalence in the United States, with additional unique capabilities offered by our Tissue of Origin® test for identifying difficult to diagnose tumor types or poorly differentiated metastatic disease.

Our vision is to become the oncology diagnostics partner for biopharmaceutical companies and clinicians by participating in the entire care continuum from bench to bedside. We believe the diagnostics industry is undergoing a rapid evolution in its approach to oncology testing, embracing precision medicine and individualized testing as a means to drive higher standards of patient treatment and disease management. Similarly, biopharmaceutical companies are increasingly engaging companies such as ours to provide information on clinical trial participants' molecular profiles in order to identify biomarker and genomic variations that may be responsible for differing responses to pharmaceuticals, and particularly to oncology drugs, thereby increasing the efficiency of trials while lowering related costs. We believe tailored therapeutics can revolutionize oncology medicine through molecular- and biomarker-based testing services, enabling physicians and researchers to target the factors that make each patient and disease unique. We have created a unique position in the industry by providing targeted somatic analysis of tumor sample cells alongside germline analysis of an individual's non-cancerous cells' molecular profile as we attempt to reach the next milestone in personalized medicine. Individuals are born with germline mutations, and somatic mutations arise in tissues over the course of a lifetime.

Our services are performed at our state-of-the-art laboratories located in New Jersey, North Carolina, California, Shanghai (China), and Hyderabad, India. Our laboratories comply with the highest regulatory standards as appropriate for the services they deliver including CLIA, CAP, NY State, California State and NABL (India). Our services are built on a foundation of world-class scientific knowledge and intellectual property in solid and blood-borne cancers, as well as strong academic relationships with major cancer centers such as Memorial Sloan-Kettering, Mayo Clinic, and the National Cancer Institute.

Our clinical offerings include our portfolio of proprietary tests targeting hematological, urogenital and HPV-associated cancers, in conjunction with ancillary non-proprietary tests. Our proprietary tests target cancers that are difficult to prognose and predict treatment outcomes through currently available mainstream techniques. We provide our proprietary tests and services, along with a comprehensive range of non-proprietary oncology-focused tests and laboratory services, to oncologists and pathologists at hospitals, cancer centers, and physician offices, as well as biotech and pharmaceutical companies to support their clinical trials. Our proprietary tests are based principally on our expertise in specific cancer types, test development methodologies and proprietary algorithms correlating genetic events with disease specific information. Our portfolio primarily includes

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comparative genomic hybridization (CGH) microarrays and next generation sequencing (NGS) panels, and DNA fluorescent in situ hybridization (FISH) probes.

The non-proprietary testing services we offer are focused in part on specific oncology categories where we are developing our proprietary tests. We believe that there is significant synergy in developing and marketing a complete set of tests and services that are disease focused and delivering those tests and services in a comprehensive manner to help with treatment decisions.

The insight that we develop in delivering the non-proprietary services are often leveraged in the development of our proprietary programs and now increasingly in the validation of our proprietary programs, such as MatBA and Focus::NGS.

We expect to continue to incur significant losses for the near future. We incurred losses of $20.2 million and $16.6 million for fiscal years ended December 31, 2015 and 2014, respectively, and $5.3 million for the three months ended March 31, 2016.

As of March 31, 2016, we had an accumulated deficit of $103.4 million.

Acquisitions

On October 9, 2015, we acquired substantially all of the assets of Response Genetics, Inc. (“Response Genetics”) with its principal place of business in California, for aggregate consideration of approximately $12.9 million.

Key Factors Affecting our Results of Operations and Financial Condition

Our overall long-term growth plan is predicated on our ability to develop and commercialize our proprietary tests, penetrate the Biopharma community to achieve more revenue supporting clinical trials and develop and penetrate the Indian market. Our proprietary tests include CGH microarrays, NGS panels, and DNA FISH probes.We continue to develop additional proprietary tests. To facilitate market adoption of our proprietary tests, we anticipate having to successfully complete additional studies with clinical samples and publish our results in peer-reviewed scientific journals. Our ability to complete such studies is dependent upon our ability to leverage our collaborative relationships with leading institutions to facilitate our research and obtain data for our quality assurance and test validation efforts.

