CareDx, Inc.
Form 10-Q
May 10, 2018

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the quarterly period ended March 31, 2018

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the transition period from to

Commission file number: 001-36536

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 No

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

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

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

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

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

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

There were 35,283,152 shares of the registrant's Common Stock issued and outstanding as of May 8, 2018.

CareDx, Inc.

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PART I. FINANCIAL INFORMATION

ITEM 1. UNAUDITED CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

CareDx, Inc.

Condensed Consolidated Balance Sheets

(Unaudited)

(In thousands, except share data)

	March 31, 2018	December 31, 2017
Assets		
Current assets:		
Cash and cash equivalents	$18,695	$16,895
Accounts receivable	6,536	2,991
Inventory	5,011	5,529
Prepaid and other assets	2,455	1,352
Total current assets	32,697	26,767
Property and equipment, net	2,055	2,075
Intangible assets, net	31,989	33,139
Goodwill	12,005	12,005
Restricted cash	206	9,579
Total assets	$78,952	$83,565
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	$4,269	$3,391
Accrued payroll liabilities	3,707	5,013
Accrued and other liabilities	4,392	3,735
Deferred revenue	39	39
Deferred purchase consideration	577	407
Derivative liability	—	14,600
Current debt	461	15,721
Total current liabilities	13,445	42,906
Deferred rent, net of current portion	802	913
Deferred revenue, net of current portion	721	730
Deferred tax liability	4,415	4,933
Long-term debt, net of current portion	9,729	18,338
Contingent consideration	1,816	1,672
Common stock warrant liability	13,247	18,712
Other liabilities	1,384	1,315
Total liabilities	45,559	89,519
Commitments and contingencies (Note 8)		
Stockholders' equity:		
Preferred stock: $0.001 par value; 10,000,000 shares authorized at March 31, 2018 and December 31, 2017; no shares issued and outstanding at March 31, 2018	—	—

and December 31, 2017		
Common stock: $0.001 par value; 100,000,000 shares authorized at March 31, 2018 and December 31, 2017; 35,240,782 shares and 28,825,019 shares issued and outstanding at March 31, 2018 and December 31, 2017, respectively	35	29
Additional paid-in capital	309,898	264,204
Accumulated other comprehensive loss	(2,482)	(2,345)
Accumulated deficit	(274,058)	(268,022)
Total CareDx, Inc. stockholders' equity (deficit)	33,393	(6,134)
Noncontrolling interest	—	180
Total stockholders’ equity (deficit)	33,393	(5,954)
Total liabilities and stockholders’ equity	$78,952	$83,565

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 March 31,	
	2018	2017
Revenue:		
Testing revenue	$ 10,604	$ 7,902
Product revenue	3,307	3,667
License and other revenue	142	15
Total revenue	14,053	11,584
Operating expenses:		
Cost of testing	4,112	3,057
Cost of product	2,272	2,327
Research and development	3,368	3,283
Sales and marketing	4,085	3,222
General and administrative	5,307	6,502
Goodwill impairment	—	1,958
Change in estimated fair value of contingent consideration	144	(221)
Total operating expenses	19,288	20,128
Loss from operations	(5,235)	(8,544)
Interest expense	(2,695)	(790)
Other expense, net	(2,809)	(686)
Change in estimated fair value of common stock warrant liability and derivative liability	1,321	4,128
Loss before income taxes	(9,418)	(5,892)
Income tax benefit	424	283
Net loss	(8,994)	(5,609)
Net loss attributable to noncontrolling interest	(25)	(47)
Net loss attributable to CareDx, Inc.	$ (8,969)	$ (5,562)
Net loss per share attributable to CareDx, Inc. (Note 3):		
Basic	$ (0.30)	$ (0.26)
Diluted	$ (0.30)	$ (0.26)
Weighted average shares used to compute net loss per share attributable to CareDx, Inc.:		
Basic	29,615,441	21,343,782
Diluted	29,615,441	21,343,782

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

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CareDx, Inc.

Condensed Consolidated Statements of Comprehensive Loss

(Unaudited)

(In thousands)

	Three Months Ended March 31,	
	2018	2017
Net loss	$ (8,994)	$ (5,609)
Other comprehensive (loss) income:		
Foreign currency translation adjustments	(137)	264
Net comprehensive loss	(9,131)	(5,345)
Comprehensive loss attributable to noncontrolling interest, net of tax	(25)	(52)
Comprehensive loss attributable to CareDx, Inc.	$ (9,106)	$ (5,293)

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)

	Three Months Ended March 31,	
	2018	2017
Operating activities:		
Net loss	$(8,994)	$(5,609)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation and amortization	1,039	934
Amortization of inventory fair market value adjustment	164	32
Loss on conversion of JGB debt to shares of common stock	2,806	—
Amortization of debt discount and noncash interest expense	2,084	627
Revaluation of common stock warrant liability and derivative liability to estimated fair value	(1,321)	(4,128)
Stock-based compensation	706	391
Revaluation of contingent consideration to estimated fair value	144	(221)
Non-cash goodwill impairment	—	1,958
Changes in operating assets and liabilities:		
Accounts receivable	(606)	(576)
Inventory	196	470
Prepaid and other assets	(510)	(245)
Accounts payable	835	382
Accrued payroll liabilities	(1,358)	(865)
Accrued and other liabilities	654	382
Change in deferred revenue	(10)	(2)
Change in deferred taxes	(347)	(271)
Net cash used in operating activities	(4,518)	(6,741)
Investing activities:		
Acquisition of Allenex AB	(692)	—
Purchase of property and equipment	(62)	(68)
Net cash used in investing activities	(754)	(68)
Financing activities:		
Proceeds from debt, net of issuance costs	—	24,002
Perceptive term loan issuance costs	(584)	—
Proceeds from issuance of common stock under employee stock purchase plan	32	44
Principal payments on debt and capital lease obligations	(1,633)	(12,915)
Acquisition of Conexio Genomics Pty Ltd.	(13)	—
Change in short term credit facility	(225)	—
Proceeds from exercise of warrants	25	—
Proceeds from exercise of stock options	80	—
Net cash (used in) provided by financing activities	(2,318)	11,131
Effect of exchange rate changes on cash and cash equivalents	17	17

Net increase (decrease) in cash, cash equivalents and restricted cash	(7,573)	4,339
Cash, cash equivalents, and restricted cash at beginning of period	26,474	17,401
Cash, cash equivalents, and restricted cash at end of period	$18,901	$21,740
Supplemental disclosure of cash flow information:		
Deferred purchase consideration	$—	$1,018

Cash, Cash Equivalents and Restricted Cash as of:	March 31, 2018	December 31, 2017
Cash and cash equivalents	$18,695	$16,895
Restricted cash	206	9,579
Total cash, cash equivalents and restricted cash at the end of period	$18,901	$26,474

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, is a 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 and AlloSure®, which is a donor-derived cell free DNA ("dd-cfDNA") test initially used for kidney transplant patients. In pre-transplant diagnostics, the Company offers 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.

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.

On October 9, 2017, the Company commercially launched AlloSure, its proprietary next-generation sequencing-based test to measure dd-cfDNA after transplantation. The Company believes the use of AlloSure, in conjunction with other clinical indicators, can help healthcare providers and their patients better manage long-term care following a kidney transplant. In particular, the Company believes AlloSure can improve patient care by helping healthcare providers to reduce the use of invasive biopsies and determine the appropriate dosage levels of immunosuppressants.

The Company also develops, manufactures, markets and sells 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 Human Leukocyte Antigen, or HLA alleles, based on the sequence specific primer, or SSP technology. Olerup SBT™ is a complete product range for sequence-based typing, of HLA alleles. Olerup QTYPE® enables speed and precision in HLA typing at a low to intermediate resolution for samples that require a fast turn-around-time and uses real-time polymerase chain reaction, or PCR methodology. QTYPE received CE mark certification on April 10, 2018.

On May 4, 2018, the Company entered into a License and Commercialization Agreement with Illumina, Inc. ("Illumina"), which provides the Company with worldwide distribution, development and commercialization rights to Illumina's next generation sequencing ("NGS") product line for use in transplantation diagnostic testing. See Note 17 for further details.

The Company's headquarters are in Brisbane, California; primary operations are in Brisbane, U.S. and Stockholm, Sweden; and the Company 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 $274.1 million at March 31, 2018. As of March 31, 2018, the Company had cash and cash equivalents of $18.7 million, and $10.2 million of debt outstanding under its debt obligations, of which $0.5 million is current.

On April 17, 2018, the Company entered into a new credit agreement with Perceptive Credit Holdings II, LP ("Perceptive") for an initial term loan of $15.0 million and repaid the outstanding indebtedness of the promissory notes issued by Allenex AB ("Allenex") to FastPartner AB and Mohammed Al Moudi and the term loan and credit facility with Danske Bank A/S ("Danske"). A second tranche of $10.0 million will be available at the Company's option subject to the satisfaction of customary conditions. Refer to Note 17 for additional details.

The Company may require additional financing in the future to fund working capital and pay its obligations as they come due. Additional financing might include one or more offerings and one or more of a combination of equity securities, debt arrangements or collaborations. However, there can be no assurance that the Company will be successful in acquiring additional funding at levels sufficient to fund its operations or on terms favorable to the Company. The Company believes that the net proceeds from the Perceptive refinancing, as well as its existing cash balance and expected revenues, will be sufficient to meet its anticipated cash requirements for at least the next 12 months.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

The significant accounting policies and estimates used in preparation of the unaudited condensed consolidated financial statements are described in the Company's audited consolidated financial statements as of and for the year ended December 31, 2017, and the notes thereto, which are included in the Company's Annual Report on Form 10-K. Material changes to the significant accounting policies previously disclosed in the Company's Annual Report on Form 10-K for the year ended December 31, 2017 are reflected below.

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("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, 2017 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 months ended March 31, 2018 are not necessarily indicative of the results that may be expected for the year ending December 31, 2018.

