CareDx, Inc.
Form 10-Q
August 22, 2016

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

x QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended June 30, 2016

or

o 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: 001-36536

CAREDX, INC.

(Exact name of registrant as specified in its charter)

Delaware	94-3316839
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification Number)

3260 Bayshore Boulevard

Brisbane, California 94005

(Address of principal executive offices and zip code)

(415) 287-2300

(Registrant's telephone number, including area code)

N/A

(Former name, former address and former fiscal year, if changed since last report)

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 x No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No o

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

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

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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

There were 18,976,343 shares of the registrant's Common Stock issued and outstanding as of July 29, 2016.

CareDx, Inc.

TABLE OF CONTENTS

PART I. FINANCIAL INFORMATION

ITEM 1. UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
CareDx, Inc.

Condensed Consolidated Balance Sheets

(Unaudited)

(In thousands, except share and per share data)

	June 30, 2016	December 31, 2015 (Note 2)
Assets		
Current assets:		
Cash and cash equivalents	$17,144	$29,888
Accounts receivable	4,887	2,367
Inventory	8,651	766
Prepaid and other assets	1,779	1,341
Total current assets	32,461	34,362
Property and equipment, net	3,413	2,425
Intangible assets, net	36,344	6,650
Goodwill	28,072	12,005
Restricted cash	143	147
Other noncurrent assets	20	49
Total assets	$100,453	$55,638
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$3,339	$1,644
Accrued payroll liabilities	2,944	2,366
Accrued and other liabilities	7,695	2,892
Accrued royalties	261	242
Deferred revenue	65	142
Deferred purchase consideration	5,807	—
Current portion of long-term debt	18,135	2,866
Total current liabilities	38,246	10,152
Deferred rent, net of current portion	1,526	1,426
Deferred revenue, net of current portion	749	703
Deferred tax liability	7,729	—
Long-term debt, net of current portion	10,072	12,887
Contingent consideration	638	948
Common stock warrant liability	8,122	—
Other liabilities	861	28
Total liabilities	67,943	26,144
Commitments and contingencies (Note 9)		
Stockholders' equity:		

Preferred stock: $0.001 par value; 10,000,000 shares authorized at June 30, 2016 and December 31, 2015; no shares issued and outstanding at June 30, 2016 and December 31, 2015	—	—
Common stock: $0.001 par value; 100,000,000 shares authorized at June 30, 2016 and December 31, 2015; 18,925,076 shares and 11,902,363 shares issued and outstanding at June 30, 2016 and December 31, 2015, respectively	19	12
Additional paid-in capital	226,593	202,564
Accumulated other comprehensive loss	(1,408)	—
Accumulated deficit	(193,305)	(173,082)
Total CareDx, Inc. stockholders' equity	31,899	29,494
Noncontrolling interest	611	—
Total stockholders’ equity	32,510	29,494
Total liabilities and stockholders’ equity	$100,453	$55,638

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

CareDx, Inc.

Condensed Consolidated Statements of Operations

(Unaudited)

(In thousands, except share and per share data)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Revenue:				
Testing revenue	$7,249	$7,044	$13,704	$14,139
Product revenue	3,475	—	3,475	—
Collaboration, license and other revenue	11	85	118	205
Total revenue	10,735	7,129	17,297	14,344
Operating expenses:				
Cost of testing	2,852	2,508	5,624	5,218
Cost of product	3,056	—	3,056	—
Research and development	3,143	2,510	6,302	3,931
Sales and marketing	3,356	2,526	5,093	4,549
General and administrative	5,393	2,329	11,070	5,034
Change in estimated fair value of contingent consideration	(97)	142	(310)	(111)
Total operating expenses	17,703	10,015	30,835	18,621
Loss from operations	(6,968)	(2,886)	(13,538)	(4,277)
Interest expense	(526)	(256)	(783)	(1,083)
Other expense	(274)	(43)	(3,200)	(97)
Change in estimated fair value of common stock warrant liability	(3,165)	—	(3,165)	—
Loss before income taxes	(10,933)	(3,185)	(20,686)	(5,457)
Income tax benefit	440	—	440	—
Net loss	(10,493)	(3,185)	(20,246)	(5,457)
Net loss attributable to noncontrolling interest	23	—	23	—
Net loss attributable to CareDx, Inc.	$(10,470)	$(3,185)	$(20,223)	$(5,457)
Net loss per share attributable to CareDx, Inc. (Note 3):				
Basic and diluted	$(0.77)	$(0.27)	$(1.58)	$(0.46)
Weighted average shares used to compute net loss per share attributable to CareDx, Inc.:				
Basic and diluted	13,568,120	11,835,405	12,768,913	11,824,993

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

4

CareDx, Inc.

Condensed Consolidated Statements of Comprehensive Loss

(Unaudited)

(In thousands)

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Net loss	$(10,493)	$(3,185)	$(20,246)	$(5,457)
Other comprehensive loss:				
Foreign currency translation adjustments, net of tax	(1,408)	—	(1,408)	—
Net Comprehensive loss	(11,901)	(3,185)	(21,654)	(5,457)
Comprehensive loss attributable to noncontrolling interest	23	—	23	—
Comprehensive loss attributable to CareDx, Inc.	$(11,878)	$(3,185)	$(21,631)	$(5,457)

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

CareDx, Inc.

Condensed Consolidated Statements of Cash Flows

(Unaudited)

(In thousands)

	Six Months Ended June 30,	
	2016	2015
Operating activities:		
Net loss	$ (20,246)	$ (5,457)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	1,097	358
Amortization of inventory fair market value adjustment	1,225	—
Stock-based compensation	812	692
Amortization of deferred revenue	(31)	(59)
Amortization of debt discount and noncash interest expense	56	450
Revaluation of contingent consideration to estimated fair value	(310)	(111)
Revaluation of common stock warrant liability to estimated fair value	3,165	—
Changes in operating assets and liabilities:		
Accounts receivable	(982)	981
Inventory	236	(45)
Prepaid and other assets	845	(108)
Accounts payable	(336)	(116)
Accrued payroll liabilities	39	367
Accrued royalties	18	27
	2,153	274

Accrued and other liabilities						
Net cash used in operating activities		(12,259	)		(2,747	)
Investing activities:						
Purchase of property and equipment		(276	)		(733	)
Acquisition of business, net of cash acquired		(20,567	)		—	
Net cash used in investing activities		(20,843	)		(733	)
Financing activities:						
Proceeds from debt, net of issuance costs		—			15,625	
Proceeds from private placement and subsequent financing, net of issuance costs		20,619			—	
Proceeds from issuance of common stock under employee stock purchase plan		175			—	
Principal payments on debt and capital lease obligations		(428	)		(11,724	)
Proceeds from exercise of stock options		9			42	
Net cash provided by financing activities		20,375			3,943	
Effect of exchange rate changes on cash and cash equivalents		(17	)		—	
Net (decrease) increase in cash and cash equivalents		(12,744	)		463	
Cash and cash equivalents at beginning of period		29,888			36,431	
Cash and cash equivalents at end of period	$	17,144		$	36,894	
Supplemental disclosure of cash flow information:						
Deferred purchase consideration	$	5,700		$	—	
Debt assumed as part of acquisition	$	13,421		$	—	
	$	7,205		$	—	

Common shares issued as part of acquisition							

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

CareDx, Inc.

Notes to Unaudited Condensed Consolidated Financial Statements

1. ORGANIZATION AND DESCRIPTION OF BUSINESS

CareDx, Inc., ("CareDx" or the "Company") together with its subsidiaries acquired in the acquisition of Allenex AB ("Allenex" or "Olerup"), is global transplant diagnostics company with product offerings along the pre- and post-transplant continuum. The Company focuses on discovery, development and commercialization of clinically differentiated, high-value diagnostic surveillance solutions for transplant patients. In post-transplant diagnostics, the Company offers AlloMap®, which is a heart transplant molecular test ("AlloMap"). In pre-transplant diagnostics, the Company offers Olerup SSP®, a set of Human Leukocyte Antigen ("HLA") typing used prior to hematopoietic stem cell/bone marrow transplantation and organ transplantation.

AlloMap is a gene expression test that helps clinicians monitor and identify heart transplant recipients with stable graft function who have a low probability of moderate to severe acute cellular rejection. Since 2008, the Company has sought to expand the adoption and utilization of its AlloMap solution through ongoing studies to substantiate the clinical utility and actionability of AlloMap, secure positive reimbursement decisions for AlloMap from large private and public payers, develop and enhance its relationships with key members of the transplant community, including opinion leaders at major transplant centers, and explore opportunities and technologies for the development of additional solutions for post-transplant surveillance. The Company believes the use of AlloMap, in conjunction with other clinical indicators, can help healthcare providers and their patients better manage long-term care following a heart transplant. In particular, the Company believes AlloMap can improve patient care by helping healthcare providers avoid the use of unnecessary, invasive surveillance biopsies and determine the appropriate dosage levels of immunosuppressants. AlloMap has received 510(k) clearance from the U.S. Food and Drug Administration, (the "FDA"), for marketing and sale as a test to aid in the identification of recipients with a low probability of moderate or severe acute cellular rejection. A 510(k) submission is a premarketing submission made to the FDA. Clearance may be granted by the FDA if it finds the device or test provides satisfactory evidence pertaining to the claimed intended uses and indications for the device or test. The Company is also pursuing the development of additional products for transplant monitoring using a variety of technologies, including AlloSure®, its proprietary next-generation sequencing-based test to detect donor-derived cell-free DNA, ("dd-cfDNA"), after transplantation. Through the acquisition of ImmuMetrix, Inc. ("IMX"), a privately held development-stage company working on dd-cfDNA-based solutions in transplantation and other fields, the Company added to its existing know-how, expertise, and intellectual property the ability to apply dd-cfDNA technology to the surveillance of transplant recipients, which has contributed to the development of AlloSure.

With the acquisition of Allenex, the Company develops, manufactures, markets and sells high quality products that increase the chance of successful transplants by facilitating a better match between a donor and a recipient of stem cells and organs. Olerup SSP is used to type HLA alleles based on the sequence specific primer ("SSP") technology, has a market in Europe and selected other markets for pre-transplant solutions. The Company also offers XM-ONE®, a standardized test that identifies a patient's antigens against HLA Class I or Class II, as well as antibodies against a donor's endothelium. This cross-match test has primarily been used prior to kidney transplants. The Company, by way of Olerup's sales and distribution agreement with Conexio Genomics (since acquired by Illumina, Inc.) offers a complete product range for sequence-based typing ("SBT") of HLA alleles. SBT Resolver is a test kit for sequence based HLA typing, while AssignSBT is the companion software for sequence analysis. Because this SBT technology

is primarily used in larger typing laboratories, it is a good complement to SSP technology, which is a more natural fit at smaller centers. In 2014, Olerup began active development of a new HLA typing product, QTYPE, that uses real-time PCR (q-PCR) methodology. This technology is based on SSP technology, which Olerup was well-situated to develop.

The Company’s headquarters are in Brisbane, California; and primary operations are in Brisbane and Stockholm, Sweden; and it operates in two reportable segments.

Liquidity and Going Concern

The Company has incurred significant losses and negative cash flows from operations since its inception and had an accumulated deficit of $193.3 million at June 30, 2016. As of June 30, 2016, the Company had cash and cash equivalents of $17.1 million, and $28.2 million of debt outstanding under its debt and capital lease obligations, net of debt discount and issuance costs.

On April 14, 2016, the Company acquired 98.3% of the outstanding common stock of Allenex. Allenex has 58 employees. Under the terms of the Conditional Share Purchase Agreements entered into on December 16, 2015, as amended, and the tender offer prospectus dated March 7, 2016, and as a result of the tender offer, the aggregate purchase consideration paid by the Company was approximately $34.1 million and consisted of (i) $26.9 million of cash, of which approximately $5.7 million was deferred purchase consideration and payable to Midroc Invest AB, FastPartner AB and Xenella Holding AB (collectively, the "Majority Shareholders") by no later than March 31, 2017, and (ii) the issuance of 1,375,029 shares of the Company's common stock valued at $7.2 million. Of the total cash consideration, $8.0 million of cash payable to the Majority Shareholders was deposited into an escrow account by the Company and subsequently invested in the Company by the Majority Shareholders through a purchase of the Company's equity securities in a financing that was completed on June 15, 2016 (the "Subsequent Financing"). Upon the completion of the Subsequent Financing, certain contingencies in the Conditional Share Purchase Agreements were waived, and the deferred purchase consideration is payable to the Majority Shareholders by no later than March 31, 2017. The Company determined at the date of the acquisition that these contingencies would be waived. The Company intends to complete compulsory acquisition proceedings under Swedish law to purchase the remaining shares of Allenex. On June 8, 2016, the Company delisted Allenex's common stock from Nasdaq Stockholm. See Note 5 for more detail about the Allenex acquisition.

On April 14, 2016, the Company completed the sale of 591,860 units ("Units") to certain accredited investors (the "Private Placement") at a purchase price of $23.94 per Unit. Each Unit was comprised of (i) one share of the Company's common stock, (ii) five shares of Series A Mandatorily Convertible Preferred Stock ("Series A Preferred"), and (iii) three warrants, each to purchase one share of the Company's common stock. The aggregate gross proceeds to the Company from the Private Placement were approximately $14.2 million. Concurrently, the Company also entered into commitment letters (the "Commitment Letters") pursuant to which the Majority Shareholders purchased the Company's equity securities in the Subsequent Financing. The Company made payments of approximately $1.1 million and $97,000 in placement fees and other offering expenses, respectively, to placement agents in connection with the sale of the 591,860 Units in the Private Placement. Following the closing of the Private Placement, the Company agreed to a number of requirements, including submitting the Private Placement to the Company's stockholders for approval pursuant to the rules of The NASDAQ Stock Market LLC (the "Requisite Stockholder Approval"), which was obtained on June 16, 2016, and granting certain registration rights, including the registration of shares sold in the Private Placement on a registration statement on Form S-3. Upon obtaining the Requisite Stockholder Approval on June 16, 2016, each share of Series A Preferred was converted into one share of the Company's common stock. On May 27, 2016, the Company filed a registration statement on Form S-3 (the "2016 Form S-3") with the Securities and Exchange Commission (the "SEC") to register for resale the shares of common stock issued or issuable upon conversion of the Series A Preferred and upon exercise of the warrants sold in the Private Placement. The 2016 Form S-3 was declared effective by the SEC on July 12, 2016. On June 15, 2016, the Company completed the Subsequent Financing for the sale of an additional 334,169 Units to the Majority Shareholders. The aggregate gross proceeds to the Company from the Subsequent Financing were $8.0 million. Securities issued in the Subsequent Financing were issued and sold at the same price and upon substantially the same terms as the Units issued in the Private Placement. See Note 13 for more detail about the Private Placement and Subsequent Financing.

The Company will require additional financing and/or refinancing of its current debt obligations to fund working capital, repay debt and pay its obligations. The Company may pursue financing and refinancing opportunities in both the private and public debt and equity markets through sales of debt or equity securities. Additional financing might include one or more offerings and one or more of a combination of discounted or at-the-market common stock, securities convertible into or exchangeable for shares of common stock, warrants, or other rights to purchase or acquire common stock.

Due to insufficient working capital in Allenex, a debt covenant in the Term Loan Facility relating to maintaining an adequate leverage ratio was violated at June 30, 2016. The Company obtained a waiver from Danske Bank A/S

("Danske") for this violation of the debt covenant. While Allenex received a waiver from Danske for the violation as of June 30, 2016, due to continuing liquidity matters, Allenex has determined that it is not probable that it will be in compliance with this covenant in future periods. For these reasons, the long-term debt was reclassified to current liabilities and resulted in a reduction in working capital. Additionally, if the loan was no longer available or Danske demanded repayment of the debt, the Company may not have sufficient capital to operate and there would be substantial doubt about its ability to continue as a going concern.

On June 10, 2016, the Centers for Medicare and Medicaid Services ('CMS"), announced proposed changes in reimbursement for a number of established molecular diagnostic tests, including AlloMap. Under the draft fee schedule, which would become effective on January 1, 2017, AlloMap reimbursement from CMS for patients covered by Medicare would be reduced from $2,821 to $732. The draft fee schedule was subject to an open comment period through August 10, 2016, and has not yet been adopted as final. The Company provided comments to CMS. If the current proposal is adopted, it could cause the Company to discontinue testing for Medicare patients. Given the significant portion of payments to the Company represented by Medicare, any resulting lower test revenue would have a material adverse effect on the Company's operations.