We believe that the factors discussed in the following paragraphs have had and are expected to continue to have a material impact on our results of operations and financial condition.

Revenues

Our revenue is primarily generated through our Clinical Services and Biopharma Services. Clinical Services can be billed to Medicare, another third party insurer or the referring community hospital or other healthcare facility in accordance with state and federal law. Biopharma Services are billed to the customer directly. While we have agreements with our Biopharma clients, volumes from these clients are subject to the progression and continuation of the trials which can impact testing volume. We also derive limited revenue from Discovery Services, which are services provided in the development of new testing assays and methods. Discovery Services are billed directly to the customer.

We have historically derived a significant portion of our revenue from a limited number of test ordering sites, although the test ordering sites that generate a significant portion of our revenue have changed from period to period. Test ordering sites account for all of our Clinical Services revenue along with a portion of the Biopharma Services

revenue. Our test ordering sites are hospitals, cancer centers, reference laboratories, physician offices and biopharmaceutical companies. Oncologists and pathologists at these sites order the tests on behalf of the needs of their oncology patients or as part of a clinical trial sponsored by a biopharmaceutical company in which the patient is being enrolled.

The top five test ordering clients during the three months ended March 31, 2016 and 2015 accounted for 35% and 72%, respectively, of our testing volumes, with 8% and 24%, respectively, of the test volume coming from community hospitals. During the three months ended March 31, 2016, two Biopharma clients accounted for approximately 11% and 10% of our revenue, respectively. During the three months ended March 31, 2015, two Biopharma clients accounted for approximately 29% and 22% of our revenue, respectively.

We receive revenue for our Clinical Services from Medicare, other insurance carriers and other healthcare facilities. Some of our customers choose, generally at the beginning of our relationship, to pay for laboratory services directly as opposed to having patients (or their insurers) pay for those services and providing us with the patients' insurance information. A hospital may elect to be a direct bill customer and pay our bills directly, or may provide us with patient information so that their patients

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pay our bills, in which case we generally expect payment from their private insurance carrier or Medicare. In a few instances, we have arrangements where a hospital may have two accounts with us, so that certain tests are billed directly to the hospital, and certain tests are billed to and paid by a patient's insurer. The billing arrangements generally are dictated by our customers and in accordance with state and federal law.

For the three months ended March 31, 2016, Medicare accounted for approximately 15% of our total revenue, other insurance accounted for approximately 21% of our total revenue and other healthcare facilities accounted for 4% of our total revenue. On average, we generate less revenue per test from other healthcare facilities billed directly, than from other insurance payors.

Cost of Revenues

Our cost of revenues consists principally of internal personnel costs, including stock-based compensation, laboratory consumables, shipping costs, overhead and other direct expenses, such as specimen procurement and third party validation studies. We are pursuing various strategies to reduce and control our cost of revenues, including automating our processes through more efficient technology and attempting to negotiate improved terms with our suppliers. We completed two acquisitions in 2014; Gentris in North Carolina and BioServe in India. In 2015, we acquired substantially all of the assets of Response Genetics in California. With these three acquisitions, we have made significant progress with integrating our resources and services in an effort to reduce costs. We will continue to assess how geographic advantage can help us improve our cost structure.

Operating Expenses

We classify our operating expenses into three categories: research and development, sales and marketing, and general and administrative. Our operating expenses principally consist of personnel costs, including stock-based compensation, outside services, laboratory consumables and overhead, development costs, marketing program costs and legal and accounting fees.

Research and Development Expenses.We incur research and development expenses principally in connection with our efforts to develop our proprietary tests. Our primary research and development expenses consist of direct personnel costs, laboratory equipment and consumables and overhead expenses. In 2013, we entered into a joint venture with the Mayo Foundation for Medical Education and Research, with a focus on developing oncology diagnostic services and tests utilizing next generation sequencing. All research and development expenses are charged to operations in the periods they are incurred.