The accompanying unaudited condensed consolidated financial statements include the accounts of the Company and its subsidiaries. Intercompany transactions have been eliminated. The Company acquired CareDx International AB, formerly Allenex AB, or Allenex, on April 14, 2016. Since the acquisition of Allenex through March 15, 2018, the Company owned less than 100% of the shares of Allenex and recorded a net loss attributable to noncontrolling interest in its condensed consolidated statements of operations equal to the percentage of the economic or ownership interest retained by the respective noncontrolling parties in such entities. On March 15, 2018, the Company acquired the remaining noncontrolling interest in Allenex and has not reported any noncontrolling interest balances since this date.

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) variable transaction price consideration related to contracts with customers, (ii) the determination of the accruals for clinical studies, (iii) the fair value of assets and liabilities acquired in business

combinations, including contingent consideration, (iv) inventory valuation, (v) the valuation of common stock warrant liability, (vi) the fair value of embedded derivatives, (vii) measurement of stock-based compensation expense, (viii) the determination of the valuation allowance and estimated tax benefit associated with deferred tax assets and net deferred tax liability, (ix) any impairment of long-lived assets, including in-process technology and goodwill, and (x) legal contingencies. Actual results could differ from those estimates.

Concentrations of Credit Risk and Other Risks and Uncertainties

For the three months ended March 31, 2018 and 2017, approximately 42% and 28%, respectively, of total revenue was derived from Medicare. No other payers or customers represented more than 10% of total revenue for these periods

At March 31, 2018 and December 31, 2017, approximately 19% and 16%, respectively, of accounts receivable was due from Medicare. No other payer or customer represented more than 10% of accounts receivable on either March 31, 2018 or December 31, 2017.

Restricted Cash

A restricted cash balance of $9.4 million was released and is no longer classified as restricted cash as of March 31, 2018, upon the full conversion of the debt obligation to JGB Collateral LLC and certain of its affiliates (“JGB”) (refer to Note 10).

As a condition of the lease agreements for certain facilities and an agreement with the State of Florida Medicaid, the Company must maintain letters of credit, minimum collateral requirements and a surety bond. These agreements are collateralized by cash. The cash

used to support these arrangements is classified as long-term restricted cash on the accompanying condensed consolidated balance sheets.

Common Stock Warrant Liability and Derivative Liability

Common Stock Warrant Liability

On January 1, 2018, the Company adopted Accounting Standard Update ("ASU") 2017-11, Accounting for Certain Financial Instruments with Down Round Features and Replacement of the Indefinite Deferral of Mandatorily Redeemable Financial Instruments of Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception. The Company determined that the common stock warrants issued to JGB meet equity classification criteria under the new standard and reclassified $6.6 million (fair value of JGB warrants as of January 1, 2018) from warrant liability to equity (additional paid in capital). The new standard did not impact the classification of other warrants included in the warrant liability balance as these financial instruments have other down-round anti-dilution adjustments features.

Derivative Liability

The JGB Debt included certain embedded derivatives that required bifurcation, including settlement and penalty provisions. The combined embedded derivative was remeasured at each reporting period with changes recorded in change in estimated fair value of common stock warrant liability and derivative liability in the condensed consolidated statements of operations. As of March 27, 2018, the JGB Debt was fully converted to shares of the Company's common stock. The change in the fair market value of the derivative liability through March 27, 2018 was recorded in change in estimated fair value of common stock warrant liability and derivative liability in the condensed consolidated statements of operations.

Revenue

The Company recognizes revenue from testing services, products, and license and other revenue in the amount that reflects the consideration which it expects to be entitled in exchange for goods or services as it transfers control to its customers. Revenue is recorded considering a five-step model that includes identifying the contract with a customer, identifying the performance obligations in the contract, determining the transaction price, allocating the transaction price to the performance obligations, and recognizing revenue when, or as, an entity satisfies a performance obligation.

Testing Revenue

AlloMap and AlloSure patient tests are ordered by healthcare providers. The Company receives a test requisition form with payer information along with a collected patient blood sample. The Company considers the patient to be its customer and the test requisition form a contract. Testing services are performed in the Company's laboratory. Testing services represent one performance obligation in a contract and are performed when results of the test are provided to the healthcare provider, at a point of time.

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. The first and second revenue recognition criteria are satisfied when the Company receives a test requisition form with payer information from the healthcare provider. Generally, the Company bills third-party payers upon delivery of an AlloMap or AlloSure test result to the healthcare provider. Amounts received may vary amongst payers based on coverage practices and policies of the payer. The Company has used the portfolio approach, a practical expedient under the new standard, to identify financial classes of payers.

Transaction prices are determined for each financial class using history of reimbursements, including analysis of an average reimbursement per test and a percentage of tests reimbursed. The Company estimates revenue for non-contracted payers and self-payers using this methodology. The estimate requires significant judgment. Revenue recognized for Medicare and other contracted payers is based on the agreed current reimbursement rate per test, adjusted for historical collection trends where applicable.

The Company monitors revenue estimates at each reporting period based on actual cash collections in order to assess whether a revision to the estimate is required. Changes in transaction price estimates are updated quarterly based on actual cash collected or changes made to contracted rates.

Product Revenue

Product revenue is recognized from the sale of products to end-users, distributors and strategic partners when all revenue recognition criteria are satisfied. The Company generally has a contract or a purchase order from a customer with the specified required terms of order including the number of products ordered. Transaction prices are determinable and products are delivered and risk of loss passed to the customer upon either shipping or delivery, as per the terms of the agreement. There are no further performance obligations related to a contract and revenue is recognized at the point of delivery consistent with the terms of the contract or purchase order.

License and Other Revenue

The Company generates revenue from license agreements. 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 the 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. The Company makes judgments to determine if performance obligations are distinct or should be combined and the transaction price allocated to each performance obligation, which affect the periods over which revenue is recognized. 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's deferred revenue relates to one performance obligation which should be recognized over time.

The Company might constrain a variable consideration such as milestones, if it is probable that a significant portion of revenue would be reversed. The Company did not recognize any revenue connected with milestones during the three months ended March 31, 2018 or 2017.

Cost of Testing

Cost of testing reflects the aggregate costs incurred in delivering the Company's testing services. The components of cost of testing are materials and service costs, direct labor costs, stock-based compensation, equipment and infrastructure expenses associated with testing samples, shipping, logistics and specimen processing charges to collect and transport samples and allocated overhead including rent, information technology, equipment depreciation, utilities and royalties. Prior to adoption of the new revenue guidance, we recorded costs of testing associated with performing tests (except royalties) in the period when tests were performed without consideration if revenue was recognized in the same period. With the adoption of the new revenue standard on January 1, 2018, revenue and cost of testing for tests performed are recognized in the same period. 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.

Recent Accounting Pronouncements

On January 1, 2018, the Company adopted the new revenue accounting standard Revenue from Contracts with Customers (Topic 606) ("ASC 606") using the modified retrospective method. The adoption of ASC 606 resulted in a one-time adjustment of $2.9 million to accounts receivable and retained earnings on January 1, 2018. The adjustment reflects the estimated payment to be received for tests where the result had been delivered at December 31, 2017, but associated revenue had not been recognized by December 31, 2017, because payment had not been received. The new standard did not impact the Company's product revenue and license and other revenue nor did it impact contract assets or contract liabilities.

The following table summarizes the impact of the ASC 606 adoption on accounts receivable as of March 31, 2018 (in thousands):

	Balance as Reported	Balance without the adoption of ASC 606	Impact of Adoption of ASC 606

Balance Sheets			
Accounts Receivable	$ 6,536	$ 3,546	$ 2,990

The following table summarizes the impact to the statement of operations in accordance with the new revenue standard requirements for the three months ended March 31, 2018 (in thousands):

	Balance As Reported	Balance without the adoption of ASC 606	Revenue Impact of adoption of ASC 606
Statements of Operations			
Testing revenue	$ 10,604	$ 10,592	$ 12
Product revenue	3,307	3,307	—
License and other revenue	142	142	—
	$ 14,053	$ 14,041	$ 12

In February 2016, the FASB issued Accounting Standards Update, ASU, No. 2016-02, Leases (Topic 842), 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, generally on a straight-line basis. This guidance will be effective for the Company on January 1,

2019 and may be adopted using a modified retrospective transition approach. Early adoption is permitted. The Company is currently assessing the impact of that guidance on its consolidated financial statements.

In August 2016, the FASB issued ASU No. 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments (a consensus of the Emerging Issues Task Force) ("ASU 2016-15"), to reduce the diversity in practice with respect to the presentation of certain cash flows. The ASU is effective for interim and annual periods beginning after December 15, 2017. The Company adopted ASU 2016-15 on January 1, 2018 on a retrospective basis. The adoption of ASU 2016-15 did not have a material impact on the Company's condensed consolidated financial statements.

In November 2016, the FASB issued ASU No. 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash (a consensus of the FASB Emerging Issues Task Force) ("ASU 2016-18"). This guidance requires that a statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. Therefore, amounts generally described as restricted cash and restricted cash equivalents should be included with cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. ASU 2016-18 is effective for all interim and annual reporting periods beginning after December 15, 2017. The Company adopted ASU 2016-18 on January 1, 2018 on a retrospective basis and included restricted cash together with cash and cash equivalents in its condensed consolidated statements of cash flows.

In May 2017, the FASB issued ASU No. 2017-09, Compensation—Stock Compensation (Topic 718): Scope of Modification Accounting ("ASU 2017-09"). The amendments provide guidance about how to account for changes to terms or conditions of a share-based payment award required under modification accounting. ASU 2017-09 is effective for all interim and annual reporting periods beginning after December 15, 2017. The Company adopted ASU 2017-09 on January 1, 2018 on a prospective basis and the adoption of ASU 2017-09 did not have a material impact to the condensed consolidated financial statements.