Absent additional and sufficient financing, in addition to Danske not demanding repayment of the outstanding debt, the Company will likely exhaust its cash and cash equivalents in the quarter ending December 2016 unless the Company substantially reduces its costs and operations, including research and development activities, marketing activities and programs, and other general and administrative expenses. As a result of the Company's obligations and lack of immediately available financial resources, there is uncertainty regarding the Company's ability to maintain liquidity sufficient to operate its business effectively, which raises substantial doubt about the Company's ability to continue as a going concern. If the Company is unsuccessful in its efforts to raise outside financing or refinance the Company's indebtedness in the near term, the Company will be required to significantly reduce or cease operations.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern through December 31, 2016, which contemplates the realization of assets and the settlement of liabilities and commitments in the normal course of business. The financial statements do not reflect any adjustments relating to the recoverability and reclassifications of assets and liabilities that might be necessary if the Company is unable to continue as a going concern.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles ("U.S. GAAP"), and follow the requirements of the SEC for interim reporting. As permitted under those rules, certain footnotes or other financial information that are normally required by U.S. GAAP can be condensed or omitted. These financial statements have been prepared on the same basis as the Company's annual financial statements and, in the opinion of management, reflect all adjustments, consisting only of normal recurring adjustments that are necessary for a fair statement of the Company's financial information. The condensed consolidated balance sheet as of December 31, 2015 has been derived from audited financial statements as of that date but does not include all of the financial information required by U.S. GAAP for complete financial statements. Operating results for the three and six months ended June 30, 2016 are not necessarily indicative of the results that may be expected for the year ending December 31, 2016.

The accompanying unaudited condensed consolidated financial statements include the accounts of the Company and its subsidiaries. Intercompany transactions have been eliminated. Since the Company owns less than 100% of the shares of Allenex, the Company records net loss attributable to noncontrolling interest in its condensed consolidated statements of operations equal to the percentage of the economic or ownership interest retained in such entities by the respective noncontrolling parties.

The accompanying unaudited condensed consolidated financial statements reported on this quarterly report on Form 10-Q for the three and six months ended June 30, 2016 differ from the preliminary financial results for the three and six months ended June 30, 2016 reported in the Company's press release on August 10, 2016 because of adjustments and reclassifications made by the Company as part of completing its accounting close process. The accompanying unaudited condensed consolidated financial statements and related financial information should be read in conjunction with the audited financial statements and the related notes thereto for the year ended December 31, 2015 included in the Company's Annual Report on Form 10-K, as amended, originally filed on March 29, 2016 with the SEC.

Use of Estimates

The preparation of unaudited condensed consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities and the reported amounts of revenues and expenses in the unaudited condensed consolidated financial statements and accompanying notes. On an ongoing basis, management evaluates its estimates, including those related to (i) revenue recognition, (ii) the differences between amounts billed and estimated receipts from payers, (iii) the determination of the accruals for clinical studies, (iv) the determination of refunds to be requested by third-party payers, (v) the fair value of assets and liabilities, (vi) inventory valuation, (vii) the valuation of warrants, Series A Preferred, and common stock issued in the Private Placement and Subsequent Financing, (viii) the fair value of contingent consideration in a business acquisition, (ix) the fair value of embedded derivatives, (x) measurement of stock-based compensation expense, (xi) the determination of the valuation allowance and estimated tax benefit associated with deferred tax assets and net deferred tax liability, (xii) any impairment of long-lived assets, including in-process technology and goodwill, and (xiii) legal contingencies. Actual results could differ from those estimates.

Concentrations of Credit Risk and Other Risks and Uncertainties

Financial instruments that potentially subject the Company to credit risk consist of cash and cash equivalents and accounts receivable. The Company’s policy is to invest its cash and cash equivalents in money market funds, obligations of U.S. government agencies and government-sponsored entities, commercial paper, and various bank deposit accounts. As of June 30, 2016, these financial instruments

were held in Company accounts at five financial institutions. The counterparties to the agreements relating to the Company's investments consist of financial institutions of high credit standing. The Company is exposed to credit risk in the event of default by the financial institutions to the extent of amounts recorded on the balance sheets which may be in excess of insured limits.

The Company is also subject to credit risk from its accounts receivable which are derived from revenue earned from AlloMap tests provided for patients located primarily in the U.S. and billed to various third-party payers, and sales of Olerup SSP products to distributors, strategic partners and end customers in Europe, Middle East and Africa, the U.S., and Latin America and other. The Company has not experienced any significant credit losses and does not generally require collateral on receivables. For the six months ended June 30, 2016 and 2015, approximately 48% and 50%, respectively, of testing revenue was derived from Medicare. No other payers represented more than 10% of testing revenue for these periods. Product revenue accounted for 20% of total revenue for the six months ended June 30, 2016. At June 30, 2016, Medicare and Aetna accounted for approximately 22% and 10% of accounts receivable, respectively. At December 31, 2015, Medicare and Aetna accounted for approximately 35% and 21% of accounts receivable, respectively. No other payers represented more than 10% of accounts receivable at either June 30, 2016 or December 31, 2015.

Cash Equivalents

Cash equivalents consist of short-term, highly liquid investments with original maturities of three months or less from the date of purchase. Cash equivalents consist primarily of amounts invested in money market funds.

Purchased Intangible Assets

Amortizable intangible assets include customer relationships, developed technology, trademarks, contracts and in-process research and development ("IPR&D") identified intangible assets acquired as part of a business combination. Intangible assets subject to amortization are amortized over their estimated useful lives. Acquired intangible assets with indefinite useful lives are related to IPR&D, projects and are measured at their respective fair values as of the acquisition date. The Company does not amortize intangible assets with indefinite useful lives. Intangible assets related to IPR&D projects are considered to be indefinite-lived until the completion or abandonment of the associated research and development efforts. If and when development is complete, which generally occurs if and when regulatory approval to market a product is obtained, the associated assets would be deemed finite-lived and would then be amortized based on their respective estimated useful lives at that point in time.

The Company tests IPR&D for impairment on an annual basis and in between annual tests if it becomes aware of events or changes that would indicate that it is more likely than not that the fair value of the assets is below their carrying amounts. The IPR&D annual impairment test is performed as of December 1 of each fiscal year. If the fair value exceeds the carrying value, then there is no impairment. Impairment losses on indefinite-lived intangible assets are recognized based solely on a comparison of the fair value of an asset to its carrying value, without consideration of any recoverability test. The Company has not identified any such impairment losses to date.

Impairment of Long-lived Assets

The Company evaluates its long-lived assets for indicators of possible impairment when events or changes in circumstances indicate the carrying amount of an asset may not be recoverable. The Company recognizes an impairment loss when the total estimated future undiscounted cash flows expected to result from the use of the asset and its eventual disposition are less than its carrying amount. Should an impairment exist, the impairment loss would be measured based on the excess carrying value of the asset over the asset's fair value determined using discounted estimates of future cash flows. The Company has not identified any such impairment losses to date.

Goodwill

Goodwill represents the excess of the cost of an acquisition over the sum of the amounts assigned to tangible and identifiable intangible assets acquired, less liabilities assumed. Goodwill is not subject to amortization, but is tested for impairment on an annual basis and whenever events or changes in circumstances indicate the carrying amount of these assets may not be recoverable.

The Company has determined that it operates in two reportable segments and has two reporting units associated with the development and commercialization of diagnostic products. In the event the Company determines that it is more likely than not that the carrying value of a reporting unit is higher than its fair value, quantitative testing is performed comparing recorded values to estimated fair values. If impairment is present, it is measured as the excess of recorded goodwill over its implied fair value. The Company performs its annual evaluation of goodwill on December 1 of each fiscal year. There have been no impairments recorded to date.

Fair Value of Financial Instruments

Fair value is defined as the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. When determining fair value, the Company considers the principal or most advantageous market in which the Company would transact, and it takes into consideration the assumptions that market participants would use when pricing the asset or liability. The Company's assessment of the significance of a particular input to the fair value measurement of an asset or liability requires management to make judgments and to consider specific characteristics of that asset or liability.

The carrying amounts of certain of the Company's financial instruments, including cash equivalents, accounts receivable, accounts payable, and accrued liabilities, approximate fair value due to their short maturities.

Testing Revenue

The Company recognizes revenues for tests delivered when the following criteria are met: (i) persuasive evidence that an arrangement exists; (ii) delivery has occurred or services rendered; (iii) the fee is fixed or determinable; and (iv) collectability is reasonably assured.

For testing revenue, the first criterion is satisfied when a third-party payer makes a coverage decision or enters into a contractual arrangement with the Company for the test. The second criterion is satisfied when the Company performs the test and delivers the test result to the ordering physician. The third criterion is satisfied if the third-party payer's coverage decision or reimbursement contract specifies a price for the test. The fourth criterion is satisfied based on management's judgments regarding the collectability of the fees charged under the arrangement. Such judgments include review of past payment history. AlloMap testing may be considered investigational by some payers and not covered under their reimbursement policies. Others may cover the test, but not pay a set or determinable amount. As a result, in the absence of a reimbursement agreement or sufficient payment history, collectability cannot reasonably be assured so revenue is not recognized at the time the test is delivered.

If all of the criteria set forth above are met, revenue is recognized. When the first, third or fourth criteria are not met but third-party payers make a non-refundable payment to the Company for tests performed, the Company recognizes revenue on the cash basis in the period in which the payment is received.

Revenue for tests performed is recognized on the accrual basis net of adjustments for differences between amounts billed and the estimated receipts from payers. The amount the Company expects to collect may be lower than the agreed upon amount due to several factors, such as the amount of patient co-payments, the existence of secondary payers and claim denials. Estimated receipts are based upon historical payment practices of payers. Differences between estimated and actual cash receipts are recorded as an adjustment to revenue, which have been immaterial to date.

During the three and six months ended June 30, 2016, the Company changed its method of revenue recognition from one and two of its payers, respectively, from the cash basis to the accrual basis based on its consistent history of obtaining timely reimbursement from such payers. The Company also changed its method of revenue recognition from the cash basis to the accrual basis with respect to one and three of its payers, respectively, during the three and six months ended June 30, 2015 based on the Company's consistent history of obtaining timely reimbursement from such payers. The impact of this change in accounting estimate was to increase revenues by $0.3 million for both the three and six months ended June 30, 2016, and to reduce net loss per share by $0.02 and $0.03 for the three and six months ended June 30, 2016, respectively. For the three and six months ended June 30, 2015, the impact of this change in accounting estimate was to increase revenues by $79,000 and $0.1 million, respectively, and to reduce net loss per share by $0.01 for both periods.

Product Revenue

Product revenue is recognized from the sale of products to end-users, distributors and strategic partners when persuasive evidence of an arrangement exists, the product is complete and tested and has been shipped or delivered, as required to transfer title and risk of loss, the sales price is fixed and determinable, collection of the resulting receivable is reasonably assured, there are no material contingencies and the Company does not have significant obligations for future performance. When collectability is not reasonably assured, the Company defers the revenue until the cash is received. Provisions for estimated future product returns and allowances are recorded in the period of the sale based on the historical and anticipated future rate of returns. Revenue is recorded net of any discounts or trade-in allowances given to the buyer.

Collaboration, License and Other Revenue

The Company has generated revenue from collaboration and license agreements. Collaboration and license agreements may include non-refundable upfront payments, partial or complete reimbursement of research and development costs, contingent payments based on the occurrence of specified events under the agreements, license fees and royalties on sales of products or product candidates if they are successfully commercialized. The Company's performance obligations under its collaborations may include the transfer of intellectual property rights in the form of licenses, obligations to provide research and development services and obligations to participate on certain development committees with the collaboration partners. The Company makes judgments that affect the periods over which it recognizes revenue. The Company periodically reviews its estimated periods of performance based on the progress under each arrangement and accounts for the impact of any change in estimated periods of performance on a prospective basis.

The Company recognizes contingent consideration received from the achievement of a substantive milestone in its entirety in the period in which the milestone is achieved, which the Company believes is consistent with the substance of its performance under its various license and collaboration agreements. The Company did not recognize any revenue connected with milestones during the three and six months ended June 30, 2016 and 2015.

Cost of Testing

Cost of testing reflects the aggregate costs incurred in delivering the Company's AlloMap test results to clinicians. The components of cost of testing are materials and service costs, direct labor costs, including stock-based compensation, equipment and infrastructure expenses associated with testing samples on-site, logistics and specimen processing charges to collect and transport samples and allocated overhead including rent, information technology, equipment depreciation, utilities and royalties. Costs associated with performing tests (except royalties) are recorded as the test is processed regardless of whether and when the testing revenue is recognized with respect to that test. As a result, the Company's cost of testing as a percentage of revenue may vary significantly from period to period because the Company does not recognize all revenue in the period in which the associated costs are incurred. Royalties for licensed technology, calculated as a percentage of test revenues, are recorded as license fees in cost of testing at the time the test revenues are recognized.

Cost of Product

Cost of product reflects the aggregate costs incurred in delivering the Company's products to customers. The components of cost of product are materials costs, manufacturing and kit assembly costs, direct labor costs, including equipment and infrastructure expenses associated with preparing kitted products for shipment, shipping, and allocated overhead including rent, information technology, equipment depreciation, and utilities. Cost of product also includes amortization of acquired developed technology and adjustments to inventory values, including write-down of impaired, slow moving or obsolete inventory.

Business Combinations

The Company determines and allocates the purchase price of an acquired business to the tangible and identifiable intangible assets acquired and liabilities assumed based on their estimated fair values as of the business combination date, including identifiable intangible assets which either arise from a contractual or legal right or are separable from goodwill. The Company bases the estimated fair value of identifiable intangible assets acquired in a business combination on independent valuations that use information and assumptions provided by management, which consider management's best estimates of inputs and assumptions that a market participant would use. The Company allocates any excess purchase price over the estimated fair value assigned to the net tangible and identifiable intangible assets acquired and liabilities assumed to goodwill. The use of alternative valuation assumptions, including estimated revenue projections, growth rates, royalty rates, cash flows, discount rates, estimated useful lives and

probabilities surrounding the achievement of contingent milestones could result in different purchase price allocations and amortization expense in current and future periods.

In those circumstances where an acquisition involves a contingent consideration arrangement that meets the definition of a liability under Financial Accounting Standards Board ("FASB") Accounting Standards Codification Topic 480, Distinguishing Liabilities from Equity, the Company recognizes a liability equal to the fair value of the contingent payments the Company expects to make as of the acquisition date. The Company remeasures this liability each reporting period and records changes in the fair value as a component of operating expenses.

Transaction costs associated with acquisitions are expensed as incurred in general and administrative expenses. Results of operations and cash flows of acquired companies are included in the Company's operating results from the date of acquisition.

Stock-based Compensation

The Company uses the Black-Scholes Model, which requires the use of estimates such as stock price volatility and expected option lives, to value employee stock options. The Company estimates the expected option lives using historical data, volatility using its own historical stock prices and stock prices of peer companies in the diagnostics industry, risk-free rates using the implied yield currently available in the U.S. Treasury zero-coupon issues with a remaining term equal to the expected option lives, and dividend yield using the Company's expectations and historical data. The fair value of each restricted stock unit is calculated based upon the closing price of the Company's common stock on the date of the grant.

The Company uses the straight-line attribution method for recognizing compensation expense. Compensation expense is recognized on awards ultimately expected to vest and reduced for forfeitures that are estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Forfeitures are estimated based on the Company's historical experience.

Compensation expense for stock options issued to nonemployees is calculated using the Black-Scholes Model and is recorded over the service performance period. Options subject to vesting are required to be periodically remeasured over their service performance period, which is generally the same as the vesting period.

Warrants

On April 14, 2016 and June 15, 2016, the Company completed the Private Placement and Subsequent Financing, respectively (as described in Note 13), which included the issuance of freestanding warrants to certain accredited investors and placement agents to purchase shares of the Company's common stock. The exercisability of the warrants was contingent upon the receipt of the Requisite Stockholder Approval, which occurred on June 16, 2016.

The freestanding warrants issued pursuant to the Private Placement and Subsequent Financing are contingently redeemable and classified as liabilities on the condensed consolidated balance sheet and recorded at their estimated fair value. The warrants were remeasured on June 30, 2016 and will be remeasured at each subsequent balance sheet date with changes recorded in change in estimated fair value of common stock warrant liability on the condensed consolidated statements of operations.

Foreign Currency Translation

The functional currency of the Company's foreign subsidiaries is the local currency for each entity, including the Swedish Krona and the Euro. The revenue and expenses of such subsidiaries have been translated into U.S. dollars at average exchange rates prevailing during the period. Assets and liabilities have been translated at the rates of exchange on the balance sheet date. The resulting cumulative translation adjustments are reported in other comprehensive loss. Foreign currency transaction gains and losses are recognized in current operations.