General and Administrative Expenses. General and administrative expenses consist principally of personnel-related expenses, professional fees, such as legal, accounting and business consultants, occupancy costs, bad debt and other general expenses. We have incurred increases in our general and administrative expenses and anticipate further increases as we expand our business operations.

Sales and Marketing Expenses. Our sales and marketing expenses consist principally of personnel and related overhead costs for our sales team and their support personnel, travel and entertainment expenses, and other selling costs including sales collaterals and trade shows. We expect our sales and marketing expenses to increase as we expand into new geographies and add new clinical tests and services.

Seasonality

Our business experiences decreased demand during spring vacation season, summer months and the December holiday season when patients are less likely to visit their health care providers. We expect this trend in seasonality to continue for the foreseeable future.

Results of Operations

Three Months Ended March 31, 2016 and 2015

The following table sets forth certain information concerning our results of operations for the periods shown:

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(dollars in thousands)	Three Months Ended March 31, 2016	2015	Change $	%
Revenue	$6,068	$4,370	$1,698	39 %
Cost of revenues	4,103	3,141	962	31 %
Research and development expenses	1,532	1,278	254	20 %
General and administrative expenses	4,318	2,987	1,331	45 %
Sales and marketing expenses	1,298	1,116	182	16 %
Loss from operations	(5,183)	(4,152)	(1,031)	25 %
Interest income (expense)	(122)	(21)	(101)	481 %
Change in fair value of acquisition note payable	34	(90)	124	(138)%
Change in fair value of warrant liability	17	(15)	32	(213)%
Net (loss)	$(5,254)	$(4,278)	$(976)	23 %

Revenue

The breakdown of our revenue is as follows:

(dollars in thousands)	Three Months Ended March 31, 2016 $	%	2015 $	%	Change $	%
Biopharma Services	$3,350	55 %	$3,331	76 %	$19	1 %
Clinical Services	2,456	40 %	873	20 %	1,583	181%
Discovery Services	262	4 %	166	4 %	96	58 %
Total Revenue	$6,068	100%	$4,370	100%	$1,698	39 %

Revenue increased 39%, or $1.7 million, to $6.1 million for the three months ended March 31, 2016, from $4.4 million for the three months ended March 31, 2015, principally due to the acquisition of Response Genetics, whose revenue accounted for $2.2 million of the increase. The acquired business consisted of $1.7 million in Clinical Services and $0.5 million in Biopharma Services, which were offset by decreases of $0.1 million in Clinical Services and $0.4 million in Biopharma Services at our other locations. Our average revenue (excluding probe revenue) per test decreased to $424 per test for the three months ended March 31, 2016 from $593 per test for the three months ended March 31, 2015, principally due to the additional Clinical Services revenue from our acquisition of Response Genetics. Clinical Services revenue has a lower per test rate than Biopharma Services. Test volume increased by 183% from 3,647 tests for the three months ended March 31, 2015 to 10,327 tests for the three months ended March 31, 2016.

Revenue from Biopharma Services increased 1%, or $19,000, to $3.4 million for the three months ended March 31, 2016, from $3.3 million for the three months ended March 31, 2015, due to the revenue from our acquisition of Response Genetics, which accounted for $0.5 million of the increase, which was partially offset by a decrease in revenue of $0.4 million at our other locations. Revenue from Clinical Services customers increased by $1.6 million, or 181%, due to the revenue from our acquisition of Response Genetics, which accounted for $1.7 million of the increase, which was partially offset by a decrease in revenue of $0.1 million at our other locations. Revenue from Discovery Services, our new line of business, increased 58% to $0.3 million for the three months ended March 31, 2016, from $0.2 million for the three months ended March 31, 2015, principally due to new customer contracts.

