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

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 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 ☒ 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 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	☐
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 ☒

As of August 1, 2016, there were 16,120,094 shares of common stock, par value $0.0001 of Cancer Genetics, Inc. outstanding.

CANCER GENETICS, INC. AND SUBSIDIARIES
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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)

	June 30, 2016	December 31, 2015
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	**$ 10,552**	$ 19,459
Accounts receivable, net of allowance for doubtful accounts	**11,944**	6,621
Other current assets	**1,970**	2,118
Total current assets	**24,466**	28,198
FIXED ASSETS, net of accumulated depreciation	**5,372**	6,069
OTHER ASSETS		
Restricted cash	**300**	300
Patents and other intangible assets, net of accumulated amortization	**1,639**	1,727
Investment in joint venture	**314**	341
Goodwill	**12,029**	12,029
Other	**115**	220
Total other assets	**14,397**	14,617
Total Assets	**$ 44,235**	$ 48,884
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES		
Accounts payable and accrued expenses	**$ 7,632**	$ 7,579
Obligations under capital leases, current portion	**72**	122
Deferred revenue	**423**	831
Bank term note, current portion	**2,000**	1,333
Total current liabilities	**10,127**	9,865
Obligations under capital leases	**242**	276
Deferred rent payable and other	**306**	315
Warrant liability	**—**	17
Deferred revenue, long-term	**753**	752
Bank term note	**3,648**	4,642
Total Liabilities	**15,076**	15,867
STOCKHOLDERS' EQUITY		
Preferred stock, authorized 9,764 shares, $0.0001 par value, none issued	**—**	—
Common stock, authorized 100,000 shares, $0.0001 par value, 16,120 and 13,652 shares issued and outstanding at June 30, 2016 and December 31, 2015, respectively	**2**	1
Additional paid-in capital	**136,590**	131,167
Accumulated (deficit)	**(107,433)**	(98,151)
Total Stockholders' Equity	**29,159**	33,017
Total Liabilities and Stockholders' Equity	**$ 44,235**	$ 48,884

See Notes to Unaudited Consolidated Financial Statements.

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

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	**2016**	2015
Revenue	**$ 7,001**	$ 4,185	**$ 13,069**	$ 8,555
Cost of revenues	**4,285**	3,097	**8,388**	6,239
Gross profit	**2,716**	1,088	**4,681**	2,316
Operating expenses:				
Research and development	**1,680**	1,256	**3,212**	2,533
General and administrative	**3,658**	3,062	**7,976**	6,049
Sales and marketing	**1,379**	1,184	**2,677**	2,300
Total operating expenses	**6,717**	5,502	**13,865**	10,882
Loss from operations	**(4,001)**	(4,414)	**(9,184)**	(8,566)
Other income (expense):				
Interest expense	**(107)**	(82)	**(233)**	(115)
Interest income	**13**	13	**17**	25
Change in fair value of acquisition note payable	**67**	(316)	**101**	(406)
Change in fair value of warrant liability	**—**	(181)	**17**	(196)
Total other (expense)	**(27)**	(566)	**(98)**	(692)
Net (loss)	**$ (4,028)**	$ (4,980)	**$ (9,282)**	$ (9,258)
Basic and Diluted Net (Loss) Per Share	**$ (0.28)**	$ (0.51)	**$ (0.66)**	$ (0.95)
Basic and Diluted Weighted-Average Shares Outstanding	**14,538**	9,715	**14,042**	9,709

See Notes to Unaudited Consolidated Financial Statements.

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

	Six Months Ended June 30,	
	2016	2015
CASH FLOWS FROM OPERATING ACTIVITIES		
Net (loss)	**$ (9,282)**	$ (9,258)
Adjustments to reconcile net (loss) to net cash (used in) operating activities:		
Depreciation	**1,016**	680
Amortization	**174**	17
Provision for bad debts	**—**	216
Stock-based compensation	**1,024**	1,454
Change in fair value of acquisition note payable	**(101)**	406
Change in fair value of Gentris contingent consideration	**—**	(162)
Change in fair value of warrant liability	**(17)**	196
Amortization of debt issuance costs	**6**	2
Loss in equity method investment	**27**	405
Changes in:		
Accounts receivable	**(5,323)**	(910)
Other current assets	**148**	(457)
Other non-current assets	**(12)**	(73)
Accounts payable, accrued expenses and deferred revenue	**(253)**	162
Deferred rent payable and other	**(9)**	(38)
Net cash (used in) operating activities	**(12,602)**	(7,360)
CASH FLOWS FROM INVESTING ACTIVITIES		
Purchase of fixed assets	**(319)**	(257)
Decrease in restricted cash	**—**	6,000
Patent costs	**(86)**	(68)
Net cash provided by (used in) investing activities	**(405)**	5,675
CASH FLOWS FROM FINANCING ACTIVITIES		
Principal payments on capital lease obligations	**(84)**	(29)
Payments for deferred equity offering costs	**—**	(86)
Proceeds from option exercises	**—**	23
Proceeds from offering of common stock, net of offering costs	**4,517**	—
Principal payments on bank term note	**(333)**	—
Payment of debt issuance costs	**—**	(33)
Net cash provided by (used in) financing activities	**4,100**	(125)
Net (decrease) in cash and cash equivalents	**(8,907)**	(1,810)
CASH AND CASH EQUIVALENTS		
Beginning	**19,459**	25,554
Ending	**$ 10,552**	$ 23,744
SUPPLEMENTAL CASH FLOW DISCLOSURE		
Cash paid for interest	**$ 202**	$ 72

See Notes to Unaudited Consolidated Financial Statements.

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.

Liquidity and Going Concern

We believe that our current cash will support operations for at least the next 6 months. We are actively discussing opportunities for additional equity or debt financing, and we are taking steps to improve our operating cash flow. We can provide no assurances that our current actions will be successful or 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.