Comprehensive Loss

Comprehensive loss consists of net loss and other gains and losses affecting stockholders' equity that, under U.S. GAAP, are excluded from net income or loss. For the Company, such items consist of foreign currency translation gains and losses.

Recent Accounting Pronouncements

In August 2014, the FASB issued Accounting Standards Update ("ASU") No. 2014-15, Presentation of Financial Statements Going Concern (Subtopic 205-40), Disclosure of Uncertainties about an Entity's Ability to Continue as a Going Concern ("ASU 2014-15"). This guidance requires the Company to evaluate whether there are conditions and events that raise substantial doubt about its ability to continue as a going concern within one year after the financial statements are issued, and if there is substantial doubt about the Company's ability to continue as a going concern, the disclosure of such is required. The Company is required to make this evaluation for both annual and interim reporting periods, if applicable. The Company also is required to evaluate and disclose whether its plans alleviate that doubt. This guidance is effective for annual periods ending after December 15, 2016, and annual and interim periods thereafter. Early adoption is permitted. The Company is currently assessing the impact of this guidance on its condensed financial statements.

In April 2015, the FASB issued ASU No. 2015-05, Intangibles—Goodwill and Other—Internal Use Software (Subtopic 350-40). This updated standard provides guidance to customers about whether a cloud computing arrangement includes a software license. If a cloud computing arrangement includes a software license, then the customer should account for the software license element of the arrangement consistent with the acquisition of other software licenses. If a cloud computing arrangement does not include a software

license, the customer should account for the arrangement as a service contract. An entity can elect to adopt the amendments either (i) prospectively to all arrangements entered into or materially modified after the effective date or (ii) retrospectively. For prospective transition, the only disclosure requirements at transition are the nature of and reason for the change in accounting principle, the transition method, and a qualitative description of the financial statement line items affected by the change. For retrospective transition, the disclosure requirements at transition include the requirements for prospective transition and quantitative information about the effects of the accounting change. The Company adopted this guidance as of January 1, 2016 as required using the prospective method. There have been no new or existing arrangements that were materially modified following the date of adoption.

In November 2015, the FASB issued ASU No. 2015-17, Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes, which simplifies the presentation of deferred income taxes by requiring deferred tax assets and liabilities be classified as noncurrent on the balance sheet. The guidance is effective for the Company beginning on January 1, 2017 with early adoption permitted as of the beginning of any interim or annual reporting period, and it may be applied either (1) prospectively to all deferred tax assets and liabilities or (2) retrospectively to all periods presented. If an entity applies the guidance prospectively, the entity should disclose in the first interim and first annual period of change, the nature of and reason for the change in accounting principle and a statement that prior periods were not retrospectively adjusted. If an entity applies the guidance retrospectively, the entity is required to disclose in the first interim and first annual period of change, the nature of and reason for the change in accounting principle and quantitative information about the effects of the accounting change on prior periods. The Company adopted this guidance early as of January 1, 2016 prospectively, which required its deferred tax assets and liabilities to be reclassified from other current assets and liabilities to their respective noncurrent categories on its condensed balance sheets. As of June 30, 2016, the Company has recorded a net noncurrent deferred tax liability of approximately $7.7 million attributable to the acquisition of Allenex. The adoption of this guidance did not result in any material impact on the Company’s condensed financial statements.

In February 2016, the FASB issued ASU No. 2016-02, Leases, which, for operating leases, requires the lessee to recognize a right-of-use asset and a lease liability, initially measured at the present value of the lease payments, in its balance sheet. The guidance also requires a lessee to recognize single lease costs, calculated so that the cost of the lease is allocated over the lease term, on a generally straight-line basis. This guidance will be effective for the Company in fiscal year 2019 and must be adopted using a modified retrospective transition approach. Early adoption is permitted. The Company is currently assessing the impact of this guidance.

In March 2016, the FASB issued ASU No. 2016-06, Derivatives and Hedging: Contingent Put and Call Options in Debt Instruments, to clarify when a contingent put or call option to accelerate the repayment of debt is an embedded derivative. The guidance is effective for interim and annual periods beginning after December 15, 2016, with early adoption permitted. The adoption of this guidance is on a modified retrospective basis. The Company is currently assessing the impact of this guidance on its condensed financial statements.

In March 2016, the FASB issued ASU No. 2016-09, “Improvements to Employee Share-Based Payment Accounting (Topic 718),” to simplify various aspects of share-based payment accounting and presentation. The new standard requires entities to record all of the tax effects related to share-based payments at settlement (or expiration) through the income statement. This will require the Company to reclassify tax benefits in excess of compensation cost (“windfalls”) and tax deficiencies (“shortfalls”) to the extent of previous windfalls from Capital in excess of par value to Provision for income tax expense. This change is required to be applied prospectively to all excess tax benefits and tax deficiencies resulting from settlements after the date of adoption of the ASU. The standard eliminates the requirement to delay recognition of a windfall tax benefit until it reduces current taxes payable. This change is required to be applied on a modified retrospective basis, with a cumulative-effect adjustment to opening retained earnings. In addition, all income tax-related cash flows resulting from share-based payments are required to be reported as operating activities on the statement of cash flows as opposed to the current presentation as an inflow from financing

activities and an outflow from operating activities. Either prospective or retrospective transition of this provision is permitted. Finally, the standard clarifies that all cash payments made to taxing authorities on the employees' behalf for withheld shares should be presented as financing activities on the statement of cash flows. This change will be applied retrospectively. This guidance is effective for annual reporting periods beginning after December 15, 2016 and interim periods within that reporting period. Early adoption is permitted, with any adjustments reflected as of the beginning of the fiscal year of adoption. The Company is continuing to review the requirements of this standard and any potential impact it may have on the Company's financial position, results of operations, or cash flows.

In April 2016, the FASB issued ASU No. 2016-10, Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing ("ASU 2016-10"). In March 2016, the FASB issued ASU No. 2016-08, Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net) ("ASU 2016-08"). These amendments provide additional clarification and implementation guidance on the previously issued ASU 2014-09, Revenue from Contracts with Customers (Topic 606) ("ASU 2014-09"), which is based on principles that govern the recognition of revenue at an amount an entity expects to be entitled to when products are transferred to customers. The amendments in ASU 2016-10 provide clarifying guidance on materiality of performance obligations; evaluating distinct performance obligations; treatment of shipping and handling costs; and determining whether an entity's promise to grant a license provides a customer with either a right to use an entity's intellectual property or a right to access an entity's intellectual property. The amendments in ASU 2016-08 clarify how an entity

should identify the specified good or service for the principal versus agent evaluation and how it should apply the control principle to certain types of arrangements. The adoption of ASU 2016-10 and ASU 2016-08 is required to coincide with an entity's adoption of ASU 2014-09, which the Company intends to adopt for interim and annual reporting periods beginning after December 15, 2017, as required. The guidance may be applied (1) retrospectively to each prior period presented or (2) retrospectively with the cumulative effect recognized as of the date of adoption. The Company is currently evaluating the impact that this guidance will have on its condensed financial statements.

3. NET LOSS PER SHARE

Basic and diluted net loss per share have been computed by dividing the net loss by the weighted-average number of common shares outstanding during the period, without consideration of common share equivalents as their effect would have been antidilutive.

The following tables set forth the computation of the Company's basic and diluted net loss per share (in thousands, except shares and per share data):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Numerator:				
Net loss attributable to CareDx, Inc.	$(10,470)	$(3,185)	$(20,223)	$(5,457)
Denominator:				
Weighted-average shares used to compute basic and diluted net loss per share attributable to CareDx, Inc.	13,568,120	11,835,405	12,768,913	11,824,993
Net loss per share attributable to CareDx, Inc.:				
Basic and diluted	$(0.77)	$(0.27)	$(1.58)	$(0.46)

The following potentially dilutive securities have been excluded from diluted net loss per share, because their effect would be antidilutive:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Shares of common stock subject to outstanding options	1,842,110	1,515,154	1,842,110	1,515,154
Shares of common stock subject to outstanding common stock warrants	3,279,157	576,096	3,279,157	576,096
Restricted stock units	285,445	112,800	285,445	112,800
Total common stock equivalents	5,406,712	2,204,050	5,406,712	2,204,050

The Company issued 2,959,300 shares of preferred stock pursuant to the Private Placement and Subsequent Financing, which were completed on April 14, 2016 and June 15, 2016, respectively. All of the preferred stock was converted to common stock following receipt of the Requisite Stockholder Approval on June 16, 2016. As of June 30, 2016, there was no preferred stock outstanding.

4. FAIR VALUE MEASUREMENTS

The Company records its financial assets and liabilities at fair value except for its debt, which is recorded at amortized cost. The carrying amounts of certain financial instruments of the Company, including cash and cash equivalents, prepaid expenses and other current assets, accounts payable and accrued liabilities, approximate fair value due to their relatively short maturities. The accounting guidance for fair value provides a framework for measuring fair value, clarifies the definition of fair value, and expands disclosures regarding fair value measurements. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability (an exit price) in an orderly transaction between market participants at the reporting date. The accounting guidance establishes a three-tiered hierarchy, which prioritizes the inputs used in the valuation methodologies in measuring fair value as follows:

- Level 1: Inputs which include quoted prices in active markets for identical assets and liabilities.
- Level 2: Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3: Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The following table sets forth the Company's financial assets and liabilities measured at fair value on a recurring basis (in thousands):

	June 30, 2016 Fair Value Measured Using			
	(Level 1)	(Level 2)	(Level 3)	Total Balance
Assets				
Money market funds	$14,034	$ —	$ —	$14,034
Liabilities				
Contingent consideration	$—	$ —	$ 638	$638
Warrants to purchase common stock	—	—	8,122	8,122
Total liabilities	$—	$ —	$ 8,760	$8,760

	December 31, 2015 Fair Value Measured Using			
	(Level 1)	(Level 2)	(Level 3)	Total Balance
Assets				
Money market funds	$28,774	$ —	$ —	$28,774
Liabilities				
Contingent consideration	$—	$ —	$ 948	$948

The following table presents the issuances, changes in fair value and reclassifications of the Company's Level 3 financial instruments that are measured at fair value on a recurring basis (in thousands):

	(Level 3) Contingent Consideration Liability	Warrants to Purchase Common Stock	Total
Balance as of December 31, 2014	$1,074	$ —	$1,074
Change in estimated fair value	(126)	—	(126)
Balance as of December 31, 2015	948	—	948
Warrants issued in conjunction with Private Placement and Subsequent Financing and Placement Agent Warrants on April 14, 2016 and June 15, 2016, respectively	—	4,957	4,957
Change in estimated fair value	(310)	3,165	2,855
Balance as of June 30, 2016	$638	$ 8,122	$8,760

The Company recognizes transfers between levels of the fair value hierarchy as of the end of the reporting period. There were no transfers between Level 1, Level 2 and Level 3 categories during the periods presented.

In determining fair value, the Company uses various valuation approaches within the fair value measurement framework. The valuation methodologies used for the Company's instruments measured at fair value and their classification in the valuation hierarchy are summarized below:

- Money market funds - Investments in money market funds are classified within Level 1. At each of June 30, 2016 and December 31, 2015, money market funds were included on the balance sheets in cash and cash equivalents.

- Contingent consideration - As of June 30, 2016 and December 31, 2015, the Company had a contingent obligation to issue 227,845 shares of its common stock to the former owners of IMX in conjunction with its acquisition of IMX in June 2014. The issuance will occur if the Company completes 2,500 commercial tests involving the measurement of dd-cfDNA in organ transplant recipients in the United States by June 10, 2020. The Company recorded its estimate of the fair value of the contingent consideration based on its evaluation of the probability of achievement of the contractual conditions that would result in the payment of the contingent consideration. The fair value of the contingent consideration was estimated using the fair value of the shares to be paid if the contingency is met multiplied by management's estimate at June 30, 2016 and December 31, 2015 of the probability of success, which management estimated to be 65%. The significant input in the Level 3 measurement not supported by market activity is the Company's probability assessment of the milestone being met. The value of the liability is subsequently remeasured to fair value at each reporting date, and the change in estimated fair value is recorded to a component of operating expenses item captioned "change in estimated fair value of contingent consideration" until the milestone contingency is paid, expires or is no longer achievable. Increases (decreases) in the estimation of the probability percentage result in a directionally similar impact to the fair value measurement of the contingent consideration liability. The carrying amount of the contingent consideration liability represents its fair value.
- Warrants to purchase common stock – As of June 30, 2016, the Company had warrants to purchase 2,978,087 shares of common stock outstanding that it issued to certain accredited investors and its placement agents following the closing of the Private Placement on April 14, 2016 and Subsequent Financing on June 15, 2016. The common stock warrants are classified as liabilities within Level 3. The Company utilized a binomial-lattice pricing model (the Monte Carlo simulation model) that involved a market condition to estimate the fair value of the warrants. The application of the Monte Carlo simulation model required the use of a number of complex assumptions including the Company's stock price, expected life of the warrants, stock price volatility determined from the Company's historical stock prices and stock prices of peer companies in the diagnostics industry, and risk-free rates based on the implied yield currently available in the U.S. Treasury zero-coupon issues with a remaining term equal to the expected life of the warrants. The estimated fair value of the warrants was subsequently remeasured at June 30, 2016, and the change in estimated fair value of common stock warrant liability was recorded on the Company's condensed consolidated statements of operations.

The Company's liabilities classified as Level 3 were valued based on unobservable inputs and management's judgment due to the absence of quoted market prices, inherent lack of liquidity and the long-term nature of the financial instruments.

The carrying values of the Company's debt approximates its fair value at June 30, 2016 and December 31, 2015 because the interest rate approximates market rates that the Company could obtain for debt with similar terms. The estimated fair value of the Company's debt is estimated using the net present value of the payments, discounted at an interest rate that is consistent with market interest rates, which is a Level 2 input.

5. BUSINESS COMBINATION

On April 14, 2016, the Company acquired 98.3% of the outstanding common stock of Allenex. Allenex is a transplant diagnostic company based in Stockholm, Sweden that develops, manufactures, and sells products that help match donor organs with potential recipients prior to transplantation. The acquisition of Allenex creates an international transplant diagnostics company with product offerings along the pre- and post-transplant continuum. The combined company has a presence and direct distribution channels in the US and Europe, with additional third party distributors in Europe and other markets around the world. Under the terms of the Conditional Share Purchase Agreements entered into on December 16, 2015, as amended and the tender offer prospectus dated March 7, 2016, and as a result

of the tender offer, the aggregate purchase consideration paid by the Company was approximately $34.1 million and consisted of (i) $26.9 million of cash, of which approximately $5.7 million was deferred purchase consideration payable to the Majority Shareholders by no later than March 31, 2017, and (ii) the issuance of 1,375,029 shares of the Company's common stock valued at $7.2 million. Of the total cash consideration, $8.0 million of cash payable to the Majority Shareholders was deposited into an escrow account by the Company and subsequently invested in the Company by the Majority Shareholders through a purchase of the Company's equity securities in the Subsequent Financing. Upon the completion of the Subsequent Financing, certain contingencies in the Conditional Share Purchase Agreements were waived, and the deferred purchase consideration is payable to the Majority Shareholders by no later than March 31, 2017. The Company determined at the date of the acquisition that these contingencies would be waived. The Company intends to complete compulsory acquisition proceedings under Swedish law to purchase the remaining shares of Allenex. On June 8, 2016, the Company delisted Allenex's common stock from Nasdaq Stockholm.

The cash portion of the acquisition purchase price was paid from the Company's general working capital. The acquisition of Allenex required and the Company obtained, a consent from East West Bank (the "Consent"), as the lender under the Company's Loan and Security Agreement, dated January 30, 2015, as amended (the "Loan Agreement"). The Consent was contingent upon the closing of a private placement financing for aggregate cash proceeds of at least $12.0 million and separately depositing into an escrow account cash of $8.0 million relating to a commitment by the Majority Shareholders to purchase the Company's equity securities in the

Subsequent Financing, all of which occurred on April 14, 2016. Pursuant to the Consent, the Company is also required to raise another $20.0 million through one or more equity financings by March 31, 2017, prior to paying the $5.7 million of deferred purchase price consideration to the Majority Shareholders.

The Company has accounted for this transaction as a business combination in exchange for total consideration of approximately $34.1 million. Under business combination accounting, the total purchase price was allocated to Allenex's net tangible and identifiable intangible assets based on their estimated fair values as of April 14, 2016 as set forth in the table below. The excess of the purchase price over the net tangible and identifiable intangible assets was recorded as goodwill. The preliminary allocation of the purchase price was based upon a valuation, and the Company's estimates and assumptions are subject to change. The primary areas of the purchase price allocation that are not yet finalized relate to valuation of acquired inventory, income and non-income based taxes and residual goodwill. Total acquisition-related expenses for the three and six months ended June 30, 2016 were $1.6 million and $3.8 million, respectively.