Cost of Revenues

Cost of revenues increased 31%, or $1.0 million, for the three months ended March 31, 2016, principally due to the costs of revenue from Response Genetics of $1.2 million, partially offset by a $0.2 million reduction in lab supplies and a $0.1 million reduction in compensation and outside labor, as a result of the Company's focus on reducing cost and improving gross margin. Gross margin improved to 32% during the three months ended March 31, 2016 from 28% during the three months ended March 31, 2015, due to cost reduction initiatives.

Operating Expenses

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Research and development expenses increased 20%, or $0.3 million, to $1.5 million for the three months ended March 31, 2016, from $1.3 million for the three months ended March 31, 2015, principally due to the following: validation projects at our newly acquired Response Genetics location as well as our existing locations. This initiative saw increases in compensation costs of $0.5 million at our California location with an additional cumulative increase of $0.1 million at our other locations. These increases were partially offset by the following: a $0.2 million decrease in our share of the loss from Oncospire, our joint venture with the Mayo Clinic.

General and administrative expenses increased 45%, or $1.3 million, to $4.3 million for the three months ended March 31, 2016, from $3.0 million for the three months ended March 31, 2015, principally due to the following: costs from the acquired business, Response Genetics, of $1.1 million; increased compensation of $0.2 million; increased consulting cost of $0.1 million; increased legal costs of $0.1 million; and increased audit fees of $0.1 million. These increases were primarily as a result of the acquired businesses in 2014 and the newly acquired Response Genetics business in October 2015. These increases were partially offset by the following: a reduction of $0.1 million in public relations fees; a reduction of $0.1 million in recruiting fees; and a reduction of $0.1 million in stock based compensation costs.

Sales and marketing expenses increased 16%, or $0.2 million, to $1.3 million for the three months ended March 31, 2016, from $1.1 million for the three months ended March 31, 2015, principally due to increased costs from Response Genetics of $0.4 million, partially offset by the following: a reduction of compensation of $0.1 million, and a reduction of $0.1 million in consulting and travel and entertainment.

Interest Income (Expense)

Net interest expense increased 481%, or $0.1 million, principally due to the higher interest rate related to the debt we refinanced in May 2015.

Change in Fair Value of Acquisition Note Payable

The change in fair value of note payable resulted in $34,000 in non-cash income for the three months ended March 31, 2016 as compared to non-cash expense of $0.1 million for the three months ended March 31, 2015. The fair value of the note representing part of the purchase price for BioServe decreased during the three months ended March 31, 2016 as a consequence of a decrease in our stock price.

Change in Fair Value of Warrant Liability

The change in the fair market value of our warrant liability resulted in $17,000 in non-cash income for the three months ended March 31, 2016, as compared to non-cash expense of $15,000 for the three months ended March 31, 2015. The fair market value of these common stock warrants decreased during the three months ended March 31, 2016 due to the expiration of the remaining derivative warrants.

Liquidity and Capital Resources

Sources of Liquidity

Our primary sources of liquidity have been funds generated from our debt financings and equity financings. In addition, we have generated funds from the following sources: (i) cash collections from customers and (ii) cash received from sale of state NOL’s.

In general, our primary uses of cash are providing for operating expenses, working capital purposes and servicing debt. As of
March 31, 2016, we have not borrowed on our line of credit, which allows for borrowings of up to $4.0 million. On January 28, 2016, the Line of Credit was amended with SVB, and we are no longer able to draw on the Line of Credit until we raise approximately $13 million of additional equity. Our largest source of operating cash flow is cash collections from our customers.

Cash Flows

Our net cash flow from operating, investing and financing activities for the periods below were as follows:

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(in thousands)	Three Months Ended March 31, 2016	2015
Cash provided by (used in):		
Operating activities	$(5,787)	$(3,105)
Investing activities	(358)	(123)
Financing activities	(41)	(14)
Net (decrease) in cash and cash equivalents	$(6,186)	$(3,242)

We had cash and cash equivalents of $13.3 million at March 31, 2016, and $19.5 million at December 31, 2015.