The continuation of the Company as a going concern is dependent on the ability of the Company to obtain necessary debt and/or equity financing to continue operations. These interim consolidated financial statements do not include any adjustments to the recoverability and classification of recorded asset amounts and classification of liabilities that might be necessary should the Company be unable to continue as a going concern.

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 results of operations for the three and six months ended June 30, 2016 include the operations of Response Genetics, which accounted for approximately $2,044,000 and $4,207,000 of the Company's consolidated revenue, respectively. The net loss of Response Genetics cannot be determined, as its operations are integrated with Cancer Genetics.

2016 Offering

On May 25, 2016, we sold 2,467,820 shares of common stock in a public offering and warrants to purchase 1,233,910 shares of common stock in a concurrent private placement. These offerings resulted in gross proceeds of $5 million. We sold 2,150,000 shares of common stock and warrants to purchase 1,075,000 shares of common stock to certain institutional investors at a combined offering price of $2.00 per common share, and our Chairman of the Board, John Pappajohn, purchased 317,820 shares of common stock and warrants to purchase 158,910 shares of common stock at a combined offering price of $2.2025 per common share. In addition, we issued warrants to purchase an aggregate of 123,391 shares of common stock to the placement agent. Subject to certain ownership limitations, the warrants will be initially exercisable commencing six months from the issuance date at an exercise price equal to $2.25 per share of common stock. The warrants are exercisable for five years from the initial exercise date. All references to the sales of common stock and warrants mentioned in this paragraph are referred to as the "2016 Offering."

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 and six months ended June 30, 2016 and 2015 is comprised of the following (in thousands):

	Three Months Ended June 30,		**Six Months Ended June 30,**	
	2016	2015	**2016**	2015
Biopharma Services	**$ 4,219**	$ 2,675	**7,569**	$ 6,006
Clinical Services	**2,542**	1,251	**4,998**	2,124
Discovery Services	**240**	259	**502**	425
	$ 7,001	$ 4,185	**$ 13,069**	$ 8,555

The table above includes approximately $619,000 of biopharma revenue and approximately $1,425,000 of clinical services revenue from our acquisition of Response Genetics for the three months ended June 30, 2016. The table above includes approximately $1,078,000 of biopharma revenue and approximately $3,129,000 of clinical services revenue from our acquisition of Response Genetics for the six months ended June 30, 2016.

Accounts receivable by service type at June 30, 2016 and December 31, 2015 consists of the following (in thousands):

	June 30, 2016	December 31, 2015
Biopharma Services	**$ 5,144**	$ 3,238
Clinical Services	**7,119**	3,733
Discovery Services	**345**	314
Allowance for doubtful accounts	**(664)**	(664)
	$ 11,944	$ 6,621

At June 30, 2016, accounts receivable includes approximately $1,425,000 of unbilled revenue for clinical services provided by our location in California.

Allowance for Doubtful Accounts (in thousands)		
Balance, December 31, 2015	$	664
Additions to allowance for doubtful accounts		—
Balance, June 30, 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:

	Three Months Ended June 30,		**Six Months Ended June 30,**	
	2016	2015	**2016**	2015
Medicare	**12%**	7%	**13%**	7%
Other insurers	**17%**	6%	**19%**	6%
Other healthcare facilities	**7%**	9%	**6%**	8%
	36%	22%	**38%**	21%

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 June 30, 2016 and 2015 accounted for 40% and 61%, respectively, of our testing volumes, with 6% and 22%, respectively, of the volume coming from community hospitals. During the three months ended June 30, 2016, there were two biopharmaceutical companies which accounted for approximately 15% and 11% of our total revenue, respectively. During the three months ended June 30, 2015, there was one biopharmaceutical company which accounted for approximately 25% of our total revenue.

The top five test ordering sites during the six months ended June 30, 2016 and 2015 accounted for 38% and 66% respectively, of our testing volumes, with 7% and 23%, respectively, of the volume coming from community hospitals. During the six months ended June 30, 2016, there were two biopharmaceutical companies which accounted for approximately 13% and 11% of our total revenue, respectively. During the six months ended June 30, 2015, there were two biopharmaceutical companies which accounted for approximately 26% and 14% 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. For all periods presented, all common stock equivalents outstanding were anti-dilutive.

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

	Three Months Ended June 30,		**Six Months Ended June 30,**	
	2016	2015	**2016**	2015
Common stock purchase warrants	**5,632**	1,117	**5,632**	1,117
Stock options	**1,892**	1,933	**1,892**	1,933
Restricted shares of common stock	**84**	123	**84**	123
	7,608	3,173	**7,608**	3,173

Note 4. Lease Commitments

We lease our laboratory, research facility and administrative office space under various operating leases. In June 2016, we amended the lease for our Los Angeles, California location. The term of the updated lease is 18 months, expires December 31, 2017, requires monthly payments of approximately $54,000 and reduces our facilities in this location to 19,100 square feet.

Minimum future lease payments under all capital and operating leases as of June 30, 2016 are as follows (in thousands):

	Capital Leases	Operating Leases	Total
2016 (remaining 6 months)	$ 48	$ 792	$ 840
2017	78	1,589	$ 1,667
2018	75	397	$ 472
2019	70	342	$ 412
2020	59	135	$ 194
Thereafter	24	—	$ 24
Total minimum lease payments	354	$ 3,255	$ 3,609
Less amount representing interest	40		
Present value of net minimum obligations	314		
Less current obligation under capital lease	72		
Long-term obligation under capital lease	$ 242		

Note 5. 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 June 30, 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 June 30, 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 June 30, 2016 the principal balance of the Term Note was approximately $5,667,000 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 $8 million of additional equity.