The amounts recorded for certain assets and liabilities are preliminary in nature and are subject to adjustment as additional information is obtained about the facts and circumstances that existed as of the acquisition date. The final determination of the fair values of certain assets and liabilities will be completed within the measurement period of up to one year from the acquisition date, as permitted under U.S. GAAP. Any potential adjustments made could be material in relation to the values presented in the table below.

The preliminary fair values of the assets acquired and liabilities assumed are as follows (in thousands):

	Total
Cash	$596
Accounts receivable	1,608
Prepaid and other assets	1,092
Inventory	9,733
Property, plant and equipment	1,057
Intangible assets	31,560
Goodwill	16,786
Deferred tax liability	(8,525)
Assumed liabilities	(19,833)
Total preliminary acquisition consideration	$34,074

The fair value of the remaining 1.7% of noncontrolling interest in Allenex was estimated to be $0.6 million as of April 14, 2016. The fair value of the noncontrolling interest was determined based on the number of outstanding shares comprising the noncontrolling interest and Allenex's stock price of SEK 2.48 per share as of the acquisition date. The noncontrolling interest was presented as a component of stockholders' equity on the Company's condensed consolidated balance sheets.

Noncontrolling interest as of June 30, 2016 was as follows (in thousands):

	June 30,

	2016
Beginning noncontrolling interest	$—
Noncontrolloing interest investment	634
Loss attributable to noncontrolling interest	(23)
Ending noncontrolling interest	$611

The following table presents details of the identified intangible assets acquired at the acquisition date (in thousands):

	Estimated Fair Value	Estimated Useful Life (Years)
Customer relationships	$ 12,650	15
Developed technology	11,650	10
Acquired in-process technology	4,510	—
Trademarks	2,260	15
Acquired contracts	490	2
Total	$ 31,560	

Goodwill of $16.8 million recorded from the acquisition of Allenex is primarily related to expected synergies. The goodwill resulting from the acquisition is not deductible for tax purposes.

Allenex's post-acquisition results of operations for the period from April 14, 2016 through June 30, 2016 are included in the Company's condensed consolidated statements of operations. Since the acquisition date, total revenue of Allenex for the period from April 14, 2016 through June 30, 2016 was $3.5 million. Net loss for Allenex for the period from April 14, 2016 through June 30, 2016 was $1.4 million.

Pro Forma Impact of the Acquisition of Allenex

The following table presents pro forma results of operations and gives effect to the Allenex transaction as if the transaction had been consummated on January 1, 2015. The unaudited pro forma results of operations have been prepared for comparative purposes only and are not necessarily indicative of what would have occurred had the business combination been completed at the beginning of the period or of the results that may occur in the future. Furthermore, the pro forma financial information does not reflect the impact of any reorganization or operating efficiencies resulting from combining the two companies.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Revenue:				
Testing revenue	$7,246	$7,044	$13,698	$14,140
Product revenue	4,027	4,024	7,887	8,062
Other revenue	100	163	288	356
Total revenue	$11,373	$11,231	$21,873	$22,558
Net loss	$(8,809)	$(5,097)	$(15,123)	$(8,504)
Weighted-average shares used to compute basic net loss per common share	11,835,405	11,835,405	11,824,993	11,824,993
Net loss per common share - basic and diluted	$(0.74)	$(0.43)	$(1.28)	$(0.72)

The unaudited pro forma financial information for the three and six months ended June 30, 2016 and 2015 is prepared using the acquisition method of accounting and has been adjusted to give effect to the pro forma events that are: (i) directly attributable to the acquisition, (ii) factually supportable and (iii) expected to have a continuing impact on the combined results. The pro forma adjustments directly attributable to the acquisition exclude acquisition-related expenses of $3.8 million and debt financing costs of $2.9 million relating to a six-month bridge loan with Oberland Capital SA Davos LLC ("Oberland") that did not materialize, together with the consequential tax effects.

6. GOODWILL AND INTANGIBLE ASSETS

Goodwill

Goodwill is recorded when the purchase price of an acquisition exceeds the fair value of the net tangible and identified intangible assets acquired.

The following table presents details of the Company's goodwill for the six months ended June 30, 2016 (in thousands):

	CareDx	Allenex	Total
Balance as of December 31, 2015	$12,005	$—	$12,005
Goodwill acquired	—	16,786	16,786
Foreign currency translation adjustments	—	(719)	(719)
Balance as of June 30, 2016	$12,005	$16,067	$28,072

The gross carrying amount of goodwill may change due to the effects of foreign currency fluctuations as a result of acquiring an entity with a functional currency other than the U.S. dollar.

Intangible Assets

The following tables present details of the Company's intangible assets as of June 30, 2016 (in thousands):

	June 30, 2016				
	Gross Carrying Amount	Accumulated Amortization	Foreign Currency Translation	Net Carrying Amount	Weighted Average Remaining Useful Life (In Years)
Intangible assets with finite lives:					
Customer relationships	$12,650	$ (175)	$ (547)	$ 11,928	14.5
Developed technology	11,650	(245)	(504)	10,901	9.5
Trademarks	2,260	(31)	(98)	2,131	14.5
Acquired contracts	490	(50)	(21)	419	1.8
Total intangible assets with finite lives	27,050	(501)	(1,170)	25,379	12.1
Acquired in-process technology dd-cfDNA	6,650	—	—	6,650	
Acquired in-process technology QTYPE	4,510	—	(195)	4,315	
Total intangible assets	$38,210	$ (501)	$ (1,365)	$ 36,344	

The gross carrying amount of intangible assets and the related amortization expense of intangible assets may change due to the effects of foreign currency fluctuations as a result of acquiring an entity with a functional currency other than the U.S. dollar. Amortization expense was $0.5 million for each of the three and six months ended June 30, 2016, of which $0.3 million was amortized to cost of product. There was no amortization recorded for the three and six months ended June 30, 2015, as the Company only had an intangible asset related to acquired in-process technology with an indefinite useful live in that period.

Intangible assets are carried at cost less accumulated amortization. Amortization expenses are recorded to cost of product and sales and marketing. Acquired IPR&D of $11.2 million has not reached technological feasibility as of June 30, 2016 and is therefore not subject to amortization. As such, the Company excluded amortization of acquired in-process technology from the future amortization expense table below.

The following table summarizes the Company's estimated future amortization expense of intangible assets with finite lives as of June 30, 2016 (in thousands):

Years Ending December 31,	Cost of Product	Sales and Marketing	Total
Remainder of 2016	$690	$ 485	$1,175
2017	1,381	970	2,351
2018	1,216	970	2,186

2019	1,147	970	2,117
2020	1,147	970	2,117
2021	1,147	970	2,117
Thereafter	4,590	8,726	13,316
Total future amortization expense	$11,318	$ 14,061	$25,379

7. INVENTORIES

The following table summarizes the Company's inventories (in thousands):

	June 30, 2016	December 31, 2015
Finished goods	$ 7,485	$ 237
Raw materials	1,166	529
Total inventory	$ 8,651	$ 766

8. ACCRUED AND OTHER LIABILITIES

The following table represents the components of accrued and other liabilities (in thousands):

	June 30, 2016	December 31, 2015
Debt financing fees	$ 1,747	$ —
Private Placement and Subsequent Financing offering costs	339	—
Transaction related fees	353	589
Software implementation costs	315	—
Accrued interest payable on debt	762	—
Tax, audit and compliance related fees	370	89
Test sample processing fees	478	426
Accrued overpayments and refunds	339	163
Clinical studies	1,079	756
Deferred rent – current portion	364	258
Capital leases – current portion	53	71
Other accrued expenses	1,496	540
Total accrued and other liabilities	$ 7,695	$ 2,892

9. COMMITMENTS AND CONTINGENCIES

Royalty Commitments

In November 2004, the Company entered into a license agreement with Roche Molecular Systems, Inc., (“Roche”), that grants the Company the right to use certain Roche technology relating to polymerase chain reaction, (“PCR”), and quantitative real-time PCR, in clinical laboratory services, including in connection with AlloMap. This is a non-exclusive license agreement in the U.S. covering claims in multiple Roche patents. The Company had disputed the combination services percentage Roche sought to apply under the agreement. The combination service percentage is a multiplier used to calculate royalties where licensed services are sold in combination with other services. From July 2011 through September 2014, the Company withheld payment of such royalties pending resolution of the matter. On February 11, 2014, Roche filed a demand for arbitration with the American Arbitration Association seeking a declaration that the Company had materially breached the Roche license agreement by failing to report and pay royalties owing to Roche in respect of licensed services performed by the Company after July 1, 2011. Commencing as of July 1, 2011, the Company fully accrues the unpaid royalties on its balance sheets, and the amount of the unpaid royalties is reflected as an expense in the Company’s statements of operations in the periods revenue is recorded and to which the royalties relate.

In September 2014, the Company entered into a settlement and mutual release agreement with Roche whereby: (i) for the period beginning July 1, 2011 through June 30, 2014, the Company agreed to pay the amount of $2,827,220 in settlement of past royalties due; (ii) for the period beginning July 1, 2014 through September 30, 2014, the Company agreed to pay royalties based on the same combination services percentage used to determine the past royalties due; (iii) for the period beginning October 1, 2014 through September 30, 2017, Roche and the Company agreed to a

downward adjustment of the combination services percentage used to determine the portion of the AlloMap testing revenue that is royalty bearing under the terms of the license; (iv) the Company agreed to report and pay quarterly royalties within 45 days of the end of each calendar quarter; (v) Roche agreed that, subject to the Company's timely payment of all applicable royalties through such date, no further royalties will be payable by the Company for periods after September 30, 2017; (vi) the Company and Roche agreed to mutually release all claims under the license agreement through the settlement date; and (vii) Roche agreed to dismiss the arbitration claims. For all time periods, the contractual royalty rate in the license agreement was or will be applied to the applicable combination services percentage to determine the royalties payable for the AlloMap service.

Under the license agreement, the Company incurs royalty expenses as a percentage of combination services revenue and classifies those expenses as a component of cost of testing in the condensed consolidated statements of operations. For each of the three months ended June 30, 2016 and 2015, royalty expenses in connection with the Roche agreement were $0.3 million. For each of the six months ended June 30, 2016 and 2015, royalty expenses in connection with the Roche agreement were $0.5 million.

Operating Lease

The Company leases its operating and office facilities for various terms under long-term, non-cancelable operating lease agreements in California, Pennsylvania, and Stockholm, Sweden. The lease for our facility in Austria is on a month-to-month basis. The leases

expire at various dates through 2020. In the normal course of business, it is expected that these leases will be renewed or replaced by leases on other properties.

As of June 30, 2016, future minimum lease payments due under operating leases were as follows (in thousands):

Years Ending December 31,	Amount
Remainder of 2016	$ 1,003
2017	2,026
2018	2,033
2019	2,051
2020	2,016
2021	6
Thereafter	1
Total future minimum lease payments	$ 9,136

Contingencies

On April 25, 2016, Oberland filed a breach of contract claim against the Company in the Supreme Court of the State of New York, County of New York (the "Oberland Complaint"), alleging, among other things, that the Company breached certain provisions of the amended and restated commitment letter and the restated fee letter that it entered into with Oberland on February 8, 2016. Pursuant to the Oberland Complaint, Oberland is seeking damages against the Company in the amount of at least $1.4 million, plus costs and expenses, including the fees and expenses of Oberland's attorneys. On July 15, 2016, the Company filed an answer and made counterclaims against Oberland ("the Answer"), generally denying the claims asserted by Oberland in the Oberland Complaint and asserting fraudulent inducement and breach of contract counterclaims against Oberland. Pursuant to the Answer, the Company is seeking dismissal of the Oberland Complaint in its entirety, recession of all agreements with Oberland and damages of not less than $1.3 million, together with interest and punitive damages, if deemed appropriate under applicable law, and costs and disbursements of the action, including reasonable attorneys' fees. On August 4, 2016, Oberland filed a motion to dismiss our counterclaims and affirmative defenses asserted in the Answer. The Company believes that it has meritorious defenses to the claims asserted in the Oberland Complaint and that the counterclaims asserted by it in the Answer have merit. The Company intends to vigorously defend against the claims asserted by Oberland and vigorously pursue the counterclaims set forth in the Answer. However, there is no guarantee that the Company will prevail in this suit or recover damages from its counterclaims or other relief if it does prevail. As a result, the Company had accrued the amount being claimed by Oberland of $1.4 million.

On June 15, 2016, the Company received a letter from Nasdaq OMX Stockholm AB, or the Exchange, regarding its compliance with the requirements of the Nasdaq Stockholm Takeover Rules, or the Takeover Rules, and good practice in the securities market in Sweden in connection with its acquisition of Allenex. The Exchange concluded that the Company violated certain technical provisions of the Takeover Rules and acted contrary to good practice in the securities market in Sweden, and gave the Company the opportunity to submit its views before the Exchange decides whether to refer the matter to its Disciplinary Committee. The Company submitted a response on July 12, 2016, which will be considered by the Exchange in making a final determination on whether to refer the matter to its Disciplinary Committee for further assessment. If the matter is referred to the Disciplinary Committee, it has the authority to impose a fine and/or sanctions. Takeover Rules authorize the Disciplinary Committee to impose a special fine ranging between SEK 50,000 (approximately $6,000 in U.S. dollars) and SEK 100 million (approximately $12.0 million in U.S. dollars). The Company cannot predict whether the Exchange will refer this matter to its Disciplinary Committee

or the outcome of any Disciplinary Committee review, if taken. An adverse determination by the Disciplinary Committee could have a material adverse effect on the Company. Accordingly, no provisions have been recorded related to this violation.

The Company is subject to claims and assessments from time to time in the ordinary course of business. Other than the matters discussed above, the Company's management does not believe that any such matters, individually or in the aggregate, may have a material adverse effect on the Company's business, financial condition, or results of operations.

10. COLLABORATION AND LICENSING AGREEMENTS

Diaxonhit (“DHT”)

In June 2013, the Company entered into an exclusive Distribution and Licensing Agreement with DHT, a French public company, whereby DHT agreed to have the AlloMap test performed in a European laboratory and commercialize the test in the European Economic Area (“EEA”). The agreement will expire at the later of the last-to-expire patent in the EEA or ten years from the first commercial sale of the test in the EEA, which occurred in 2014.

Consideration under the agreement includes an upfront cash payment of approximately €387,500 ($503,000) that is designated to offset royalties earned by the Company in the first three years following the first commercial sale. The Company is entitled to receive royalties from DHT as a percentage of net sales, as defined in the agreement, of AlloMap tests in the mid to high teens. Approximately €250,000 ($344,000) of the upfront payments is refundable under certain circumstances. Upon confirmation that the CE mark was in place, the Company also received an equity payment of DHT common stock with a value of €387,500 ($503,000). The CE mark is a mandatory conformity marking for certain products sold within the EEA. The Company sold the shares of DHT common stock in July 2013 for total consideration of $467,000.

Other consideration that may be earned by the Company includes agreed-upon per unit pricing for the supply of AlloMap products, and additional royalties that are payable upon the achievement of various sales milestones by DHT. In this arrangement, there is one combined unit of accounting.

Commercial sales of the AlloMap test began in the EEA in June 2014. Total revenues recognized from this arrangement for both the three months ended June 30, 2016 and 2015 were $16,000. Total revenues recognized from this arrangement for the six months ended June 30, 2016 and 2015 were $31,000 and $33,000, respectively.

CardioDx, Inc. (“CDX”)

In 2005, the Company entered into a services agreement with what at the time was a related party, CDX, whereby the Company provided CDX with biological samples and related data and performed laboratory services on behalf of CDX. Each company granted the other a worldwide license under certain of its intellectual property rights. Pursuant to this agreement, CDX pays royalties to the Company in an amount equal to a low single-digit percentage of the cash collected from sales of CDX licensed products. In 2009, CDX terminated the services portion of this agreement, however, the royalty obligation from CDX continues until the tenth anniversary of the first commercial sale of a CDX licensed product. The first commercial sale of such product by CDX occurred in 2009, therefore the royalty obligation to the Company continues until 2019. Initially, the Company recognized royalty revenues when earned. Commencing with the fourth quarter of 2015, the Company recognizes royalty revenues when payments are received as it was assessed that collection was not reasonably assured prior to receipt of payment. No royalty revenue was recognized for the three months ended June 30, 2016, and royalty revenues for the three months ended June 30, 2015 were $89,000. Royalty revenues for the six months ended June 30, 2016 and 2015 were $0.1 million and $0.2 million, respectively, and are included in collaboration and license revenue on the condensed consolidated statements of operations. The Company had no receivable balance from CDX at June 30, 2016 and December 31, 2015.