In July 2017, the FASB issued ASU No. 2017-11, Accounting for Certain Financial Instruments with Down Round Features and Replacement of the Indefinite Deferral of Mandatorily Redeemable Financial Instruments of Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception ("ASU 2017-11"). ASU 2017 is effective for all interim and annual reporting periods beginning on or after December 15, 2018 with early adoption permitted. The Company adopted ASU 2017-11 on January 1, 2018 the adoption resulted in the JGB common stock warrant liability balance being reclassified to additional paid in capital (Refer to Note 13).

In February 2018, the FASB issued ASU No. 2018-02, Income Statement – Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income ("ASU 2018-02"). The amendments in ASU 2018-02 allow a reclassification from accumulated other comprehensive income to retained earnings for certain tax effects resulting from the Tax Cuts and Jobs Act (the "Tax Act"). The Company is still reviewing the Tax Act and its impact to the condensed consolidated financial statements. ASU 2018-02 will become effective for all interim and annual reporting periods beginning after December 15, 2018 and may be applied retrospectively or as of the beginning of the period of adoption.

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 March 31,	
	2018	2017
Numerator:		
Net loss attributable to CareDx, Inc. used to compute basic and diluted net loss per share	$(8,969)	$(5,562)
Denominator:		
Weighted-average shares used to compute basic and diluted net loss per share attributable to CareDx, Inc.	29,615,441	21,343,782
Net loss per share attributable to CareDx, Inc.:		
Basic and diluted	$(0.30)	$(0.26)

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

	March 31, 2018	2017
Shares of common stock subject to outstanding options	1,940,010	1,881,416
Shares of common stock subject to outstanding common stock warrants	3,633,565	4,509,926
Shares of common stock subject to convertible notes	—	6,092,105
Shares of common stock subject to contingent consideration	227,845	227,845
Restricted stock units	441,804	440,910
Total common stock equivalents	6,243,224	13,152,202

On October 10, 2017, the Company completed an underwritten public offering (the "2017 Public Offering"), pursuant to which the Company issued and sold an aggregate of 4,992,840 shares. During 2017 and the three months ended March 31, 2018, 6,415,039 shares of common stock subject to convertible notes were issued due to the conversion of the JGB debt.

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. 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, as of March 31, 2018 and December 31, 2017 (in thousands):

	March 31, 2018 Fair Value Measured Using

	(Level 1)	(Level 2)	(Level 3)	Total Balance
Assets				
Money market funds	$17,494	$ —	$ —	$17,494
Liabilities				
Contingent consideration	$—	$ —	$1,816	$1,816
Common stock warrant liability	—	—	13,247	13,247
Derivative liability	—	—	—	—
Total liabilities	$—	$ —	$15,063	$15,063

	December 31, 2017 Fair Value Measured Using			Total
	(Level 1)	(Level 2)	(Level 3)	Balance
Assets				
Money market funds	$13,097	$ —	$ —	$13,097
Liabilities				
Contingent consideration	$—	$ —	$ 1,672	$1,672
Common stock warrant liability	—	—	18,712	18,712
Derivative liability	—	—	14,600	14,600
Total liabilities	$—	$ —	$ 34,984	$34,984

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	Common Stock Warrant Liability	Derivative Liability	Total
Balance as of December 31, 2017	$1,672	$18,712	$ 14,600	$34,984
Exercise of warrants	—	(127)	—	(127)
Conversion of JGB debt to common stock (Note 10)	—	—	(12,066)	(12,066)
Reclassification to equity (Note 2)	—	(6,550)	—	(6,550)
Change in estimated fair value	144	1,212	(2,534)	(1,178)
Balance as of March 31, 2018	$1,816	$13,247	$ —	$15,063

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 March 31, 2018 and December 31, 2017, money market funds were included on the balance sheets in cash and cash equivalents.
- Contingent consideration liability - As of March 31, 2018 and December 31, 2017, the Company had a contingent obligation to issue 227,845 shares of the Company's common stock to the former owners of ImmuMetrix, Inc., or IMX, in conjunction with its acquisition of IMX in June 2014. The issuance of shares 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 fair value of the contingent consideration is estimated using the closing market price of the common stock multiplied by management's estimate of the probability of achievement of the contingency condition disclosed above, as of each period end. The probability of achievement of a contingency condition is a significant input in the Level 3 measurement and ranged from 80% to 100% in presented periods. The changes in the fair value of $0.1 million and $(0.2) million were recorded as a change in estimated fair value of contingent

consideration within the operating expenses during the three months ended March 31, 2018 and 2017, respectively. Increases (decreases) in the estimation of the probability percentage result in a directionally similar impact to the fair value of the contingent consideration liability.

- Common stock warrant liability – The Company utilizes a binomial-lattice pricing model (the Monte Carlo Simulation Model) that involves a market condition simulation to estimate the fair value of the warrants. The application of the Monte Carlo Simulation Model requires 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. Increases (decreases) in the assumptions discussed above result in a directionally similar impact to the fair value of the common stock warrant liability.

- Derivative liability –The Company utilized the Monte Carlo Simulation Model to estimate the fair value of the compound derivative liability recorded in connection with the JGB Debt. The Monte Carlo Simulation Model used multiple input assumptions to simulate the likelihood that market conditions will be achieved through 100,000 random trials. These assumptions included the expected term of the embedded derivative, the volatility of the Company's stock prices and its peers' stock prices over such expected term, likelihood, timing, and amount of future equity financing rounds, the likelihood of any prepayment or default events, the likelihood of monthly redemptions by the JGB Debt holders, and the likelihood and ability of JGB to convert the debt into equity. In each iteration of the simulations these assumptions were used to simulate the Company's stock price drawing from a risk neutral distribution, the occurrence of a conversion event, the occurrence of a prepayment event, the occurrence of a default event, and any resulting payoff from such event. The average present value over all iterations of the simulation was then calculated. Increases (decreases) in the assumptions discussed above result in a directionally similar impact to the fair value of the derivative liability. The assumptions used in this simulation model were reviewed on a quarterly basis and adjusted, as needed. For the three months ended March 31, 2017 and from January 1, 2018 to March 27, 2018, the Company recorded the changes in fair value of the derivative liability of $0.8 million income and of $2.5 million income, respectively, in the change in estimated value of common stock warrant liability and derivative liability in its condensed consolidated statements of operations. The derivative liability was re-measured and fully extinguished upon the final JGB Debt conversion on March 27, 2018 (see Note 10).

Common Stock Warrant Liability and Derivative Liability Valuation Assumptions

	March 31, 2018	December 31, 2017
Private Placement Common Stock Warrant Liability		
Stock Price	$ 7.97	$ 7.34
Exercise Price	$ 1.12	$ 1.12
Remaining term (in years)	5.04	5.29
Volatility	68.00 %	66.00 %
Risk-free interest rate	2.53 %	2.21 %
Subsequent Financing Common Stock Warrant Liability		
Stock Price	$ 7.97	$ 7.34
Exercise Price	$ 4.00	$ 4.00
Remaining term (in years)	5.21	5.46
Volatility	67.00 %	65.00 %
Risk-free interest rate	2.54 %	2.21 %
Placement Agent Common Stock Warrant Liability		
Stock Price	$ 7.97	$ 7.34
Exercise Price	$ 1.12	$ 1.12
Remaining term (in years)	3.04	3.29
Volatility	84.00 %	82.00 %
Risk-free interest rate	2.37 %	1.99 %
JGB Common Stock Warrant Liability		
Stock Price	—	$ 7.34
Exercise Price	—	$ 4.67
Remaining term (in years)	—	4.71
Volatility	— %	69.00 %
Risk-free interest rate	— %	1.89 %
Derivative Liability (final re-measurement at March 27, 2018)		
Stock Price	$ 7.79	$ 7.34
Remaining term (in years)	0.04	2.16

Volatility	45.00	%	69.00	%
Risk-free interest rate	1.70	%	2.14	%

The Company has determined that debt at similar interest rates and terms to its current debt is not currently available to the Company and therefore the Company is unable to calculate the fair value of its debt at March 31, 2018.

5. BUSINESS COMBINATION

Acquisition of Allenex

On April 14, 2016, the Company acquired 98.3% of the outstanding common stock of Allenex, a transplant diagnostic company based in Stockholm, Sweden that developed, manufactured, and sold products that help match donor organs with potential recipients prior to transplantation. Allenex had a presence and direct distribution channels in the United States 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 $5.7 million (which represents SEK 50,620,000 as of the acquisition date) was deferred purchase consideration originally payable to Midroc Invest AB, FastPartner AB and Xenella Holding AB, the former majority shareholders of Allenex (the "Former Majority Shareholders") by no later than March 31, 2017, subject to certain contingencies being met, 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 Former Majority Shareholders was deposited into an escrow account by the Company and subsequently invested in the Company by the Former Majority Shareholders through a purchase of the Company's equity securities in a private placement. On June 8, 2016, the Company delisted Allenex's common stock from Nasdaq Stockholm.

The date by which the deferred purchase consideration was due to the Former Majority Shareholders was subsequently extended to July 1, 2017. In addition, interest began accruing on the Company's obligations to the Former Majority Shareholders (the "Deferred Obligation") at a rate of 10.0% per year commencing on January 1, 2017. On July 1, 2017, the Deferred Obligation totaled $6.3 million. On July 1, 2017, the Conditional Share Purchase Agreements were amended in order to, among other things: (i) convert approximately $1.1 million of the Deferred Obligation into 1,022,544 shares of the Company's common stock at a per share price equal to $1.12; (ii) require that the Company make an immediate cash payment of $0.5 million thereby reducing the Deferred Obligation by $0.5 million; (iii) extend the maturity date of a portion of the obligations, totaling approximately $2.9 million, under the Conditional Share Purchase Agreements to March 31, 2019; and (iv) provide that approximately $2.1 million of the Deferred Obligation would become payable on December 31, 2017 unless converted into shares of the Company's common stock prior to that date, which issuance of shares was subject to approval by the Company's stockholders. Interest began to accrue on the Deferred Obligation at a rate of 10% per annum commencing on July 1, 2017. On November 14, 2017, the Company further amended the Conditional Share Purchase Agreements with the Former Majority Shareholders, and, as a result, the Company paid the total remaining deferred purchase consideration of $4.7 million, plus accrued interest.