On June 3, 2016, the Company delivered its April 2016 reporting package to SVB showing the Company was in technical default with SVB due to violating a liquidity covenant. As discussed in Note 1, the Company raised $5 million in May of 2016. The Company was in compliance with all covenants in May and June of 2016. SVB has waived the April 2016 technical default.

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

	June 30, 2016	December 31, 2015
Term Note, principal balance	**$ 5,667**	$ 6,000
Less unamortized debt issuance costs	**19**	25
Term Note, net	**5,648**	5,975
Less current maturities	**2,000**	1,333
Long-term portion	**$ 3,648**	$ 4,642

Principal maturities of the Term Note as of June 30, 2016 are as follows: 2016 (remaining six months) - $1,000,000; 2017 - $2,000,000; 2018 - $2,000,000; 2019 - $666,667.

Note 6. Capital Stock

On May 25, 2016, we sold 2,467,820 shares of common stock in a public offering and warrants to purchase 1,233,910 shares of common stock in a concurrent private placement. These offerings resulted in gross proceeds of $5 million. We sold 2,150,000 shares of common stock and warrants to purchase 1,075,000 shares of common stock to certain institutional investors at a combined offering price of $2.00 per common share, and our Chairman of the Board, John Pappajohn, purchased 317,820 shares of common stock and warrants to purchase 158,910 shares of common stock at a combined offering price of $2.2025 per common share. In addition, we issued warrants to purchase an aggregate of 123,391 shares of common stock to the placement agent. Subject to certain ownership limitations, the warrants will be initially exercisable commencing six months from the issuance date at an exercise price equal to $2.25 per share of common stock. The warrants are exercisable for five years from the initial exercise date.

Note 7. 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 June 30, 2016, 921,276 shares remain available for future awards under the 2011 Plan and 112,055 shares remain available for future awards under the 2008 Plan. As of June 30, 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 six months ended June 30, 2016 is as follows:

	Options Outstanding			
	Number of Shares (in thousands)	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands)
Outstanding January 1, 2016	1,961	$ 10.55	7.68	$ —
Canceled or expired	(69)	9.78		
Outstanding June 30, 2016	1,892	$ 10.57	7.13	$ —
Exercisable June 30, 2016	1,173	$ 10.43	6.46	$ —

On July 19, 2016, the Company granted employees incentive stock options to purchase 181,800 shares of the Company's common stock at an exercise price of $2.02 per share with vesting over a period of 2.5 to 5 years.

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 June 30, 2016, total unrecognized compensation cost related to non-vested stock options granted to employees was $3,639,078 which we expect to recognize over the next 2.61 years.

As of June 30, 2016, total unrecognized compensation cost related to non-vested stock options granted to non-employees was $57,000 which we expect to recognize over the next 1.51 years. The estimate of unrecognized non-employee compensation is based on the fair value of the non-vested options as of June 30, 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 June 30, 2015	Six Months Ended June 30, 2015
Volatility	58.83%	63.89%
Risk free interest rate	1.61%	1.65%
Dividend yield	0.00%	0.00%
Term (years)	5.99	6.15
Weighted-average fair value of options granted during the period	5.71	5.77

In May 2014, we issued 200,000 options to our Director, Raju Chaganti, with an exercise price of $15.89. See Note 11 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 June 30,		**Six Months Ended June 30,**	
	2016	2015	**2016**	2015
Volatility	**74.61%**	69.85%	**75.26%**	70.18%
Risk free interest rate	**1.27%**	2.42%	**1.42%**	2.15%
Dividend yield	**0.00%**	0.00%	**0.00%**	0.00%
Term (years)	**7.89**	8.84	**8.02**	8.96

Restricted stock awards have been granted to employees, directors and consultants as compensation for services. At June 30, 2016, there was $543,734 of unrecognized compensation cost related to non-vested restricted stock granted to employees; we expect to recognize the cost over 2.12 years.

The following table summarizes the activities for our non-vested restricted stock awards for the six months ended June 30, 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	(37)	9.84
Non-vested at June 30, 2016	84	$ 7.55

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 June 30,		**Six Months Ended June 30,**	
	2016	2015	**2016**	2015
Cost of revenues	**$ 67**	$ 55	**$ 136**	$ 104
Research and development	**45**	128	**95**	223
General and administrative	**352**	535	**739**	1,056
Sales and marketing	**26**	39	**54**	71
Total stock-based compensation	**$ 490**	$ 757	**$ 1,024**	$ 1,454

Note 8. 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 June 30, 2016 all derivative warrants have either expired or have been exercised.

On May 25, 2016, we issued 1,357,301 warrants to purchase shares of our common stock as part of our 2016 Offering. Subject to certain ownership limitations, the warrants will be initially exercisable commencing six months from the issuance date at an exercise price equal to $2.25 per share of common stock. The warrants are exercisable for five years from the initial exercise date.

The following table summarizes the warrant activity for the six months ended June 30, 2016 (in thousands, except exercise price):

Issued With / For		Exercise Price		Warrants Outstanding January 1, 2016	2016 Warrants Issued	2016 Warrants Expired	Warrants Outstanding June 30, 2016
Non-Derivative Warrants:							
Financing	$	10.00		243	—	—	243
Financing		15.00		436	—	—	436
Debt guarantee		15.00		233	—	(87)	146
Consulting		10.00		10	—	(10)	—
2015 Offering		5.00		3,450	—	—	3,450
2016 Offering		2.25		—	1,357	—	1,357
Total non-derivative warrants	$	5.59	B	4,372	1,357	(97)	5,632
Derivative Warrants:							
Financing		4.00	A	60	—	(60)	—
Total derivative warrants		—	B	60	—	(60)	—
Total	$	5.59	B	4,432	1,357	(157)	5,632

A These warrants were subject to fair value accounting and contained an exercise price adjustment feature.