The $6.2 million decrease in cash and cash equivalents for the three months ended March 31, 2016, principally resulted from $5.8 million of net cash used in operations and $0.3 million used to purchase fixed assets.

The $3.2 million decrease in cash and cash equivalents for the three months ended March 31, 2015, principally resulted from $3.1 million of net cash used in operations.

At March 31, 2016, we had total indebtedness of $6.2 million, excluding capital lease obligations.

Cash Used in Operating Activities

Net cash used in operating activities was $5.8 million for the three months ended March 31, 2016. We used $4.2 million in net cash to fund our core operations, which included $0.1 million in cash paid for interest. We incurred additional uses of cash when adjusting for working capital items as follows: a net increase in accounts receivable of $1.8 million; a decrease in other current assets of $0.3 million; and a net decrease in accounts payable, accrued expenses and deferred revenue of $0.1 million.

For the three months ended March 31, 2015, we used $3.1 million in operating activities. We used $2.9 million in net cash to fund our core operations, which included $34,000 in cash paid for interest. We incurred additional uses of cash when adjusting for working capital items as follows: a net increase in accounts receivable of $17,000; a decrease in other current assets of $23,000 which includes prepayments for our insurance policies; and a net decrease in accounts payable, accrued expenses and deferred revenue of $0.2 million.

Cash Used in Investing Activities

Net cash used in investing activities was $0.4 million and $0.1 million for the three months ended March 31, 2016 and 2015, respectively, and principally resulted from the purchase of fixed assets.

Cash Used in Financing Activities

Net cash used in financing activities was $41,000 and $14,000 for the three months ended March 31, 2016 and 2015, respectively, and principally resulted from payments made on capital leases.

Capital Resources and Expenditure Requirements

We expect to continue to incur substantial operating losses in the future. It may take several years, if ever, to achieve positive operational cash flow. We need to raise additional capital to fund our current operations, to repay certain outstanding indebtedness and to fund expansion of our business to meet our long-term business objectives through public or private equity offerings, debt financings, borrowings or strategic partnerships coupled with an investment in

our company or a combination thereof. If we raise additional funds through the issuance of convertible debt securities, or other debt securities, these securities could be secured and could have rights senior to those of our common stock. In addition, any new debt incurred by the Company could impose covenants that restrict our operations and increase our interest expense. The issuance of any new equity securities will also dilute the interest of our current stockholders. Given the risks associated with our business, including our unprofitable operating history and our ability to develop additional proprietary tests, additional capital may not be available when needed on acceptable terms, or at all. If adequate funds are not available, we will need to curb our expansion plans or limit our research and development activities, which would have a material adverse impact on our business prospects and results of operations.

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We believe that our current cash will support operations for at least the next 12 months. We can provide no assurances that any additional sources of financing will be available to us on favorable terms, if at all, when needed. Our forecast of the period of time through which our current financial resources will be adequate to support our operations and the costs to support our general and administrative, sales and marketing and research and development activities are forward-looking statements and involve risks and uncertainties.

We expect our operating expenses to increase as we continue investing in sales and marketing, research and development and other general and administrative expenses.

Our forecast of the period of time through which our current financial resources will be adequate to support our operations and our expected operating expenses are forward-looking statements and involve risks and uncertainties. Actual results could vary materially and negatively as a result of a number of factors, including:

- our ability to achieve revenue growth and profitability;
- the costs for funding the operations we recently acquired and our ability to successfully integrate those operations with and into our own;
- our ability to obtain approvals for our new diagnostic tests;
- our ability to execute on our marketing and sales strategy for our genomic tests and gain acceptance of our tests in the market;
- our ability to obtain adequate reimbursement from governmental and other third-party payors for our tests and services;
- the costs, scope, progress, results, timing and outcomes of the clinical trials of our diagnostic tests;
- the costs of operating and enhancing our laboratory facilities;
- our ability to succeed with our cost control initiative;
- the timing of and the costs involved in regulatory compliance, particularly if the regulations change;
- the costs of maintaining, expanding and protecting our intellectual property portfolio, including potential litigation costs and liabilities;
- our ability to manage the costs of manufacturing our tests;
- our rate of progress in, and cost of research and development activities associated with, tests in research and early development;
- the effect of competing technological and market developments;
- costs related to expansion;
- our ability to secure financing and the amount thereof; and
- other risks and uncertainties discussed in our annual report on Form 10-K for the year ended December 31, 2015 and other reports, as applicable, we file with the Securities and Exchange Commission.