The Company has accounted for the Allenex 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.

The fair value of the remaining 1.7% of noncontrolling interest in Allenex was purchased on March 15, 2018. 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 at December 31, 2017.

Acquisition of assets of Conexio Genomics Pty. Ltd

On January 20, 2017, the Company acquired the business assets of Conexio Genomics Pty. Ltd ("Conexio"). Prior to the acquisition, the Company was the exclusive distributor of the Conexio SBT™ product line for all countries excluding Australia. The Company purchased rights to many of the assets, such as machinery, facilities leases, know-how and the opportunity to retain key Conexio employees to continue producing and selling the SBT products. The Company paid $0.4 million in cash and will make quarterly payments of 20% of the gross revenue from the sale of the SBT products up to an aggregate total of $0.7 million. During the three months ended March 31, 2018, and March 31, 2017, respectively, the Company paid less than $0.1 million and nil, respectively. The Company accounted for this transaction as a business combination.

The following table summarizes the fair values of the assets acquired and liabilities assumed as of the acquisition date (in thousands):

	Total
Inventory	$1,040
Property, plant and equipment	97
Intangible assets	155
Goodwill	85
Assumed liabilities	(82)
Total acquisition consideration	$1,295

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

	Estimated Fair Value	Estimated Useful Life (Years)
Completed technology	$ 127	9
Customer relationships	28	9
Total	$ 155	

Goodwill recorded from the acquisition of the Conexio business assets is primarily related to expected synergies. The goodwill resulting from the acquisition is not deductible for tax purposes. The post-acquisition results of operations of the Conexio business assets for the period from January 20, 2017 are included in the Company's consolidated statements of operations.

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 Company reported $12.0 million of goodwill on the condensed consolidated balance sheet recorded in the Post-Transplant reporting unit as of March 31, 2018 and December 31, 2017.

Goodwill is tested annually for impairment at the reporting unit level during the fourth quarter or earlier upon the occurrence of certain events or substantive changes in circumstances. On January 1, 2017, the Company adopted ASU 2017-04, which eliminated the Step 2 requirement of the goodwill impairment test. Instead, the goodwill impairment test is performed by comparing the fair value of a reporting unit with its carrying amount. The Company determined that the decrease in its market capitalization in the first quarter of 2017 constituted an indicator of impairment and therefore a goodwill impairment test was completed as of March 31, 2017. The goodwill impairment test determined that the fair value of the Pre-Transplant reporting unit was $3.5 million, which was lower than its carrying value. Accordingly, the Company recorded a goodwill impairment charge of $2.0 million as of March 31,

2017, which represented the remaining goodwill balance in the Pre-Transplant reporting unit. The significant assumptions utilized in the March 31, 2017 discounted cash flow analysis for the Pre-Transplant reporting unit were a discount rate of 16.6%, a terminal growth rate of 3.2% and a capitalization multiple of 7.48.

There were no indicators of impairment in the three months ended March 31, 2018.

Intangible Assets

The following tables present details of the Company's intangible assets as of March 31, 2018 (in thousands):

	March 31, 2018				
	Gross Carrying Amount	Accumulated Amortization	Foreign Currency Translation	Net Carrying Amount	Remaining Useful Life (In Years)
Customer relationships: Allenex	$12,650	$ (1,609)	$ (411)	$ 10,630	12.8
Customer relationships: Conexio	28	(4)	—	24	7.8
Developed technology: Olerup SSP	11,650	(2,244)	(392)	9,014	7.8
Acquired technology: Olerup QTYPE	4,510	(454)	(143)	3,913	12.8
Acquired technology: Olerup SBT	127	(18)	3	112	7.8
Acquired technology: dd-cfDNA	6,650	(253)	—	6,397	12.6
Trademarks	2,260	(348)	(13)	1,899	12.8
Total intangible assets	$37,875	$ (4,930)	$ (956)	$ 31,989	

The following tables present details of the Company's intangible assets as of December 31, 2017 (in thousands):

	December 31, 2017				
	Gross Carrying Amount	Accumulated Amortization	Foreign Currency Translation	Net Carrying Amount	Remaining Useful Life (In Years)
Customer relationships: Allenex	$12,650	$ (1,394)	$ (250)	$ 11,006	13.0
Customer relationships: Conexio	28	(3)	1	26	8.1
Developed technology: Olerup SSP	11,650	(1,942)	(258)	9,450	8.0
Acquired technology: Olerup QTYPE	4,510	(376)	(84)	4,050	13.0
Acquired technology: Olerup SBT	127	(14)	5	118	8.1
Acquired technology: dd-cfDNA	6,650	(127)	—	6,523	12.9
Trademarks	2,260	(310)	16	1,966	13.0
Total intangible assets	$37,875	$ (4,166)	$ (570)	$ 33,139	

Amortization expense was $0.6 million and $0.6 million for the three months ended March 31, 2018 and 2017, respectively. For the three months ended March 31, 2018, expenses of $0.4 million and $0.2 million were amortized to cost of product and sales and marketing expense, respectively. For the three months ended March 31, 2017, expenses of $0.4 million and $0.2 million were amortized to cost of product and sales and marketing expense, respectively.

The following table summarizes the Company's estimated future amortization expense of intangible assets as of March 31, 2018 (in thousands):

Years Ending December 31,	Cost of Product	Sales and Marketing	Total
Remainder of 2018	$1,495	$ 739	$2,234
2019	1,993	986	2,979
2020	1,993	986	2,979
2021	1,993	986	2,979
2022	1,993	986	2,979
2023	1,993	986	2,979
Thereafter	7,975	6,885	14,860
Total future amortization expense	$19,435	$ 12,554	$31,989

7. BALANCE SHEET COMPONENTS

Inventory

Inventory consisted of the following (in thousands):

	March 31, 2018	December 31, 2017
Finished goods	$2,348	$ 2,569
Work in progress	1,428	1,471
Raw materials	1,235	1,489
Total inventory	$5,011	$ 5,529

Accrued and other liabilities

Accrued and other liabilities consisted of the following (in thousands):

	March 31, 2018	December 31, 2017
Clinical studies	$1,466	$ 1,115
Professional fees	956	475
Deferred rent – current portion	419	419
Accrued interest payable	26	81
Accrued overpayments and refunds	268	270
Capital leases – current portion	75	13
Uninvoiced receipts	57	253
Software implementation costs	48	94
Test sample processing fees	608	633
Other accrued expenses	469	382
Total accrued and other liabilities	$4,392	$ 3,735

8. COMMITMENTS AND CONTINGENCIES

Leases

The Company leases its operating and office facilities for various terms under long-term, non-cancelable operating lease agreements in Brisbane, California; West Chester, Pennsylvania; Fremantle, Australia; and Stockholm, Sweden. The lease for the Company’s facility in Vienna, 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.

Rent expense under the non-cancelable operating leases was $0.4 million and $0.4 million for the three months ended March 31, 2018 and 2017, respectively. Future minimum lease commitments under these operating and capital leases on March 31, 2018, are as follows (in thousands):

Years Ending December 31,	Capital Leases	Operating Leases
Remainder of 2018	$ 74	$ 1,657
2019	84	2,135
2020	79	2,090
2021	7	11
2022	—	8
Total future minimum lease payments	$ 244	$ 5,901

The current portion of obligations under capital leases is included in accrued and other liabilities on the balance sheets. The long-term portion is included in other liabilities on the balance sheets.

Royalty Commitments

Roche Molecular Systems, Inc. (“Roche”)

In November 2004, the Company entered into a license agreement with Roche pursuant to which Roche granted the Company the right to use certain Roche technology relating to PCR, and quantitative real-time PCR in clinical laboratory services, including in connection with AlloMap. This is a non-exclusive license agreement in the United States covering claims in multiple Roche patents.

Under the license agreement, the Company incurred 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. Royalty expenses in connection with the Roche agreement were $0.3 million for the three months ended March 31, 2017. Effective September 30, 2017, no future royalties are payable by the Company under the Roche agreement.

The Board of Trustees of the Leland Stanford Junior University (“Stanford”)

In June 2014, the Company entered into a license agreement with Stanford, or the Stanford License, which granted the Company an exclusive license to a patent relating to the diagnosis of rejection in organ transplant recipients using dd-cfDNA. Under the terms of the Stanford License, the Company is required to pay an annual license maintenance fee, six milestone payment amounts and royalties in the low single digits of net sales of products incorporating the licensed technology. The license maintenance fee may be offset against earned royalty payments due on net sales in that year.

Commercial sales of AlloSure, which incorporates the licensed technology from Stanford, began in October 2017. In the three months ended March 31, 2018, the Company paid royalties of $0.1 million to Stanford.

Conexio

On January 20, 2017, the Company acquired the business assets of Conexio, which included machinery, facilities leases, know-how and the opportunity to retain key Conexio employees to continue producing and selling the SBT line of products. The Company makes quarterly payments to Conexio of 20% of the gross revenue from the sale of the SBT products using the purchased assets up to an aggregate total of $0.7 million. During the three months ended March 31, 2018 and March 31, 2017, respectively, the Company paid less than $0.1 million and nil, respectively.

Litigation

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 “Complaint”). Oberland alleged, 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.

Effective as of March 2, 2017, the Company and Oberland settled the matters covered by the Complaint and the Company’s answer (the “Settlement”). Pursuant to the Settlement, the Company paid Oberland $0.6 million in March 2017 and each party agreed to release all claims asserted in the Complaint and the Company’s answer to the Complaint.

From time to time, the Company may become involved in litigation and other legal actions. The Company estimates the range of liability related to any pending litigation where the amount and range of loss can be estimated. The

Company records its best estimate of a loss when the loss is considered probable. Where a liability is probable and there is a range of estimated loss with no best estimate in the range, the Company records a charge equal to at least the minimum estimated liability for a loss contingency when both of the following conditions are met: (i) information available prior to issuance of the financial statements indicates that it is probable that a liability had been incurred at the date of the financial statements and (ii) the range of loss can be reasonably estimated.