B Weighted-average exercise prices are as of June 30, 2016.

Note 9. 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):

	June 30, 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	**$ 165**	**$ —**	**$ —**	**$ 165**

	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 and six months ended June 30, 2016, we recognized a gain of approximately $67,000 and $101,000, respectively, due to the change in value of the note.

During the three and six months ended June 30, 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):

	Note Payable to VenturEast	Warrant Liability
Fair value at December 31, 2015	$ 266	$ 17
Change in fair value	(101)	(17)
Fair value at June 30, 2016	$ 165	$ —

Note 10. 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 may make capital contributions up to $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 $15,000 and $198,000 for the three months ended June 30, 2016 and 2015, respectively, and approximately $27,000 and $405,000 for the six months ended June 30, 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 June 30, 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 11. Related Party Transactions

John Pappajohn, our Chairman of the Board of Directors and stockholder, has 145,778 warrants outstanding at $15.00 per share at June 30, 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 June 30, 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 June 30, 2016 and 2015 were $30,000, and for the six months ended June 30, 2016 and 2015, total expenses were $60,000. As of June 30, 2016, we owed EDI $0.

On May 25, 2016, Mr. Pappajohn purchased 317,820 shares of common stock and warrants to purchase 158,910 shares of common stock in the 2016 Offering described in Note 6.

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 the three months ended June 30, 2016 and 2015 was $9,500 and $98,625, respectively. Total non-cash stock-based compensation recognized under the consulting agreement for the six months ended June 30, 2016 and 2015 was $25,625 and $161,125, 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 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 12. 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 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 $9.3 million for the six months ended June 30, 2016.

As of June 30, 2016, we had an accumulated deficit of $107.4 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 June 30, 2016 and 2015 accounted for 40% and 61%, respectively, of our testing volumes, with 6% and 22%, respectively, of the test volume coming from community hospitals. During the three months ended June 30, 2016, two Biopharma clients accounted for approximately 15% and 11% of our revenue, respectively. During the three months ended June 30, 2015, one Biopharma client accounted for approximately 25% of our revenue.

The top five test ordering clients during the six months ended June 30, 2016 and 2015 accounted for 38% and 66%, respectively, of our testing volumes, with 7% and 23%, respectively, of the test volume coming from community hospitals. During the six months ended June 30, 2016, two Biopharma clients accounted for approximately 13% and 11%, respectively, of our revenue. During the six months ended June 30, 2015, two Biopharma clients accounted for approximately 26% and 14% 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 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 June 30, 2016, Medicare accounted for approximately 12% of our total revenue, other insurance accounted for approximately 17% of our total revenue and other healthcare facilities accounted for 7% of our total revenue. For the six months ended June 30, 2016, Medicare accounted for approximately 13% of our total revenue, other insurance accounted for approximately 19% of our total revenue and other healthcare facilities accounted for 6% of our total revenue. On average, we generate less revenue per test from other healthcare facilities billed directly, than from other insurance payers.

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 June 30, 2016 and 2015

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

(dollars in thousands)	Three Months Ended June 30, 2016	2015	Change $	Change %
Revenue	**$ 7,001**	$ 4,185	$ 2,816	67 %
Cost of revenues	**4,285**	3,097	1,188	38 %
Research and development expenses	**1,680**	1,256	424	34 %
General and administrative expenses	**3,658**	3,062	596	19 %
Sales and marketing expenses	**1,379**	1,184	195	16 %
Loss from operations	**(4,001)**	(4,414)	413	(9)%
Interest income (expense)	**(94)**	(69)	(25)	36 %
Change in fair value of acquisition note payable	**67**	(316)	383	(121)%
Change in fair value of warrant liability	**—**	(181)	181	(100)%
Net (loss)	**$ (4,028)**	$ (4,980)	$ 952	(19)%

Revenue

The breakdown of our revenue is as follows:

(dollars in thousands)	Three Months Ended June 30, 2016 $	2016 %	2015 $	2015 %	Change $	Change %
Biopharma Services	**$ 4,219**	**60%**	$ 2,675	64%	$ 1,544	58 %
Clinical Services	**2,542**	**36%**	1,251	30%	1,291	103 %
Discovery Services	**240**	**4%**	259	6%	(19)	(7)%
Total Revenue	**$ 7,001**	**100%**	$ 4,185	100%	$ 2,816	67 %

Revenue increased 67%, or $2.8 million, to $7.0 million for the three months ended June 30, 2016, from $4.2 million for the three months ended June 30, 2015, principally due to the acquisition of Response Genetics, whose revenue accounted for $2.0 million of the increase; an increase of $0.9 million in Biopharma; partially off-set by a decrease of $0.1 million in clinical services from our other locations. The acquired business consisted of $1.4 million in Clinical Services and $0.6 million in Biopharma Services. Our average revenue (excluding probe revenue) per test decreased to $407 per test for the three months ended June 30, 2016 from $596 per test for the three months ended June 30, 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 232% from 4,055 tests for the three months ended June 30, 2015 to 13,481 tests for the three months ended June 30, 2016.

Revenue from Biopharma Services increased 58%, or $1.5 million, to $4.2 million for the three months ended June 30, 2016, from $2.7 million for the three months ended June 30, 2015, due to the revenue from our acquisition of Response Genetics, which accounted for $0.6 million of the increase; an increase of $0.9 million at our other locations. Revenue from Clinical Services customers increased by $1.3 million, or 103%, due to the revenue from our acquisition of Response Genetics, which accounted for $1.4 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, decreased 7% to $0.2 million for the three months ended June 30, 2016, from $0.3 million for the three months ended June 30, 2015, principally due to lower volume.

