CANCER GENETICS, INC
Form 10-Q
November 19, 2018
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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-Q

(Mark One)
ý QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended September 30, 2018
Or

¨ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to
Commission file number 001-35817

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

Delaware	04-3462475
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
201 Route 17 North 2nd Floor Rutherford, NJ 07070	
(201) 528-9200	
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)	

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ý No ¨
Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ý No ¨

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

Large accelerated filer	¨	Accelerated filer	¨
Non-accelerated filer	x	Smaller reporting company	x
		Emerging growth company	x

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

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

As of November 13, 2018, there were 27,746,497 shares of common stock, par value $0.0001 of Cancer Genetics, Inc. outstanding.

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

	September 30, 2018	December 31, 2017
ASSETS		
CURRENT ASSETS		
Cash and cash equivalents	$ 1,206	$ 9,541
Accounts receivable, net of allowance for doubtful accounts of 2018 $7,967; 2017 $6,539	8,981	10,958
Other current assets	2,928	2,707
Total current assets	13,115	23,206
FIXED ASSETS, net of accumulated depreciation	4,499	5,550
OTHER ASSETS		
Restricted cash	350	350
Patents and other intangible assets, net of accumulated amortization	4,121	4,478
Investment in joint venture	242	246
Goodwill	17,257	17,992
Other	301	399
Total other assets	22,271	23,465
Total Assets	$ 39,885	$ 52,221
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES		
Accounts payable and accrued expenses	$ 13,040	$ 8,715
Obligations under capital leases, current portion	324	272
Deferred revenue	2,409	516
Line of credit	2,764	4,137
Term note	6,000	6,000
Convertible note, net	2,302	—
Advance from NovellusDx, Ltd.	1,500	—
Total current liabilities	28,339	19,640
Obligations under capital leases	451	624
Deferred rent payable and other	283	360
Warrant liability	1,122	4,403
Deferred revenue, long-term	442	429
Total Liabilities	30,637	25,456
STOCKHOLDERS' EQUITY		
Preferred stock, authorized 9,764 shares, $0.0001 par value, none issued	—	—
Common stock, authorized 100,000 shares, $0.0001 par value, 27,726 and 27,754 shares issued and outstanding at September 30, 2018 and December 31, 2017, respectively	3	3
Additional paid-in capital	163,092	161,527
Accumulated other comprehensive income	104	69
Accumulated (deficit)	(153,951)	(134,834)
Total Stockholders' Equity	9,248	26,765
Total Liabilities and Stockholders' Equity	$ 39,885	$ 52,221

See Notes to Unaudited Consolidated Financial Statements.

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Revenue	$5,940	$8,028	$20,643	$21,598
Cost of revenues	4,654	4,588	14,589	12,831
Gross profit	1,286	3,440	6,054	8,767
Operating expenses:				
Research and development	692	981	2,046	3,080
General and administrative	5,004	4,346	14,950	11,352
Sales and marketing	1,280	1,301	4,212	3,437
Restructuring costs	1,418	—	2,151	—
Merger costs	890	—	890	—
Total operating expenses	9,284	6,628	24,249	17,869
Loss from operations	(7,998)	(3,188)	(18,195)	(9,102)
Other income (expense):				
Interest expense	(465)	(350)	(1,282)	(797)
Interest income	—	10	21	37
Change in fair value of acquisition note payable	(13)	105	68	(114)
Change in fair value of warrant liability	12	2,790	2,858	(3,927)
Other (expense)	(55)	—	(78)	(46)
Total other income (expense)	(521)	2,555	1,587	(4,847)
Loss before income taxes	(8,519)	(633)	(16,608)	(13,949)
Income tax (benefit)	—	—	—	(970)
Net (loss)	$(8,519)	$(633)	$(16,608)	$(12,979)
Basic net (loss) per share	$(0.31)	$(0.03)	$(0.61)	$(0.65)
Diluted net (loss) per share	$(0.31)	$(0.15)	$(0.61)	$(0.65)
Basic weighted-average shares outstanding	27,370	21,577	27,156	20,059
Diluted weighted-average shares outstanding	27,370	22,359	27,156	20,059
Net (loss)	$(8,519)	$(633)	$(16,608)	$(12,979)
Foreign currency translation gain (loss)	(30)	(1)	35	(1)
Comprehensive (loss)	$(8,549)	$(634)	$(16,573)	$(12,980)

See Notes to Unaudited Consolidated Financial Statements.

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

	Nine Months Ended September 30,	
	2018	2017
CASH FLOWS FROM OPERATING ACTIVITIES		
Net (loss)	$(16,608)	$(12,979)
Adjustments to reconcile net (loss) to net cash (used in) operating activities:		
Depreciation	1,266	1,436
Amortization	396	234
Provision for bad debts	1,428	890
Stock-based compensation	731	1,395
Change in fair value of warrant liability and acquisition note payable	(2,926)	4,041
Amortization of discount of debt and debt issuance costs	130	185
Loss on sale of assets and India subsidiary	204	—
Modification of 2017 Debt warrants	83	—
Loss in equity method investment	4	21
Loss on extinguishment of debt	—	78
Changes in:		
Accounts receivable	184	(4,029)
Other current assets	(237)	(606)
Other non-current assets	—	251
Accounts payable, accrued expenses and deferred revenue	3,970	(1,057)
Deferred rent payable and other	(64)	(109)
Net cash (used in) operating activities	(11,439)	(10,249)
CASH FLOWS FROM INVESTING ACTIVITIES		
Purchase of fixed assets	(799)	(1,192)
Patent costs	(32)	(73)
Purchase of cost method investment	—	(200)
Acquisition of vivoPharm, Pty Ltd., net of cash acquired	—	(656)
Cash received in the sale of India subsidiary, net of cash transferred	1,551	—
Net cash provided by (used in) investing activities	720	(2,121)
CASH FLOWS FROM FINANCING ACTIVITIES		
Principal payments on capital lease obligations	(271)	(170)
Proceeds from warrant and option exercises	—	1,834
Proceeds from borrowings on Silicon Valley Bank line of credit	6,831	2,000
Repayment of borrowings on Silicon Valley Bank line of credit	(8,204)	—
Proceeds from Convertible Note	2,500	—
Advance from NovellusDx, Ltd.	1,500	—
Proceeds from Partners for Growth IV, L.P. term note	—	6,000
Proceeds from Aspire Capital common stock purchases, net of certain offering costs	—	2,965
Principal payments on Silicon Valley Bank term note	—	(4,667)
Payment of debt issuance costs and loan fees	—	(287)
Net cash provided by financing activities	2,356	7,675
Effect of foreign exchange rates on cash and cash equivalents and restricted cash	28	—
Net (decrease) in cash and cash equivalents and restricted cash	(8,335)	(4,695)
CASH AND CASH EQUIVALENTS AND RESTRICTED CASH		
Beginning	9,891	9,502

Ending	$1,556	$4,807

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SUPPLEMENTAL CASH FLOW DISCLOSURE		
Cash paid for interest	$827	$633
SUPPLEMENTAL DISCLOSURE OF NONCASH INVESTING AND FINANCING ACTIVITIES		
Fixed assets acquired through capital lease arrangements	$150	$567
Derivative warrants issued with debt	—	1,004
Acquisition of vivoPharm business	—	9,856
Fair value of warrants reclassified from liabilities to equity	423	—
Beneficial conversion feature on Convertible Note	328	—
Sale of India subsidiary:		
Accounts receivable, net	$365	$—
Other current assets	16	—
Fixed assets, net	608	—
Goodwill	735	—
Other noncurrent assets	98	—
Accounts payable, accrued expenses and deferred revenue	(180)	—
Deferred rent and other	(13)	—
Loss on sale of India subsidiary	(78)	—
Cash received in the sale of India subsidiary, net of cash transferred	$1,551	$—

See Notes to Unaudited Consolidated Financial Statements.

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Notes to Unaudited Consolidated Financial Statements

Note 1. Organization, Description of Business, Basis of Presentation, Merger with NovellusDx, Ltd., Recently Adopted Accounting Standards, Acquisition, Reclassifications and Recent Accounting Pronouncements

We are an emerging leader in the field of precision medicine, enabling individualized therapies in the field of oncology through our tests, services and molecular markers. We develop, commercialize and provide molecular- and biomarker-based tests and services, including proprietary preclinical oncology and immuno-oncology services, that enable biotech and pharmaceutical companies engaged in oncology and immuno-oncology trials to better select candidate populations and reduce adverse drug reactions by providing information regarding genomic and molecular factors influencing subject responses to therapeutics. Through our clinical services, we enable physicians to personalize the clinical management of each individual patient by providing genomic information to better diagnose, monitor and inform cancer treatment. We have a comprehensive, disease-focused oncology testing portfolio, and extensive set of anti-tumor referenced data based on predictive xenograft and syngeneic tumor models. Our tests and techniques target a wide range of indications, covering all ten of the top cancers in prevalence in the United States, with additional unique capabilities offered by our FDA-cleared Tissue of Origin® test for identifying difficult to diagnose tumor types or poorly differentiated metastatic disease. Following the acquisition of vivoPharm, Pty Ltd. (“vivoPharm”) we provide contract research services, focused primarily on unique specialized studies to guide drug discovery and development programs in the oncology and immuno-oncology fields.

We were incorporated in the State of Delaware on April 8, 1999 and have offices and laboratories located in New Jersey, North Carolina, Pennsylvania, and Australia. Our laboratories comply with the highest regulatory standards as appropriate for the services we deliver including CLIA, CAP, New York State and California State, and are regularly audited by our biopharmaceutical customers under strict requirements for drug discovery and development. Our services are built on a foundation of world-class scientific knowledge and intellectual property in solid tumor 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. We offer preclinical services such as predictive tumor models, human orthotopic xenografts and syngeneic immuno-oncology relevant tumor models in our Hershey, Pennsylvania facility, and we are a leader in the field of immuno-oncology preclinical services in the United States. This service is supplemented with GLP toxicology and extended bioanalytical services in our Australian based facility in Bundoora VIC.

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, 2017, filed with the Securities and Exchange Commission on April 2, 2018. The consolidated balance sheet as of December 31, 2017, 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, 2018.

Merger with NovellusDx, Ltd.

Merger Agreement

On September 18, 2018, we entered into an agreement and plan of merger (the "Merger Agreement") with NovellusDx, Ltd., a privately-held company formed under the law of the State of Israel ("NDX"), in regards to Wogolos Ltd., our wholly owned subsidiary company formed under the laws of the State of Israel. Subject to satisfaction or waiver of the conditions set forth in the Merger Agreement, Wogolos Ltd. will merge (the "Merger") with and into NDX, with NDX becoming a wholly owned subsidiary of us and the surviving company.

At the effective time of the Merger, all of NDX's share capital will be converted into the right to receive an aggregate number of shares of our common stock equal to 49% of the fully-diluted aggregate number of shares of the Company immediately following the Merger, including shares issuable upon the conversion of the Convertible Note to Iliad Research described in Note 6 and shares issuable upon the exercise of the Company's options and warrants, determined using the treasury stock

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method. Shares issuable under the Private Placement described in the following paragraph will be excluded from this calculation.

Private Placement

On September 18, 2018, we also entered into a securities purchase agreement (the "Purchase Agreement") pursuant to which we agreed to sell and issue, in a private placement, a total of 8,509,891 shares of our common stock and warrants to purchase an aggregate of up to approximately 6,382,418 shares of our common stock, to the purchasers thereunder, all of whom are current NDX shareholders, for an aggregate purchase price of approximately $8.6 million, with the shares and warrants being sold together in a fixed combination of one share and one warrant to purchase 75% of a share of our common stock, at a price of $1.01 per share and related warrant (the "Private Placement"). The closing of the Private Placement is conditional upon, and will occur immediately after, the Merger. In addition, the Company and NDX may continue to solicit additional subscriptions pursuant to this Purchase Agreement prior to the closing of the Private Placement.

The warrants issued under the Private Placement will be exercisable for five years beginning on the closing date of the Merger at an initial exercise price of $1.01 per share, subject to adjustment for certain customary circumstances. The warrants can be exercised on a cashless basis.

Advance from NDX

In connection with the signing of the Merger Agreement, on September 18, 2018, we entered into a credit agreement with NDX, pursuant to which NDX agreed to loan us up to $2,300,000 as discussed in Note 6.

Recently Adopted Accounting Standards

Revenue Recognition

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2014-09, "Revenue from Contracts with Customers." The guidance requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to a customer. The ASU replaces most existing revenue recognition guidance in U.S. GAAP. In August 2015, the FASB issued ASU 2015-14, "Revenue from Contracts with Customers: Deferral of the Effective Date" which defers the effective date for ASU 2014-09 by one year. In March 2016, the FASB issued ASU 2016-08, "Principal versus Agent Considerations (Reporting Gross versus Net)," which clarifies the implementation guidance in ASU 2014-09 relating to principal versus agent considerations. In April 2016, the FASB issued ASU 2016-10, "Identifying Performance Obligations and Licensing," which clarifies guidance related to the impact of goods and services on a performance obligation and timing and pattern of recognition issues related to intellectual property contracts. In May 2016, the FASB issued ASU 2016-12, "Narrow-Scope Improvements and Practical Expedients," which clarifies certain narrow provisions of ASU 2014-09. On January 1, 2018, we adopted these ASUs using the modified retrospective method. We recognized the cumulative effect of initially applying the new revenue standard as an adjustment to the opening balance of accumulated deficit. Financial information for the nine months ended September 30, 2017 has not been restated and continues to be reported under the accounting standards in effect for that period.

The transition adjustment resulted in a net reduction to the opening balance of accumulated deficit of $2.5 million on January 1, 2018 and increased deferred revenue associated with Biopharma Services and Discovery Services by $1.9 million and $0.6 million, respectively, due to a change in our policies for recognized revenue for performance obligations fulfilled over time. In our Clinical Services area, the majority of the amounts historically charged as a provision for bad debts are now considered an implicit price concession in determining net revenue under Accounting

Standards Codification (“ASC”) Topic 606. Accordingly, we now report uncollectible balances as a reduction in the transaction price, and therefore, as a reduction in net revenues rather than a component of selling, general and administrative expenses.