In the normal course of business, the Company enters into contracts and agreements that contain a variety of representations and warranties and provide for indemnification for certain liabilities. The exposure under these agreements is unknown because it involves claims that may be made against the Company in the future but have not yet been made. To date, the Company has not paid any claims or been required to defend any action related to its indemnification obligations. However, the Company may record charges in the future as a result of these indemnification obligations. The Company also has indemnification obligations to its directors and executive officers for specified events or occurrences, subject to some limits, while they are serving at the Company’s request in such capacities. There have been no claims to date and the Company believes the fair value of these indemnification agreements is minimal. Accordingly, the Company has not recorded any liabilities for these agreements as of March 31, 2018 and as of December 31, 2017.

9. LICENSE AND OTHER REVENUE

Diaxonhit

In June 2013, the Company entered into an exclusive Distribution and Licensing Agreement with Diaxonhit, SA ("Diaxonhit") a French public company, whereby Diaxonhit 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 included an upfront cash payment of approximately €387,500 ($408,000) that is designated to offset royalties earned by the Company. The Company is entitled to receive royalties from Diaxonhit as a percentage of net sales, as defined in the agreement, of AlloMap tests in the mid to high teens. Upon confirmation that the CE mark was in place, the Company also received an equity payment of Diaxonhit common stock with a value of €387,500 ($476,000). The Company sold the shares of common stock in July 2013 for total consideration of $467,000. The CE mark is a mandatory conformity marking for certain products sold within the EEA.

Other performance obligations for which the Company may recognize revenue 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 Diaxonhit. Commercial sales of the AlloMap test began in the EEA in June 2014. Total revenues and royalties recognized from this arrangement for the three months ended March 31, 2018 and 2017 were $10,000 and zero, respectively.

CardioDx, Inc.

In 2005, the Company entered into a services agreement with what at the time was a related party, CardioDx, Inc. ("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 to 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. The royalty obligation to the Company continues until 2019. The Company recognizes royalty revenues when payments are received as it was assessed that collection was not able to be estimated. Royalty revenues for each of the three months ended March 31, 2018 and 2017, were $0.1 million and zero, respectively. Royalty revenues are included in license revenue on the condensed consolidated statements of operations. The Company had no receivable balance from CDX as of March 31, 2018 and December 31, 2017.

10. DEBT

Debt consisted of the following (in thousands):

	March 31, 2018	December 31, 2017
JGB Debt	$ —	$ 7,743
Danske Bank Credit Facility	461	6,763
SSP Primers Loan	—	1,215

Current portion of long-term debt	$ 461	$ 15,721
JGB Debt	$ —	$ 14,168
Danske Bank Term Loan	5,622	—
FastPartner Subordinated Promissory Notes	2,363	2,400
Al Amoudi Subordinated Promissory Notes	1,744	1,770
Long-term debt, net of current portion	$ 9,729	$ 18,338

Unamortized debt discount and issuance costs as of March 31, 2018 and December 31, 2017 were zero and $4.6 million, respectively. Total interest accrued on debt as of March 31, 2018 and December 31, 2017 was $0.3 million and $0.3 million, respectively. The long-term accrued interest balance on March 31, 2018 was $0.3 million, and was recorded in other liabilities in the condensed consolidated balance sheets. The current accrued interest balance of $0.1 million and long-term accrued interest balance of $0.2 million as of December 31, 2017, were recorded in accrued and other liabilities and in other liabilities long-term, respectively, in the condensed consolidated balance sheets.

As of March 31, 2018, future debt maturities were as follows (in thousands):

Years Ending December 31,	Amount
Remainder of 2018	$6,083
2019	4,107
Total debt maturities	10,190
Less: current portion of long-term debt	(461)
Long-term debt, net carrying value	$9,729

On April 17, 2018, the Company entered into a credit agreement with Perceptive (refer to Note 17) for an initial term loan of $15.0 million. Proceeds from the Perceptive credit agreement were used to repay existing outstanding debt. As of March 31, 2018, the Company classified all outstanding debt, except the Danske Credit Facility of $0.5 million, as non-current in its condensed consolidated balance sheets in accordance with the debt classification guidance related to subsequent refinancing arrangements.

JGB Debt

On March 15, 2017, the Company entered into a Securities Purchase Agreement with JGB pursuant to which the Company issued to JGB the JGB debenture (the "Debentures") with an aggregate principal amount of $27.8 million and warrants to purchase shares of the Company's common stock (the "JGB Warrants") for net proceeds of $24.0 million (the "Financing"). The Company used $11.2 million of the net proceeds from the Financing to repay its existing indebtedness under the Loan Agreement with East West Bank and was required to maintain restricted cash of $9.4 million.

Under the Securities Purchase Agreement, the Debentures would have matured on February 28, 2020, accrued interest at 9.5% per year and were convertible into an aggregate of approximately 6,092,105 shares of the Company's common stock at a price of $4.56 per share (the "Conversion Price"), subject to adjustment for accrued and unpaid interest and upon the occurrence of certain transactions, at the holder's option.

Additionally, after September 1, 2017, upon the satisfaction of certain conditions, including the volume weighted average price of the Company's common stock exceeding 250% of the Conversion Price for twenty consecutive trading days, the Company could have required that the Debentures be converted into shares of the Company's common stock, subject to certain limitations. Commencing on March 1, 2018, each of the holders of the Debentures had the right, at its option, to require the Company to redeem up to $937,500 of the outstanding principal amount of its Debenture per month. The Company was required to promptly, but in any event no more than one trading day after the holder delivers a redemption notice to the Company, pay the applicable redemption amount in cash or, at the Company's election and subject to certain conditions, in shares of the Company's common stock. If the Company elected to pay the redemption amount in shares of the Company's common stock, then the shares would have been delivered based on a price equal to the lowest of (a) 88% of the average of the three lowest volume weighted average prices of the Company's common stock over the prior 20 trading days, (b) 88% of the prior trading day's volume weighted average price, or (c) the Conversion Price.

After either a change of control transaction, as defined in the Debentures, or February 28, 2018, subject to the satisfaction of certain conditions, the Company could have redeemed all of the then outstanding principal amount of the Debentures for cash by paying the outstanding principal balance, accrued and unpaid interest, and a payment premium. The payment premium would have been calculated by multiplying the outstanding balance and the following percentage: (i) 15% if the Debentures were prepaid on or prior to March 1, 2018, (ii) 8% if the Debentures were prepaid after March 1, 2018 but prior to March 1, 2019, and (iii) 5% if the Debentures were prepaid on or after

March 1, 2019.

The Company's obligations under the Debentures could have been accelerated upon the occurrence of certain events of default as specified in the agreement. In the event of default and acceleration of the Company's obligations, the Company would have been required to pay (i) 115% of all amounts of principal and interest then outstanding under the Debentures in cash if the Debentures were accelerated prior to March 1, 2018, (ii) 108% of all amounts of principal and interest then outstanding under the Debentures in cash if the Debentures were accelerated after March 1, 2018, but prior to March 1, 2019, and (iii) 105% of all amounts of principal and interest then outstanding under the Debentures in cash if the Debentures were accelerated after March 1, 2019. The Company's obligations under the Debentures were secured under a Security Agreement by a senior lien on all of the Company's assets, other than its interest in CareDx International AB (formerly known as Allenex AB), which was subject to a negative pledge prohibiting the incurrence of additional or replacement debt.

The Debentures contained customary affirmative and restrictive covenants and representations and warranties, including financial reporting obligations, a restriction on the Company's ability to pay cash dividends on its common stock and limitations on indebtedness, liens, investments, distributions, transfers, corporate changes, deposit accounts and subsidiaries. The Company was also

required to maintain a minimum cash amount at all times, achieve commercialization of AlloSure by a certain date and achieve certain gross profit targets for sales of its AlloMap product.

In connection with the Financing, on March 15, 2017, the Company and the Purchasers entered into a Registration Rights Agreement (the "Registration Rights Agreement") pursuant to which, among other things, the Company agreed to prepare and file one or more registration statements with the SEC for the purpose of registering for resale any shares of Common Stock that may be issued by the Company upon the conversion or redemption of the Debentures or the exercise of the JGB Warrants.

The Debentures included certain embedded derivatives that required bifurcation, including settlement and penalty provisions. The compound embedded derivatives were remeasured at each reporting period and the change in fair value was recognized in the consolidated statements of operations. See also Note 4, "Fair Value Measurements".

The following table summarizes the Company's carrying value of the JGB debt (in thousands) on the March 15, 2017 issuance date:

	March 15, 2017
Debt principal	$ 27,780
Less: Issuance cost	(998)
Original issue discount	(2,780)
Original warrant valuation	(900)
Embedded Derivative Liability	(2,290)
Total debt discount	(6,968)
Carrying Value	$ 20,812

As a result of the issuance of 1,022,544 shares of the Company's common stock issued at a price per share equal to $1.12 pursuant to the amendments to the Conditional Share Purchase Agreements, the conversion price of the Debentures decreased from $4.56 per share to $4.40 per share, effective July 3, 2017.

As a result of the 2017 Public Offering in accordance with the anti-dilution provisions in the Debentures, effective October 5, 2017, the conversion price of the Debentures decreased from $4.40 to $4.34 per share. On October 5, 2017, JGB elected to convert $1.25 million of outstanding principal under the Debentures into shares of common stock. Accordingly, the Company issued 288,022 shares of common stock to JGB at a price per share of $4.34. As a result of the sale of the 651,240 shares of common stock pursuant to the underwriters' full exercise of their option to purchase additional shares in accordance with the anti-dilution provisions in the Debentures, effective October 10, 2017, the conversion price of the Debentures were decreased from $4.34 per share to $4.33 per share. As of December 31, 2017, the JGB debt had an outstanding principal balance of $26.5 million.