Cost of Revenues

Cost of revenues increased 38%, or $1.2 million, for the three months ended June 30, 2016, principally due to the costs of revenue from Response Genetics of $1.8 million, partially offset by a $0.3 million reduction in outsourced labor and a $0.6 million reduction in compensation, as a result of the Company's focus on reducing cost and improving gross margin. Gross margin improved to 39% during the three months ended June 30, 2016 from 26% during the three months ended June 30, 2015, due to cost reduction initiatives.

Operating Expenses

Research and development expenses increased 34%, or $0.4 million, to $1.7 million for the three months ended June 30, 2016, from $1.3 million for the three months ended June 30, 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 $0.3 million at our California location with an additional cumulative increase of $0.4 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 and a decrease in stock based compensation of $0.1 million.

General and administrative expenses increased 19%, or $0.6 million, to $3.7 million for the three months ended June 30, 2016, from $3.1 million for the three months ended June 30, 2015, principally due to the following: costs from the acquired business, Response Genetics, of $0.5 million; increased compensation of $0.2 million; and increased legal costs of $0.2 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 audit fees and a reduction of $0.2 million in stock based compensation costs.

Sales and marketing expenses increased 16%, or $0.2 million, to $1.4 million for the three months ended June 30, 2016, from $1.2 million for the three months ended June 30, 2015, principally due to increased costs from Response Genetics of $0.3 million, partially offset by a reduction of $0.1 million in consulting.

Interest Income (Expense)

Net interest expense increased 36%, or $25,000, 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 $0.1 million in non-cash income for the three months ended June 30, 2016 as compared to non-cash expense of $0.3 million for the three months ended June 30, 2015. The fair value of the note representing part of the purchase price for BioServe decreased during the three months ended June 30, 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 non-cash expense of $0.2 million for the three months ended June 30, 2015. These warrants expired during the first quarter of 2016.

Six Months Ended June 30, 2016 and 2015

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

	Six Months Ended June 30,		**Change**	
(dollars in thousands)	**2016**	2015	**$**	**%**
Revenue	**$ 13,069**	$ 8,555	$ 4,514	53 %
Cost of revenues	**8,388**	6,239	2,149	34 %
Research and development expenses	**3,212**	2,533	679	27 %
General and administrative expenses	**7,976**	6,049	1,927	32 %
Sales and marketing expenses	**2,677**	2,300	377	16 %
Loss from operations	**(9,184)**	(8,566)	(618)	7 %
Interest income (expense)	**(216)**	(90)	(126)	140 %
Change in fair value of acquisition note payable	**101**	(406)	507	100 %
Change in fair value of warrant liability	**17**	(196)	213	(109)%
Net (loss)	**$ (9,282)**	$ (9,258)	$ (24)	— %

Revenue

The breakdown of our revenue is as follows:

	Six Months Ended June 30,				Change	
	2016		2015			
(dollars in thousands)	$	%	$	%	$	%
Biopharma Services	**$ 7,569**	**58%**	$ 6,006	70%	$ 1,563	26%
Clinical Services	**4,998**	**38%**	2,124	25%	2,874	135%
Discovery Services	**502**	**4%**	425	5%	77	18%
Total Revenue	**$ 13,069**	**100%**	$ 8,555	100%	$ 4,514	53%

Revenue increased 53%, or $4.5 million, to $13.1 million for the six months ended June 30, 2016, from $8.6 million for the six months ended June 30, 2015, principally due to the acquisition of Response Genetics, whose revenue accounted for $4.2 million of the increase. The acquired business consisted of $3.1 million in Clinical Services and $1.1 million in Biopharma Services; an increase of $0.5 million in our Biopharma Services at our other locations, and an increase of $0.1 million in our Discovery services, partially off-set by a decrease of $0.2 million in our Clinical Services at our other locations. Our average revenue (excluding probe revenue) per test decreased to $414 per test for the six months ended June 30, 2016 from $594 per test for the six months ended June 30, 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 209% from 7,702 tests for the six months ended June 30, 2015 to 23,808 tests for the six months ended June 30, 2016.

Revenue from Biopharma Services increased 26%, or $1.6 million, to $7.6 million for the six months ended June 30, 2016, from $6.0 million for the six months ended June 30, 2015, due to the revenue from our acquisition of Response Genetics, which accounted for $1.1 million of the increase, and an increase of $0.5 million from our other locations. Revenue from Clinical Services customers increased by $2.9 million, or 135%, for the six months ended June 30, 2016 due to the revenue from our acquisition of Response Genetics, which accounted for $3.1 million of the increase, which was partially offset by a decrease in revenue of $0.2 million at our other locations. Revenue from Discovery Services, our new line of business, increased 18% to $0.5 million for the six months ended June 30, 2016, from $0.4 million for the six months ended June 30, 2015, principally due to new customer contracts.

Cost of Revenues

Cost of revenues increased 34%, or $2.1 million, for the six months ended June 30, 2016, principally due to the costs of revenue from Response Genetics of $3.0 million, partially offset by a $0.3 million reduction in outsourced services and a $0.7 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 36% during the six months ended June 30, 2016 from 27% during the six months ended June 30, 2015, due to cost reduction initiatives.

Operating Expenses

Research and development expenses increased 27%, or $0.7 million, to $3.2 million for the six months ended June 30, 2016, from $2.5 million for the six months ended June 30, 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 costs of $0.8 million at our California location with an additional cumulative increase of $0.7 million at our other locations. These increases were partially offset by the following: a $0.4 million decrease in our share of the loss from Oncospire, our joint venture with the Mayo Clinic and a reduction in stock based compensation of $0.1 million.

General and administrative expenses increased 32%, or $1.9 million, to $8.0 million for the six months ended June 30, 2016, from $6.0 million for the six months ended June 30, 2015, principally due to the following: costs from the acquired business, Response Genetics, of $1.6 million; increased compensation of $0.4 million; increased consulting cost of $0.1 million; and increased legal costs of $0.3 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 $0.2 million in public relations fees; a reduction of $0.1 million in recruiting fees; and a reduction of $0.3 million in stock based compensation costs.