The following table presents the amounts by which each line item in the Consolidated Statements of Operations and Other Comprehensive Loss was affected by adopting the new revenue recognition guidance for the three and nine months ended September 30, 2018 (in thousands):

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	Three Months Ended September 30, 2018			Nine Months Ended September 30, 2018		
	As Reported	ASC 606 Adjustments	Balances Without Adoption	As Reported	ASC 606 Adjustments	Balances Without Adoption
Revenue:						
Biopharma Services	$3,850	$ (35)	3,815	11,099	$ (797)	10,302
Clinical Services	1,555	—	1,555	6,019	—	6,019
Discovery Services	535	—	535	3,525	(650)	2,875
	$5,940	$ (35)	$ 5,905	$20,643	$ (1,447)	$ 19,196

The following table presents the amounts by which each line item in the Consolidated Balance Sheet was affected by adopting the new revenue recognition guidance at September 30, 2018 (in thousands):

	September 30, 2018		
	As Reported	ASC 606 Adjustments	Balances Without Adoption
CURRENT LIABILITIES			
Deferred revenue			
Biopharma Services	$1,180	$ (1,062)	$118
Clinical Services	—	—	—
Discovery Services	1,229	—	1,229
	$2,409	$ (1,062)	$1,347
NON-CURRENT LIABILITIES			
Deferred revenue			
Biopharma Services	$428	$ —	$428
Clinical Services	—	—	—
Discovery Services	14	—	14
	$442	$ —	$442
STOCKHOLDERS' EQUITY			
Accumulated (deficit)	$(153,951)	$ 1,062	$(152,889)

Restricted Cash

Effective January 1, 2018, we adopted ASU 2016-18, which requires companies to include restricted cash accounts with cash and cash equivalents when reconciling the beginning of period and end of period total amounts shown on the Consolidated Statements of Cash Flows.

Acquisition of vivoPharm

On August 15, 2017, we purchased all of the outstanding stock of vivoPharm, with its principal place of business in Victoria, Australia, in a transaction valued at approximately $1.6 million in cash and shares of the Company’s common stock, valued at $8.1 million based on the closing price of the stock on August 15, 2017. The Company deposited in escrow 20% of the stock consideration until the expiration of twelve months from the closing date to serve as the initial source for any indemnification claims and adjustments.

Prior to the acquisition, vivoPharm was a contract research organization (“CRO”) that specialized in planning and conducting unique, specialized studies to guide drug discovery and development programs with a concentration in oncology and immuno-oncology. The transaction is being accounted for using the acquisition method of accounting

for business combinations in accordance with GAAP. Under this method, the total consideration transferred to consummate the acquisition is being allocated to the identifiable tangible and intangible assets acquired and liabilities assumed based on their respective fair values as of the

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closing date of the acquisition. The acquisition method of accounting requires extensive use of estimates and judgments to allocate the consideration transferred to the identifiable tangible and intangible assets acquired and liabilities assumed. The measurement period expired on August 15, 2018 and the final valuation was deemed consistent with the preliminary valuation completed during the acquisition diligence phase, specifically concerning lab supplies, deferred revenue and deferred taxes. On August 15, 2018, the escrowed shares were released. Subsequent to the measurement period expiration, a review of deferred revenue surfaced a refinement in contract completion estimate of $0.2 million associated with the acquisition valuation and accordingly the current revenue offset was recorded in the statement of operations for the three months ended September 30, 2018.

The final allocation of the purchase price as of August 15, 2017 consists of the following (in thousands):

Cash	$544
Accounts receivable	905
Lab supplies	350
Prepaid expenses and other current assets	60
Fixed assets	765
Intangible assets	3,160
Goodwill	5,960
Accounts payable and accrued expenses	(913)
Deferred revenue	(814)
Deferred rent and other	(222)
Obligations under capital leases	(76)
Total purchase price	$9,719

The following table provides certain pro forma financial information for the Company as if the acquisition of vivoPharm discussed above occurred on January 1, 2017 (in thousands except per share amounts):

	Three Months Ended September 30, 2017	Nine Months Ended September 30, 2017
Revenue	$ 9,069	$ 25,335
Net loss	(976)	(13,788)
Basic net loss per share	$ (0.04)	$ (0.61)
Dilutive net loss per share	(0.16)	(0.61)

The results of operations for the three and nine months ended September 30, 2018 include the operations of vivoPharm, which accounted for approximately $535,000 and $3,243,000 of the Company’s consolidated Discovery Services revenue, respectively. The net income (loss) of vivoPharm cannot be determined, as its operations were integrated with Cancer Genetics.

The results of operations for the three and nine months ended September 30, 2017 include the operations of vivoPharm from August 15, 2017, which accounted for approximately $794,000 of the Company’s consolidated Discovery Services revenue. The net income of vivoPharm that is included in the Company’s results of operations for the three and nine months ended September 30, 2017 was approximately $380,000.

Restructuring

During the nine months ended September 30, 2018, the Company adopted a plan to migrate its California operations to its New Jersey and North Carolina locations and to permanently close its California laboratory. The Company incurred approximately $1,418,000 and $2,151,000 of restructuring costs during the three and nine months ended September 30, 2018, respectively. The costs associated with the restructuring activities incurred are as follows:

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	For the Three Months Ended September 30, 2018	For the Nine Months Ended September 30, 2018
Disposal activity costs	$ 243	$ 692
Costs to consolidate facilities	375	405
Contract termination costs	267	521
Employee termination costs	533	533
	$ 1,418	$ 2,151

	Restructuring Liability at December 31, 2017	Cost Incurred / Additions	Payments / Adjustments	Restructuring Liability at September 30, 2018
Disposal activity costs	$ —	$ 692	$ (692)	$ —
Costs to consolidate facilities	—	405	(319)	86
Contract termination costs	—	521	(304)	217
Employee termination costs	—	533	(91)	442
	$ —	$ 2,151	$ (1,406)	$ 745

Recent Accounting Pronouncements

In February 2016, the FASB issued guidance codified in ASC 842, Leases, which supersedes the guidance in former ASC 840, Leases, to increase transparency and comparability among organizations by requiring recognition of lease assets and lease liabilities on the balance sheet and disclosure of key information about leasing arrangements. The standard will become effective for interim and annual periods beginning after December 15, 2018, with early adoption permitted. The guidance is required to be adopted at the earliest period presented using a modified retrospective approach. We plan to adopt this guidance on the effective date. We are currently evaluating the impact the provisions will have on our consolidated financial statements.

Note 2. Going Concern

At September 30, 2018, our cash position and history of losses required management to assess our ability to continue operating as a going concern, according to FASB ASC 205-40, Disclosure of Uncertainties about an Entity’s Ability to Continue as a Going Concern. The Company does not have sufficient cash at September 30, 2018 to fund normal operations beyond the next three months from the date of this report. In addition, the Company was in violation of certain financial and other covenants under its debt agreements at July 31, 2018, August 31, 2018, and September 30, 2018 and currently expects to be in violation as of October 31, 2018 and November 30, 2018. In August 2018, the Company received waivers of its covenant violations for July and August 2018 from its senior lenders, and on November 19, 2018, the Company received waivers of its past and anticipated covenant violations for September, October and November 2018. The Company's ability to continue as a going concern is dependent on the Company’s ability to close the Merger and Private Placement (see Merger Agreement commentary in Management’s Discussion & Analysis section further below), modify its existing debt, raise additional equity or debt capital or spin-off non-core assets to raise additional cash. These factors raise substantial doubt about the Company’s ability to continue as a going concern.

Net cash used in operating activities was $11.4 million and $10.2 million for the nine months ended September 30, 2018 and 2017, respectively, and the Company had unrestricted cash and cash equivalents of $1.2 million at September 30, 2018, a reduction from $9.5 million at December 31, 2017. The Company has negative working capital at September 30, 2018 of $15.2 million.

The Company currently requires a significant amount of additional capital to fund operations and pay its accounts payable, and its ability to continue as a going concern is dependent upon its ability to raise such additional capital and achieve profitability. The Company is currently working toward closing the Merger and Private Placement, with a target of closing in the first quarter of 2019. If the Company is not successful in closing the Merger and Private Place and is not able to raise such additional capital on a timely basis or on favorable terms, the Company may need to scale back or, in extreme cases, discontinue its operations or liquidate its assets.

The consolidated financial statements do not include any adjustments that might be necessary should the Company be unable to continue as a going concern.

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Note 3. Revenue and Accounts Receivable

Revenue by service type for the three and nine months ended September 30, 2018 and 2017 is comprised of the following (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Biopharma Services	$3,850	$4,168	11,099	$11,175
Clinical Services	1,555	2,880	6,019	8,887
Discovery Services	535	980	3,525	1,536
	$5,940	$8,028	$20,643	$21,598

The table above includes approximately $535,000 and $3,243,000 of Discovery Services revenue from our acquisition of vivoPharm for the three and nine months ended September 30, 2018, respectively. The table above also includes approximately $794,000 of Discovery Services revenue from our acquisition of vivoPharm for the period August 15, 2017 through September 30, 2017.

Accounts receivable by service type at September 30, 2018 and December 31, 2017 consists of the following (in thousands):

	September 30, 2018	December 31, 2017
Biopharma Services	$ 4,103	$ 3,746
Clinical Services	12,080	12,205
Discovery Services	765	1,546
Allowance for doubtful accounts	(7,967)	(6,539)
	$ 8,981	$ 10,958

Revenue for Biopharma Services are customized solutions for patient stratification and treatment selection through an extensive suite of DNA-based testing services. Biopharma Services are billed to pharmaceutical and biotechnology companies. Clinical Services are tests performed to provide information on diagnosis of cancers to guide patient management. Clinical Services tests can be billed to Medicare, another third party insurer or the referring community hospital or other healthcare facility, or directly to patients. 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 September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Medicare	8%	11%	10%	14%
Other third party payors	18%	25%	19%	27%
	26%	36%	29%	41%

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 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, except with biopharmaceutical companies.

During the three months ended September 30, 2018, there was one biopharmaceutical company that accounted for approximately 10% of our total revenue. During the three months ended September 30, 2017, there was one biopharmaceutical company that accounted for approximately 11% of our total revenue.

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During the nine months ended September 30, 2018, there were no customers that accounted for more than 10% of our total revenue. During the nine months ended September 30, 2017, there was one biopharmaceutical company that accounted for approximately 11% of our total revenue.

We record deferred revenues (contract liabilities) when cash payments are received or due in advance of our performance, including amounts which are refundable.

Performance Obligations:

	Biopharma Services	Clinical Services	Discovery Services
Performance Obligation Satisfaction and Revenue Recognition:	Performance obligations are satisfied at a point in time as the Company processes samples delivered by the customer. Project level activities, including study setup and project management, are satisfied over the life of the contract. Revenues are recognized at a point in time when the test results or other deliverables are reported to the customer. Project level fee revenue is recognized ratably over the life of the contract.	Performance obligations are satisfied at a point in time when the tests are reported to the customer. Revenues are recognized at a point in time when the test results are reported to the ordering site.	Performance obligations are satisfied over time and as study data is transmitted to the customer. Revenue is recognized using the time elapsed method and at a point in time as the Company delivers study results to the customers.
Significant Payment Terms:	Monthly invoices at a contractual rate are generated as services are delivered for work completed during the prior month. Some contracts have prepayments prior to services being rendered that are recorded as deferred revenue.	The Company invoices at its list price or contractually negotiated price. Payments realized vary from amounts invoiced. Accordingly, the Company estimates the variable consideration it expects to collect.	As results are delivered, the invoices are generated based on contractual rates. Some contracts have prepayments prior to services being rendered that are recorded as deferred revenue.
Nature of Services:	Biopharma testing services, study setup and study management	Clinical testing services	Discovery services

Remaining Performance Obligations:

Services offered under the Biopharma and Discovery Services frequently take time to complete under their respective contacts. These times vary depending on specific contract arrangements including the length of the study and how samples are delivered to us for processing. In the case of Clinical Services and Discovery Services, the duration of performance obligation is less than one year. As of September 30, 2018, the Company had approximately $32.4 million in remaining performance obligations in the Biopharma Services area. We expect to recognize the remaining performance obligations over the next two years.

Practical Expedients:

Our customer arrangements in Biopharma Services and Discovery Services do not contain any significant financing component (interest). We have not recognized the financing component in the case of Clinical Services, as the payment plans we may grant to our self-pay customers do not to exceed six months.

We do not incur any incremental costs to obtain or fulfill our customer contracts that require capitalization under the new revenue standard and have elected the practical expedient afforded by the new revenue standard to expense such costs as incurred.

We exclude from the measurement of the transaction price all taxes that we collect from customers that are assessed by governmental authorities and are both imposed on and concurrent with specific revenue-producing transactions.

Note 4. Sale of India Subsidiary

On April 26, 2018, we sold our India subsidiary, BioServe Biotechnologies (India) Private Limited ("BioServe") to Reprocell, Inc., for $1.9 million, including $1.6 million in cash at closing and up to an additional $300,000, which was contingent upon the India subsidiary meeting a specified revenue target through August 31, 2018. During the three months ended September 30,

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2018, the Company reduced the contingent consideration to $213,000, which is recorded in other current assets in our Consolidated Balance Sheet at September 30, 2018. As a result of this transaction, we recognized a loss of approximately $87,000 and $78,000 on the disposal of BioServe during the three and nine months ended September 30, 2018, respectively, which is included in other income (expense) in our Consolidated Statements of Operations and Other Comprehensive Loss. In November 2018, we received the contingent consideration.

Note 5. Earnings Per Share

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

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

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Numerator:				
Net (loss) for basic earnings per share	$(8,519)	$(633)	$(16,608)	$(12,979)
Change in fair value of warrant liability	—	2,790	—	—
Net (loss) for diluted earnings per share	$(8,519)	$(3,423)	$(16,608)	$(12,979)
Denominator:				
Weighted-average basic common shares outstanding	27,370	21,577	27,156	20,059
Assumed conversion of dilutive securities:				
Common stock purchase warrants	—	782	—	—
Potentially dilutive common shares	—	782	—	—
Denominator for diluted earnings per share – adjusted weighted-average shares	27,370	22,359	27,156	20,059
Basic net (loss) per share	$(0.31)	$(0.03)	$(0.61)	$(0.65)
Diluted net (loss) per share	$(0.31)	$(0.15)	$(0.61)	$(0.65)

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 September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Common stock purchase warrants	10,055	4,163	10,055	6,574
Stock options	3,041	2,816	3,041	2,816
Convertible note	3,349	—	3,349	—
Restricted shares of common stock	47	115	47	115
	16,492	7,094	16,492	9,505

Note 6. Financing

Term Note and Line of Credit

On March 22, 2017, we entered into a two year asset-based revolving line of credit agreement ("ABL") with SVB. The SVB credit facility provided for an ABL for an amount not to exceed the lesser of (a) $6.0 million or (b) 80% of eligible accounts receivable plus the lesser of 50% of the net collectible value of third party accounts receivable or three (3) times the average monthly collection amount of third party accounts receivable over the previous quarter. On August 20, 2018, the ABL was amended and the maximum borrowings available under the ABL was reduced from $6.0 million to $3.0 million; in addition, the amended ABL required us to enter into a binding and enforceable agreement with respect to a merger or other business combination transaction with an unrelated third party by August 31, 2018. The ABL requires monthly interest payments at the Wall Street Journal prime rate plus 1.50% (6.75% at September 30, 2018) and matures on March 22, 2019. Absent the covenant

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waivers, we would be required to make monthly interest payments at the default rate (10.75% at September 30, 2018). We also pay a fee of 0.25% per year on the average unused portion of the ABL. At September 30, 2018, we have borrowed approximately $2.8 million on the ABL.