11. DEBT

On January 30, 2015, the Company entered into the Loan Agreement with East West Bank as the lender ("the Lender"), which provides the Company with a secured term loan facility in an aggregate principal amount of up to $20.0 million. The Company borrowed the first and only advance of $16.0 million ("Draw A") on January 30, 2015. Draw A was used to pay-off the Company's existing term debt of $11.3 million. A loss on extinguishment of debt of $0.6 million related to costs from the pay-off of the previously existing term loan was recognized as interest expense during the three months ended March 31, 2015. Draw A bears interest at a daily floating rate equal to 2.00%, plus the greater of (i) 3.25% or (ii) the prime rate published by the Lender. The maturity date of the loan is December 1, 2018. The principal pay-down of the loan began on July 1, 2016 with the loan being payable in 30 equal monthly installments.

A fully non-refundable commitment fee of $160,000 was paid on January 30, 2015 when Draw A was received. The loan has no prepayment penalty. Commitment fees are included in debt issuance costs which are netted against the debt outstanding and are amortized to interest expense using the effective interest method over the term of the loan. Debt discount and issuance costs, current, as of both June 30, 2016 and December 31, 2015 were $0.2 million. Debt discount and issuance costs, non-current, as of both June 30, 2016 and December 31, 2015 were $0.1 million.

In connection with the Loan Agreement, the Company agreed to issue to the Lender warrants to purchase shares of the Company's common stock upon the drawdown of each advance in an amount equal to 1.5% of the amount drawn, divided by the exercise price per share for that tranche. The fair value of the warrant is reflected as a discount to the debt. As a result of Draw A, the Company issued to the Lender a warrant to purchase an aggregate of 34,483 shares of the Company's common stock, at an exercise price of $6.96 per share. The fair value of the warrant was estimated to be $90,000 on January 30, 2015, using the Black-Scholes Model with the following assumptions: expected volatility of 39.83%, a contractual term of 5 years, risk-free interest rate of 1.18%, underlying common stock price of $7.06, and dividend yield of 0%. The warrant is included in stockholders' equity with the offset to debt discount that is amortized over the term of the loan using the effective interest method. The warrant is not subject to remeasurement.

The Loan Agreement requires collateral by a security interest in all of the Company's assets except intellectual property and contains customary affirmative and negative covenants including financial maintenance covenants, and also includes standard events of default, including payment defaults. Upon the occurrence of an event of default, a default interest rate of an additional 5.00% may be applied to the outstanding loan balances, and the Lender may declare all outstanding obligations immediately due and payable and take such other actions as set forth in the Loan Agreement. As of February 29, 2016, the Company was in violation of one of its financial covenants under the Loan Agreement. This violation was waived in principle by the Lender by virtue of a contemporaneous verbal amendment to the Loan Agreement received from the Lender, which was subsequently memorialized in a written amendment to the Loan Agreement dated May 12, 2016. As of June 30, 2016, the Company was in compliance with its debt covenants under the Loan Agreement.

In April 2016, the Lender consented to the acquisition of Allenex by the Company (the "Consent"). The Consent was contingent upon the closing of a private placement financing for aggregate cash proceeds of at least $12.0 million and separately depositing into an escrow account cash of $8.0 million relating to a commitment by the Majority Shareholders to purchase the Company's equity securities in the Subsequent Financing, all of which occurred on April 14, 2016. Pursuant to the Consent, the Company is also required to raise another $20.0 million through one or more equity financings by March 31, 2017, prior to paying the $5.7 million of deferred purchase price consideration to the Majority Shareholders.

As of April 11, 2016, the Company reassessed the probability of the completion of a six-month bridge loan of $18.0 million with Oberland and determined that it was not probable that the bridge loan would be consummated. The Company is currently disputing the fees associated with the bridge loan with Oberland, but in the interim a charge of $2.9 million was recorded in the six months ended June 30, 2016 to expense financing costs associated with this bridge loan (see the Oberland Complaint in Note 9). These costs have been included as a component of other expense on the Company's condensed consolidated statements of operations.

On May 12, 2016, the Company entered into a First Amendment to Loan and Security Agreement (the "First Amendment"), which amended the Loan Agreement. The First Amendment, among other things, amended the Loan Agreement by modifying certain financial covenants, adding an equity financing covenant, and restricting certain transactions between the Company and its subsidiaries. On June 27, 2016, the Company entered into a Second Amendment to Loan and Security Agreement (the "Second Amendment"). The Second Amendment, among other things, amended the Loan Agreement to permit certain transactions between the Company and its subsidiaries and to add intellectual property as collateral security.

On June 25, 2013, Allenex entered into a Term Loan Facility Agreement (the "Term Loan Facility") with Danske in an aggregate principal amount of up to SEK 71,000,000 (approximately $8.4 million in U.S. dollars). The Term Loan Facility is available for utilization in advances of a minimum of SEK 5,000,000 (approximately $0.6 million in U.S.

dollars) and if more, integral multiples of SEK 1,000,000 (approximately $0.1 million in U.S. dollars). The interest rate applicable to each advance shall be the percentage rate per annum calculated as the aggregate of (i) Stockholm Interbank Offered Rate ("STIBOR") (as defined in the Term Loan Facility) and (ii) the Margin (as described in the Term Loan Facility) at 3% conditional on the fulfillment of certain criteria. In March 2015, Allenex entered into a first amendment to the Term Loan Facility, pursuant to which additional loans were granted. In August 2015, Allenex entered into a second amendment to the Term Loan Facility, pursuant to which the term of the Term Loan Facility was extended. In December 2015, Allenex entered into a waiver and amendment agreement relating to the Term Loan Facility, pursuant to which the change of control provision was waived and amended. In March 2016, Allenex entered into another amendment to the Term Loan Facility, which modified the repayment schedule for advances under the Term Loan Facility. Under this Term Loan Facility, SEK 65,000,000 (approximately $7.7 million in U.S. dollars) was outstanding as of June 30, 2016, and two quarterly payments of SEK 1,500,000 (approximately $0.2 million in U.S. dollars) are payable in the second half of 2016, and six quarterly payments of SEK 3,000,000 (approximately $0.4 million in U.S. dollars) are payable in 2017 and the first half of 2018, and the remaining balance of SEK 44,000,000 (approximately $5.2 million in U.S. dollars) is due in June 2018. Notwithstanding the repayment schedule provided by the Term Loan Facility, the full outstanding balance was reclassified to current liabilities due to the insufficient working capital in Allenex.

On June 18, 2015, Allenex also entered into a short term credit facility with Danske with total available credit of SEK 8,000,000 (approximately $0.9 million in U.S. dollars). As of June 30, 2016, the outstanding balance due to Danske was SEK 4,755,509 (approximately $0.6 million in U.S. dollars), and pursuant to a quarterly roll-over provision is due on September 30, 2016.

Due to insufficient working capital in Allenex, a debt covenant in the Term Loan Facility relating to maintaining an adequate leverage ratio was violated at June 30, 2016. The Company obtained a waiver from Danske for this violation of the debt covenant. While Allenex received a waiver from Danske for the violation as of June 30, 2016, due to continuing liquidity matters, Allenex has determined that it is not probable that it will be in compliance with this covenant in future periods. For these reasons, the long-term debt was reclassified to current liabilities and resulted in a reduction in working capital. Additionally, if the loan was no longer available or Danske demanded repayment of the debt, the Company may not have sufficient capital to operate.

On June 28, 2013, Allenex issued a SEK 9,400,000 (approximately $1.1 million in U.S. dollars) subordinated promissory note to FastPartner AB, which provides for an annual interest rate of 10.00%. Principal payments of SEK 1,000,000 (approximately $0.1 million in U.S. dollars) and accrued interest are payable quarterly at September 30, December 31, March 31 and June 30 and subject to working capital requirements that had not been met in fiscal years 2014 and 2015, nor the six months ended June 30, 2016. The full amount of the promissory note was outstanding as of June 30, 2016 and will mature on December 31, 2016. As of June 30, 2016, FastPartner had a beneficial ownership of shares of the Company’s common stock and was considered a related party (See Note 17).

On June 28, 2013, Allenex issued a SEK 10,600,000 (approximately $1.3 million in U.S. dollars) subordinated promissory note to Mohammed Al Amoudi, which provides for an annual interest rate of 10.00%. Principal payments of SEK 1,000,000 (approximately $0.1 million in U.S. dollars) and accrued interest are payable quarterly at September 30, December 31, March 31 and June 30, subject to meeting certain requirements for working capital. The promissory note had an initial maturity date of June 28, 2016. On December 16, 2015, the maturity date was extended until December 31, 2016. The full amount of the promissory note was outstanding as of June 30, 2016. As of June 30, 2016. Mohammed Al Amoudi had a beneficial ownership of shares of the Company’s common stock and was considered a related party (see Note 17).

On February 25, 2015, Allenex entered into a SEK 14,000,000 (approximately $1.7 million in U.S. dollars) loan agreement with SSP Primers Aktieboulag, pursuant to which SEK 4,000,000 (approximately $0.5 million in U.S. dollars) has been paid and SEK 5,000,000 (approximately $0.6 million in U.S. dollars) is payable on February 27, 2017, and SEK 5,000,000 (approximately $0.6 million in U.S. dollars) is payable on February 26, 2018. The loan amount outstanding as of June 30, 2016 is SEK 10,000,000 (approximately $1.2 million in U.S. dollars) and has an annual interest rate of 3% payable in conjunction with each principal payment.

On December 29, 2015, Allenex issued a SEK 2,000,000 (approximately $0.2 million in U.S. dollars) subordinated promissory note to FastPartner AB, a related party, which matures on December 31, 2016 and has an annual interest rate of 10.00%. Principal and accrued interest are payable on the maturity date and subject to working capital requirements that had not been met in fiscal year 2015, nor the six months ended June 30, 2016. The full amount of subordinated promissory note was outstanding as of June 30, 2016.

On March 7, 2016, Allenex issued a SEK 4,000,000 (approximately $0.5 million in U.S. dollars) subordinated promissory note to FastPartner AB, a related party, which matures on December 31, 2016 and has an annual interest rate of 10.00%. Principal and accrued interest are payable on the maturity date and subject to working capital requirements that had not been met during the six months ended June 30, 2016. The full amount of the subordinated promissory note was outstanding as of June 30, 2016.

Interest of $0.7 million on shareholder loans had been accrued as of June 30, 2016.

As of June 30, 2016, future debt maturities were as follows (in thousands):

Years Ending December 31,	Amount
Remainder of 2016	$14,502
2017	6,990
2018	6,990
Total debt maturities	28,482
Less: debt discount and issuance costs	(275)
Total debt maturities, net of debt discount and issuance costs	28,207
Less: current portion of long-term debt	(18,135)
Long-term debt, net carrying value	$10,072

12. WARRANTS

The warrants issued in the Private Placement and the Placement Agent Warrants (as described in Note 13) are considered freestanding instruments that are contingently redeemable and classified as liabilities on the Company's condensed consolidated balance sheet for the period ended June 30, 2016. The warrants became exercisable to purchase common stock after the Company obtained the Requisite Stockholder Approval on June 16, 2016. Upon the closing of the Private Placement on April 14, 2016, the Company recorded an estimated fair value of $3.3 million relating to warrants to purchase 1,975,580 shares of common stock that were issued in the Private Placement. The warrants were comprised of warrants to purchase 1,775,580 shares of common stock that were issued to certain accredited investors measured at an estimated fair value of $3.0 million, and placement agent warrants to purchase 200,000 shares of common stock measured at an estimated fair value of $0.3 million. The placement agent warrants were issued for services performed by placement agents as part of the Private Placement and were treated as equity issuance costs. The warrants became exercisable upon the Company obtaining the Requisite Stockholder Approval on June 16, 2016. The Placement Agent Warrants had an estimated fair value of $0.3 million and were recorded in stockholders' equity on the Company's condensed consolidated balance sheets to offset the Private Placement proceeds allocated to the Series A Preferred and common stock.

Additional warrants were issued on June 15, 2016 to the Majority Shareholders upon the closing of the Subsequent Financing (as described in Note 13). The warrants issued in the Subsequent Financing were also considered freestanding instruments being accounted for using the same methodology as described above. On June 15, 2016, the Company recorded an estimated fair value of $1.7 million for warrants to purchase an aggregate of 1,002,507 shares of common stock issued in the Subsequent Financing.

The Company utilized the Monte Carlo simulation model to estimate the fair value of the warrants issued in the Private Placement and Subsequent Financing, and the Placement Agent Warrants. The Monte Carlo simulation model utilizes multiple input variables to estimate the probability that market conditions will be achieved. These variables include expected term of the warrants, the volatility of the Company's and its peers' stock prices over such expected term, and the risk-free interest rate for the expected term of the warrants. The variables used in this simulation model are reviewed on a quarterly basis and adjusted, as needed. If the Company issues common stock at a price lower than the exercise price or issues stock options or other securities (other than securities issued pursuant to the Company's stock or option plans or employment agreements, securities issued or issuable upon exercise or exchange of convertible securities outstanding as of the date of the warrants were issued or securities issued pursuant to acquisitions or strategic transactions approved by a majority of the disinterested directors of the Company) with an exercise price that is lower than the current exercise price of the warrants, the exercise price of the warrants shall be adjusted to equal to such lower price.

The total estimated fair value of the warrant liability was $4.9 million following the closings of the Private Placement and Subsequent Financing. The warrant liability was remeasured at June 30, 2016, and the remeasurement was recorded in change in estimated fair value of common stock warrant liability on the Company's condensed consolidated statements of operations. For each of the three and six months ended June 30, 2016, the change in the estimated fair value of the warrant liability was $3.2 million. As of June 30, 2016, the total estimated fair value of the warrant liability was $8.1 million on the Company's condensed consolidated balance sheets.

As of June 30, 2016, outstanding warrants to purchase Common Stock were:

	Original Term	Exercise Price	Number of

			Shares Underlying Warrants
Original issue date:			
July 2006	10 years	$ 31.72	17,656
November 2006	10 years	$ 31.72	1,576
February 2008	10 years	$ 35.07	22,792
August 2009	10 years	$ 21.78	33,472
July 2010	9 years	$ 21.78	6,694
December 2010	7 years	$ 21.78	17,215
August 2012	7 years	$ 21.78	167,182
January 2015	5 years	$ 6.96	34,483
April 2016 (a)	7 years	$ 4.98	1,775,580
April 2016 (b)	5 years	$ 3.99	200,000
June 2016 (c)	7 years	$ 4.98	1,002,507
			3,279,157

(a) Issued on April 14, 2016 in connection with Private Placement to certain accredited investors.
(b) Issued on April 14, 2016 in connection with Private Placement to placement agents.

(c) Issued on June 15, 2016 in connection with the Subsequent Financing.

13. PRIVATE PLACEMENT

On April 14, 2016, the Company completed a Private Placement transaction for the offering of 591,860 Units. Each Unit was comprised of: (i) one share of Common Stock, (ii) five shares of Series A Preferred, and (iii) three warrants, each to purchase one share of Common Stock. The purchase price was $23.94 per Unit (the equivalent of $3.99 per share of Common Stock, assuming conversion of the Series A Preferred). The closing of the Private Placement was conditioned upon the closing of the Allenex acquisition, the consent of East West Bank to the Allenex acquisition, and certain other customary closing conditions, all of which occurred on April 14, 2016. The aggregate gross proceeds to the Company from the Private Placement were approximately $14.2 million, of which $1.8 million was paid in satisfaction of placement agents, escrow agent, legal fees as well as other direct issuance costs. The Company and certain stockholders representing a majority of the Company's outstanding shares of common stock entered into voting agreements on April 14, 2016, pursuant to which each stockholder agreed to vote certain of its shares of the Company's common stock in favor of granting the Company the Requisite Stockholder Approval.

Upon obtaining the Requisite Stockholder Approval on June 16, 2016, each share of Series A Preferred was converted into one share of the Company's common stock. In addition to the warrants issued to certain accredited investors in the Private Placement, on April 14, 2016, the Company issued warrants to purchase an aggregate of 200,000 shares of common stock to certain of its placement agents (the "Placement Agent Warrants"). All of the warrants issued in the Private Placement and the Placement Agent Warrants became exercisable after the Company obtained the Requisite Stockholder Approval on June 16, 2016.

The proceeds from the Private Placement were allocated between the common stock, preferred stock and warrants issued based on their relative fair values. The estimated fair values of the common stock, preferred stock and warrants were $1.9 million, $9.3 million and $3.0 million, respectively, as of the transaction date. The warrants were recorded as a liability and are subject to ongoing remeasurement. The shares of Series A Preferred were initially recorded as temporary equity upon the closing of the Private Placement and subsequently reclassified to common stock after their conversion to common stock on June 16, 2016. See Note 12 for a description of the accounting of for the warrants.