Sales and marketing expenses increased 16%, or $0.4 million, to $2.7 million for the six months ended June 30, 2016, from $2.3 million for the six months ended June 30, 2015, principally due to increased costs from Response Genetics of $0.7 million, partially offset by the following: a reduction of compensation of $0.1 million, and a reduction of $0.2 million in consulting, recruiting and travel and entertainment.

Interest Income (Expense)

Net interest expense increased 140%, 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 $0.1 million in non-cash income for the six months ended June 30, 2016. The fair value of the note representing part of the purchase price for BioServe decreased 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 six months ended June 30, 2016, as compared to non-cash expense of $0.2 million for the six months ended June 30, 2015. The fair market value of these common stock warrants decreased during the six months ended June 30, 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 June 30, 2016, we have not borrowed on our line of credit, which allowed 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 $8 million of additional equity. On June 3, 2016, the Company delivered its April 2016 reporting package to SVB showing the Company was in technical default with SVB due to violating a liquidity covenant. As discussed in Note 1 of Notes to Unaudited Consolidated Financial Statements included in Item 1 of this quarterly report on Form 10-Q, the Company raised $5 million in May of 2016. The Company was in compliance with all covenants in May and June of 2016. SVB has waived the April 2016 technical default. Our largest source of operating cash flow is cash collections from our customers.

2*016 Offering*

On May 25, 2016, we sold 2,467,820 shares of common stock in a public offering and warrants to purchase 1,233,910 shares of common stock in a concurrent private placement. These offerings resulted in gross proceeds of $5 million. We sold 2,150,000 shares of common stock and warrants to purchase 1,075,000 shares of common stock to certain institutional investors at a combined offering price of $2.00 per common share, and our Chairman of the Board, John Pappajohn, purchased 317,820 shares of common stock and warrants to purchase 158,910 shares of common stock at a combined offering price of $2.2025 per common share. In addition, we issued warrants to purchase an aggregate of 123,391 shares of common stock to the placement agent. Subject to certain ownership limitations, the warrants will be initially exercisable commencing six months from the issuance date at an exercise price equal to $2.25 per share of common stock. The warrants are exercisable for five years from the initial exercise date.

Cash Flows

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

	Six Months Ended June 30,	
(in thousands)	**2016**	2015
Cash provided by (used in):		
Operating activities	**$ (12,602)**	$ (7,360)
Investing activities	**(405)**	5,675
Financing activities	**4,100**	(125)
Net (decrease) in cash and cash equivalents	**$ (8,907)**	$ (1,810)

We had cash and cash equivalents of $10.6 million at June 30, 2016, and $19.5 million at December 31, 2015.

The $8.9 million decrease in cash and cash equivalents for the six months ended June 30, 2016, principally resulted from $12.6 million of net cash used in operations, fixed asset additions of $0.3 million, patent costs of $0.1 million, capital lease payments of $0.1 million and principal payments on the bank term note of $0.3 million, offset by $4.5 million of net proceeds from the 2016 Offering.

The $1.8 million decrease in cash and cash equivalents for the six months ended June 30, 2015, principally resulted from $7.4 million of net cash used in operations offset by a $6.0 million decrease in restricted cash related to our debt financing facility with Silicon Valley Bank that does not require us to maintain restricted cash accounts.

At June 30, 2016, we had total indebtedness of $5.8 million, excluding capital lease obligations.

Cash Used in Operating Activities

Net cash used in operating activities was $12.6 million for the six months ended June 30, 2016. We used $7.1 million in net cash to fund our core operations, which included $0.2 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 $5.3 million and a net decrease in accounts payable, accrued expenses and deferred revenue of $0.3 million, offset by a decrease in other current assets of $0.1 million. The net increase in accounts receivable includes approximately $1.4 million of unbilled revenue for clinical services provided by our location in California. The Company has allocated additional resources to bill this revenue, and as of July 31, 2016, approximately $0.4 million remains unbilled.

For the six months ended June 30, 2015, we used $7.4 million in operating activities. We used $6.2 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 $0.9 million and an increase in other current assets of $0.5 million which includes prepayments for our insurance policies offset by a net increase in accounts payable, accrued expenses and deferred revenue of $0.2 million.

Cash Provided by/Used in Investing Activities

Net cash used in investing activities was $0.4 million for the six months ended June 30, 2016 and resulted from the purchase of fixed assets of $0.3 million and patent costs of $0.1 million.

Net cash provided by investing activities was $5.7 million for the six months ended June 30, 2015 and principally resulted from a $6.0 million decrease in restricted cash related to our debt financing facility with Silicon Valley Bank that does not require us to maintain restricted cash accounts.

Cash Used in Financing Activities

Net cash provided by financing activities was $4.1 million for the six months ended June 30, 2016 and principally resulted from proceeds received in the 2016 Offering of $4.5 million, offset by principal payments made on the bank term note of $0.3 million and capital lease payments of $0.1 million.

Net cash used in financing activities was $0.1 million for the six months ended June 30, 2015 and principally resulted from payments for deferred equity offering costs of $0.1 million.

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.

We believe that our current cash will support operations for at least the next 6 months. We are actively discussing opportunities for additional equity or debt financing, and we are taking steps to improve our operating cash flow. We can provide no assurances that our current actions will be successful or 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.

The continuation of the Company as a going concern is dependent on the ability of the Company to obtain necessary debt and/or equity financing to continue operations. These interim consolidated financial statements do not include any adjustments to the recoverability and classification of recorded asset amounts and classification of liabilities that might be necessary should the Company be unable to continue as a going concern.