We concurrently entered into a three year $6.0 million term loan agreement ("PFG Term Note") with PFG. The PFG Term Note is an interest only loan with the full principal and any outstanding interest due at maturity on March 22, 2020. Interest is payable monthly at a rate of 11.5% per annum. Absent the covenant waivers, we would be required to make monthly interest payments at the default rate of 17.5% per annum. We may prepay the PFG Term Note in whole or part at any time without penalty.

Both loan agreements require us to comply with certain financial covenants, including minimum adjusted EBITDA, revenue and liquidity covenants, and restrict us from, among other things, paying cash dividends, incurring debt and entering into certain transactions without the prior consent of the lenders. Repayment of amounts borrowed under the new loan agreements may be accelerated if an event of default occurs, which includes, among other things, a violation of such financial covenants and negative covenants. The SVB and PFG loan covenants were modified on June 21, 2018 and June 30, 2018, respectively; however, the Company was in violation of the modified covenants at July 31, 2018, August 31, 2018 and September 30, 2018; additionally, the Company expects to be in violation of these covenants at October 31, 2018 and November 30, 2018. The July and August covenant violations were waived on August 20, 2018 by SVB and PFG, on the condition that the Company enter into a binding and enforceable agreement satisfactory to each lender by August 31, 2018 with respect to a merger or other business combination transaction between the Company and an unrelated third party satisfactory to each lender (the "Transaction Condition"). While the Company was in violation of the Transaction Condition as of August 31, it subsequently entered into a binding and enforceable agreement satisfactory to each lender on September 18, 2018 by entering into the Merger Agreement. The Company has received waivers from its lenders concerning the Transaction Condition for July and August, the September financial and reporting covenant violations and the anticipated October and November financial covenant violations, conditioned upon the Company raising $3,000,000 through the sale of its equity securities or issuance of subordinated debt (in the case of the agreement with SVB, to investors accepted to SVB) by November 30, 2018. During the three and nine months ended September 30, 2018, the Company incurred approximately $50,000 and $258,000, respectively, of debt modification costs that were expensed due to prior and expected future violations of the modified covenants.

Our obligations to SVB under the ABL facility are secured by a first priority security interest on substantially all of our assets, and our obligations under the PFG Term Note are secured by a second priority security interest subordinated to the SVB lien.

In connection with the PFG Term Note, we issued seven year warrants to the lenders to purchase an aggregate of 443,262 shares of our common stock at an exercise price of $2.82 per share (the "PFG Warrants"). On June 30, 2018, the PFG Warrants were amended to reduce the exercise price to $0.92 per share.

At September 30, 2018, the principal amount of the PFG Term Note of $6,000,000 is due in 2020. We have obtained waivers from our lender for violation of certain financial covenants and one reporting covenant at September 30, 2018. Nevertheless, based on the modified covenants for future months, the PFG Term Note is presented as a current liability.

Convertible Note

On July 17, 2018, the Company entered into an agreement pursuant to which the Company issued a convertible promissory note to an institutional accredited investor in the initial principal amount of $2,625,000 ("Convertible Note"). The Company received consideration of $2,500,000, reflecting an original issue discount of $100,000, a

beneficial conversion feature discount of approximately $328,000 and expenses payable by the Company of $25,000. The Convertible Note has an 18 month term and carries interest at 10% per annum. The note is convertible into shares of the Company's common stock at a conversion price of $0.80 per share ("Conversion Price") upon five trading days' notice, subject to certain adjustments (standard dilution) and ownership limitations specified in the Convertible Note.

The investor may redeem any portion of the Convertible Note, at any time after six months from the issue date upon five trading days' notice, subject to a maximum monthly redemption amount of $650,000, with the Company having the option to pay such redemptions in cash, the Company's common stock at the Conversion Price, or by a combination thereof, subject to certain conditions, including that the stock price is $1.00 per share or higher. The Company may prepay the outstanding balance of the Convertible Note, in part or in full, at a 10% premium to par value if prior to the one year anniversary of the date of issuance and at par if prepaid thereafter. At maturity, the Company may pay the outstanding balance in cash, the Company's common stock at the Conversion Price, or by a combination thereof, subject to certain conditions. The note provides that in the event of default, the lender may, at its option, elect to increase the outstanding balance applying the default effect (defined as outstanding balance at date of default multiplied by 15% plus outstanding amount) by providing written notice to the Company.

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In addition, the interest rate increases to 22% upon default. These provisions were deemed embedded derivatives but at this time the value was de minimis.

The Convertible Note is the general unsecured obligation of the Company and is subordinated in right of payment to the ABL and PFG Term Note. The following is a summary of the Convertible Note balance at September 30, 2018 (in thousands):

Convertible Note, net of discounts of $305	2,320
Less unamortized debt issuance costs	18
Convertible Note, net	2,302

Advance from NDX

In connection with signing the Merger Agreement described in Note 1, NDX agreed to loan us up to $2,300,000 (“Credit Agreement”). The first advance of $1,500,000 was extended on September 18, 2018, and the second advance of $800,000 is payable upon satisfaction of certain conditions, including the filing of a registration statement on Form S-4 related to the Merger Agreement. Interest accrues on the outstanding balance at 10.75% per annum, and the Credit Agreement matures upon the earlier of March 31, 2019 or the date on which the Merger Agreement is terminated in accordance with its terms (or 90 days thereafter in the case of certain causes for termination). Upon certain events of default, NDX may convert all, but not less than all, of the outstanding balance into shares of the Company’s common stock at a conversion price of $0.606 per share. At September 30, 2018, the principal balance of the Credit Agreement was $1,500,000.

The Credit Agreement is the general unsecured obligation of the Company and is subordinated in right of payment to the ABL and PFG Term Note, provided that amounts owed to NDX may be repaid ahead of the ABL and PFG Term Note upon certain types of termination of the Merger Agreement. There is an interest rate reset up to a maximum of 21% upon an event of default that is deemed to be an embedded derivative but at this time the value was de minimis.

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 September 30, 2018, 186,843 shares remain available for future awards under the 2011 Plan. Effective April 9, 2018, the Company is no longer able to issue options from the 2008 Plan.

A summary of employee and non-employee stock option activity for the nine months ended September 30, 2018 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, 2018	2,844	$ 7.00	6.96	$ 4
Granted	757	0.91		
Cancelled or expired	(560)	5.14		

Outstanding September 30, 2018	3,041	$ 5.83	5.97	$ 92
Exercisable September 30, 2018	1,838	$ 8.50	3.91	$ —

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

As of September 30, 2018, total unrecognized compensation cost related to non-vested stock options granted to employees was $1,227,971 which we expect to recognize over the next 3.01 years.

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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. Forfeitures will be recorded when they occur. 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 the historical volatility of our common stock. 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.

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 September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Volatility	76.89 %	75.28 %	77.69 %	74.60 %
Risk free interest rate	2.76 %	1.92 %	2.88 %	1.97 %
Dividend yield	0.00 %	0.00 %	0.00 %	0.00 %
Term (years)	6.32	5.73	6.47	5.90
Weighted-average fair value of options granted during the period	$0.72	$1.91	$0.64	$1.89

In May 2014, we issued 200,000 options to a Director with an exercise price of $15.89. See Note 12 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 September 30, 2017	Nine Months Ended September 30, 2017
Volatility	74.39 %	76.06 %
Risk free interest rate	2.17 %	2.19 %
Dividend yield	0.00 %	0.00 %
Term (years)	6.64	6.89

Restricted stock awards have been granted to employees, directors and consultants as compensation for services. At September 30, 2018, there was $87,803 of unrecognized compensation cost related to non-vested restricted stock granted to employees and directors; we expect to recognize the cost over 0.92 years.

The following table summarizes the activities for our non-vested restricted stock awards for the nine months ended September 30, 2018:

	Non-vested Restricted Stock Awards	
	Number of Shares (in thousands)	Weighted-Average Grant Date Fair Value
Non-vested at January 1, 2018	91	$ 4.21
Vested	(21)	4.10

Cancelled	(23)	6.66
Non-vested at September 30, 2018	47	$ 3.08

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 Consolidated Statements of Operations and Other Comprehensive Loss during the periods presented (in thousands):

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	Three Months Ended September 30,		Nine Months Ended September 30,	
	2018	2017	2018	2017
Cost of revenues	$52	$122	$233	$250
Research and development	13	11	44	110
General and administrative	101	356	399	949
Sales and marketing	23	30	55	86
Total stock-based compensation	$189	$519	$731	$1,395

Note 8. Warrants

The following table summarizes the warrant activity for the nine months ended September 30, 2018 (in thousands, except exercise price):

Issued With / For	Exercise Price		Warrants Outstanding January 1, 2018	Transfer Between Derivative Warrants and Non-Derivative Warrants	Warrants Outstanding September 30, 2018
Non-Derivative Warrants:					
Financing	$ 10.00		243	—	243
Financing	15.00		276	—	276
2015 Offering	5.00		3,450	—	3,450
2017 Debt	0.92	B	—	443	443
Total non-derivative warrants	5.49	C	3,969	443	4,412
Derivative Warrants:					
2016 Offerings	2.25	A	1,968	—	1,968
2017 Debt	2.82	B	443	(443)	—
2017 Offering	2.35	A	3,500	—	3,500
2017 Offering	2.50	A	175	—	175
Total derivative warrants	2.32	C	6,086	(443)	5,643
Total	$ 3.71	C	10,055	—	10,055

A These warrants are subject to fair value accounting and contain a contingent net cash settlement feature. See Note 9.

B These warrants were subject to fair value accounting until the number of shares issuable upon the exercise of the warrants became fixed on April 2, 2018. Effective June 30, 2018, the exercise price was reduced from $2.82 per share to $0.92 per share. See Note 9.

C Weighted-average exercise prices are as of September 30, 2018.

Note 9. Fair Value of Warrants

The following table summarizes the derivative warrant activity subject to fair value accounting for the nine months ended September 30, 2018 (in thousands):

Issued with/for	Fair value of warrants outstanding as of	Change in fair value	Reclassification of warrants from liability to	Fair value of warrants outstanding as of

	December 31, 2017	of warrants	equity	September 30, 2018
2016 Offerings	$ 1,929	$ (1,134)	$ —	$ 795
2017 Debt	501	(78)	(423)	—
2017 Offering	1,973	(1,646)	—	327
	$ 4,403	$ (2,858)	$ (423)	$ 1,122

The derivative warrants issued as part of the 2016 Offerings are valued using a probability-weighted Binomial model, while the derivative warrants issued as part of the 2017 Debt refinancing were valued using a Monte Carlo model. The derivative warrants issued in conjunction with the 2017 Offering are valued using a Black-Scholes model. Effective April 2, 2018, the

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number of shares issuable under the 2017 Debt refinancing became fixed at 443,262, causing the warrants to be reclassified to equity. The following tables summarize the assumptions used in computing the fair value of derivative warrants subject to fair value accounting at the date of issue, exercise or reclassification to equity during the three and nine months ended September 30, 2018 and 2017, and at September 30, 2018 and December 31, 2017.

2016 Offerings	As of September 30, 2018		As of December 31, 2017		Exercised During the Three Months Ended September 30, 2017		Nine Months Ended September 30, 2017	
Exercise price	$ 2.25		$ 2.25		$2.25		$ 2.25	
Expected life (years)	3.33		4.08		4.30		4.78	
Expected volatility	80.88	%	73.44	%	74.20	%	76.24	%
Risk-free interest rate	2.88	%	2.11	%	1.81	%	1.94	%
Expected dividend yield	—	%	—	%	—	%	—	%

2017 Debt	As of December 31, 2017		Reclassified to Equity During the Nine Months Ended September 30, 2018		Issued During the Nine Months Ended September 30, 2017	
Exercise price	$ 2.82		$ 2.82		$ 2.82	
Expected life (years)	6.22		5.97		7.00	
Expected volatility	74.18	%	73.40	%	74.61	%
Risk-free interest rate	2.33	%	—	%	2.22	%
Expected dividend yield	—	%	2.55	%	—	%

2017 Offering	As of September 30, 2018		As of December 31, 2017		Issued During the Nine Months Ended September 30, 2017	
Exercise price	$ 2.36		$ 2.36		2.82	
Expected life (years)	0.69		1.43		7.00	
Expected volatility	93.26	%	77.55	%	74.61	%
Risk-free interest rate	2.36	%	1.83	%	2.22	%
Expected dividend yield	—	%	—	%	—	%

Note 10. 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 ASC 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.

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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):

	September 30, 2018			
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Warrant liability	$1,122	$ —	$ —	$ 1,122
Note payable	88	—	—	88
	$1,210	$ —	$ —	$ 1,210

	December 31, 2017			
	Total	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Warrant liability	$4,403	$ —	$ —	$ 4,403
Note payable	156	—	—	156
	$4,559	$ —	$ —	$ 4,559

At September 30, 2018 and December 31, 2017, the Company had a liability payable to VenturEast from a prior acquisition. The ultimate payment to VenturEast will be the fair value of 84,278 shares of our common stock at the time of payment. During the three months ended September 30, 2018 and 2017, we recognized a loss of approximately $13,000 and a gain of approximately $105,000, respectively, due to the change in value of the note. During the nine months ended September 30, 2018 and 2017, we recognized a gain of approximately $68,000 and a loss of approximately $114,000, respectively, due to changes in our stock price.