Concurrent to the Private Placement, the Company also entered into Commitment Letters pursuant to which the Majority Shareholders agreed to purchase the Company's equity securities in the Subsequent Financing (as described in Note 1), which investment was completed on June 15, 2016. In the Subsequent Financing, the Company issued to the Majority Shareholders 334,169 Units, which consisted of (i) an aggregate of 334,169 shares of common stock, (ii) an aggregate of 1,670,845 shares of Series A Preferred that were all converted into shares of the Company's common stock upon obtaining the Requisite Stockholder Approval on June 16, 2016, and (iii) 1,002,507 warrants, each of which is exercisable for one share of the Company's common stock.

The proceeds from the Subsequent Financing were allocated between the common stock, preferred stock and warrants issued based on their relative fair values. The estimated fair values of the common stock, preferred stock and warrants were $1.0 million, $5.3 million and $1.7 million, respectively, as of the transaction date. The warrants were recorded as a liability and are subject to ongoing remeasurement. The shares of Series A Preferred were initially recorded as temporary equity upon the closing of the Subsequent Financing and subsequently reclassified to common stock after their conversion to common stock on June 16, 2016.

Following the closing of the Private Placement, the Company agreed to a number of requirements, including submitting the Private Placement to the Company's stockholders for approval, which was obtained on June 16, 2016, and granting certain registration rights, including the registration of shares sold in the Private Placement on a registration statement on Form S-3. On May 27, 2016, the Company filed a registration statement on Form S-3 with the SEC to register for resale the shares of common stock issued or issuable upon conversion of the Series A Preferred and upon exercise of the warrants sold in the Private Placement. The Form S-3 was declared effective by the SEC on July 12, 2016.

The Company engaged M.M. Dillon & Co. Group ("M.M. Dillon"), an investment banking firm, to act as one of its financial advisors and placement agents in connection with the Private Placement and Subsequent Financing of the Company's common stock and the consummation of any private placement of its securities that the Company may choose to pursue. A member of the Company's board of directors is a managing director of M.M. Dillon, and as such, the Company considered M.M. Dillon to be a related party. As a result of the Private Placement and Subsequent Financing, the Company paid approximately $1.1 million in placement fees to its placement agents, of which $0.2 million pertained to fees paid to M.M. Dillon. Additionally, M.M. Dillon also received Placement Agent Warrants to purchase 100,000 shares of the Company's common stock.

The Company expects to use the proceeds from the Private Placement and Subsequent Financing for additional working capital, acquisitions and general corporate purposes.

14. STOCK INCENTIVE PLANS

2014 Equity Incentive Plan

Prior to its IPO, the Company had one active stock option plan, the 2008 Equity Incentive Plan (“2008 Plan”), one assumed stock option plan (“the ImmuMetrix 2013 Equity Incentive Plan”), and one terminated stock option plan, the 1998 Stock Plan.

Upon its IPO, the Company reserved 838,695 shares of common stock for issuance under a new 2014 Equity Incentive Plan (“2014 Plan”). The shares reserved for issuance under the 2014 Plan also include shares returned to the 2008 Plan as the result of expiration or termination of options, provided that the maximum number of shares that may be added to the 2014 Plan thereby is limited to a maximum of 865,252 shares. The number of shares available for issuance under the 2014 Plan also includes an annual increase on the first day of each year equal to the lesser of:

- 357,075 shares;
- 4.0% of the outstanding shares of common stock as of the last day of the immediately preceding year; or
- such other number of shares as the Company’s board of directors may determine.

Stock Options Under the 2014 Plan

The following table summarizes option activity and related information:

	Shares Underlying Stock Options Outstanding	Weighted-average Exercise Price
Balance—December 31, 2015	1,577,317	$ 6.87
Granted	474,045	5.01
Exercised	(2,770)	3.14
Forfeited	(205,049)	6.94
Expired	(1,433)	11.59
Balance—June 30, 2016	1,842,110	6.38

Options outstanding that have vested or are expected to vest as of June 30, 2016 are as follows:

	Number of Shares Issued	Weighted Average Exercise Price	Weighted Average Contractual Life (Years)	Aggregate Intrinsic Value (In Thousands)
Vested	926,702	$ 6.17	6.70	$ 977
Expected to vest	781,850	6.59	8.99	35
Total	1,708,552	6.37	7.75	$ 1,012

The aggregate intrinsic value is calculated as the difference between the exercise price of the underlying stock options and the fair value of the Company's common stock at June 30, 2016 for stock options that were in-the-money. The fair market value of the Company's common stock as of June 30, 2016 was $4.31 per share.

Restricted Stock Units Under the 2014 Plan

The Company's 2014 Plan allows restricted stock units ("RSUs") to be granted in addition to stock options. The RSUs vest annually over four years in equal increments. The Company began granting RSUs in March 2015.

Unvested RSU activity for the six months ended June 30, 2016 is summarized below:

	Number of Shares	Weighted-Average Grant Date Fair Value
Unvested balance—December 31, 2015	106,200	$ 6.49
Granted	111,900	5.12
Vested	(26,550)	6.49
Forfeited	(47,105)	5.88
Unvested balance—June 30, 2016	144,445	5.63

Shares Available for Grant Under the 2014 Plan

The following table summarizes shares available for grant under the 2014 Plan:

	Shares Available for Grant
Balance—December 31, 2015	404,692
Additional shares authorized for options and RSUs	357,075
Options granted	(474,045)
Options forfeited	205,049
Options expired	1,433
RSUs granted	(111,900)
RSUs forfeited	47,105
Balance—June 30, 2016	429,409

2016 Inducement Plan

On April 21, 2016, our Board, including our independent directors, adopted the Company’s 2016 Inducement Plan (the “Inducement Plan”), pursuant to which we may grant stock awards of up to a total of 155,500 shares of common stock to new employees of the Company. The Inducement Plan was adopted to accommodate a reserve of additional shares of common stock for issuance to new employees hired by the Company from Allenex. The terms in the Inducement Plan are substantially similar to the Company’s 2014 Plan.

Restricted Stock Units Under the Inducement Plan

The Inducement Plan allows RSUs to be granted in addition to stock options. The RSUs vest annually over four years in equal increments. The Company began granting RSUs starting June 2016.

Unvested RSU activity for the six months ended June 30, 2016 is summarized below:

	Number of Shares	Weighted-Average Grant Date Fair Value
Unvested balance—December 31, 2015	—	$ —
Granted	141,000	5.93
Vested	—	—
Forfeited	—	—
Unvested balance—June 30, 2016	141,000	5.93

The following table summarizes shares available for grant under the Inducement Plan:

	Shares Available for Grant
Balance—December 31, 2015	—
Additional shares authorized for options and RSUs	155,500
RSUs granted	(141,000)
RSUs forfeited	—
Balance—June 30, 2016	14,500

2014 Employee Stock Purchase Plan

The Company's board of directors adopted its 2014 Employee Stock Purchase Plan ("the ESPP") in March 2014 and its stockholders approved the ESPP in July 2014. The Company's ESPP was not made available to its employees on January 1, 2015. The first offering period in 2016 began on January 1, 2016 and ended on June 30, 2016. Under the first offering period in 2016, 35,024 shares were purchased for aggregate proceeds of $0.1 million from the issuance of shares, which occurred on July 1, 2016.

The option price per share of common stock to be paid by a participant on the applicable exercise date for an offering period shall be equal to 85% of the lesser of the fair market value of a share of common stock on (a) the applicable grant date or (b) the applicable exercise date.

Valuation Assumptions

The estimated fair values of employee stock options and ESPP shares were estimated using the Black-Scholes option-pricing model based on the following weighted-average assumptions:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Employee stock options				
Expected term (in years)	5.3 6.0	5.8	5.3 6.0	6.0
Expected volatility	45.94 – 46.44%	40.04%	39.60 – 46.44%	40.85%
Risk-free interest rate	1.13 – 1.52%	1.69 %	1.13 – 1.65%	1.87 %
Expected dividend yield	— %	— %	— %	— %
Employee stock purchase plan				
Expected term (in years)	0.5	0.5	0.5	0.5

Expected volatility	64.21%	34.08%	64.21%	34.08%
Risk-free interest rate	0.49 %	0.11 %	0.49 %	0.11 %
Expected dividend yield	— %	— %	— %	— %

The weighted-average grant-date fair value of options granted during the three months ended June 30, 2016 and 2015 using the Black-Scholes Model was $2.01 and $2.10 per share, respectively, and $2.06 per share and $2.62 per share during the six months ended June 30, 2016 and 2015, respectively.

Stock-based Compensation Expense

The following table summarizes stock-based compensation expense relating to employee and nonemployee stock options, RSUs, and ESPP shares for the three and six months ended June 30, 2016 and 2015, included in the statements of operations as follows (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Cost of testing	$38	$54	$66	$69
Research and development	100	89	213	136
Sales and marketing	43	36	71	56
General and administrative	186	232	462	431
Total	$367	$411	$812	$692

No tax benefit was recognized related to share-based compensation expense since the Company has never reported taxable income and has established a full valuation allowance to offset all of the potential tax benefits associated with its deferred tax assets. In addition, no amounts of stock-based compensation were capitalized for the periods presented.

As of June 30, 2016, there was approximately $2.2 million of unrecognized stock-based compensation expense, net of estimated forfeitures, related to non-vested stock options that will be recognized on a straight-line basis over the remaining average vesting period of 2.58 years.

As of June 30, 2016, there was approximately $1.4 million of unrecognized stock-based compensation expense, net of estimated forfeitures, related to non-vested RSUs that will be recognized on a straight-line basis over the remaining average vesting period of 3.48 years.

15. INCOME TAXES

The Company’s effective tax rate may vary from the U.S. federal statutory tax rate due to the change in the mix of earnings in tax jurisdictions with different statutory rates, benefits related to tax credits, and the tax impact of non-deductible expenses and other permanent differences between income before income taxes and taxable income. For each of the three and six months ended June 30, 2016, the Company recorded an income tax benefit of $0.4 million, compared to no income tax benefit or provision for each of the three and six months ended June 30, 2015. The income tax benefit of $0.4 million for each of the three and six months ended June 30, 2016 is largely due to the reversal of net deferred tax liabilities resulting from the amortization of acquired inventory and intangible assets. In connection with the acquisition of Allenex during the quarter, net deferred tax liabilities were established on the acquired identifiable intangible assets and step up to fair market value of acquired inventory.

During the six months ended June 30, 2016, gross unrecognized tax benefits increased by $0.9 million. The balance of gross unrecognized tax benefits was $3.3 million as of June 30, 2016. The increase in the gross unrecognized tax benefits is primarily a result of the acquisition of Allenex. The Company will continue to reevaluate the tax impact of the Allenex acquisition as information is obtained with regards to the estimated values of the assets and liabilities acquired with any adjustments to the preliminary estimates being recorded to goodwill, provided that it is within the measurement period.

16. SEGMENT REPORTING

Operating segments are defined as components of an enterprise about which separate financial information is available that is evaluated regularly by the Chief Operating Decision Maker (“CODM”), or decision making group, whose function is to allocate resources to and assess the performance of the operating segments. The Company has identified

its chief executive officer as the CODM. In determining its reportable segments, the Company considered the markets and types of customers served and the products or services provided in those markets.

Prior to the acquisition of Allenex, the Company operated as a single reportable segment. Subsequent to the acquisition of Allenex, the Company has identified the following two reportable segments, which are the same as its operating segments:

- CareDx: This segment focuses on discovery, development and commercialization of clinically differentiated, high-value diagnostic solutions for transplant patients. Its first commercialized testing solution, AlloMap, is a gene expression test that helps clinicians monitor and identify heart transplant recipients with stable graft function who have a low probability of moderate/severe acute cellular rejection.
- Allenex: This segment develops, manufactures, markets and sells high quality products that increase the chance of successful transplants by facilitating a better match between a donor and a recipient of stem cells and organs. Its Olerup SSP product line, which addresses HLA typing, is used prior to hematopoietic stem cell/bone marrow and organ transplantations to match donors with recipients.

There were no intersegment sales for the three and six months ended June 30, 2016. The following table summarizes the operating results of the Company's reportable segments (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Total segments				
Net revenues	$10,735	$7,129	$17,297	$14,344
Operating loss	(6,968)	(2,886)	(13,538)	(4,277)
Depreciation and amortization	843	193	1,104	358
CareDx				
Net revenues	$7,260	$7,129	$13,822	$14,344
Operating loss	(5,243)	(2,886)	(11,813)	(4,277)
Depreciation and amortization	299	193	560	358
Allenex				
Net revenues	$3,475	$—	$3,475	$—
Operating loss	(1,725)	—	(1,725)	—
Depreciation and amortization	544	—	544	—

	June 30, 2016	December 31, 2015
Assets:		
CareDx	$ 42,707	$ 55,638
Allenex	57,746	—
Total assets	$ 100,453	$ 55,638

Revenues by geographic regions are based upon the customers' ship-to address or headquarters location. The following table summarizes reportable revenues by geographic regions (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2016	2015	2016	2015
Revenues:				
United States	$8,098	$7,129	$14,631	$14,344
Europe, Middle East and Africa	2,404	—	2,418	—
Latin America and Canada	233	—	248	—
Total	$10,735	$7,129	$17,297	$14,344

The following table summarizes long-lived assets, consisting of property and equipment, net, by geographic regions (in thousands):

	June 30, 2016	December 31, 2015
Long-lived assets:		
United States	$ 2,443	$ 2,425
Europe	970	—
Total	$ 3,413	$ 2,425

17. RELATED PARTY TRANSACTIONS

On April 14, 2016, the Company completed the Private Placement (as described in Note 13), pursuant to which it issued and sold to certain investors an aggregate of 591,860 Units, for aggregate gross proceeds to the Company of approximately $14.2 million, of which $1.8 million was paid in satisfaction of placement agents, escrow agent, and legal fees as well as other direct issuance costs.

FastPartner AB, Midroc Invest AB and Xenella Holding AB, the three Majority Shareholders, each beneficially owned 566,962 shares, 636,838 shares and 162,928 shares, respectively, of the Company’s outstanding shares of common stock prior to the closing of the Subsequent Financing (as described in Note 13).

The Company has loans outstanding with both FastPartner AB and Mr. Mohammed Al Amoudi as of June 30, 2016 (as described in Note 11). A member of the Company’s board of directors is a managing director of M.M. Dillon, and as such, the Company

considered M.M. Dillon to be a related party. M.M. Dillon acted as one of the Company's financial advisors and placement agents in connection with the Private Placement and Subsequent Financing (as described in Note 13).

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

The following discussion and analysis of our financial condition and results of operations should be read together with the unaudited condensed consolidated financial statements and related notes included elsewhere in Item 1 of Part I of this Quarterly Report on Form 10-Q and with the audited financial statements and the related notes included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, as amended, as filed originally with the Securities and Exchange Commission, or the SEC, on March 29, 2016.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements contained in this Quarterly Report on Form 10-Q other than statements of historical fact, including statements regarding our future results of operations and financial position, our business strategy and plans, and our objectives for future operations, are forward-looking statements. The words "believe," "may," "will," "potentially," "estimate," "continue," "anticipate," "intend," "could," "would," "project," "plan," "expect" and the negative and plural forms of these wo similar expressions are intended to identify forward-looking statements.

These forward-looking statements may include, but are not limited to, statements concerning the following:

- our ability to generate revenue from sales of AlloMap and future post-transplant solutions, if any, and our ability to increase the commercial success of AlloMap;
- our ability to generate revenue from sales of Olerup SSP, SBT Resolver, XM-ONE, and future pre-transplant solutions, if any, and our ability to increase the commercial success of these pre-transplant products;
- our plans and ability to develop and commercialize new solutions, including donor-derived cell-free DNA, or dd-cfDNA (which includes CareDx's AlloSure test), and solutions for the surveillance of heart, kidney, and other solid organ transplant recipients;
- our plans and ability to continue updating our sequence specific primer, or SSP, products and technology to maintain our leading position in the SSP market;
- our plans and ability to develop, commercialize, and/or distribute new Human Leukocyte Antigen, or HLA, typing, such as a real-time PCR, or q-PCR, methodology (which includes QTYPE) and possibly Next Generation Sequencing technology and pre-transplant solutions;
- our ability to obtain additional financing;
- our ability to integrate our business with the business of Allenex and to realize the anticipated benefits of the acquisition;
- our ability to obtain, maintain and expand reimbursement coverage from payers for AlloMap, AlloSure and other future solutions, if any;
- the outcome or success of our clinical trial collaborations and observational studies;
- our dependence on certain of our suppliers, service providers, and other distribution partners;
- our compliance with federal, state and foreign regulatory requirements;
- the favorable review of our pre- and post-transplant offerings, and our future solutions, if any, in peer-reviewed publications;
- our ability to protect and enforce our intellectual property rights, our strategies regarding filing additional patent applications to strengthen our intellectual property rights, and our ability to defend against intellectual property claims that may be brought against us;
- our anticipated cash needs and our anticipated uses of our funds, including our estimates regarding operating expenses and capital requirements;
- anticipated trends and challenges in our business and the markets in which we operate;
- disruptions to our business, including disruptions at our laboratories and manufacturing facilities;

· our ability to retain key members of our management team;

- our ability to make successful acquisitions or investments and to manage the integration of such acquisitions or investments;
- our ability to expand internationally;
- our ability to remediate the two material weaknesses in our internal control over financial reporting; and
- our ability to comply with the requirements of being a public company.