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 may make capital contributions up to $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.

Subject to the availability of financing, we may 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 $8 million of additional equity is raised. On June 3, 2016, the Company delivered its April 2016 reporting package to SVB showing the Company was in technical default with SVB due to violating a liquidity covenant. As discussed in Note 1 of Notes to Unaudited Consolidated Financial Statements included in Item 1 of this quarterly report on Form 10-Q, the Company raised $5 million in May of 2016. The Company was in compliance with all covenants in May and June of 2016. SVB has waived the April 2016 technical default. See Note 5 of Notes to Unaudited Consolidated Financial Statements included in Item 1 of this quarterly report on Form 10-Q.

In June 2016, we amended the lease agreement with University of Southern California for our location in Los Angeles, California. The term of the lease is eighteen months, effective July 1, 2016, with monthly base rent of approximately $54,000.

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 the negative of 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;
- 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

Not applicable.

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 June 30, 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 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 June 30, 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 June 30, 2016 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II — OTHER INFORMATION

Item 1. Legal Proceedings

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 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, except for the risk factor with a material update set forth below.

We will need to raise additional capital to fund our existing operations, to develop, validate and commercialize new tests and technologies, to expand our operations and repay indebtedness.

We will need to raise additional financing to fund our operations, to develop, validate and commercialize new tests and technologies, to expand our operations and repay indebtedness. At June 30. 2016, we had cash and cash equivalents of $10.6 million. Net cash used in operating activities was $12.6 million for the six months ended June 30, 2016. We also need capital to satisfy indebtedness under our credit facility with Silicon Valley Bank.

We believe that our current cash will support operations only for the next 6 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.

Additional financing, which is not in place at this time, may be from the sale of equity or convertible or other debt securities in a public or private offering, from an additional or new credit facility or from strategic partnership coupled with an investment in us or a combination of forms. We are also taking steps to improve our operating cash flow. We can provide no assurances that our current actions will be successful or that any additional sources of financing will be available to us on favorable terms, if at all, when needed. Our failure to raise additional capital and insufficient amounts when needed may significantly impact our ability to operate our business. For further discussion of our liquidity requirements, see the section titled “Liquidity and Capital Resources-Capital Resources and Expenditure Requirements.”

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

Not applicable.

Item 6. Exhibits

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

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: August 9, 2016

/s/ Panna L. Sharma
Panna L. Sharma
President and Chief Executive Officer
(Principal Executive Officer)

Date: August 9, 2016

/s/ Edward J. Sitar
Edward J. Sitar
Chief Financial Officer
(Principal Financial and Accounting Officer)

INDEX TO EXHIBITS

Exhibit No.	Description
4.1	Form of Warrant Agreement of Cancer Genetics, Inc. (incorporated by reference to Exhibit 4.1 to the Company's current report on Form 8-K, filed with the Securities and Exchange Commission on May 20, 2016).
10.1	Eleventh Amendment to Lease Agreement, dated June 10, 2016, between University of Southern California and Cancer Genetics, Inc. *
10.2	Employment Agreement between Cancer Genetics, Inc. and John Roberts, dated June 27, 2016 (incorporated by reference to Exhibit 10.1 to the Company's current report on Form 8-K, filed with the Securities and Exchange Commission on June 30, 2016).
10.3	Form of Securities Purchase Agreement, dated May 19, 2016, by and between Cancer Genetics, Inc. and various purchasers named therein (incorporated by reference to Exhibit 10.1 to the Company's current report on Form 8-K, filed with the Securities and Exchange Commission on May 20, 2016).
10.4	Engagement Letter between Cancer Genetics, Inc. and Rodman & Renshaw, a unit of H.C. Wainwright & Co., LLC, dated as of May 19, 2016 (incorporated by reference to Exhibit 10.2 to the Company's current report on Form 8-K, filed with the Securities and Exchange Commission on May 20, 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 June 30, 2016, formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Balance Sheet at June 30, 2016 (unaudited) and December 31, 2015, (ii) Consolidated Statements of Operations for the three and six month periods ended June 30, 2016 and 2015, (iii) Consolidated Statements of Cash Flows for the six month periods ended June 30, 2016 and 2015 (unaudited) and (iv) Notes to Consolidated Financial Statements (unaudited)

* Filed herewith.

** Furnished herewith.

ELEVENTH AMENDMENT TO LEASE AGREEMENT

This Eleventh Amendment to Lease Agreement (this "**Eleventh Amendment**"), dated as of June 10, 2016 (the "Amendment Date"), and effective as of July 1, 2016 (the "**Effective Date**"), for reference purposes only, is entered into by and between the University of Southern California, a California non-profit public benefit corporation ("**Landlord**") and Cancer Genetics, Inc., a Delaware corporation ("**CG**") , as successor-in-interest to Response Genetics, Inc., a Delaware corporation ("**RG**") ("**Tenant**").

RECITALS

A. Health Research Association, Inc., a California non-profit public benefit corporation ("**Original Landlord**"), and Tenant entered into an Office Lease Agreement dated as of September 16, 2004, as amended by that certain First Amendment to Office Lease dated February 1, 2006, as further amended by that certain Second Amendment to Lease Agreement dated as of January 28, 2010, as further amended by that certain Third Amendment to Lease Agreement dated as of March 31, 2010, as further amended by that certain Fourth Amendment to Lease Agreement dated March 4, 2011, as further amended by that certain Fifth Amendment to Lease Agreement dated August 19, 2011, as further amended by that certain Sixth Amendment to Lease Agreement dated August 30, 2011, as further amended by that certain Seventh Amendment to Lease Agreement dated May 7, 2012, as further amended by that certain Eighth Amendment to Lease Agreement dated June 28, 2012, as further amended by that certain Ninth Amendment to Lease Agreement dated February 3, 2014 (the "**Ninth Amendment to Lease**"), and as further amended by that certain Tenth Amendment to Lease Agreement dated June __, 2015 (collectively, the "**Lease**"), for those certain premises known as Suites 400, 401, 402, 403, 404, 405, 406, 410, 600, and 700 (collectively, the "**Premises**"), located at 1640 Marengo Blvd., Los Angeles, California 90033, all as more particularly set forth in the Lease.