At September 30, 2018, the warrant liability consists of stock warrants issued as part of the 2016 Offerings and 2017 Offering that contain contingent redemption features. In accordance with derivative accounting for warrants, we calculated the fair value of warrants and the assumptions used are described in Note 9, “Fair Value of Warrants.” During the three months ended September 30, 2018 and 2017, we recognized gains of approximately $12,000 and $2,790,000, respectively, on the derivative warrants due to changes in our stock price and expected volatility. During the nine months ended September 30, 2018, we recognized a gain of approximately $2,858,000 on the derivative warrants due to changes in our stock price. During the nine months ended September 30, 2017, we recorded a loss of approximately $3,927,000 on the derivative warrants due to changes in our stock price.

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 Statements of Operations and Other Comprehensive Loss.

The following table summarizes the activity of the note payable to VenturEast and of our derivative warrants, which was measured at fair value using Level 3 inputs (in thousands):

	Note Payable to VenturEast	Warrant Liability

Fair value at December 31, 2017	$ 156	$4,403
Fair value of warrants reclassified to equity	—	(423)
Change in fair value	(68)	(2,858)
Fair value at September 30, 2018	$ 88	$1,122

Note 11. Joint Venture Agreement

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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").

The agreement requires aggregate capital contributions by us of up to $6.0 million, of which $2.0 million has been paid to date. 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 $1,000 and $2,000 for the three months ended September 30, 2018 and 2017, respectively, and approximately $4,000 and $21,000 for the nine months ended September 30, 2018 and 2017, respectively, and is included in research and development expense on the Consolidated Statements of Operations and Other Comprehensive Loss. We have a net receivable due from the JV of approximately $10,000 at September 30, 2018, which is included in other 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 12. Related Party Transactions

We have a consulting agreement with Equity Dynamics, Inc. ("EDI"), an entity controlled by John Pappajohn, effective April 1, 2014 pursuant to which EDI receives a monthly fee of $10,000. In addition, EDI charged us $60,000 in September 2018 for financial consulting. Total expenses for each of the three months ended September 30, 2018 and 2017 were $90,000 and $30,000, respectively. Total expenses for each of the nine months ended September 30, 2018 and 2017 were $150,000 and $90,000, respectively. As of September 30, 2018, we owed EDI $140,000.

Pursuant to a consulting and advisory agreement that ended December 31, 2016, 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 September 30, 2018 and 2017 was $0 and $12,625, respectively. Total non-cash stock-based compensation recognized under the consulting agreement for the nine months ended September 30, 2018 and 2017 was $0 and $62,125, respectively.

Note 13. Contingencies

On April 5, 2018 and April 12, 2018, purported stockholders of the Company filed nearly identical putative class action lawsuits in the U.S. District Court for the District of New Jersey, against the Company, Panna L. Sharma, John A. Roberts, and Igor Gitelman, captioned Ben Phetteplace v. Cancer Genetics, Inc. et al., No. 2:18-cv-05612 and Ruo Fen Zhang v. Cancer Genetics, Inc. et al., No. 2:18-06353, respectively. The complaints allege violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 and SEC Rule 10b-5 based on allegedly false and misleading statements and omissions regarding our business, operational, and financial results. The lawsuits seek, among other things, unspecified compensatory damages in connection with purchases of our stock between March 23, 2017 and April 2, 2018, as well as interest, attorneys' fees, and costs. On August 28, 2018, the Court consolidated the two

actions in one action captioned In re Cancer Genetics, Inc. Securities Litigation and appointed shareholder Randy Clark as the lead plaintiff. On October 30, 2018, the lead plaintiff filed an amended complaint, adding Edward Sitar as a defendant and seeking, among other things, compensatory damages in connection with purchases of CGI stock between March 10, 2016 and April 2, 2018. Defendants' motion to dismiss the amended complaint is due to be filed on or before December 31, 2018. The Company is unable to predict the ultimate outcome of these actions and therefore cannot estimate possible losses or ranges of losses, if any.

On June 1, 2018, September 20, 2018, and September 25, 2018, purported stockholders of the Company filed nearly identical derivative lawsuits on behalf of the Company in the U.S. District Court for the District of New Jersey against the Company (as a nominal defendant) and current and former members of the Company's Board of Directors. The three cases are captioned: Bell v. Sharma et al., No. 2:18-cv-10009-CCC-MF, McNeece v. Pappajohn et al., No. 2:18-cv-14093, and Workman v. Pappajohn, et al., No. 2:18-cv-14259. The complaints allege claims for breach of fiduciary duty, violations of Section 14(a) of

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the Securities Exchange Act of 1934 (premised upon alleged omissions in the Company's 2017 proxy statement), and unjust enrichment, and allege that the individual defendants failed to implement and maintain adequate controls, which resulted in ineffective disclosure controls and procedures, and conspired to conceal this alleged failure. The lawsuits seek, among other things, damages and/or restitution to the Company, appropriate equitable relief to remedy the alleged breaches of fiduciary duty, and attorneys' fees and costs. The Company is unable to predict the ultimate outcome of these actions and therefore cannot estimate possible losses or ranges of losses, if any.

Note 14. Subsequent Events

In November 2018, we settled the BioServe contingent consideration as discussed in Note 4.

On November 19, 2018, the Company received waivers from its senior lenders for its failure to comply with certain covenants for the months of September 30, 2018, October 31, 2018 and November 30, 2018. The Company concurrently amended its debt agreements with SVB and PFG, respectively; the new agreements require the Company to raise $3,000,000 from the sale of its equity securities or the issuance of subordinated debt (in the case of the agreement with SVB, to investors acceptable to SVB) by November 30, 2018.

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

As used herein, the "Company," "CGI," "we," "us," "our" or similar terms, refer to Cancer Genetics, Inc. and its wholly owned subsidiaries at September 30, 2018: Cancer Genetics Italia, S.r.l., Gentris, LLC, and vivoPharm Pty, Ltd, 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 April 2, 2018. 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 precision medicine, enabling individualized therapies in the field of oncology through tests, services and molecular markers. We develop, commercialize and provide molecular- and biomarker-based tests and services, including proprietary preclinical oncology and immuno-oncology services, that enable biotech and pharmaceutical 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. Through our clinical services, we enable physicians to personalize the clinical management of each individual patient by providing genomic information to better diagnose, monitor and inform cancer treatment. We have a comprehensive, disease-focused oncology testing portfolio, and an extensive set of anti-tumor referenced data based on predictive xenograft and syngeneic tumor models. Our tests and techniques target a wide range of indications, covering all ten of the top cancers in prevalence in the United States, with additional unique capabilities offered by our FDA-cleared Tissue of Origin® test for identifying difficult to diagnose tumor types or poorly differentiated metastatic disease. Following the acquisition of vivoPharm Pty Ltd ("vivoPharm") we provide contract research services, focused primarily on unique specialized studies to guide drug discovery and development programs in the oncology and immuno-oncology fields.

We are currently executing a strategy of partnering with pharmaceutical and biotech companies and clinicians as oncology diagnostic specialists by supporting therapeutic discovery, development and patient care. Pharmaceutical and biotech companies are increasingly attracted to work with us to provide molecular profiles on clinical trial participants. Similarly, we believe the oncology industry is undergoing a rapid evolution in its approach to diagnostic,

prognostic and treatment outcomes (theranostic) testing, embracing precision medicine and individualized testing as a means to drive higher standards of patient treatment and disease management. These profiles may help identify biomarker and genomic variations that may be responsible for differing responses to oncology therapies, thereby increasing the efficiency of trials while lowering costs. We believe tailored and combination therapies can revolutionize oncology care through molecular- and biomarker-based testing services, enabling physicians and researchers to target the factors that make each patient and disease unique.

We believe the next shift in cancer management will bring together testing capabilities for germline, or inherited mutations, and somatic mutations that arise in tissues over the course of a lifetime. We have created a unique position in the industry by providing both targeted somatic analysis of tumor sample cells alongside germline analysis of an individual's non-cancerous cells' molecular profile as we attempt to continue achieving milestones in precision medicine.

Our clinical offerings include our portfolio of proprietary tests targeting hematological, urogenital and HPV-associated

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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, gene expression tests, 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.

Net cash used in operating activities was $11.4 million and $10.2 million for the nine months ended September 30, 2018 and 2017, respectively, and the Company had unrestricted cash and cash equivalents of $1.2 million at September 30, 2018, a reduction from $9.5 million at December 31, 2017. The Company has negative working capital at September 30, 2018 of $15.2 million.

The Company currently requires a significant amount of additional capital to fund operations and pay its accounts payable, and its ability to continue as a going concern is dependent upon its ability to raise such additional capital and achieve profitability. If the Company is not able to close the Merger and Private Placement (see Merger Agreement just below) or raise such additional capital on a timely basis or on favorable terms, the Company may need to scale back or, in extreme cases, discontinue its operations or liquidate its assets.

While we have implemented an aggressive consolidation strategy to reduce our operating costs in 2018, including the closure of our California laboratory and facility, we expect to continue to incur significant losses for the near future. We incurred losses of $20.9 million and $15.8 million for fiscal years ended December 31, 2017 and 2016, respectively, and $16.6 million for the nine months ended September 30, 2018, which included restructuring charges of $2.1 million associated with the closing of the California operations and $0.9 million costs associated with strategic financing, merger and acquisition options.

As of September 30, 2018, we had an accumulated deficit of $154.0 million.

Merger Agreement

On September 18, 2018, we entered into an agreement and plan of merger (the “Merger Agreement”) with NovellusDx, Ltd., a privately-held company formed under the law of the State of Israel (“NDX”), in regards to Wogolos Ltd., our wholly owned subsidiary company formed under the laws of the State of Israel. Subject to satisfaction or waiver of the conditions set forth in the Merger Agreement, Wogolos Ltd. will merge (the “Merger”) with and into NDX, with NDX becoming a wholly owned subsidiary of us and the surviving company.

At the effective time of the Merger, all of NDX’s share capital will be converted into the right to receive an aggregate number of shares of our common stock equal to 49% of the fully-diluted aggregate number of shares of the Company immediately following the Merger, including shares issuable upon the conversion of the Convertible Note to Iliad Research (the “Iliad Note”) described in Note 6 and shares issuable upon the exercise of the Company’s options and

warrants, determined using the treasury stock method. Shares issuable under the Private Placement described in the following paragraph will be excluded from this calculation.

Private Placement

On September 18, 2018, we also entered into a securities purchase agreement (the “Purchase Agreement”) pursuant to which we agreed to sell and issue, in a private placement, a total of 8,509,891 shares of our common stock and warrants to purchase an aggregate of up to approximately 6,382,418 shares of our common stock, to the purchasers thereunder, all of whom are current NDX shareholders, for an aggregate purchase price of approximately $8.6 million, with the shares and warrants being sold together in a fixed combination of one share and one warrant to purchase 75% of a share of our common stock, at a price of $1.01 per share and related warrant (the “Private Placement”). The closing of the Private Placement is conditional upon, and will occur immediately after, the Merger. In addition, the Company and NDX may continue to solicit additional subscriptions pursuant to this Purchase Agreement prior to the closing of the Private Placement.

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The warrants issued under the Private Placement will be exercisable for five years beginning on the closing date of the Merger at an initial exercise price of $1.01 per share, subject to adjustment for certain customary circumstances. The warrants can be exercised on a cashless basis.

Advance from NDX

In connection with the signing of the Merger Agreement, on September 18, 2018, we entered into a credit agreement (the "Credit Agreement") with NDX, pursuant to which NDX agreed to loan us up to $2,300,000 as discussed in Note 6.

Acquisition

On August 15, 2017, we purchased all of the outstanding stock of vivoPharm, with its principal place of business in Victoria, Australia, in a transaction valued at approximately $1.6 million in cash and $8.1 million in the Company's common stock based on the closing price of the stock on August 15, 2017. The Company deposited in escrow 20% of the stock consideration until the expiration of twelve months from the closing date to serve as the initial source for any indemnification claims and adjustments. The measurement period expired on August 15, 2018 and the final valuation was deemed consistent with the preliminary valuation, specifically concerning lab supplies, deferred revenue and deferred taxes. On August 15, 2018, the escrowed shares were released. Subsequent to the measurement period expiration, a review of deferred revenue surfaced a refinement in contract completion estimate of $0.2 million associated with the acquisition valuation and accordingly the revenue reduction was recorded in the statement of operations for the three months ended September 30, 2018.

Disposal

On April 26, 2018, we sold our India subsidiary, BioServe Biotechnologies (India) Private Limited ("BioServe") to Reprocell, Inc., for $1.9 million, including $1.6 million in cash at closing and up to an additional $300,000, which was contingent upon the India subsidiary meeting a specified revenue target through August 31, 2018. During the three months ended September 30, 2018, the Company reduced the contingent consideration to $213,000, which is recorded in other current assets in our Consolidated Balance Sheet at September 30, 2018. As a result of this transaction, we recognized a loss of approximately $87,000 and $78,000 on the disposal of BioServe during the three and nine months ended September 30, 2018, respectively, which is included in other income (expense) in our Consolidated Statements of Operations and Other Comprehensive Loss. In November 2018, we received the contingent consideration.

Key Factors Affecting our Results of Operations and Financial Condition

Our overall long-term growth plan is predicated on our ability to develop or acquire technology solutions to accelerate the penetration into the Biopharma community to achieve more revenue supporting clinical trials and develop and commercialize unique or proprietary services and tests to achieve sustainable organic growth. Our unique and proprietary tests include CGH microarrays, NGS panels, and DNA FISH probes. We continue to develop additional unique and 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 generated through our Biopharma Services, Discovery Services and Clinical Services. 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 clinical trials which can impact testing volume. We also derive revenue from Discovery Services, which are services provided in the development of new testing assays and methods and include pre-clinical toxicology and efficacy studies. Discovery Services are billed directly to the customer. Our Clinical Services can be billed to Medicare, another third party insurer or the referring community hospital or other healthcare facility, or patients in accordance with state and federal law.

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

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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 pharmaceutical and biotechnology companies. Oncologists and pathologists at these sites order the tests on behalf of their oncology patients or as part of a clinical trial sponsored by a pharmaceutical or biotechnology company in which the patient is being enrolled.

During the three months ended September 30, 2018, there was one biopharmaceutical company that accounted for approximately 10% of our total revenue. During the three months ended September 30, 2017, there was one biopharmaceutical company that accounted for approximately 11% of our total revenue.

During the nine months ended September 30, 2018, there were no customers that accounted for more than 10% of our total revenue. During the nine months ended September 30, 2017, there was one biopharmaceutical company that accounted for approximately 11% of our total revenue.