These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in the section entitled “Risk Factors” in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, as amended, originally filed on March 29, 2016 with the SEC, and this Quarterly Report on Form 10-Q. Moreover, we operate in a very competitive and rapidly changing environment, and new risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially and adversely from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this report may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. Moreover, neither we nor any other person assumes responsibility for the accuracy and completeness of the forward-looking statements. Except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason after the date of this report to conform these statements to actual results or to changes in our expectations.

You should read this report and the documents that we reference in this report and have filed with the SEC as exhibits with the understanding that our actual future results, levels of activity, performance and events and circumstances may be materially different from what we expect. We qualify all forward-looking statements by these cautionary statements.

Overview and Recent Developments

We are an international transplant diagnostics company with product offerings along the pre- and post-transplant continuum. We focus on discovery, development and commercialization of clinically differentiated, high-value diagnostic surveillance solutions for transplant patients. Our first commercialized testing solution, the AlloMap heart transplant molecular test, or AlloMap, is a gene expression test that helps clinicians monitor and identify heart transplant recipients with stable graft function who have a low probability of moderate-to-severe acute cellular rejection. Since 2008, we have sought to expand the adoption and utilization of our AlloMap solution through ongoing studies to substantiate the clinical utility and actionability of AlloMap, secure positive reimbursement decisions for AlloMap from large private and public payers, develop and enhance our relationships with key members of the transplant community, including opinion leaders at major transplant centers, and explore opportunities and technologies for the development of additional solutions for post-transplant surveillance. We believe the use of AlloMap, in conjunction with other clinical indicators, can help healthcare providers and their patients better manage long-term care following a heart transplant. In particular, we believe AlloMap can improve patient care by helping healthcare providers avoid the use of unnecessary, invasive surveillance biopsies and determine the appropriate dosage levels of immunosuppressants. AlloMap has received 510(k) clearance from the U.S. Food and Drug Administration, or FDA, for marketing and sale as a test to aid in the identification of recipients with a low probability of moderate or severe acute cellular rejection. A 510(k) submission is a premarketing submission made to the FDA. Clearance may be granted by the FDA if it finds the device or test provides satisfactory evidence pertaining to the claimed intended uses and indications. We are also pursuing the development of additional products for transplant monitoring using a variety of technologies, including AlloSure, our proprietary next-generation sequencing-based test

to detect dd-cfDNA, after transplantation. Through the acquisition of ImmuMetrix, Inc., or IMX, a privately held development-stage company working on dd-cfDNA-based solutions in transplantation and other fields we added to our existing know-how, expertise, and intellectual property the ability to apply dd-cfDNA technology to the surveillance of transplant recipients, which has contributed to the development of AlloSure.

The circulating dd-cfDNA in blood for diagnosing Acute Rejection in Kidney Transplant Recipients, or DART, study was designed to validate that plasma levels of dd-cfDNA, ascertained at the time of biopsy, are diagnostic of acute rejection. The DART study is the first multicenter study of renal allograft recipients using an analytically validated dd-cfDNA test methodology. The study enrollment goals involving over 400 patients were met in May 2016, triggered in part by the requisite number of accumulated acute rejection events called for in the prospective statistical analysis plan. The first reported results from DART are under review with the participating study principal investigators and sharing of results at medical society congress is planned for the second half of 2016. The findings from the initial reports for DART will help guide the design of future clinical utility studies.

We, with our newly added presence through the acquisition of Allenex AB, or Allenex, or Olerup, also develop, manufacture, market and sell high quality products that increase the chance of successful transplants by facilitating a better match between a donor and a recipient of stem cells and organs. Olerup SSP, a set of Human Leukocyte Antigen, or HLA, typing, is used prior to hematopoietic stem cell/bone marrow transplantation and organ transplantation. Olerup SSP is used to type HLA alleles based on SSP, technology, has a market leading position, and has long been a well-established brand name in Europe and select other markets for pre-transplant solutions. New alleles are discovered frequently, and we update typing kits to include these new alleles, resulting in one of the most up-to-date and comprehensive allele libraries for the SSP technology. We also offer XM-ONE®, the first standardized test that quickly identifies a patient's antigens against HLA Class I or Class II, as well as antibodies against a donor's endothelium. This crossmatch test has primarily been used prior to kidney transplants, and more recent clinical trials are further demonstrating its value as a complement to traditional antibody testing prior to these types of transplants. We, by way of Allenex's sales and distribution agreement with Conexio Genomics (since acquired by Illumina, Inc.) offer a complete product range for sequence-based typing, or SBT, of HLA alleles. SBT Resolver is a test kit for sequence based HLA typing, while AssignSBT is the companion software for sequence analysis. Because this SBT technology is primarily used in larger typing laboratories, it is a good complement to SSP technology, which is a more natural fit at smaller centers. In 2014, Allenex began active development of a new HLA typing product, QTYPE, that uses real-time PCR, or q-PCR, methodology. This technology is based on SSP technology, which Allenex was well-situated to develop.

Since 2011, Allenex, through Olerup SSB AB, is the exclusive global distributor of the HLA typing products SBT Resolver and Assign SBT from Conexio Genomics, or Conexio, which is an Australian-based company that specializes in the development of sequencing of HLA typing, among other technologies. The distribution agreement continues until April 2018. The focus has been on introducing this new product line to the largest and most automated HLA laboratories in the U.S. and Europe. We recently received a notice that Conexio's SBT products will be discontinued by December 31, 2016. Conexio was acquired by Illumina, Inc. and we are currently negotiating the continuation of our ability to offer SBT products.

Since the launch of AlloMap in January 2005, we have performed more than 88,000 commercial AlloMap tests, including 6,961 tests during the first six months of 2016, in our Brisbane, California laboratory. During the first six months of 2016, AlloMap was used in 120 of the approximately 130 heart transplant centers in the United States. As of June 30, 2016, significantly all of our testing and product revenues came from the United States and Europe, and significantly all of our assets and operations are located in the United States and Sweden. In 2013, we began a partnership with Diaxonhit, or DHT, the leading French provider of specialty in-vitro diagnostic solutions for transplantation, to expand our AlloMap offering in Europe for which we have secured a dedicated laboratory. On May 25, 2016, DHT announced that it had entered into a services agreement with University Hospital of Strasbourg to open a center dedicated to AlloMap testing. The lab meets all of the quality and safety requirements to ensure the accuracy and reproducibility of the results of AlloMap. Further, its Strasbourg location is in the heart of Europe, which is ideal for servicing heart transplant centers throughout Europe.

We are also engaged in efforts to develop additional testing solutions in the heart transplant market and new testing solutions in other organ transplant markets. For instance, AlloSure, our development stage transplant surveillance solution, applies proprietary next generation sequencing to detect and quantitate genetic differences between dd-cfDNA in the blood stream emanating from the donor heart. We believe this solution may help determine rejection-specific activity manifested as cell damage in the transplanted heart and other solid organs, irrespective of the type of organ transplanted. In late 2015, we announced the completion of analytical validation of AlloSure. Samples used in the analytical validation included donor recipient pairs with unrelated as well as closely related family members.

As part of our efforts to demonstrate the clinical utility of AlloSure, we initiated the DART trial in May 2015. DART is designed to establish clinical validation, or the clinical performance characteristics of dd-cfDNA in detecting clinical and sub-clinical rejection in kidney allograft recipients. DART is a multicenter observational study of kidney transplant recipients where blood specimens are drawn periodically after transplant during follow up visits and also after treatment for acute rejection. DART is also designed to demonstrate the correlation of dd-cfDNA to renal function through comparison to both serum creatinine and estimated glomerular filtration rate. We expect DART to run for a minimum of 18 months. We completed the first analysis of the data from DART in June 2016. By the time of completion of the first analysis, over 400 patients had enrolled in DART in 14 centers and we had collected specimens from over 1,248 patient visits before enrollment was closed. The study demonstrated increased levels of dd-cfDNA in acute rejection using the non-invasive AlloSure assay. Based on the thorough analytical validity and first analysis clinical validation data, we and the clinical investigators will prioritize pre-specified analysis plans and submit results for scientific peer-review. Now that we have relevant information from the first analysis, we expect to initiate a second clinical trial to establish the clinical utility of our dd-cfDNA kidney solution and engage with payers to ensure future access to this novel non-invasive test for transplant surveillance.

The Centers for Medicare and Medicaid Services, or CMS, recently announced proposed changes in reimbursement for a number of established molecular diagnostic tests, including AlloMap. Under the draft fee schedule, which would become effective on January 1, 2017, AlloMap reimbursement from CMS for patients covered by Medicare would be reduced from $2,821 to $732. If the current proposal is adopted, it could cause us to discontinue testing for Medicare patients. Given the significant portion of payments

represented by Medicare, the remaining test revenue may be insufficient to sustain our operations. Additionally, some hospitals may reduce the use of AlloMap if it is not available to all patients, and only to non-Medicare recipients.

Completion of Allenex Acquisition

On April 14, 2016, we acquired 98.3% of the outstanding common stock of Allenex. Allenex is a transplant diagnostic company based in Stockholm, Sweden with 58 employees that develops, manufactures, and sells products that help match donor organs with potential recipients prior to transplantation. Our combination with Allenex creates an international transplant diagnostics company with product offerings along the pre- and post-transplant continuum. The Olerup SSP line, which addresses HLA testing, and AlloMap, are foundational diagnostics that are well recognized by the transplant community. The combined company has a presence and direct distribution channels in the US and Europe, with additional third party distributors in Europe and other markets around the world. Under the terms of the Conditional Share Purchase Agreements entered into on December 16, 2015, as amended, and the tender offer prospectus dated March 7, 2016, and as a result of the tender offer, the aggregate purchase consideration paid by us was approximately $34.1 million and consisted of (i) $26.9 million of cash, of which approximately $5.7 million was deferred purchase consideration payable to the Midroc Invest AB, FastPartner AB and Xenella Holding AB, or the Majority Shareholders, by no later than March 31, 2017, and (ii) the issuance of 1,375,029 shares of our common stock valued at $7.2 million. Of the total cash consideration, $8.0 million of cash payable to the Majority Shareholders, was deposited into an escrow account by us and subsequently invested in us by the Majority Shareholders through a purchase of our equity securities in a subsequent financing completed on June 15, 2016, or the Subsequent Financing. The Subsequent Financing was completed on June 15, 2016 and is described under “Private Placement” below. Upon the completion of the Subsequent Financing, certain contingencies in the Conditional Share Purchase Agreements were waived, and the deferred purchase consideration is payable to the Majority Shareholders by no later than March 31, 2017. We determined at the date of the acquisition that those contingencies would be waived. We intend to complete compulsory acquisition proceedings under Swedish law to purchase the remaining shares of Allenex. On June 8, 2016, we delisted Allenex’s common stock from Nasdaq Stockholm.

On May 12, 2016, we entered into a First Amendment to the Loan and Security Agreement, or the First Amendment, which amended the Loan and Security Agreement, dated January 30, 2015, by and between us and East West Bank, as the lender, or, as amended or restated from time to time, the Loan Agreement. The First Amendment, among other things, amended the Loan Agreement by modifying certain financial covenants, adding an equity financing covenant, and restricting certain transactions between us and our subsidiaries. On June 27, 2016, we entered into a Second Amendment to Loan and Security Agreement, or the Second Amendment. The Second Amendment, among other things, amended the Loan Agreement to permit certain transactions between us and our subsidiaries and to add intellectual property as collateral security.

As of April 11, 2016, we reassessed the probability of the completion of a six-month bridge loan of $18.0 million with Oberland Capital SA Davos LLC and determined that it was not probable that the bridge loan would be consummated. We are currently disputing the fees associated with the bridge loan with Oberland Capital SA Davos LLC, but we have recorded a charge of $2.9 million in the three months ended March 31, 2016 and six months ended June 30, 2016 to expense financing costs associated with this bridge loan. These costs have been included as a component of other expense on our condensed consolidated statements of operations. As a result, the cash portion of the acquisition purchase price was paid from our general working capital.

On April 25, 2016, Oberland Capital SA Davos LLC, or Oberland, filed a breach of contract claim against us in the Supreme Court of the State of New York, County of New York, or the Oberland Complaint, alleging, among other things, that we breached certain provisions of the amended and restated commitment letter and the restated fee letter that we entered into with Oberland on February 8, 2016. On July 15, 2016, we filed an answer and made counterclaims against Oberland, or the “Answer”, generally denying the claims asserted by Oberland in the Oberland

Complaint and asserting fraudulent inducement and breach of contract counterclaims against Oberland. We intend to vigorously defend against the claims asserted by Oberland and vigorously pursue the counterclaims set forth in the Answer. However, there is no guarantee that we will prevail in this suit or recover damages from our counterclaims or other relief if we do prevail. As a result, we had accrued the amount being claimed by Oberland of $1.4 million. See Note 9 of the unaudited condensed consolidated financial statements included elsewhere in Item 1 of Part 1 and Legal Proceedings included in Item 1 of Part II of this Quarterly Report on Form 10-Q for additional information.

Private Placement

On April 14, 2016, we completed a private placement transaction pursuant to which we issued and sold an aggregate of 591,860 Units, or the Private Placement. Each Unit was comprised of: (i) one share of our common stock, (ii) five shares of our Series A Mandatorily Convertible Preferred Stock, or Series A Preferred, and (iii) three warrants, each of which is exercisable for one share of common stock. The purchase price was $23.94 per Unit (the equivalent of $3.99 per share of common stock, assuming conversion of the Series A Preferred). The closing of the Private Placement was conditioned upon the closing of our acquisition of Allenex, the consent of East West Bank, as the lender under the Loan Agreement, to the acquisition of Allenex, and certain other customary closing conditions, all

of which occurred on April 14, 2016. The aggregate gross proceeds to us from the Private Placement were approximately $14.2 million, of which $1.8 million was paid in satisfaction of placement agents, escrow agent, legal fees as well as other direct issuance costs. Following the closing of the Private Placement, we agreed to a number of requirements, including submitting the Private Placement to our stockholders for approval pursuant to the rules of The NASDAQ Stock Market LLC, or the Requisite Stockholder Approval, and granting certain registration rights, including the registration of the shares of common stock sold in the Private Placement on a registration statement on Form S-3. On April 14, 2016, we and certain of our stockholders representing a majority of our outstanding shares of common stock entered into voting agreements, pursuant to which each such stockholder agreed to vote certain of our shares of common stock in favor of granting us the stockholder approval required pursuant to the rules of the NASDAQ Stock Market, or the Requisite Stockholder Approval. The Requisite Stockholder Approval was obtained on June 16, 2016. On May 27, 2016, we filed a registration statement on Form S-3 with the SEC to register for resale the shares of common stock issued or issuable upon conversion of the Series A Preferred and upon exercise of the warrants sold in the Private Placement, or the 2016 Form S-3. The 2016 Form S-3 was declared effective by the SEC on July 12, 2016.

Upon obtaining the Requisite Stockholder Approval on June 16, 2016, each share of Series A Preferred was converted into one share of our common stock. In addition to the warrants issued to certain accredited investors in the Private Placement, on April 14, 2016, we also issued warrants to purchase an aggregate of 200,000 shares of our common stock to certain of our placement agents, or the Placement Agent Warrants. All of the Private Placement warrants and Placement Agent Warrants became exercisable after we obtained the Requisite Stockholder Approval on June 16, 2016.

Concurrently, we also entered into Commitment Letters pursuant to which the Majority Shareholders agreed to purchase our equity securities in a subsequent financing, or the Subsequent Financing, which investment was completed on June 15, 2016. Pursuant to the Subsequent Financing, we issued to the Majority Shareholders an additional 334,169 Units, which consisted of (i) an aggregate of 334,169 shares of our common stock, (ii) an aggregate of 1,670,845 shares of Series A Preferred that were all converted into shares of our common stock upon obtaining the Requisite Stockholder Approval on June 16, 2016, and (iii) 1,002,507 warrants, each of which is exercisable for one share of our common stock.