On March 1, 2018, the Company notified JGB of its intent to prepay on April 13, 2018 in full the outstanding principal and interest under the Debentures. Pursuant to the terms of the Debentures, on April 13, 2018, the Company would have been obligated to pay the full amount of the outstanding principal balance of the Debentures, plus accrued and unpaid interest thereon and a prepayment premium equal to 8% of the outstanding principal balance in cash. In February and March 31, 2018, JGB converted the remaining $26.7 million of principal and accrued interest of the JGB debt into an aggregate of 6,161,331 shares of the Company's common stock. In connection with these conversions in

the three months ended March 31, 2018, the Company recognized $6,000 to common stock and $38.8 million to additional paid in capital; the unamortized debt discount of $2.7 million was extinguished; and the compound derivative liability of $12.1 million was also extinguished. The JGB Debt conversion resulted in a $2.8 million loss on debt extinguishment that was included in other expense, net in the condensed consolidated statements of operations.

Danske Bank Term Loan and Credit Facility

On June 25, 2013, Allenex entered into a term loan facility (the "Term Loan Facility") with Danske in an aggregate principal amount of up to SEK 71,000,000 (approximately $8.8 million). The Term Loan Facility was available for utilization in advances of a minimum of SEK 5,000,000 (approximately $0.6 million) and if more, integral multiples of SEK 1,000,000 (approximately $0.1 million). The interest rate applicable to each advance was 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 47,000,000 (approximately $5.6 million) was outstanding as of March 31, 2018 and was due on June 30, 2018. This was classified as a current debt as of March 31, 2018.

On June 18, 2015, Allenex also entered into a short term credit facility ("Credit Facility") with Danske with total available credit of SEK 8,000,000 (approximately $1.0 million). As of August 4, 2016, the available credit under the Credit Facility with Danske was increased to SEK 10,000,000 (approximately $1.2 million). As of March 31, 2018, the total outstanding balance due to Danske under the Credit Facility was approximately SEK 3,850,000 (approximately $0.5 million), and was due on June 30, 2018.

A quarterly debt covenant in the Term Loan Facility with Danske was violated on March 31, 2017, June 30, 2017, and September 30, 2017. The Company obtained a waiver for these violations. The waiver was conditional upon, among other things, the Company making a principal repayment of SEK 6,000,000 (approximately $0.7 million) by October 31, 2017. This amount was paid on October 31, 2017. The Company was not in compliance with certain debt covenants as of December 31, 2017 or March 31, 2018.

Refer to Note 17 for details regarding the Company's repayment of the Danske Term Loan and Credit Facility using the proceeds from the Perceptive loan on April 17, 2018.

FastPartner Subordinated Promissory Notes

On June 28, 2013, Allenex issued a SEK 9,400,000 (approximately $1.1 million) subordinated promissory note to FastPartner, which had an interest rate of 10.00%. On December 29, 2015, Allenex issued a SEK 2,000,000 (approximately $0.2 million) subordinated promissory note to FastPartner, which had an annual interest rate of 10.00%.

On March 7, 2016, Allenex issued a SEK 4,000,000 (approximately $0.5 million) subordinated promissory note to FastPartner, which had an annual interest rate of 10.00%. Pursuant to an intercreditor agreement, until the Term Loan Facility with Danske is repaid, FastPartner may not demand or receive payment of its subordinated promissory note, or foreclose on any collateral securing Allenex's obligations under the subordinated promissory note, without Danske's prior written consent. Allenex's obligations under the promissory note are secured by a pledge of Allenex shares to FastPartner. The full amount of the subordinated promissory note was due July 1, 2017.

On July 1, 2017, the Company entered into a note agreement with FastPartner (the "FastPartner Note Agreement") pursuant to which, among other things, Allenex and FastPartner agreed that all amounts owed under the above subordinated promissory notes would be governed by the FastPartner Note Agreement and to defer repayment of the principal outstanding amount of SEK 15,400,000 (approximately $1.9 million) plus accrued interest of $0.5 million until March 31, 2019. Interest began accruing on such amount at a rate of 10% per annum, and in the event the Company makes any cash amortization repayments to JGB of the JGB debt, or any replacement debt, Allenex will repay in cash a portion of the amount outstanding under the FastPartner Note Agreement equal to 8% of any such cash amortization repayment. As of each of March 31, 2018 and December 31, 2017, the principal outstanding amount remained at SEK 19,757,000 (approximately $2.4 million).

Refer to Note 17 for details regarding the Company's repayment of the FastPartner Note Agreement using proceeds from the Perceptive loan on April 17, 2018.

Mohammed Al Amoudi Subordinated Promissory Note

On June 28, 2013, Allenex issued a SEK 10,600,000 (approximately $1.2 million) subordinated promissory note to Mohammed Al Amoudi, which provides for an annual interest rate of 10.00%. Pursuant to an intercreditor agreement, until the Term Loan Facility with Danske is repaid, Mohammed Al Amoudi may not demand or receive payment of his subordinated promissory note, or foreclose on any collateral securing Allenex's obligations under the subordinated promissory note, without Danske's prior written consent. Allenex's obligations under the promissory note are secured by a pledge of Allenex shares to Mohammed Al Amoudi. The full amount of the subordinated promissory note was due July 1, 2017.

On July 1, 2017, the Company entered into a note agreement with Mohammed Al Amoudi (the "Al Amoudi Note Agreement") pursuant to which, among other things, Allenex and Mohammed Al Amoudi agreed to defer repayment of the principal outstanding amount of SEK 10,600,000 (approximately $1.3 million) plus accrued interest of $0.5 million until March 31, 2019. Interest began accruing on such amount at a rate of 10% per annum, and in the event the Company makes any cash amortization repayments to JGB of the JGB debt, or any replacement debt, Allenex will repay in cash a portion of the amount outstanding under the Al Amoudi Note Agreement equal to 6% of any such cash amortization repayment. As of each of March 31, 2018 and December 31, 2017, the principal outstanding amount remained at SEK 14,575,000 (approximately $1.7 million).

Refer to Note 17 for details regarding the Company's repayment of the Al Amoudi Note Agreement using proceeds from the Perceptive loan on April 17, 2018.

Loan Agreement with SSP Primers Aktieboulag

On February 25, 2015, Allenex entered into a SEK 14,000,000 (approximately $1.7 million) loan agreement with SSP Primers Aktieboulag, pursuant to which SEK 4,000,000 (approximately $0.5 million) was paid on March 7, 2016. The loan amount outstanding as of December 31, 2017 was SEK 10,000,000 (approximately $1.2 million) plus accrued interest of SEK 650,000 (approximately $0.1 million) and was fully paid on February 26, 2018.

11. STOCKHOLDERS' EQUITY

2017 Public Offering

On October 10, 2017, the Company sold in the 2017 Public Offering an aggregate of 4,992,840 shares of its common stock, including 651,240 shares sold pursuant to the underwriters' full exercise of their option to purchase additional shares to cover over-allotments, at a public offering price of $4.00 per share.

Net proceeds from the 2017 Public Offering were $18.3 million, after deducting underwriting discounts and commissions and estimated offering expenses payable by the Company.

JGB Debt

On October 5, 2017, JGB converted $1.25 million of outstanding principal under the Debentures into shares of common stock. Accordingly, the Company issued 288,022 shares of common stock to JGB at a price per share of $4.34. In the three months ended March 31, 2018, JGB converted the remaining $26.7 million of outstanding principal and accrued interest for a total issuance of 6,161,331 shares of the Company's common stock at a price per share of $4.33.

12. 401(K) PLAN

The Company sponsors a 401(k) defined contribution plan covering all U.S. employees under the Internal Revenue Code. Employee contributions are voluntary and are determined on an individual basis subject to the maximum allowable under federal tax regulations. On January 1, 2018, the Company began to make contributions to the employee plan. For the three months ended March 31, 2018, the Company incurred an expense of $0.1 million related to contributions into the plan.

13. WARRANTS

Private Placement, Placement Agent and Subsequent Financing Warrants

The Company issues common stock warrants in connection with debt or equity financing to a lender, a placement agent or an investor. Issued warrants are considered standalone financial instruments and the terms of each warrant are analyzed for equity or liability classification in accordance with US GAAP. Warrants that are classified as liabilities usually have various features that would require net-cash settlement by the Company. Warrants that are not liabilities, derivatives and/or meet exception criteria are classified as equity. Warrants liabilities are re-measured at fair value at each period end with changes in fair value recorded in the condensed statements of operations until expired or exercised. The Company utilizes a Monte Carlo simulation model to estimate the fair value of its warrants. Refer to Note 4 for further details. Warrants that are classified as equity are valued at fair value on the date of issuance, recorded in additional paid in capital and not re-measured.

On January 1, 2018, the Company adopted new accounting guidance (refer to Note 2) and reclassified the warrants to purchase 1,338,326 shares of common stock issued to JGB from liability to equity at the fair value of $6.6 million. The re-measurement income for the three months ended March 31, 2017 of $0.4 million was recorded in change in estimated fair value of common stock warrant liability and derivative liability on the Company’s condensed consolidated statement of operations.

In the three months ended March 31, 2018, warrants to purchase 23,000 shares of common stock were exercised for a cash payment of less than $0.1 million. The warrant liability was re-measured prior to the exercise and a change in fair value of $0.1 million was recorded in the condensed consolidated statement of operations.