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 September 30, 2018, Medicare and other third party payors accounted for approximately 8% and 18% of our total revenue, respectively. For the nine months ended September 30, 2018, Medicare and other third party payors accounted for approximately 10% and 19% of our total revenue, respectively. The reduction in this concentration of revenue is part of the planned transitions the Company is making in 2018 to reduce cost and attempt to improve its operating metrics.

Cost of Revenues

Our cost of revenues consists principally of internal personnel costs, including non-cash 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. In 2017, we purchased all of the outstanding stock of vivoPharm. Overall, we have made significant progress with integrating our resources and services and leveraging enterprise wide purchasing power to gain supplier discounts, in an effort to reduce costs. We will continue to assess other possible advantages to help us improve our cost structure, including other consolidations of operations and further reductions in headcount.

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 non-cash 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. 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 only modest 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.

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Restructuring Costs. In alignment with our strategic plan to migrate our California operations to our New Jersey and North Carolina locations and to permanently close our California laboratory, we experienced various expenses associated with exiting a facility, transition of lab equipment and supplies, disposal of assets and termination benefits associated with displaced employees. We consider this expense to be one time in nature and subject to board approved strategic initiatives.

Merger Costs. In the pursuit of various strategic options for the Company, legal and other professional costs are incurred while evaluating, negotiating, executing and implementing merger and acquisition alternatives. We expect this expense to be one time in nature and yet to continue into the near term as the existing merger agreement with NovellusDX, Ltd. moves forward to final consummation.

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 September 30, 2018 and 2017

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

(dollars in thousands)	Three Months Ended September 30, 2018	2017	Change $	%
Revenue	$5,940	$8,028	$(2,088)	(26)%
Cost of revenues	4,654	4,588	66	1 %
Research and development expenses	692	981	(289)	(29)%
General and administrative expenses	5,004	4,346	658	15 %
Sales and marketing expenses	1,280	1,301	(21)	(2)%
Restructuring costs	1,418	—	1,418	N/A
Merger costs	890	—	890	N/A
Loss from operations	(7,998)	(3,188)	(4,810)	151 %
Interest income (expense)	(465)	(340)	(125)	37 %
Change in fair value of acquisition note payable	(13)	105	(118)	(112)%
Change in fair value of warrant liability	12	2,790	(2,778)	(100)%
Other income (expense)	(55)	—	(55)	N/A
Net (loss)	$(8,519)	$(633)	$(7,886)	1,246 %

Non-GAAP Financial Information

In addition to disclosing financial results in accordance with United States generally accepted accounting principles (“GAAP”), the table below contains non-GAAP financial measures that we believe are helpful in understanding and comparing our past financial performance and our future results. The non-GAAP financial measures disclosed by the Company exclude the non- operating changes in the fair value of derivative instruments. These non-GAAP financial measures should not be considered a substitute for, or superior to, financial measures calculated in accordance with GAAP, and the financial results calculated in accordance with GAAP and reconciliations from these results should be

carefully evaluated. Management believes that these non-GAAP measures provide useful information about the Company's core operating results and thus are appropriate to enhance the overall understanding of the Company's past financial performance and its prospects for the future. The non-GAAP financial measures in the table below include adjusted net (loss) and the related adjusted basic and diluted net (loss) per share amounts.

Reconciliation from GAAP to Non-GAAP Results (in thousands, except per share amounts):

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	Three Months Ended September 30,	
	2018	2017
Reconciliation of net (loss):		
Net (loss)	$(8,519)	$(633)
Adjustments:		
Change in fair value of acquisition note payable	13	(105)
Change in fair value of warrant liability	(12)	(2,790)
Adjusted net (loss)	$(8,518)	$(3,528)
Reconciliation of basic net (loss) per share:		
Basic net (loss) per share	$(0.31)	$(0.03)
Adjustments to net (loss)	—	(0.13)
Adjusted basic net (loss) per share	$(0.31)	$(0.16)
Basic weighted-average shares outstanding	27,370	21,577
Reconciliation of diluted net (loss) per share:		
Diluted net (loss) per share	$(0.31)	$(0.15)
Adjustments to net (loss)	—	(0.01)
Adjusted diluted net (loss) per share	$(0.31)	$(0.16)
Diluted weighted-average shares outstanding	27,370	22,359

Adjusted net (loss) increased 141% to $8.5 million during the three months ended September 30, 2018, from an adjusted net (loss) of $3.5 million during the three months ended September 30, 2017. Adjusted basic net (loss) per share increased 94% to $0.31 during the three months ended September 30, 2018, from $0.16 during the three months ended September 30, 2017. Adjusted diluted net (loss) per share increased 94% to $0.31 during the three months ended September 30, 2018, from $0.16 during the three months ended September 30, 2017.

Revenue

The breakdown of our revenue is as follows:

	Three Months Ended September 30,				Change	
	2018		2017			
(dollars in thousands)	$	%	$	%	$	%
Biopharma Services	$3,850	65%	$4,168	52%	$(318)	(8)%
Clinical Services	1,555	26%	2,880	36%	(1,325)	(46)%
Discovery Services	535	9%	980	12%	(445)	(45)%
Total Revenue	$5,940	100%	$8,028	100%	$(2,088)	(26)%

Revenue decreased 26%, or $2.1 million, to $5.9 million for the three months ended September 30, 2018, from $8.0 million for the three months ended September 30, 2017, principally due to a decrease in Discovery Services of $0.4 million, a decrease in our Biopharma Services of $0.3 million and a decline in Clinical Services revenue of $1.3 million.

Revenue from Biopharma Services decreased 8%, or $0.3 million, to $3.9 million for the three months ended September 30, 2018, from $4.2 million for the three months ended September 30, 2017 as a result of a shift in the portfolio due to the completion and delivery of two large projects offset by the start-up of multiple smaller value contracts in the comparable periods. Revenue from Clinical Services customers decreased by $1.3 million, or 46%, compared to the three months ended September 30, 2017, due to lower realization on third party and direct billings

and the effects of the adoption of ASC 606, which is directly the result of actual cash collection trends. Revenue from Discovery Services decreased 45%, or $0.4 million, during the three months ended September 30, 2018 primarily due to an out of measurement period adjustment of $0.2 million offsetting the contract obligations liability associated with the vivoPharm acquisition and a corresponding 2018 impact of $0.2 million of resulting estimate updates of contract obligations for the remaining portfolio of contracts.

Cost of Revenues

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Cost of revenues increased 1%, or $0.1 million, for the three months ended September 30, 2018, principally due to increases in payroll and benefit costs and shipping costs of $0.1 million and $0.2 million, respectively, offset by a decline in lab and clinical supplies costs of $0.2 million. Gross margin decreased to 22% during the three months ended September 30, 2018 down from 43% for the three months ended September 30, 2017 directly related to lower revenue in the comparable periods, while our labor costs are relatively fixed.

Operating Expenses

Research and development expenses decreased 29%, or $0.3 million, to $0.7 million for the three months ended September 30, 2018, from $1.0 million for the three months ended September 30, 2017, principally due to a $0.2 million decrease in payroll and benefit costs due to the shift in our staffing costs as we reduced the amount of research and development initiatives and concentrated our staff on the delivery of our services. Given the current financial condition of the Company, we are limiting our spending for research and development expenses to our most promising projects.

General and administrative expenses increased 15%, or $0.7 million, to $5.0 million for the three months ended September 30, 2018, from $4.3 million for the three months ended September 30, 2017 principally due to a full quarter of expenses for vivoPharm as it was acquired on August 15, 2017.

Sales and marketing expenses increased 2%, or $21,000, to $1.3 million for the three months ended September 30, 2018, from $1.3 million for the three months ended September 30, 2017.

Restructuring costs of $1.4 million were incurred for the three months ended September 30, 2018 primarily associated with the closure of the California laboratory and operations.

Merger costs of $0.9 million were incurred for the three months ended September 30, 2018 principally due to the evaluation and pursuit of strategic options including the merger agreement with NovellusDx.

Interest Income (Expense)

Net interest expense increased 37%, or $0.1 million, to $0.5 million during the three months ended September 30, 2018 due to interest incurred on the Convertible Note as well as increased borrowings on our ABL, debt modification costs incurred and paying interest at the default rate.

Change in Fair Value of Acquisition Note Payable

The change in fair value of acquisition note payable resulted in approximately $13,000 of non-cash expense and $105,000 of non-cash income for the three months ended September 30, 2018 and 2017, respectively, as a consequence of a changes in our stock price.

Change in Fair Value of Warrant Liability

Changes in fair value of some of our common stock warrants may impact our quarterly results. Accounting rules require us to record certain of our warrants as a liability, measure the fair value of these warrants each quarter and record changes in that value in earnings. As a result of changes in our stock price and volatility expectations, we recognized non-cash income of $12,000 and $2.8 million for the three months ended September 30, 2018 and 2017, respectively. In the future, if our stock price increases, with all other factors being equal, we would record a non-cash charge as a result of changes in the fair value of our common stock warrants. Alternatively, if the stock price decreases, with all other factors being equal, we may record non-cash income.

Nine Months Ended September 30, 2018 and 2017

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

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	Nine Months Ended September 30,		Change	
(dollars in thousands)	2018	2017	$	%
Revenue	$20,643	$21,598	$(955)	(4)%
Cost of revenues	14,589	12,831	1,758	14 %
Research and development expenses	2,046	3,080	(1,034)	(34)%
General and administrative expenses	14,950	11,352	3,598	32 %
Sales and marketing expenses	4,212	3,437	775	23 %
Restructuring costs	2,151	—	2,151	N/A
Merger costs	890	—	890	N/A
Loss from operations	(18,195)	(9,102)	(9,093)	100 %
Interest income (expense)	(1,261)	(760)	(501)	66 %
Change in fair value of acquisition note payable	68	(114)	182	(160)%
Change in fair value of warrant liability	2,858	(3,927)	6,785	(173)%
Other income (expense)	(78)	(46)	(32)	70 %
Loss before income taxes	(16,608)	(13,949)	(2,659)	19 %
Income tax provision (benefit)	—	(970)	970	(100)%
Net (loss)	$(16,608)	$(12,979)	$(3,629)	28 %

Non-GAAP Financial Information

In addition to disclosing financial results in accordance with United States generally accepted accounting principles ("GAAP"), the table below contains non-GAAP financial measures that we believe are helpful in understanding and comparing our past financial performance and our future results. The non-GAAP financial measures disclosed by the Company exclude the non- operating changes in the fair value of derivative instruments. These non-GAAP financial measures should not be considered a substitute for, or superior to, financial measures calculated in accordance with GAAP, and the financial results calculated in accordance with GAAP and reconciliations from these results should be carefully evaluated. Management believes that these non-GAAP measures provide useful information about the Company's core operating results and thus are appropriate to enhance the overall understanding of the Company's past financial performance and its prospects for the future. The non-GAAP financial measures in the table below include adjusted net (loss) and the related adjusted basic and diluted net (loss) per share amounts.

Reconciliation from GAAP to Non-GAAP Results (in thousands, except per share amounts):

	Nine Months Ended September 30,	
	2018	2017
Reconciliation of net (loss):		
Net (loss)	$(16,608)	$(12,979)
Adjustments:		
Change in fair value of acquisition note payable	(68)	114
Change in fair value of warrant liability	(2,858)	3,927
Adjusted net (loss)	$(19,534)	$(8,938)
Reconciliation of basic and diluted net (loss) per share:		
Basic and diluted net (loss) per share	$(0.61)	$(0.65)
Adjustments to net (loss)	(0.11)	0.20
Adjusted basic and diluted net (loss) per share	$(0.72)	$(0.45)
Basic and diluted weighted-average shares outstanding	27,156	20,059

Adjusted net (loss) increased 119% to $19.5 million during the nine months ended September 30, 2018, up from an adjusted net (loss) of $8.9 million during the nine months ended September 30, 2017. Adjusted basic and diluted net (loss) per share increased 60% to $0.72 during the nine months ended September 30, 2018 from $0.45 during the nine months ended September 30, 2017.

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Revenues

The breakdown of our revenue for the nine months ended September 30, 2018 and 2017 is as follows:

	Nine Months Ended September 30,				Change	
	2018		2017			
(dollars in thousands)	$	%	$	%	$	%
Biopharma Services	11,099	54 %	$11,175	52 %	$(76)	(1)%
Clinical Services	6,019	29 %	8,887	41 %	(2,868)	(32)%
Discovery Services	3,525	17 %	1,536	7 %	1,989	129 %
Total Revenue	$20,643	100%	$21,598	100%	$(955)	(4)%

Revenue decreased 4%, or $1.0 million, to $20.6 million for the nine months ended September 30, 2018, from $21.6 million for the nine months ended September 30, 2017, principally due to an decrease in Clinical Services of $2.9 million, partially offset by an increase in Discovery Services of $2.0 million.

Revenue from Biopharma Services decreased 1%, or $0.1 million, to $11.1 million for the nine months ended September 30, 2018, from $11.2 million for the nine months ended September 30, 2017 due to the completion and delivery of two large projects offset by the start-up of multiple smaller value contracts in the comparable periods. This is in addition to a shift of volume to our North Carolina location from New Jersey which in turn has freed up capacity to absorb the forthcoming volume from our California location due to its closing at the end of the third quarter this year. Revenue from Clinical Services customers decreased by $2.9 million, or 32%, for the nine months ended September 30, 2018 due to.three quarters of refined experience in recognizing revenue under ASC 606 within collectability constraints. Revenue from Discovery Services increased 129%, or $2.0 million, during the nine months ended September 30, 2018 due to our acquisition of vivoPharm in August 2017, offset, in part, by a decline in revenue reported from our India subsidiary, due to its sale in April 2018 and an out of measurement period adjustment of $0.2 million offsetting the contract obligations liability associated with the vivoPharm acquisition and a corresponding 2018 impact of $0.2 million of resulting estimate updates of contract obligations for the remaining portfolio of contracts.

Cost of Revenues

Cost of revenues increased $1.8 million to $14.6 million for the nine months ended September 30, 2018 from $12.8 million for the nine months ended September 30, 2017, principally due to increased payroll and benefit costs of $1.1 million and increased shipping costs of $0.8 million. Gross margin declined to 29% during the nine months ended September 30, 2018 from 41% during the nine months ended September 30, 2017, directly related to lower revenue in the comparable periods, while our labor costs are relatively fixed. This decline also encompasses the incremental costs associated with the vivoPharm operations acquired in August 2017 now consolidated into the Company’s results.