M.M. Dillon & Co. Group, or M.M. Dillon, an investment banking firm, acted as one of our financial advisors and placement agents in connection with the Private Placement and Subsequent Financing. A member of our board of directors is a managing director of M.M. Dillon, and, as such, we consider M.M. Dillon to be a related party. As a result of the Private Placement and Subsequent Financing, we paid approximately $1.1 million in placement fees to our placement agents, of which $0.2 million pertained to fees paid to M.M. Dillon. Additionally, M.M. Dillon also received Placement Agent Warrants to purchase 100,000 shares of our common stock.

We expect to use the proceeds from the Private Placement and Subsequent Financing for additional working capital, acquisitions and general corporate purposes.

Financial Operations Overview

Testing Revenue

Our testing revenue is derived from AlloMap tests, which represented 68% and 79% of our total revenues for the three and six months ended June 30, 2016, respectively, and 98% and 99% of our total revenues for the three and six months ended June 30, 2015, respectively. Our testing revenue depends on a number of factors, including (i) the number of tests performed; (ii) establishment of coverage policies by third-party insurers and government payers; (iii) our ability to collect from payers with whom we do not have positive coverage determination, which often requires that we pursue a case-by-case appeals process; (iv) our ability to recognize revenues on tests billed prior to the establishment of reimbursement policies, contracts or payment histories; (v) our ability to expand into markets outside of the United States; and (vi) how quickly we can successfully commercialize new product offerings.

We currently market AlloMap to healthcare providers through our direct sales force that targets transplant centers and their physicians, coordinators and nurse practitioners. The healthcare providers that order the tests and on whose behalf we provide our testing services are generally not responsible for the payment of these services. As of June 30, 2016, the list price of AlloMap was $3,600 per test. However, amounts actually received by us vary from payer to payer based on each payer's internal coverage practices and policies. Additionally, CMS recently announced proposed changes in reimbursement for a number of established molecular diagnostic tests, including AlloMap. Under the draft fee schedule, which has not yet been adopted as final, AlloMap reimbursement for patients covered by Medicare would be reduced from $2,821 to $732, effective January 1, 2017. We generally bill third-party payers upon delivery of an AlloMap score report to the ordering physician. As such, we take the assignment of benefits and the risk of collection from the third-party payer and individual patients.

Product Revenue

We began recognizing product revenue following the acquisition of Allenex in the second quarter of 2016. Our product revenue is derived primarily from sales of Olerup SSP and other related product lines. Product revenue represented 32% and 20% of total revenue for the three and six months ended June 30, 2016, respectively. We recognize product revenue from the sale of products to end-users, distributors and strategic partners when persuasive evidence of a sale exists, the product is complete and tested and has been shipped, which coincides with transfer of title and risk of loss, the sales price is fixed and determinable, collection of the resulting receivable is reasonably assured, there are no material contingencies and we do not have significant obligations for future performance. When collectability is not reasonably assured, we defer the revenue over the cash collection period. Provisions for estimated future product returns and allowances are recorded in the period of the sale based on the historical and anticipated future rate of returns. Revenue is recorded net of any discounts or trade-in allowances given to the buyer.

Collaboration, License and Other Revenue

Revenue from our collaboration and license agreements was insignificant to total revenues for each period presented. Collaboration and license agreements may include non-refundable upfront payments, partial or complete reimbursement of research and development costs, contingent payments based on the occurrence of specified events under the agreements, license fees and royalties on sales of products or product candidates if they are successfully commercialized. Our performance obligations under the collaboration and license agreements may include the transfer of intellectual property rights in the form of licenses, obligations to provide research and development services and obligations to participate on certain development committees with the collaboration partners. We make judgments that affect the periods over which we recognize revenue. We periodically review our estimated periods of performance based on the progress under each arrangement and account for the impact of any change in estimated periods of performance on a prospective basis.

Cost of Testing

Cost of testing reflects the aggregate costs incurred in delivering our test results to clinicians. The components of our cost of testing are materials and service costs, direct labor costs, including stock-based compensation, equipment and infrastructure expenses associated with testing samples on-site, logistics and specimen processing charges to collect and transport samples and allocated overhead including rent, information technology, equipment depreciation, utilities and royalties. Due to the significant fixed costs of testing, cost per test and gross margin are sensitive to changes in test volume. Costs associated with performing tests (except royalties) are recorded as the test is processed regardless of whether and when revenue is recognized with respect to that test. As a result, our cost of testing as a percentage of revenue may vary significantly from period to period because we do not recognize all revenue in the period in which the associated costs are incurred. Royalties for licensed technology, calculated as a percentage of test revenues, are recorded as license fees in cost of testing at the time the test revenues are recognized.

Royalties incurred for licensed technology, calculated as a percentage of test revenues, are recorded as license fees in cost of testing at the time the test revenues are recognized. Royalties included in cost of testing are associated with a license of certain technology

relating to polymerase chain reaction, or PCR, and quantitative real-time PCR in clinical laboratory services from Roche Molecular Systems, Inc., or Roche. In September 2014, we agreed with Roche to a downward adjustment of the royalty rate. As part of this agreement, no further royalties will be payable by us for periods after September 30, 2017.

Cost of Product

Cost of product reflects the aggregate costs incurred in delivering our products to customers. The components of cost of product are material costs, manufacturing and kit assembly costs, direct labor costs, including equipment and infrastructure expenses associated with preparing kitted products for shipment, shipping, distributorship agreements, and allocated overhead including rent, information technology, equipment depreciation and utilities. Cost of product also includes amortization of acquired developed technology and adjustments to inventory values, including write-down of impaired, slow moving or obsolete inventory.

Research and Development Expenses

Research and development expenses represent costs incurred to develop new pre- and post-transplant diagnostic solutions as well as continued efforts related to improving our existing product lines. These expenses include payroll and related expenses, consulting expenses, laboratory supplies, and certain allocated expenses as well as amounts incurred under certain collaborative agreements. Research and development costs are expensed as incurred. We record accruals for estimated study costs comprised of work performed by contract research organizations under contract terms. We expect our research and development expenses will increase in absolute dollars in future periods as we invest in research and discovery work to develop new surveillance solutions, as well as clinical outcomes studies for AlloMap and a clinical utility study for AlloSure.

Sales and Marketing Expenses

Sales and marketing expenses represent costs incurred to sell, promote and increase awareness of our existing product lines to clinicians, hospital laboratories, and payers. These efforts also include education of patients, clinicians, payers, and other relevant decision makers. Sales and marketing expenses include payroll and related expenses, educational and promotional expenses, and infrastructure expenses, including allocated facility and overhead costs. Compensation related to sales and marketing includes annual salaries and eligibility for periodic commissions or bonuses based on the achievement of predetermined sales goals or other management objectives. We expect sales and marketing expenses to increase in the future as we continue to expand our presence in the transplant diagnostic marketplace.

General and Administrative Expenses

General and administrative expenses include costs for our executive, finance, accounting and human resources functions. Costs consist primarily of payroll and related expenses, professional service fees related to billing and collection, accounting, legal and other contract and administrative services and related infrastructure expenses, including allocated facility and overhead costs. We expect to continue to incur additional expenses as a result of operating as a public company, including expenses related to compliance with the rules and regulations of the SEC and The NASDAQ Stock Market LLC, additional insurance expenses, investor relations activities and other administrative and professional services. For the three and six months ended June 30, 2016, general and administrative expenses also included transaction related fees and expenses associated with the acquisition of Allenex and completion of the Private Placement and Subsequent Financing. Following the completion of the acquisition of Allenex and excluding costs incurred in connection with the acquisition of Allenex, we expect our general and administrative expenses will increase as we incur additional costs to finance our operations and growth, to integrate Allenex’s business with ours, comply with internal control requirements and other costs to operate globally.

Change in Estimated Fair Value of Contingent Consideration

The consideration for our business combination with IMX, which occurred in June 2014, includes a future payment that is contingent upon the achievement of a specified milestone. We recorded a contingent consideration liability at its fair value in June 2014, at the acquisition date. We revalue our contingent consideration obligation each reporting period. Changes in the fair value of our contingent consideration obligation are recognized as a component of operating expense within our condensed consolidated statements of operations.

Interest Expense

Interest expense is associated with borrowings under our loan agreements.

Other Expense

For the three and six months ended June 30, 2016, other expense primarily consisted of a charge recorded to expense financing costs associated with a proposed six-month bridge loan with Oberland, based on our determination that it was not probable that the bridge loan would be consummated. For the three and six months ended June 30, 2015, other expense primarily consisted of state franchise taxes.

Change in Estimated Fair Value of Common Stock Warrant Liability

The freestanding warrants issued in connection with the Private Placement, Subsequent Financing and Placement Agent Warrants are recorded at their estimated fair value. The warrants were remeasured on June 30, 2016 and will be remeasured at each subsequent balance sheet date with changes recorded to change in estimated fair value of common stock warrant liability on the condensed consolidated statements of operations.

Results of Operations

Comparison of the Three Months Ended June 30, 2016 and 2015

(In thousands, except for AlloMap test results delivered)

	Three Months Ended June 30,	
	2016	2015
AlloMap test results delivered	3,597	3,259
Revenue:		
Testing revenue	$7,249	$7,044
Product revenue	3,475	—
Collaboration, license and other revenue	11	85
Total revenue	10,735	7,129
Operating expenses:		
Cost of testing	2,852	2,508
Cost of product	3,056	—
Research and development	3,143	2,510
Sales and marketing	3,356	2,526
General and administrative	5,393	2,329
Change in estimated fair value of contingent consideration	(97)	142
Total operating expenses	17,703	10,015
Loss from operations	(6,968)	(2,886)
Interest expense	(526)	(256)
Other expense	(274)	(43)
Change in estimated fair value of common stock warrant liability	(3,165)	—
Income tax benefit	440	—
Net loss attributable to noncontrolling interest	23	—

Net loss attributable to CareDx, Inc.	$(10,470)	$(3,185)

Testing Revenue

Testing revenue increased by $0.2 million, or 3%, for the three months ended June 30, 2016 as compared to the same period of 2015. AlloMap test results delivered increased by 338, or 10%, for the three months ended June 30, 2016 as compared to the same period of 2015. The increase in testing revenue of $0.2 million was due to increased revenue of $0.4 million from our accrual basis payers as a result of an increase in testing volume, partially offset by a decrease in collections of $0.2 million from our cash basis payers. We hired additional full-time and temporary employees during the three months ended June 30, 2016, as part of a plan to increase our rate of collections.

Product Revenue

The product revenue reported for the three months ended June 30, 2016 was generated by Allenex following our acquisition of Allenex on April 14, 2016, and represents our sales of the Olerup SSP and other Allenex products.

Collaboration, License and Other Revenue

Collaboration, license and other revenue decreased by approximately $0.1 million, or 87%, for the three months ended June 30, 2016 as compared to the same period of 2015 due to a decrease in royalties received under our services agreement with CardioDx, Inc.

Cost of Testing and Product

Cost of testing increased by approximately $0.3 million, or 14%, for the three months ended June 30, 2016 as compared to the same period of 2015. The increase primarily resulted from an increase in expenditures on laboratory materials to support the increase in testing volume.

Cost of product reported for the three months ended June 30, 2016 were incurred by us following the acquisition of Allenex on April 14, 2016, and represent cost of product from our sales of Olerup SSP and other Allenex products. Cost of product includes $1.3 million of amortization of the acquisition-related mark-up in the value of inventory and $0.3 million of acquisition-related amortization of intangible assets.

Research and Development

Research and development expenses increased by $0.6 million, or 25%, for the three months ended June 30, 2016 as compared to the same period of 2015. The increase reflects higher headcount related expenses and additional expenditures to support the launch of the dd-cfDNA clinical trials. The increase also reflects our acquisition of Allenex on April 14, 2016. We incurred approximately $0.3 million of research and development expenses primarily for the development of QTYPE subsequent to the acquisition.

Sales and Marketing

Sales and marketing expenses increased by approximately $0.8 million, or 33%, for the three months ended June 30, 2016 as compared to the same period of 2015. This increase reflects our acquisition of Allenex on April 14, 2016. We incurred approximately $1.1 million of sales and marketing expenses related to the Allenex business subsequent to the acquisition, including $0.2 million of acquisition-related amortization of purchased intangible assets. This increase was partially offset by reduced spending on discretionary marketing activities of $0.2 million.

General and Administrative

General and administrative expenses increased by approximately $3.1 million, or 132%, for the three months ended June 30, 2016 as compared to the same period of 2015. This increase reflects $1.6 million of audit, legal, tax and other professional and consulting fees incurred in connection with our acquisition of Allenex. The increase also reflects approximately $0.7 million of general and administrative expenses incurred by our Allenex business subsequent to the acquisition. Additionally, there was an increase of $0.4 million in consulting, and an increase of $0.3 million for higher headcount expenses.

Change in Estimated Fair Value of Contingent Consideration

The consideration for our business combination with IMX, which occurred in June 2014, includes a future payment that is contingent upon the achievement of a specified milestone which is included on our balance sheets as a contingent consideration liability. We revalued the contingent consideration liability for each of the three months ended June 30, 2016 and 2015 and recognized a non-cash gain of $0.1 million and loss of $0.1 million, respectively, in our condensed consolidated statements of operations as a result of the increase and decline, respectively, of the price of our common stock during those periods.

Interest Expense

Interest expense increased by $0.3 million, or 106%, for the three months ended June 30, 2016 as compared to the same period of 2015. In connection with our acquisition of Allenex, we assumed its existing debt and incurred interest expense of $0.1 million following the acquisition. In addition, we incurred interest expense of $0.1 million on the deferred purchase consideration payable to the Majority Shareholders following our acquisition of Allenex.

Other Expense

Other expense for the three months ended June 30, 2016 increased by $0.2 million as compared to the same period of 2015. We incurred $0.2 million related to foreign currency transactions charges during the three months ended June 30, 2016.

Change in Estimated Fair Value of Common Stock Warrant Liability

During the three months ended June 30, 2016, we incurred a $3.2 million charge for the remeasurement of the fair value of warrants issued in the Private Placement, Subsequent Financing and Placement Agent Warrants.

Comparison of the Six Months Ended June 30, 2016 and 2015

(In thousands, except for AlloMap test results delivered)

	Six Months Ended June 30,	
	2016	2015
AlloMap test results delivered	6,961	6,370
Revenue:		
Testing revenue	$13,704	$14,139
Product revenue	3,475	—
Collaboration, license and other revenue	118	205
Total revenue	17,297	14,344
Operating expenses:		
Cost of testing	5,624	5,218
Cost of product	3,056	—
Research and development	6,302	3,931
Sales and marketing	5,093	4,549
General and administrative	11,070	5,034
Change in estimated fair value of contingent consideration	(310)	(111)
Total operating expenses	30,835	18,621
Loss from operations	(13,538)	(4,277)
Interest expense	(783)	(1,083)
Other expense	(3,200)	(97)
Change in estimated fair value of common stock warrant liability	(3,165)	—
Income tax benefit	440	—
Net loss attributable to noncontrolling interest	23	—
Net loss attributable to CareDx, Inc.	$(20,223)	$(5,457)

Testing Revenue

Testing revenue decreased by $0.4 million, or 3%, for the six months ended June 30, 2016 as compared to the same period of 2015. AlloMap test results delivered increased by 591, or 9%, for the six months ended June 30, 2016 as compared to the same period of 2015. The decrease in testing revenue during the six months ended June 30, 2016 of $0.4 million was due to lower collections from our cash basis payers, partially offset by a $0.1 million increase in test volume from our accrual basis payers. We hired additional full-time and temporary employees during the six months ended June 30, 2016 as part of a plan to increase our rate of collections.

Product Revenue

The product revenue reported for the six months ended June 30, 2016 was generated by Allenex following our acquisition of Allenex on April 14, 2016, and represents our sales of the Olerup SSP and other Allenex products.

Collaboration, License and Other Revenue

Collaboration, license and other revenue decreased by approximately $0.1 million, or 42%, during the six months ended June 30, 2016 as compared to the same period of 2015 due to a decrease in royalties received under our services agreement with CardioDx, Inc.

Cost of Testing and Product

Cost of testing increased by approximately $0.4 million, or 8%, during the six months ended June 30, 2016 as compared to the same period of 2015. The increase primarily resulted from an increase in our expenditures on laboratory materials to support the increase in testing volume.

Cost of product reported for the six months ended June 30, 2016 were incurred by us following our acquisition of Allenex on April 14, 2016, and represents cos