B. Landlord and Tenant also entered into that certain Lease of Parking Spaces dated as of February 3, 2014 and terminating on June 30, 2016.

C. CG acquired all assets of RG pursuant to that certain Amended and Restated Asset Purchase Agreement dated as of August 14, 2015 (the "**APA**"), which APA was approved the Order of United States Bankruptcy Court, District of Delaware, Case No. 15-11669 (LSS), dated October 1, 2015 (the "**Order**"). As a result of the APA and the Order, CG became a successor-in-interest to RG.

D. Tenant desires to relinquish that area commonly known as Suite 700 which is located on the seventh floor of the Building and containing approximately 8,341 rentable square feet (hereinafter referred to as the "**Seventh Floor Relinquished Space**").

E. Landlord and Tenant mutually desire to amend the Lease to reduce the size of the Premises, as well as other matter, all in accordance with the specific terms and conditions hereof.

NOW THEREFORE, for good and valuable consideration received to the full satisfaction of the parties hereto, Landlord and Tenant do hereby covenant and agree as follows:

1. Recitals. The foregoing recitals are hereby incorporated into and made a part of this Eleventh Amendment by this reference.

2. Definitions. All capitalized terms in this Eleventh Amendment (including the Recitals), shall have the same meanings ascribed thereto in the Lease, unless otherwise provided for herein. All references to Tenant shall mean CG, and all references to RG shall be replaced with CG.

3. Term. The Term of the Lease shall be extended for an eighteen (18) month period which period shall commence on the Effective Date and shall terminate on December 31, 2017.

4. Base Rent. Commencing on the Effective Date, and for the entire balance of the Term, the monthly Base Rent (including any such Supplemental Power Fee and security personnel services provided to the Premises from 6:00am -7:30am on business days) shall be due and payable on the first day of each month and shall be in the sum of Fifty-Four Thousand Four Hundred and Forty-Nine Dollars and Twenty-Five Cents ($54,449.25).

5. Relinquished Space. As of the Effective Date, the Premises shall be reduced by the Seventh Floor Relinquished Space. As such, Landlord and Tenant acknowledge and agree that the net result to Tenant is a decrease in the total rentable square footage of the Premises from 27,446 to 19,105 rentable square feet.

6. Parking. Section 6 of the Ninth Amendment to Lease is hereby deleted in its entirety and replaced with the following:

"During the Term, Landlord shall provide to Tenant, at no cost to Tenant, thirty-five (35) non-reserved parking spaces located at the Building."

7. Effect of Eleventh Amendment. The Lease shall be deemed amended by this Eleventh Amendment. Except as specifically modified by this Eleventh Amendment, all of the terms and conditions of the Lease shall continue in full force and effect. In the event of any conflict between the terms of this Eleventh Amendment and the terms of the Lease, the terms of this Eleventh Amendment shall prevail.

8. Counterparts. This Eleventh Amendment may be executed simultaneously in one (1) or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one (1) and the same instrument. Each party may execute a facsimile counterpart signature page, which shall constitute a valid and binding obligation of the party signing such

facsimile counterpart. Any party signing by facsimile agrees promptly to furnish to the other party, upon request, an original counterpart of this Eleventh Amendment.

9. Entire Agreement. This Eleventh Amendment and the Lease contains the entire understanding and agreement between the parties relating to the matters covered hereby and supersedes all prior or contemporaneous negotiations, arrangements, agreements, understandings, representations, and statements, whether oral or written, with respect to the matters covered hereby, all of which are merged herein and shall be of no further force or effect whatsoever.

[Signature Page to Follow]

IN WITNESS WHEREOF, Landlord and Tenant have executed this Eleventh Amendment as of the day and year first above written.

Landlord

UNIVERSITY OF SOUTHERN CALIFORNIA
a California non-profit public benefit corporation

By: Todd Dickey
Name: Todd R. Dickey
Its: Senior Vice President, Administration
Date: 6-30-16

Tenant

CANCER GENETICS, INC., a
Delaware corporation

By: Panna L Sharma
Name: PANNA L. SHARMA
Its: CEO + President

Exhibit 31.1

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

I, Panna L. Sharma, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Cancer Genetics, Inc. (the "Registrant");

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 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 and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing the equivalent functions):

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

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

Date: August 9, 2016

/s/ Panna L. Sharma

Panna L. Sharma
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

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

I, Edward J. Sitar, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Cancer Genetics, Inc. (the "Registrant");

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 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 and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing the equivalent functions):

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

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

Date: August 9, 2016

/s/ Edward J. Sitar

Edward J. Sitar
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

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

In connection with the quarterly report of Cancer Genetics, Inc. (the "Company") on Form 10-Q for the quarter ended June 30, 2016 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Panna L. Sharma, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

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

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

Date: August 9, 2016

/s/ Panna L. Sharma
Panna L. Sharma
President and Chief Executive Officer

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document.

Exhibit 32.2

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

In connection with the quarterly report of Cancer Genetics, Inc. (the "Company") on Form 10-Q for the quarter ended June 30, 2016 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Edward J. Sitar, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

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

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

Date: August 9, 2016

/s/ Edward J. Sitar
Edward J. Sitar
Chief Financial Officer

The foregoing certification is being furnished solely pursuant to 18 U.S.C. Section 1350 and is not being filed as part of the Report or as a separate disclosure document.