Operating Expenses

Research and development expenses decreased 34%, or $1.0 million, to $2.0 million for the nine months ended September 30, 2018, from $3.1 million for the nine months ended September 30, 2017, principally due to reduced payroll and benefit costs of $1.0 million due to the shift in our staffing costs as we reduced the amount of research and development initiatives and concentrated our staff on the delivery of our services. Given the current financial condition of the Company, we are limiting our spending for research and development expenses to our most promising projects.

General and administrative expenses increased 32%, or $3.6 million, to $15.0 million for the nine months ended September 30, 2018, from $11.4 million for the nine months ended September 30, 2017, principally due to the incremental costs associated with the vivoPharm operations acquired in August 2017 now consolidated into the Company’s results.. Other increases include approximately $0.5 million of severance expense incurred in the first quarter of 2018, professional service fees of $1.2 million primarily related to our compliance requirements to adopt ASC 606 and our recent financing activities. Our bad debt expense increased $0.7 million, primarily due to accounts receivable incurred in the prior year now being deemed to be uncollectible. Taxes and insurance costs increased $0.3 million, primarily due to a net increase in Delaware franchise taxes of $0.2 million. Depreciation and amortization also increased by $0.2 million, primarily due to the additional intangibles and fixed assets acquired in August 2017 as part of the vivoPharm acquisition.

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Sales and marketing expenses increased 23%, or $0.8 million, to $4.2 million for the nine months ended September 30, 2018, from $3.4 million for the nine months ended September 30, 2017, principally due incremental costs associated with the vivoPharm operations acquired in August 2017 now consolidated into the Company's results.

Restructuring costs of $2.2 million were incurred for the nine months ended September 30, 2018 primarily associated with the closure of the California laboratory and operations.

Merger costs of $0.9 million were incurred for the nine months ended September 30, 2018 principally due to the evaluation and pursuit of strategic options including the merger agreement with NovellusDx.

Interest Income (Expense)

Net interest expense increased 66%, or $0.5 million, due to increased borrowings and a higher effective interest rate on the debt we refinanced in late March 2017 and interest incurred on the Convertible Note. We also incurred debt modification costs and paid interest at the default rate.

Change in Fair Value of Acquisition Note Payable

The change in fair value of note payable resulted in $68,000 in non-cash income for the nine months ended September 30, 2018, as compared to non-cash expense of $0.1 million for the nine months ended September 30, 2017. The fair value of the note decreased during the nine months ended September 30, 2018 as a consequence of a decrease in our stock price.

Change in Fair Value of Warrant Liability

Changes in fair value of some of our common stock warrants may impact our quarterly results. Accounting rules require us to record certain of our warrants as a liability, measure the fair value of these warrants each quarter and record changes in that value in earnings. As a result of changes in our stock price and our volatility expectations, we recognized non-cash income of $2.9 million for the nine months ended September 30, 2018 due to decrease in our stock price, as opposed to a non-cash charge of $3.9 million during the nine months ended September 30, 2017 that resulted from an increase in our stock price. Consequently, we may be exposed to non-cash charges, or we may record non-cash income, as a result of this warrant exposure in future periods.

Income Taxes

During the nine months ended September 30, 2017, we received approximately $1.0 million of net proceeds from the sale of state NOL's and state research and development credits.

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. On April 26, 2018, we sold our India subsidiary, BioServe Biotechnologies (India) Private Limited ("BioServe") to Reprocell, Inc., for $1.9 million, including $1.6 million in cash at closing and up to an additional $300,000, which was contingent upon the India subsidiary meeting a specified revenue target through August 31, 2018. During the three months ended September 30, 2018, the Company reduced the contingent consideration to $213,000

In general, our primary uses of cash are providing for operating expenses, working capital purposes and servicing debt.

Cash Flows

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

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	Nine Months Ended September 30,	
(in thousands)	2018	2017
Cash provided by (used in):		
Operating activities	$(11,439)	$(10,249)
Investing activities	720	(2,121)
Financing activities	2,356	7,675
Effect of foreign currency exchange rates on cash and cash equivalents	28	—
Net increase (decrease) in cash and cash equivalents	$(8,335)	$(4,695)

We had cash and cash equivalents and restricted cash of $1.6 million at September 30, 2018, and $9.9 million at December 31, 2017.

The $8.3 million decrease in cash and cash equivalents for the nine months ended September 30, 2018, principally resulted from net cash used in operations of $11.4 million and net repayments of borrowings on our ABL of $1.4 million, offset in part by net proceeds from the sale of our India subsidiary of $1.6 million and net proceeds received from the Convertible Note and Advance from NovellusDx, Ltd of $2.5 million and $1.5 million, respectively.

The $4.7 million decrease in cash and cash equivalents for the nine months ended September 30, 2017, principally resulted from net cash used in operations of $10.2 million, principal payments made on the SVB term note of $4.7 million and fixed asset additions of $1.2 million, partially offset by proceeds from the exercise of warrants of $1.8 million, net proceeds from the sale of stock to Aspire Capital of $3.0 million, proceeds from refinancing our debt of $6.0 million and borrowings on our line of credit of $2.0 million.

At September 30, 2018, we had total indebtedness of $12.9 million, excluding capital lease obligations.

Cash Used in Operating Activities

Net cash used in operating activities was $11.4 million for the nine months ended September 30, 2018. We used $15.3 million in net cash to fund our core operations, which included $0.8 million in cash paid for interest, and another $0.2 million to purchase other current assets, offset by a net increase in accounts payable, accrued expenses and deferred revenue of $4.0 million and a net decrease in accounts receivable of $0.2 million.

For the nine months ended September 30, 2017, we used $10.2 million in operating activities. We used $4.7 million in net cash to fund our core operations, which included $0.6 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 $4.0 million, an increase in other current assets of $0.6 million, a net decrease in accounts payable, accrued expenses and deferred revenue of $1.1 million and a decrease in deferred rent payable and other of $0.1 million, offset by a decrease in other assets of $0.3 million.

Cash Used in Investing Activities

Net cash provided by investing activities was $0.7 million for the nine months ended September 30, 2018 and principally resulted from net cash received from the sale of our India subsidiary of $1.6 million, offset in part by fixed asset purchases of $0.8 million.

Net cash used in investing activities was $2.1 million for the nine months ended September 30, 2017 and resulted from the purchase of fixed assets of $1.2 million, patent costs of $0.1 million, net cash paid to acquire vivoPharm of $0.7 million and investing $0.2 million in a cost method investment.

Cash Provided by Financing Activities

Net cash provided by financing activities was $2.4 million for the nine months ended September 30, 2018 and resulted from net proceeds received from the Convertible Note and Advance from NovellusDx, Ltd of $2.5 million and $1.5 million, respectively. offset, in part by the net repayment of borrowings on our ABL of $1.4 million and principal payments on capital lease obligations of $0.3 million.

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Net cash provided by financing activities was $7.7 million for the nine months ended September 30, 2017 and principally resulted from proceeds received from warrants exercised of $1.8 million, proceeds from the sale of stock to Aspire Capital of $3.0 million net of certain offering costs, proceeds from refinancing our debt of $6.0 million and proceeds from borrowing $2.0 million on our line of credit, offset by principal payments made on our SVB term note of $4.7 million, capital lease payments of $0.2 million and debt issuance costs and loan fees of $0.3 million related to our refinanced debt.

Capital Resources and Expenditure Requirements

We expect to continue to incur material operating losses in the future. It may take several years, if ever, to achieve positive operational cash flow. We may 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 further limit our research and development activities, which may have a material adverse impact on our business prospects and results of operations. The Company amended its debt agreements with SVB and PFG in May 2018; the new agreements required the Company to raise $2,500,000 through the sale of its equity securities or issuance of subordinated debt (in the case of the agreement with SVB, to investors accepted to SVB), which occurred on July 17, 2018, when the Company entered into an agreement pursuant to which the Company issued a convertible promissory note to an institutional accredited investor in the initial principal amount of $2,625,000. The Company received consideration of $2,500,000, reflecting an original issue discount of $100,000, a beneficial conversion feature discount of approximately $328,000 and expenses payable by the Company of $25,000. The convertible note has an 18 month term and carries interest at 10% per annum. The note is convertible into shares of the Company’s common stock at a conversion price of $0.80 per share. See Note 6 of the Notes to Unaudited Consolidated Financial Statements of this quarterly report on Form 10-Q. Effective June 21, 2018 and June 30, 2018, the loan covenants were modified with respect to the debt owed to SVB and PFG, respectively, and the exercise price of the PFG Warrants was reduced to $0.92 as of June 30, 2018. We were in violation of the modified covenants with SVB and PFG as of July 31, 2018, August 31, 2018 and September 30, 2018, and we expect to be in violation as of October 31, 2018 and November 30, 2018. On August 20, 2018, the Company received waivers from its senior lenders for the covenant violations for the months of July and August 2018. In consideration of these waivers, we agreed to reduce the maximum borrowings under the ABL from $6.0 million to $3.0 million, and agreed to enter into a binding and enforceable agreement satisfactory to each lender by August 31, 2018 with respect to a merger or other business combination transaction between the Company and an unrelated third party satisfactory to each lender (the “Transaction Condition”). While we were in violation of the Transaction Condition as of August 31, we subsequently entered into a binding and enforceable agreement satisfactory to each lender on September 18, 2018 by entering into the Merger Agreement. We have obtained waivers from our lenders for the September, October and November 2018 defaults, conditioned upon the Company raising $3,000,000 through the sale of its equity securities or issuance of subordinated debt (in the case of the agreement with SVB, to investors accepted to SVB) by November 30, 2018.

In September 2018, the Company announced the Merger Agreement with NDX. In conjunction with the plan to merge, NDX agreed to advance up to $2,300,000 to the Company. The first advance of $1,500,000 was extended on September 18, 2018, and the second advance of $800,000 is payable upon satisfaction of certain conditions, including our filing of a registration statement on Form S-4 related to the Merger Agreement. Interest accrues on the outstanding

balance at 10.75% per annum, and the Credit Agreement matures upon the earlier of March 31, 2019 or the date on which the Merger Agreement is terminated in accordance with its terms (or 90 days thereafter in the case of certain causes for termination). Upon certain events of default, NDX may convert all, but not less than all, of the outstanding balance into shares of the Company's common stock at a conversion price of $0.606 per share. At September 30, 2018, the principal balance of the Credit Agreement was $1,500,000.

On September 18, 2018, we also entered into a securities purchase agreement (the "Purchase Agreement") pursuant to which we agreed to sell and issue, in a private placement, a total of 8,509,891 shares of our common stock and warrants to purchase an aggregate of up to approximately 6,382,418 shares of our common stock, to the purchasers thereunder, all of whom are current NDX shareholders, for an aggregate purchase price of approximately $8.6 million, with the shares and warrants being sold together in a fixed combination of one share and one warrant to purchase 75% of a share of our common stock, at a price of $1.01 per share and related warrant (the "Private Placement"). The closing of the Private Placement is conditional upon, and will occur immediately after, the Merger. In addition, the Company and NDX may continue to solicit additional subscriptions pursuant to this Purchase Agreement prior to the closing of the Private Placement.

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The warrants issued under the Private Placement will be exercisable for five years beginning on the closing date of the Merger at an initial exercise price of $1.01 per share, subject to adjustment for certain customary circumstances. The warrants can be exercised on a cashless basis.

Net cash used in operating activities was $11.4 million and $10.2 million for the nine months ended September 30, 2018 and 2017, respectively, and the Company had unrestricted cash and cash equivalents of $1.2 million at September 30, 2018, a reduction from $9.5 million at December 31, 2017. The Company has negative working capital at September 30, 2018 of $15.2 million.

The Company currently requires a significant amount of additional capital to fund operations and pay its accounts payable, and its ability to continue as a going concern is dependent upon its ability to raise such additional capital and achieve profitability. If the Company is not able to close the Merger and Private Placement or raise such additional capital on a timely basis or on favorable terms, the Company may need to scale back or, in extreme cases, discontinue its operations or liquidate its assets.

We do not believe that our current cash will support operations beyond the next 3 months from the date of this report unless we raise additional equity or debt capital or spin-off non-core assets to raise additional cash. We hired Raymond James & Associates Inc. as our financial advisor to assist with evaluating strategic options and their efforts resulted in the current Merger Agreement and related credit agreement with NDX referenced elsewhere herein. We are currently in discussions with possible bridge financing sources to provide adequate funding to execute on the merger with NDX As previously disclosed, one of the conditions to closing of the Merger is that the combined company have available cash of at least $20 million at the effective time of the Merger (inclusive of amounts raised in the Private Placement and advanced under the related credit agreement, but exclusive of the Company’s cash) (the “Cash Condition”). If the Merger is consummated and the Cash Condition is not waived, we anticipate that we will have approximately $18 million in cash (net of the Bridge Loan proceeds already received and being used), principally raised through the Private Placement. Consequently, if the Private Placement is successful and the Merger is closed, we believe we will have sufficient cash to support our operations for the 12 months following closing, notwithstanding that the acquisition of NDX will increase our cash flow deficits as we fund their continued development, validation and commercialization efforts. If the Merger and the Private Placement are not consummated, we will not have sufficient cash to continue to operate for any significant period after termination of the Merger Agreement. Accordingly, we intend to seek additional financing in the interim prior to consummation of the Merger, which is not anticipated to occur until the first quarter of 2019. Any such financing will dilute our current stockholders’ 51% interest in the combined company to which our current stockholders are entitled under the Merger Agreement by the number of shares issued or issuable in any such interim financing. We cannot determine at this time whether any interim financing will be available to us or, if it is, the terms of such interim financing and its effect on the percentage interest in the combined company to be held by our current stockholders post-closing of the Merger.

Meanwhile we are taking steps to improve our operating cash flow, including the consolidation of our laboratory operations and reductions in the number of staff. 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 cash position, recurring losses from operations and negative cash flows from operations raise substantial doubt about our ability to continue as a going concern, and as a result, our independent registered public accounting firm included an explanatory paragraph in its report on our financial statements as of and for the year ended December 31, 2017 with respect to this uncertainty. This going concern opinion, and any future going concern opinion, could materially limit our ability to raise additional capital. The perception that we may not be able to continue as a going concern may cause potential partners or investors to choose not to deal with us due to concerns about our ability to meet our contractual and financial obligations. If we cannot continue as a going concern, our stockholders may lose their entire investment in our common stock.