We expect that our operating expenses and capital expenditures will increase in the future as we expand our business and integrate our recent acquisitions. We plan to increase our sales and marketing headcount to promote our new clinical tests and services and to expand into new geographies and to increase our research and development expenditures associated with performing work with research collaborators, to expand our pipeline and to perform work associated with our research collaborations. For example, in 2011 we entered into an affiliation agreement to form a joint venture with the Mayo Foundation for Medical Education and Research pursuant to which we made an initial $1.0 million capital contribution in October 2013 and $1.0 million in the third quarter of 2014. We currently anticipate that we will make capital contributions of $1.0 million later in 2016 and expect to make additional capital contributions of up to $3.0 million, subject to the joint venture entity’s achievement of certain operational milestones. Until we can generate a sufficient amount of revenues to finance our cash requirements, which we may never do, we may need to raise additional capital to fund our operations.

We also expect to use significant cash to fund acquisitions. On October 9, 2015, we acquired substantially all of the assets of Response Genetics, Inc. for aggregate consideration of approximately $12.9 million consisting of $7.5 million in cash and our common stock valued at approximately $5.4 million.

In May 2015, we entered into a line of credit with Silicon Valley Bank. Pursuant to the amendment dated January 28, 2016, the Company agreed not to draw on the line of credit until $13 million of additional equity is raised. See Note 4 of Notes to Unaudited Consolidated Financial Statements included in Item 1 of this quarterly report on Form 10-Q.

Future Contractual Obligations

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The disclosures relating to our future contractual obligations reported in our annual report on Form 10-K for the year ended December 31, 2015 which was filed with the SEC on March 10, 2016 have not materially changed since we filed the report.

Income Taxes

Over the past several years, we have generated operating losses in all jurisdictions in which we may be subject to income taxes. As a result, we have accumulated significant net operating losses and other deferred tax assets. Because of our history of losses and the uncertainty as to the realization of those deferred tax assets, a full valuation allowance has been recognized. We do not expect to report a benefit related to the deferred tax assets until we have a history of earnings, if ever, that would support the realization of our deferred tax assets.

Off-Balance Sheet Arrangements

Since inception, we have not engaged in any off-balance sheet activities as defined in Item 303(a)(4) of Regulation S-K.

Critical Accounting Policies and Significant Judgment and Estimates

Our management's discussion and analysis of financial condition and results of operations is based on our consolidated financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of our consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue and expenses and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates based on historical experience and make various assumptions, which management believes to be reasonable under the circumstances, which form the basis for judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Section 107 of the JOBS Act provides that an "emerging growth company can take advantage of the extended transition period provided in Section 7(a)(2)(B) of the Securities Act for complying with new or revised accounting standards. In other words, an "emerging growth company" can delay the adoption of certain accounting standards until those standards would otherwise apply to private companies. However, we have chosen to "opt out" of such extended transition period, and as a result, we will comply with new or revised accounting standards on the relevant dates on which adoption of such standards is required for non-emerging growth companies. Section 107 of the JOBS Act provides that our decision to opt out of the extended transition period for complying with new or revised accounting standards is irrevocable.

The notes to our audited consolidated financial statements in our annual report on Form 10-K for the year ended December 31, 2015 contain a summary of our significant accounting policies. We consider the following accounting policies critical to the understanding of the results of our operations:

- Revenue recognition;
- Accounts receivable and bad debts; and
- Stock-based compensation.