As of March 31, 2018, outstanding warrants to purchase common stock were:

	Classified as	Original Term	Exercise Price	Number of Shares Underlying Warrants
Original issue date:				
August 2009	Equity	10 years	$ 21.78	33,473
July 2010	Equity	9 years	$ 21.78	6,694
August 2012	Equity	7 years	$ 21.78	167,182
January 2015	Equity	5 years	$ 6.96	34,483
April 2016 (a)	Liability	7 years	$ 1.12	904,800
April 2016 (b)	Liability	5 years	$ 1.12	146,100
June 2016 (c)	Liability	7 years	$ 4.00	1,002,507
March 2017 (d)	Equity	5 years	$ 4.67	1,338,326
				3,633,565

(a) Issued on April 14, 2016 in connection with the private placement to certain accredited investors. In accordance with the anti-dilution provisions, the exercise price of the warrants issued in connection with such private placement was adjusted from $4.98 to $4.00, which was the price paid by investors in the Company's underwritten public offering of common stock, which closed on September 26, 2016. As a result of the issuance of 1,022,544 shares of the Company's common stock at $1.12 in connection with the amendments to the Conditional Share Purchase Agreement, the exercise price was adjusted from $4.00 to $1.12, effective July 3, 2017.

(b) Issued on April 14, 2016 in connection with the private placement to placement agents. As a result of the issuance of 1,022,544 shares of the Company's common stock at $1.12 in connection with the amendments to the Conditional Share Purchase Agreement, the exercise price was adjusted from $3.99 to $1.12, effective July 3, 2017.

(c) Issued on June 15, 2016 in connection with a subsequent private placement. In accordance with the anti-dilution provisions, the exercise price of the warrants issued in connection with the subsequent private placement was adjusted from $4.98 per share to $4.00 per share, which was the price paid by investors in the Company's underwritten public offering of common stock, which closed on September 26, 2016. The exercise price remained at $4.00 as the anti-dilution provision was waived for the issuance of shares related to the July 3, 2017 amendment to the Conditional Share Purchase Agreements.

(d) Issued on March 15, 2017 in connection with the JGB Debt. As a result of the issuance of 1,022,544 shares of the Company's common stock at $1.12 in connection with the amendments to the Conditional Share Purchase Agreement, the number of shares issuable pursuant to the JGB Warrants increased from 1,250,000 to 1,296,679 and the exercise price of the JGB Warrants was adjusted from $5.00 to $4.82, effective July 3, 2017. As a result of the 2017 Public Offering, effective October 5, 2017, the aggregate number of shares of common stock issuable upon exercise of the JGB Warrants increased from 1,296,679 to 1,338,326 shares and the exercise price of the JGB Warrants decreased from $4.82 to $4.67 per share.

14. STOCK INCENTIVE PLANS

Stock Options and Restricted Stock Units

The following table summarizes option and unvested RSU activity under the Company's 2014 Equity Incentive Plan and 2016 Inducement Plan and related information:

	Shares Available for Grant	Stock Options Outstanding	Weighted-Average Exercise Price	Number of RSU Shares	Weighted-Average Grant Date Fair Value
Balance—December 31, 2017	156,429	1,941,473	$ 4.21	439,926	$ 4.39
Additional options authorized	357,075	—	—	—	—
Restricted stock grants	(8,846)	—	—	—	—
RSUs granted	(78,934)	—	—	78,934	6.31
RSUs forfeited	7,500	—	—	(7,500)	5.20
RSUs vested	—	—	—	(69,556)	4.24
Options granted	(159,534)	159,534	3.61	—	—
Options exercised	—	(141,387)	0.57	—	—
Options forfeited	17,792	(17,792)	4.58	—	—
Options expired	1,817	(1,817)	3.55	—	—
Balance—March 31, 2018	293,299	1,940,011	$ 4.64	441,804	$ 4.79

The total intrinsic value of options exercised was $0.7 million in the three months ended March 31, 2018.

As of March 31, 2018, the total intrinsic value of outstanding RSUs was approximately $0.8 million and there were $1.6 million of unrecognized compensation costs related to RSUs, which are expected to be recognized over a weighted-average period of 2.17 years.

As of March 31, 2018, the total intrinsic value of outstanding options was approximately $3.2 million and there were $1.9 million of unrecognized compensation costs related to options, which are expected to be recognized over a weighted-average period of 6.85 years.

Options outstanding that have vested and are expected to vest at March 31, 2018 are as follows:

	Number of Shares Issued	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life (Years)	Aggregate Intrinsic Value (In Thousands)
Vested	927,362	$ 4.89	6.85	$ 3,022
Expected to vest	894,857	4.41	8.22	3,188
Total	1,822,219			$ 6,210

2014 Employee Stock Purchase Plan

During the offering period in 2017 that ended on December 31, 2017, 34,176 shares were purchased for aggregate proceeds of $0.1 million from the issuance of shares, which occurred on January 4, 2018. During the offering period in 2017 that ended on June 30, 2017, 52,612 shares were purchased for aggregate proceeds of $0.1 million from the issuance of shares, which occurred on July 5, 2017.

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 March 31,	
	2018	2017
Employee stock options		
Expected term (in years)	6.0	6.0
Expected volatility	79.96 %	53.07%-53.36%
Risk-free interest rate	2.51 %	2.08%-2.12%
Expected dividend yield	— %	— %
Employee stock purchase plan		
Expected term (in years)	0.5	0.5
Expected volatility	105.32%	62.27 %
Risk-free interest rate	1.61 %	0.65 %
Expected dividend yield	— %	— %

Risk-free Interest Rate: The Company based the risk-free interest rate over the expected term of the award based on the constant maturity rate of U.S. Treasury securities with similar maturities as of the date of grant.

Volatility: The Company used an average historical stock price volatility of comparable public companies that were deemed to be representative of future stock price trends as the Company does not have sufficient trading history for its common stock.

Expected Term: The expected term represents the period for which the Company's stock-based awards are expected to be outstanding and is based on analyzing the vesting and contractual terms of the awards and the holders' historical exercise patterns and termination behavior.

Expected Dividends: The Company has not paid and does not anticipate paying any dividends in the near future.

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 months ended March 31, 2018 and 2017, included in the statements of operations as follows (in thousands):

	Three Months Ended March 31,	
	2018	2017
Cost of testing	$61	$55
Research and development	213	64
Sales and marketing	64	38
General and administrative	368	234
Total	$706	$391

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.

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 the three months ended March 31, 2018 and 2017, the Company recorded an income tax benefit of $0.4 million and $0.3 million, respectively. The income tax benefit of $0.4 million for the three months ended March 31, 2018 is primarily attributable to the recognition of deferred tax assets from foreign losses. The Company assesses the realizability of its net deferred tax assets by evaluating all available evidence, both positive and negative, including (i) cumulative results of operations in recent years, (ii) sources of recent losses, (iii) estimates of future taxable income and (iv) the length of net operating loss carryforward periods. The Company believes that based on the history of its U.S. losses and other factors, the weight of available evidence indicates that it is more likely than not that it will not be able to realize its U.S. net deferred tax assets. Accordingly, the U.S. net deferred tax assets have been offset by a full valuation allowance.

In accordance with SAB 118, the effects of the Tax Act may be adjusted within a one-year measurement period from the enactment date for items that were previously reported as provisional, or where a provisional estimate could not be made. Income tax provision for the three months ended March 31, 2018, did not reflect any adjustment to the

previously assessed Tax Act enactment effect. The Company will continue to assess forthcoming guidance and accounting interpretations on the effects of the Tax Act and expects to complete its analysis within the measurement period in accordance with the SEC guidance.

Starting in 2018, companies may be subject to global intangible low tax income ("GILTI") which is a tax on foreign income in excess of a deemed return on tangible assets of foreign corporations as well as the new base erosion anti-abuse tax ("BEAT") under the Tax Act. GILTI will be effectively taxed at a tax rate of 10.5%. Due to the complexity of the GILTI tax rules, companies are allowed to make an accounting policy choice of either (1) treating taxes due on future U.S. inclusions in taxable income related to GILTI as a current-period expense when incurred or (2) factoring such amounts into a company's measurement of its deferred taxes under the SAB 118. The Company has not yet made an election with respect to GILTI and does not believe GILTI will have an impact on the Company's 2018 taxes. The Company will continue to review the GILTI and BEAT rules to determine their applicability to the Company as the rules become effective.

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.

The Company has identified the following two reportable segments, which are the same as its operating segments:

- Post-Transplant: 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. On October 9, 2017, AlloSure became commercially available with Medicare reimbursement. AlloSure is the first and only non-invasive test that assesses organ health by directly measuring allograft injury.

- Pre-Transplant: 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. The pre-transplant product lines include Olerup branded products SSP, SBT and QTYPE.

There were no intersegment sales for the three months ended March 31, 2018 or 2017. The following table summarizes the operating results of the Company's reportable segments (in thousands):

	Three Months Ended March 31,	
	2018	2017
Total segments		
Revenues	$ 14,053	$ 11,584
Operating loss	(5,235)	(8,544)
Depreciation and amortization	1,039	934
Post-Transplant		
Revenues-testing and license and other revenue	$ 10,746	$ 7,917
Operating loss	(3,195)	(5,459)
Depreciation and amortization	329	262
Pre-Transplant		
Revenues- product revenue	$ 3,307	$ 3,667
Operating loss	(2,040)	(3,085)
Depreciation and amortization	710	672

	March 31, 2018	December 31, 2017
Assets:		
Post-Transplant	$ 45,564	$ 48,734
Pre-Transplant	33,388	34,831
Total assets	$ 78,952	$ 83,565

Revenues by geographic regions are based upon the customers' ship-to address for pre-transplant revenues and the region of testing for post-transplant revenue. The following table summarizes reportable revenues by geographic regions (in thousands):

	Three Months Ended March 31, 2018		Three Months Ended March 31, 2017	
	Post-Transplant	Pre-Transplant	Post-Transplant	Pre-Transplant
Revenues:				
North America	$ 10,729	$ 929	$ 7,902	$ 1,000

Europe	17	1,973	15	2,059
Australia	—	74	—	116
Rest of the World	—	331	—	492
Total	$ 10,746	$ 3,307	$ 7,917	$ 3,667

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

	March 31, 2018	December 31, 2017
Long-lived assets:		
North America	$ 1,256	$ 1,206
Europe	713	776
Australia	86	93
Total	$ 2,055	$ 2,075

17. SUBSEQUENT EVENTS

Perceptive Term Loan

On April 17, 2018, the Company entered into a Credit Agreement and Guaranty (the "Perceptive Credit Agreement") with Perceptive as a lender and administrative agent for the several banks and other financial institutions or entities from time to time party to the Perceptive Credit Agreement for an initial term loan of $15.0 million (the "Tranche A Term Loan"), with a second tranche of $10.0 million available at the Company's option, subject to the satisfaction of customary conditions (the "Tranche B Term Loan" and, together with the Tranche A Term Loan, the "Term Loan"). Approximately $11.1 million of the proceeds of the Tranche A Term Loan were used to fully repay the Company's outstanding indebtedness with FastPartner AB, Mohammed Al Amoudi and Danske on April 17, 2018. The remainder of the proceeds will be used for general corporate purposes.