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 close the Merger and Private Placement;
- our ability to secure financing and the amount thereof;
- our ability to achieve revenue growth and profitability;
- the costs for funding the operations we recently acquired and our ability to realize anticipated benefits from the vivoPharm acquisition;
- our ability to save money by moving our California operations to New Jersey and North Carolina;
- our ability to improve efficiency of billing and collection processes;
- our ability to obtain approvals for our new diagnostic tests;

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- our ability to execute on our marketing and sales strategy for our tests and services and gain acceptance of our tests and services in the market;
- our ability to obtain adequate reimbursement from governmental and other third-party payors for our tests and services;
- our ability to maintain our present customer base and obtain new customers;
- our ability to clinically validate our pipeline of tests currently in development;
- the costs of operating and enhancing our laboratory facilities;
- our ability to succeed with our cost control initiative;
- our ability to satisfy US (FDA) and international regulatory regiments with respect to our tests and services, many of which are new and still evolving;
- 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, products in research and early development;
- the effect of competing technological and market developments;
- costs related to expansion; and
- other risks and uncertainties discussed in our annual report on Form 10-K for the year ended December 31, 2017, as updated in other reports, as applicable, we file with the Securities and Exchange Commission.

We expect that our operating expenses and capital expenditures may increase in the future as we expand our business. We plan to take additional steps to decrease our sales and marketing expenses related to our clinical tests and services, and will continue trimming our research and development expenditures for all projects that are not expected to be profitable in the near future. 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 do not expect to make additional capital contributions to the joint venture entity’s operational activities. 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.

The consolidated financial statements for the nine months ended September 30, 2018 were prepared on the basis of a going concern, which contemplates that the Company will be able to realize assets and discharge liabilities in the normal course of business. Accordingly, they do not give effect to adjustments that would be necessary should the Company be required to liquidate its assets. The ability of the Company to meet its obligations, and to continue as a going concern is dependent upon the availability of future funding and the continued growth in revenues. The financial statements do not include any adjustments that might result from the outcome of these uncertainties.

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

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.

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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, 2017 contain a summary of our significant accounting policies. The adoption of ASU 2014-09 and ASU 2016-18 are discussed in Note 1 of Notes to Unaudited Consolidated Financial Statements included in Item 1 of this quarterly report on Form 10-Q. We consider the following accounting policies critical to the understanding of the results of our operations:

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

Cautionary Note Regarding Forward-Looking Statements

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

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

- our ability to close the Merger and Private Placement;
- our ability to achieve revenue growth and profitability;
- our ability to secure financing and the amount thereof;
- our ability to save money by moving our California operations to New Jersey and North Carolina;
- our ability to achieve profitability by increasing sales of our laboratory tests and services and to continually develop and commercialize novel and innovative laboratory tests and services focused on oncology and immuno-oncology;
- our ability to improve efficiency of billing and collection processes;
- with respect to our Clinical Services, our ability to obtain reimbursement from governmental and other third-party payors for our tests and services;
- our ability to clinically validate our pipeline of tests currently in development;
- our ability to execute on our marketing and sales strategy for our tests and services and gain acceptance of our tests and services 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 raise additional capital to meet our liquidity needs;
- competition from clinical laboratory services companies, 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 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 tests;
- our ability to attract and retain a sufficient number of scientists, clinicians, sales personnel and other key personnel with extensive experience in oncology and immuno-oncology, who are in short supply;

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- 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 and services in emerging markets, such as China and Japan;
- 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, 2017, 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 principal executive officer and principal 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 September 30, 2018, 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 principal financial officer) has concluded that our disclosure controls and procedures were not effective at the reasonable assurance level at September 30, 2018 because of the material weakness in the Company’s internal control over financial reporting that existed at December 31, 2017 and has not been fully remediated by the end of the period covered by this quarterly report on Form 10-Q.

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 principal executive officer and principal 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

Our internal control policies changed during the nine months ended September 30, 2018 to accommodate the implementation of ASC 606. Other than changes to accommodate the implementation of ASC 606 and the remediation activities discussed below, there were no changes in our internal control over financial reporting during the three months ended September 30, 2018 that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Material Weakness in Internal Control over Financial Reporting

Subsequent to the evaluation made in connection with filing our annual report on Form 10-K for the year ended December 31, 2017, management has begun the process of remediation of the material weakness. The remediation was conducted as part of the ASC 606 implementation that involves design changes to our internal controls over revenue recognition. We believe these actions to be sufficient to remediate the identified material weakness and to enhance our internal control over financial

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reporting. However, the new enhanced controls have not operated long enough to conclude at the time of this filling that the material weakness was fully remediated.

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PART II — OTHER INFORMATION

Item 1. Legal Proceedings

On April 5, 2018 and April 12, 2018, purported stockholders of the Company filed nearly identical putative class action lawsuits in the U.S. District Court for the District of New Jersey, against the Company, Panna L. Sharma, John A. Roberts, and Igor Gitelman, captioned Ben Phetteplace v. Cancer Genetics, Inc. et al., No. 2:18-cv-05612 and Ruo Fen Zhang v. Cancer Genetics, Inc. et al., No. 2:18-06353, respectively. The complaints allege violations of Sections 10(b) and 20(a) of the Securities Exchange Act of 1934 and SEC Rule 10b-5 based on allegedly false and misleading statements and omissions regarding our business, operational, and financial results. The lawsuits seek, among other things, unspecified compensatory damages in connection with purchases of our stock between March 23, 2017 and April 2, 2018, as well as interest, attorneys' fees, and costs. On August 28, 2018, the Court consolidated the two actions in one action captioned In re Cancer Genetics, Inc. Securities Litigation and appointed shareholder Randy Clark as the lead plaintiff. On October 30, 2018, the lead plaintiff filed an amended complaint, adding Edward Sitar as a defendant and seeking, among other things, compensatory damages in connection with purchases of CGI stock between March 10, 2016 and April 2, 2018. Defendants' motion to dismiss the amended complaint is due to be filed on or before December 31, 2018. The Company is unable to predict the ultimate outcome of these actions and therefore cannot estimate possible losses or ranges of losses, if any.

On June 1, 2018, September 20, 2018, and September 25, 2018, purported stockholders of the Company filed nearly identical derivative lawsuits on behalf of the Company in the U.S. District Court for the District of New Jersey against the Company (as a nominal defendant) and current and former members of the Company's Board of Directors. The three cases are captioned: Bell v. Sharma et al., No. 2:18-cv-10009-CCC-MF, McNeece v. Pappajohn et al., No. 2:18-cv-14093, and Workman v. Pappajohn, et al., No. 2:18-cv-14259. The complaints allege claims for breach of fiduciary duty, violations of Section 14(a) of the Securities Exchange Act of 1934 (premised upon alleged omissions in the Company's 2017 proxy statement), and unjust enrichment, and allege that the individual defendants failed to implement and maintain adequate controls, which resulted in ineffective disclosure controls and procedures, and conspired to conceal this alleged failure. The lawsuits seek, among other things, damages and/or restitution to the Company, appropriate equitable relief to remedy the alleged breaches of fiduciary duty, and attorneys' fees and costs. The Company is unable to predict the ultimate outcome of these actions and therefore cannot estimate possible losses or ranges of losses, if any.

Additional shareholder lawsuits may be filed in the future. In addition, lawsuits related to the Merger may also be filed.

Item 1A. Risk Factors

Except as set forth below, 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, 2017.

We are not currently in compliance with the continued listing requirements for NASDAQ. If the price of our common stock continues to trade below $1.00 per share for a sustained period or we do not meet other continued listing requirements, our common stock may be delisted from the NASDAQ Capital Market, which could affect the market price and liquidity for our common stock and reduce our ability to raise additional capital.

Our common stock is listed on the NASDAQ Capital Market. In order to maintain that listing, we must satisfy minimum financial and other requirements including, without limitation, a requirement that our closing bid price be at least $1.00 per share. On November 13, 2018, we received a written notice from NASDAQ indicating that we are not in compliance with the minimum bid price requirement for continued listing on the NASDAQ Capital Market. We have 180 calendar days in which to regain compliance. We can regain compliance if at any time during this 180 day

period the bid price of our common stock closes at or above $1.00 per share for a minimum of ten consecutive business days.

We intend to monitor the closing bid price of our common stock and consider our available options to resolve our noncompliance with the minimum bid price requirement, which may include submitting for approval by our stockholders a proposal to grant discretionary authority to our board of directors to amend our certificate of incorporation to effect a reverse split of our outstanding shares of common stock within an appropriate range, with the exact reverse split ratio to be decided and publicly announced by the board of directors prior to the effective time of the amendment to our certificate of incorporation. No determination regarding our response has been made at this time. There can be no assurance that we will be able to regain compliance with the minimum bid price requirement or we will otherwise be in compliance with other NASDAQ listing criteria. If we fail to regain compliance with the minimum bid requirement or to meet the other applicable continued listing requirements for the NASDAQ Capital Market in the future and NASDAQ determines to delist our common stock, the delisting could adversely affect the market price and liquidity of our common stock and reduce our ability to raise additional capital. In addition, if our common stock is delisted from NASDAQ and the trading price remains below $5.00 per share,

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trading in our common stock might also become subject to the requirements of certain rules promulgated under the Exchange Act, which require additional disclosure by broker-dealers in connection with any trade involving a stock defined as a "penny stock" (generally, any equity security not listed on a national securities exchange or quoted on NASDAQ that has a market price of less than $5.00 per share, subject to certain exceptions).

We will need to raise additional capital to fund our operations.

We will need to raise additional financing to fund our operations. At September 30, 2018, we had unrestricted cash and cash equivalents of $1.2 million. Net cash used in operating activities was $11.4 million and $10.2 million for the nine months ended September 30, 2018 and 2017, respectively.

The Company has retained Raymond James & Associates, Inc. as a financial advisor to assist the Company in its evaluation of a broad range of financial and strategic alternatives to enhance shareholder value, including additional capital raising transactions, the acquisition of another company or complementary assets or the potential sale or merger of the Company or another type of strategic partnership. Unless the Merger is consummated, there is no assurance that the review of strategic alternatives will result in the Company changing its business plan, pursuing any particular transaction, if any, or, if it pursues any such transaction, that it will be completed.

We currently have limited availability under our asset-based revolving line of credit agreement with Silicon Valley Bank. We can provide no assurance 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. Absent sufficient additional financing, we may be unable to remain a going concern.

Risks Relating to the Merger

Failure to complete the Merger may result in us paying a termination fee to NDX and could harm our common stock price and future business and operations.

If the Merger is not completed, we are subject to the following risks:

- if the Merger Agreement is terminated under certain circumstances and certain events occur, we will be required to pay NDX a termination fee of $800,000 plus expenses of up to $450,000 and repay all obligations to NDX under the credit agreement with NDX;
- our stock price may decline; and
- costs related to the Merger, such as legal, accounting and certain investment banking fees must be paid regardless of whether the Merger is completed.

In addition, upon certain events of default under the Credit Agreement, including if the Merger Agreement is terminated for any reason, NDX may convert all, but not less than all, of the outstanding balance under the Credit Agreement into shares of our common stock at a conversion price of $0.606 per share.

Further, if the Merger Agreement is terminated and our board of directors determines to seek another business combination, there can be no assurance that we will be able to find a partner willing to provide equivalent or more attractive consideration than the consideration to be provided by NDX.

The consummation of the transactions contemplated by the Merger Agreement is dependent upon our and NDX obtaining all relevant and necessary consents and approvals.

A condition to consummation of the Merger is that we and NDX obtain certain consents or approvals from third parties, including the Israeli Tax Ruling (as defined below) and approval from NASDAQ to list the shares of our common stock being issued in the Merger and the Private Placement. In addition, our stockholders must approve the issuance of common stock pursuant to the Merger Agreement. The NDX shareholders must adopt the Merger Agreement and approve the Merger to be consummated pursuant thereto, but Voting Agreements have been entered into pursuant to which holders of a sufficient amount of NDX share capital have agreed to vote in favor of the transactions. There can be no assurance that we or NDX will be able to obtain all such relevant consents and approvals on a timely basis or at all. Each of us and NDX has incurred, and expects to continue to incur, significant costs and expenses in connection with the proposed Merger. Any failure to obtain, or delay in obtaining, the necessary consents or approvals would prevent us and NDX from being able to consummate, or delay

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the consummation of, the transactions contemplated by the Merger Agreement, which could materially adversely affect our business, financial condition and results of operations, and, correspondingly, the combined company if the Merger is consummated. There is no guarantee that such approvals will be obtained or that such conditions will be satisfied.

Failure to satisfy closing conditions and complete the Merger could cause our stock price to decline and could harm our business and operating results.

The Merger Agreement contains conditions which we or NDX, respectively, must meet in order to consummate the transactions. No assurance can be given that every closing condition will be satisfied or waived. In addition, the Merger Agreement may be terminated by either us or NDX under certain circumstances.

If the Merger is not completed for any reason, we and NDX may be subject to a number of risks, including the following:

- the market price of our common stock may decline to the extent that the relevant current market price previously reflected a market assumption that the Merger will be completed;
- many costs related to the Merger, such as legal, accounting and financial printing fees, must be paid regardless of whether the transactions completed; and
- there may be substantial disruption to our business and distraction of our workforce and management team.

The Private Placement may not be successful and the Cash Condition may not be satisfied.

One of the conditions of closing of both the Merger and the Private Placement is that the combined company have available cash of at least $20 million at the Effective Time (inclusive of NDX's cash, amounts raised in the Private Placement and amounts advanced under the Credit Agreement, but exclusive of our cash) (the "Cash Condition"), which we estimate will require that we raise approximately $18 million in the Private Placement, assuming that the Merger will have occurred on December 31, 2018, based in part on NDX's cash balance as of October 15, 2018 of approximately $3.4 million (exclusive of the amounts advanced under the Credit Agreement). As of October 31, 2018, CGI had received subscriptions for $10,000,000 of Shares and Warrants in the Private Placement from certain current NDX shareholders. The Private Placement contemplates issuing one share and one warrant to purchase 75% of a share of our common stock to investors at a combined price of $1.01. At November 16, 2018, the closing price of a share of our common stock on the Nasdaq Capital Market was $0.49. At that market price, we believe it is unlikely that we will be able to raise the balance of the funds needed to satisfy the Cash Condition on the current terms of the Private Placement, including price. Accordingly, we may be required to seek both amendments to the current subscription agreements and additional subscriptions on terms less advantageous to us than the terms of the Private Placement, including price, in order to satisfy the Cash Condition and consummate the Merger and the Private Placement. Based on the current trading price of our stock, it is unlikely that we will consummate the Private Placement unless we successfully amend its terms. No assurance can be given that we will be able to obtain the requisite amendments and additional subscriptions necessary to satisfy the Cash Condition. If we cannot raise additional funds on acceptable terms and if all parties are not otherwise willing to waive the Cash Condition, we will not be able to consummate the Merger.