Cautionary Note Regarding Forward-Looking Statements

Safe Harbor Statement under the Private Securities Litigation Reform Act of 1995

This report on Form 10-Q contains forward-looking statements made pursuant to the safe harbor provisions of the Private Securities Litigation Reform Act of 1995 under Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Forward-looking statements include all statements that are not historical facts. In some cases, you can identify forward-looking statements by terms such as “may,” “will,” “should,” “could,” “would,” “expects,” “plans,” “anticipates,” “believes,” “estimates,” “projects,” “predicts,” “potential,” or th those terms, and similar expressions and comparable terminology intended to identify forward-looking statements. These statements reflect our current views with respect to future events. There are a number of important factors that could cause the actual results to differ materially from those expressed in any forward-looking statement made by us. These factors include, but are not limited to:

- our ability to achieve profitability by increasing sales of our laboratory tests and services and to continually develop and commercialize novel and innovative diagnostic tests and services for cancer patients;
- ability to raise additional capital to meet our liquidity needs;
- our ability clinically validate our pipeline of genomic microarray tests currently in development;

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- our ability to execute on our marketing and sales strategy for our genomic tests and gain acceptance of our tests in the market;
- our ability to keep pace with rapidly advancing market and scientific developments;
- our ability to satisfy U.S. (including FDA) and international regulatory requirements with respect to our tests and services, many of which are new and still evolving;
- our ability to obtain reimbursement from governmental and other third-party payors for our tests and services;
- competition from clinical laboratory services companies, diagnostic tests currently available or new tests that may emerge;
- our ability to maintain our clinical collaborations and enter into new collaboration agreements with highly regarded organizations in the cancer field so that, among other things, we have access to thought leaders in the field and to a robust number of samples to validate our genomic tests;
- our ability to maintain our present customer base and obtain new customers;
- potential product liability or intellectual property infringement claims;
- our dependency on third-party manufacturers to supply or manufacture our products;
- our ability to attract and retain a sufficient number of scientists, clinicians, sales personnel and other key personnel with extensive experience in oncology, who are in short supply;
- our ability to obtain or maintain patents or other appropriate protection for the intellectual property in our proprietary tests and services;
- our dependency on the intellectual property licensed to us or possessed by third parties;
- our ability to expand internationally and launch our tests in emerging markets, such as India and Brazil;
- our ability to adequately support future growth; and
- the risk factors discussed in our annual report on Form 10-K for the year ended December 31, 2015, as updated in other reports, as applicable, that we file with the Securities and Exchange Commission.

Given these uncertainties, you should not place undue reliance on these forward-looking statements. These forward-looking statements represent our estimates and assumptions only as of the date of this quarterly report on Form 10-Q and, except as required by law, we undertake no obligation to update or review publicly any forward-looking statements, whether as a result of new information, future events or otherwise after the date of this quarterly report on Form 10-Q. You should read this quarterly report on Form 10-Q and the documents referenced herein and filed as exhibits completely and with the understanding that our actual future results may be materially different from what we expect.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

We have exposure to financial market risks, including changes in foreign currency exchange rates and interest rates, and risk associated with how we invest cash.

Foreign Exchange Risk

We conduct business in foreign markets through our subsidiary in India (BioServe Biotechnologies (India) Private Limited) and in Italy through our subsidiary (Cancer Genetics Italia, S.r.l.). For the each of the three months ended March 31, 2016 and 2015, approximately 5% of our revenues were earned outside the United States and collected in local currency. We are subject to risk for exchange rate fluctuations between such local currencies and the United States dollar and the subsequent translation of the Indian Rupee or Euro to United States dollars. We currently do not hedge currency risk. The translation adjustments for the three months ended March 31, 2016 and 2015, were not significant.

Interest Rate Risk

At March 31, 2016, we had interest rate risk primarily related to borrowings of $6 million on the term note with Silicon Valley Bank. Borrowings under the Silicon Valley term note bear interest at the Wall Street Journal prime rate plus 2%, with a floor of 5.25% (5.50% at March 31, 2016). If interest rates increased by 1.0%, interest expense in the remainder of 2016 on our current borrowings would increase by approximately $40,000.

Investment of Cash

We invest our cash primarily in money market funds. Because of the short-term nature of these investments, we do not believe we have material exposure due to market risk. The impact to our financial position and results of operations from likely changes in interest rates is not material.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We evaluated, under the supervision and with the participation of the Chief Executive Officer and Chief Financial Officer, the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities and Exchange Act of 1934 (“Exchange Act”), as amended, as of March 31, 2016, the end of the period covered by this report on Form 10-Q. Based on this evaluation, our President and Chief Executive Officer (principal executive

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officer) and our Chief Financial Officer (principal accounting and financial officer) have concluded that our disclosure controls and procedures were effective at the reasonable assurance level at March 31, 2016.

Disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act (i) is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and (ii) is accumulated and communicated to management, including the Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosures. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. Due to the inherent limitations of control systems, not all misstatements may be detected. These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the control. Controls and procedures can only provide reasonable, not absolute, assurance that the above objectives have been met.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the three months ended March 31, 2016 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

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PART II — OTHER INFORMATION

Item 1. Legal Proceedings

Not applicable.

Item 1A. Risk Factors

There have been no material changes to the risk factors disclosed in Part 1, Item 1A, of our annual report on Form 10-K for the year ended December 31, 2015.

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

Not applicable.

Item 3. Defaults Upon Senior Securities

Not applicable.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

We have not yet announced the date for our 2016 annual meeting of stockholders (the “2016 Annual Meeting”). Because we expect that the 2016 Annual Meeting date will represent a change of more than thirty days from the anniversary of our 2015 annual meeting of stockholders held on May 14, 2015, the deadline for the receipt of stockholder proposals for the 2016 Annual Meeting will change. When we set the date for our 2016 Annual Meeting, we will publicly announce such data and deadlines for the receipt of stockholder proposals.

Item 6. Exhibits

See the Index to Exhibits following the signature page hereto, which Index to Exhibits is incorporated herein by reference.

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SIGNATURE

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.

Cancer Genetics, Inc.
(Registrant)

Date: May 10, 2016 /s/ Panna L. Sharma
Panna L. Sharma
President and Chief Executive Officer
(Principal Executive Officer)

Date: May 10, 2016 /s/ Edward J. Sitar
Edward J. Sitar
Chief Financial Officer
(Principal Financial and Accounting Officer)

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INDEX TO EXHIBITS

Exhibit No.	Description
10.1	Consent and First Amendment to Loan and Security Agreement, dated January 28, 2016, by and among Silicon Valley Bank and Cancer Genetics, Inc. and its subsidiary Gentris, LLC (incorporated by reference to Exhibit 10.73 to the Company's annual report on Form 10-K for the year ended December 31, 2015, filed on March 10, 2016).
31.1	Certification of Principal Executive Officer pursuant to Rules 13a-14(a) and 15d-14(a) promulgated under The Securities Exchange Act of 1934, as amended *
31.2	Certification of Principal Financial Officer pursuant to Rules 13a-14(a) and 15d-14(a) promulgated under The Securities Exchange Act of 1934, as amended *
32.1	Certifications of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of The Sarbanes-Oxley Act of 2002 **
32.2	Certifications of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of The Sarbanes-Oxley Act of 2002 **
101	The following materials from the Registrant's quarterly report on Form 10-Q for the quarter ended March 31, 2016, formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Balance Sheet at March 31, 2016 (unaudited) and December 31, 2015, (ii) Consolidated Statements of Operations for the three month periods ended March 31, 2016 and 2015, (iii) Consolidated Statements of Cash Flows for the three month periods ended March 31, 2016 and 2015 (unaudited) and (iv) Notes to Consolidated Financial Statements (unaudited)

* Filed herewith.
** Furnished herewith.