We may be required to raise additional capital prior to consummation of the Merger, which may be on terms less favorable to the currently contemplated terms of the Private Placement.

We may be required to raise additional operating capital prior to consummation of the Merger, which may be on terms less favorable to those currently contemplated in the Private Placement, including price. The Merger Agreement prohibits us from issuing additional equity or incurring additional indebtedness without the consent of NDX, other

than issuances of equity on the same terms as the currently contemplated terms of the Private Placement. If NDX were to consent to our issuance of equity on terms less favorable to us than those in the Private Placement, we would likely have to amend the terms of the Private Placement to provide the investors thein the same terms. If the foregoing occurs, our current stockholders will experience additional dilution in their ownership of us and the combined company, assuming the Merger occurs. We have no current sources of additional capital, and we can give no assurances that we will obtain any additional capital prior to the Merger on terms favorable to us or at all.

NDX may not be successful in obtaining the Israeli Tax Ruling.

NDX and its Israeli counsel have prepared and filed, or will file, with the Israel Tax Authority (the "ITA") an application for a ruling (the "Israeli Tax Ruling") confirming, among others, that:

(1) the transfer of the merger consideration to the exchange agent for the Merger is not subject to Israeli tax withholding;

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(2) with respect to holders of NDX share capital that are non–Israeli residents, (A) exempting CGI, Merger Sub, the exchange agent, their respective agents or any other payor from any obligation to withhold Israeli tax from any consideration payable or otherwise deliverable pursuant to the Merger Agreement or clarifying that no such obligation exists, or (B) clearly instructing CGI, Merger Sub, the exchange agent, their respective agents or any other payor on how such withholding is to be executed, and in particular, with respect to the classes or categories of holders of NDX share capital from which tax is to be withheld (if any), the rate or rates of withholding to be applied and how to identify any such non–Israeli residents;

(3) treats the Merger in accordance with the provisions of Section 104H of the Israeli Income Tax Ordinance [New Version], 1961, and the rules and regulations promulgated thereunder (the "Israeli Tax Ordinance"); and

(4) in relation to the consideration to be paid to the holders of NDX ordinary shares ("Section 102 Shares") issued upon exercise of NDX options granted pursuant to Section 102(b)(2) of the Israeli Tax Ordinance, which will provide, among other things that (A) the payments made in respect of Section 102 Shares that are held by a trustee pursuant to Section 102 of the Israeli Tax Ordinance (the "102 Trustee") shall not constitute a violation of Section 102 if deposited with the 102 Trustee and released only after the lapse of the minimum trust period required by Section 102, and (B) payments made to the 102 Trustee under the Merger Agreement shall not be subject to withholding of Israeli tax (which ruling may be subject to customary conditions regularly associated with such a ruling).

Pursuant to the Merger Agreement, in the event that one or more of the topics listed above is not eventually included in the Israeli Tax Ruling or NDX's Israeli counsel, advisors and accountants determine, in consultation with our Israeli counsel, advisors and accountants, that it will be beneficial or expedient to prepare and separate tax rulings with respect to certain topics listed above, then NDX, we and their respective advisors shall cooperate in the preparation and filing of such additional or separate rulings as the parties deem beneficial or expedient. Nevertheless, the condition to closing of the Merger contained in the Merger Agreement of obtaining the Israeli Tax Ruling is stipulated in the Merger Agreement to only refer to a ruling that in the aggregate addresses the matters set forth in items (1), (2), (3) and (4)(B) above (such that, for the avoidance of doubt, a tax ruling addressing the matter set forth in item (4)(A) above does not constitute a condition to closing of the Merger).

The combined company may need to raise additional capital by issuing securities or debt or through licensing arrangements, which may cause dilution to the combined company's stockholders or restrict the combined company's operations or proprietary rights.

In addition to the Private Placement, the combined company may be required to raise additional funds sooner than currently planned. Additional financing may not be available to the combined company when it needs it or may not be available on favorable terms. To the extent that the combined company raises additional capital by issuing equity securities, such an issuance may cause significant dilution to the combined company's stockholders' ownership and the terms of any new equity securities may have preferences over the combined company's common stock. Any debt financing the combined company enters into may involve covenants that restrict its operations. These restrictive covenants may include limitations on additional borrowing and specific restrictions on the use of the combined company's assets, as well as prohibitions on its ability to create liens, pay dividends, redeem its stock or make investments. In addition, if the combined company raises additional funds through licensing arrangements, it may be necessary to grant licenses on terms that are not favorable to the combined company.

The market price of the combined company's common stock following the Merger may decline as a result of the Merger.

The market price of the combined company's common stock may decline as a result of the Merger for a number of reasons including if:

- investors react negatively to the prospects of the combined company's business and prospects from the Merger;

- the effect of the Merger on the combined company's business and prospects is not consistent with the expectations of financial or industry analysts; or
- the combined company does not achieve the perceived benefits of the merger as rapidly or to the extent anticipated by financial or industry analysts.

During the pendency of the Merger, we may not be able to enter into a business combination with another party at a favorable price because of restrictions in the Merger Agreement, which could adversely affect our business.

Covenants in the Merger Agreement impede our ability to make acquisitions, subject to certain exceptions relating to fiduciary duties, or complete other transactions that are not in the ordinary course of business pending the closing of the Merger. As a result, if the Merger is not completed, we may be at a disadvantage to our competitors during that period. In addition, while the Merger Agreement is in effect, we are generally prohibited from soliciting, initiating, encouraging or entering into certain

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extraordinary transactions, such as a merger, sale of assets or other business combination outside the ordinary course of business, with any third-party, subject to certain exceptions. Any such transactions could be favorable to our stockholders.

Certain provisions of the Merger Agreement may discourage third parties from submitting alternative takeover proposals, including proposals that may be superior to the arrangements contemplated by the Merger Agreement.

The terms of the Merger Agreement prohibit us from soliciting alternative takeover proposals or cooperating with persons making unsolicited takeover proposals, except in certain circumstances where our board of directors determines in good faith, after consultation with its financial advisor and outside legal counsel, that an unsolicited alternative takeover proposal constitutes or is reasonably likely to result in a superior takeover proposal. In addition, if we terminate the Merger Agreement under certain circumstances, including terminating because of a decision of our board of directors to recommend an alternative proposal, we would be required to pay a termination fee of $800,000 to NDX plus reimbursement of expenses of up to $450,000, and we would additionally have to repay all obligations to NDX under the Credit Agreement. These termination fees and reimbursement obligations described above may discourage third parties from submitting alternative takeover proposals to us and our stockholders, and may cause our board of directors to be less inclined to recommend an alternative proposal.

The issuance of shares of our common stock to NDX shareholders in the Merger will dilute substantially the voting power of our current stockholders.

If the Merger is completed, the share capital of NDX will be converted into the right to receive an aggregate number of shares of our common stock equal to 49% of the aggregate number of shares of our common stock calculated immediately following the closing of the Merger (including, among other things, shares issuable upon the conversion of the Iliad Note and shares issuable upon the exercise of ouroptions and warrants, determined using the treasury stock method) (the “Post-Closing Shares”), and the security holders of CGI as of immediately prior to the Merger will own 51% of the aggregate number of Post-Closing Shares. The foregoing percentages will be determined prior to giving effect to the Private Placement. Accordingly, the issuance of shares of our common stock to NDX shareholders in the Merger and to investors in the Private Placement will reduce significantly the relative voting power of each share of our common stock held by our current security holders. Consequently, our security holders as a group will have significantly less influence over the management and policies of the combined company after the Merger and Private Placement, than prior thereto.

The pendency of the Merger could have an adverse effect on the trading price of CGI Common Stock and CGI’s business, financial condition, results of operations or business prospects.

While there have been no significant adverse effects to date, the pendency of the Merger could disrupt CGI’s businesses in the following ways, including:

- the attention of CGI’s management may be directed toward the closing of the Merger and related matters and may be diverted from the day-to-day business operations; and
- third parties may seek to terminate or renegotiate their relationships with CGI as a result of the Merger, whether pursuant to the terms of their existing agreements with CGI or otherwise.

Should they occur, any of these matters could adversely affect the trading price of CGI Common Stock or harm CGI’s financial condition, results of operations or business prospects.

Any acquisition exposes a company to additional risks.

Acquisitions may entail numerous risks for CGI, including:

- competing claims for capital resources;
- difficulties in assimilating acquired operations, technologies or products;
- diversion of management's attention from CGI's core business;
- risks of undertaking activities or entering markets in which CGI has limited or no prior experience; and
- CGI's management team has limited experience in purchasing and integrating new businesses.

CGI's failure to successfully complete the integration of NDX could have a material adverse effect on CGI's business, financial condition and operating results.

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Failure of the Merger to achieve potential benefits could harm the business and operating results of the combined company.

CGI and NDX expect that the combination of their businesses will result in potential benefits for the combined company. Achieving these potential benefits will depend on a number of factors, some of which include:

- the success of the development, validation and commercialization of the NDX technology;
- retention of key management, marketing and technical personnel and the hiring of other appropriate management personnel after the transactions;
- the ability of the combined company to increase the sales of products and services;
- successfully implementing economies of scale;
- success of integration of NDX's and CGI's respective businesses;
- competitive conditions in the industry.

The failure to achieve anticipated benefits could harm the business, financial condition and operating results of the combined company.

CGI's outstanding warrants may negatively affect CGI's ability to raise additional capital.

As part of the Private Placement, CGI will be issuing warrants to purchase up to an additional 742,574 shares of CGI Common Stock for each $1,000,000 raised in the Private Placement. CGI already had, at October 15, 2018, approximately 13,091,254 shares of CGI Common Stock issuable under outstanding stock options and warrants. Holders of CGI's outstanding warrants are given the opportunity to profit from a rise in the market price of CGI Common Stock. As long as these warrants are outstanding, the terms on which CGI could obtain additional capital may be adversely affected. The holders of these warrants might be expected to exercise them at a time when CGI would, in all likelihood, be able to obtain any needed capital by a new offering of securities on terms more favorable than those provided by these warrants.

If the combined company is unable to manage growth in its business, its prospects may be limited and its future results of operations may be adversely affected.

The combined company intends to expand its research and development platform to provide innovative diagnostic capabilities, its sales and marketing programs and other activities as needed to meet future demand. Any significant expansion may strain the combined company's managerial, financial and other resources. If the combined company is unable to manage its growth, its business, operating results and financial condition could be adversely affected. The combined company will continually need to improve its operations, financial and other internal systems to manage its growth effectively, and any failure to do so may lead to inefficiencies and redundancies, and result in reduced growth prospects and diminished operational results.

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

On November 19, 2018, the Company received waivers from its senior lenders for its failure to comply with certain covenants for the months of September 30, 2018, October 31, 2018 and November 30, 2018. The Company concurrently amended its debt agreements with SVB and PFG, respectively; the new agreements require the Company to raise $3,000,000 from the sale of its equity securities or the issuance of subordinated debt (in the case of the agreement with SVB, to investors acceptable to SVB) by November 30, 2018. See Note 6 to Unaudited Consolidated Financial Statements.

Item 6. Exhibits

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

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SIGNATURE

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

Cancer Genetics, Inc.
(Registrant)

Date: November 19, 2018 /s/ John A. Roberts
John A. Roberts
President and Chief Executive Officer
(Principal Executive and Financial Officer)

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INDEX TO EXHIBITS

Exhibit No.	Description
2.1	Agreement and Plan of Merger, dated September 18, 2018, by and among Cancer Genetics, Inc., NovellusDx Ltd. and Wogolos Ltd. (incorporated by reference to Exhibit 2.1 to the Company's current report on Form 8-K, filed with the Securities and Exchange Commission on September 21, 2018).
4.1	Convertible Promissory Note, dated July 17, 2018, in favor of Iliad Research and Trading, L.P. (incorporated by reference to Exhibit 4.1 of the Company's current report on Form 8-K filed on July 18, 2018 with the Securities and Exchange Commission).
10.1	Securities Purchase Agreement, dated July 18, 2018, between Cancer Genetics, Inc. and Iliad Research and Trading, L.P. (incorporated by reference to Exhibit 10.1 of the Company's current report on Form 8-K filed on July 18, 2018 with the Securities and Exchange Commission).
10.2	Waiver and Third Amendment to Amended and Restated Loan and Security Agreement with Silicon Valley Bank, dated as of August 20, 2018 (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 August 21, 2018).
10.3	Waiver and Modification No. 3 to Loan and Security Agreement with Partners for Growth IV, L.P., dated as of August 20, 2018 (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 August 21, 2018).
10.4	Credit Agreement, dated September 18, 2018, by and between Cancer Genetics, Inc. and NovellusDx Ltd. (incorporated by reference to Exhibit 10.1 of the Company's current report on Form 8-K, filed with the Securities and Exchange Commission on September 21, 2018).
10.5	Promissory Note, dated September 18, 2018, in favor of NovellusDx Ltd. (incorporated by reference to Exhibit 10.2 of the Company's current report on Form 8-K, filed with the Securities and Exchange Commission on September 21, 2018).
10.6	Registration Rights Agreement, dated September 18, 2018, by and between Cancer Genetics, Inc. and NovellusDx Ltd (incorporated by reference to Exhibit 10.3 of the Company's current report on Form 8-K, filed with the Securities and Exchange Commission on September 21, 2018).
10.7	Form of Securities Purchase Agreement, dated September 18, 2018.*
10.8	Waiver and Fourth Amendment to Amended and Restated Loan Security Agreement with Silicon Valley Bank, dated as of November 19, 2018.*
10.9	Waiver Under Loan Security Agreement with Partners for Growth IV, L.P., dated as of November 19, 2018.*
31.1	Certification of Principal Executive Officer and 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 Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of The Sarbanes-Oxley Act of 2002 **

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101	The following materials from the Registrant's quarterly report on Form 10-Q for the quarter ended September 30, 2018, formatted in XBRL (eXtensible Business Reporting Language): (i) Consolidated Balance Sheet at September 30, 2018 (unaudited) and December 31, 2017, (ii) Consolidated Statements of Operations and Other Comprehensive Loss for the three and nine month periods ended September 30, 2018 and 2017 (unaudited), (iii) Consolidated Statements of Cash Flows for the nine month periods ended September 30, 2018 and 2017 (unaudited) and (iv) Notes to Consolidated Financial Statements (unaudited)

* Filed herewith.
** Furnished herewith.