The Tranche A Term Loan was funded on the date of closing. The Company paid a fee of $262,500 to Perceptive as the administrative agent. In addition, on April 17, 2018, the Company issued to Perceptive a warrant (the "Trance A Warrant" and, together with the Perceptive Credit Agreement and the Security Agreement, the "Financing Documents"), to purchase up to 140,000 shares of common stock of the Company at an initial exercise price of $8.60, subject to adjustment as provided in the Tranche A Warrant. The Tranche A Warrant will become initially exercisable commencing six months after the date of issuance and will terminate, if not earlier exercised, on April 17, 2025.

The Tranche B Term Loan is available at the Company's option at any time from April 17, 2018 to April 17, 2019, subject to the Company achieving certain product revenue targets, issuing the Tranche B Warrant (as defined below) and satisfying customary conditions. In the event the Company exercises its option for the Tranche B Term Loan, the Company will pay to Perceptive as the administrative agent out of the proceeds of the Tranche B Term Loan a fee in the amount equal to 1.75% of the principal amount of the Tranche B Term Loan advanced on such date. If the Tranche B Term Loan is funded, the Company will issue to Perceptive an additional warrant to purchase up to 93,333 shares of common stock (the "Tranche B Warrant"). The Tranche B Warrant will be on substantially the same terms, and in substantially the same form, as the Tranche A Warrant.

In connection with the Perceptive Credit Agreement, the Company entered into a Security Agreement with Perceptive, as administrative agent (the "Security Agreement"). The Security Agreement provides that the Term Loan is secured by substantially all of the Company's assets and a pledge of 65% of the equity interests of CareDx International AB. The Term Loan accrues interest per annum at 9.00% (the "Applicable Margin") plus the greater of the one-month LIBOR or 1.5%. Payments under the Perceptive Credit Agreement are interest-only until the first principal payment is due on April 30, 2021, followed by monthly payments of principal and interest through the scheduled maturity date on April 17, 2023. The Term Loan may be prepaid by the Company, in whole or in part at any time, subject to a prepayment fee.

The Perceptive Credit Agreement contains customary affirmative and restrictive covenants and representations and warranties, including financial reporting obligations and limitations on indebtedness, liens, fundamental changes, acquisitions, investments, dividends or distributions, corporate changes, asset sales, affiliate transactions, material agreements, licenses, sale and leaseback transactions, hazardous materials, accounting, compliance with laws and reimbursement of certain expenses of Perceptive. The Perceptive Credit Agreement also contains other customary provisions, such as expense reimbursement and confidentiality obligations, as well as indemnification rights for the benefit of Perceptive.

The Perceptive Credit Agreement provides for customary events of default, including, among other things, nonpayments of principal, interest and other amounts, inaccuracies in representations and warranties, failure to comply with covenants, defaults on other material indebtedness, bankruptcy or insolvency, judgments, changes of control or impairments of Perceptive's security interests. Upon the occurrence of an event of default and following any applicable cure periods, if any, the Applicable Margin shall automatically increase 3.00% per annum (the "Default Rate"). This Default Rate may be applied to the outstanding loan balances, and the Agent may declare all outstanding obligations immediately due and payable and take such other actions as set forth in the Perceptive Credit Agreement.

License and Commercialization Agreement with Illumina

On May 4, 2018, the Company entered into a License and Commercialization Agreement (the "License Agreement") with Illumina, Inc. ("Illumina"), which provides the Company with worldwide distribution, development and commercialization rights to Illumina's next generation sequencing ("NGS") product line for use in the field of bone marrow transplantation diagnostic testing and solid organ transplantation diagnostic testing (the "Field").

Beginning on June 1, 2018, the Company will be the exclusive worldwide distributor of Illumina's TruSight HLA v1 and v2 product lines, and associated Assign HLA software, for use in the Field. In addition, the Company will also be granted the exclusive right to develop and commercialize the next generation (v3) of the HLA product lines for use in the Field, as well as a NGS product for chimerism detection. The Company has agreed to use its own trademarks for commercialization of the development stage HLA and

chimerism products and intends using names associated with an AlloSeq branding.

Under the terms of the License Agreement, the Company made a $5.0 million initial payment to Illumina and will pay royalties in the mid-single to low-double digits on sales of future commercialized products. Pursuant to the License Agreement, the Company is obligated to complete timely development and commercialization of the future products, and has agreed to minimum purchase commitments of finished products and raw materials from Illumina through 2023. Illumina also agreed to provide transition and support services to the Company.

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, 2017, originally filed with the Securities and Exchange Commission, or the SEC, on March 22, 2018.

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, AlloSure and future post-transplant solutions, if any, and our ability to achieve commercial success of these post-transplant solutions;
- our ability to generate revenue from sales of Olerup SSP, Olerup SBT, Olerup QTYPE, and future pre-transplant solutions, if any, and our ability to increase the commercial success of these pre-transplant products;
- our ability to generate revenue from the license and commercialization agreement with Illumina, Inc.;
- our plans and ability to develop and commercialize new solutions for the surveillance of heart, kidney, and other solid organ transplant recipients;
- our plans and ability to continue updating our sequence specific primer 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, and Next Generation Sequencing technology and pre-transplant solutions;
- our ability to obtain additional financing on terms favorable to us, or at all;
- our ability to regain eligibility to use Registration Statements on Form S-3 for capital-raising transactions;
- our ability to obtain, maintain and expand reimbursement coverage from payers for AlloMap, AlloSure and other future post-transplant solutions, if any;
- the outcome or success of our clinical trial collaborations and registry 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;
- our ability to meet our obligations under our equity financing agreements and debt agreements;
- 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;

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- our ability to make successful acquisitions or investments and to manage the integration of such acquisitions or investments;
- our ability to successfully defend against or settle any litigation brought against us or other legal matters or disputes;
- our ability to expand internationally; 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 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 us 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 Highlights

We are a global 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.

AlloMap

Our first commercialized post-transplant 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.

AlloMap has received positive coverage decisions for reimbursement from Medicare. The 2018 reimbursement rate for AlloMap is $3,240, which represents a 14% increase over the 2017 reimbursement rate. AlloMap has also received positive coverage decisions for reimbursement from many of the largest U.S. private payers, including Aetna, Anthem, Cigna, Health Care Services Corporation (HCSC), Humana, Kaiser Foundation Health Plan, Inc., and TRICARE.

We have also successfully completed a number of landmark clinical trials in the transplant field demonstrating the clinical utility of AlloMap for surveillance of heart transplant recipients. We initially established the analytical and clinical validity of AlloMap on the basis of our Cardiac Transplanted Organ Rejection Gene Expression Observational (Deng, M. et al., Am J Transplantation 2006), or CARGO, study, which was published in the American Journal of Transplantation. A subsequent clinical utility trial, Invasive Monitoring Attenuation through Gene Expression (Pham MX et al., N. Eng. J. Med., 2010), or IMAGE, published in The New England Journal of Medicine, demonstrated that clinical outcomes in recipients managed with AlloMap surveillance were equivalent

(non-inferior) to outcomes in recipients managed with biopsies. The results of our clinical trials have also been presented at major medical society congresses and published in peer-reviewed publications in leading scientific and medical journals.

During the first three months of 2018, there were 3,847 AlloMap patient test results provided to 116 of the approximately 130 heart transplant management centers in the United States.

AlloSure

AlloSure, our recently launched commercial transplant surveillance solution, applies proprietary next generation sequencing technology to measure donor-derived cell free DNA, or dd-cfDNA in the blood stream emanating from the donor kidney or heart. We believe AlloSure may help clinicians determine rejection-specific activity manifested as cell damage in the transplanted heart, kidney and other solid organs, irrespective of the type of organ transplanted. We also believe the use of AlloSure, in conjunction with other clinical indicators, can help healthcare providers and their patients better manage long-term care following a kidney transplant. In particular, we believe AlloSure can improve patient care by helping healthcare providers to reduce the use of invasive biopsies and determine the appropriate dosage levels of immunosuppressants. Effective October 9, 2017, AlloSure became available for commercial testing with Medicare coverage and reimbursement. The Medicare reimbursement rate for AlloSure is $2,841. AlloSure has also received payment from private payers on a case-by-case basis, but no positive coverage decisions have been made.

Prior to the commercialization of AlloSure, we generated a strong body of clinical evidence. 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. A report describing the analytical validation of AlloSure including clinical validation information for heart transplant appeared in the November 2016 issue of The Journal of Molecular Diagnostics.

In May 2015, we initiated the Circulating Donor-Derived Cell-Free DNA in Blood for Diagnosing Acute Rejection in Kidney Transplant Recipients, or DART, trial. The first publication of results from the DART trial in March 2017 described the validation of the clinical performance characteristics of dd-cfDNA in detecting 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. Patients were followed in DART for up to 24 months. We completed the first analysis of the data from DART in June 2016. By the time of completion of the first analysis, 400 patients had enrolled in DART in 14 centers and we had collected specimens from over 1,260 patient visits. As of March 31, 2018, we had over 2,100 patient visits. The data analyses demonstrated that increased levels of dd-cfDNA, determined by the AlloSure assay, discriminated active rejection more effectively than serum creatinine values. In collaboration with clinical investigators, we published these findings in the scientific peer-reviewed Journal of the American Society of Nephrology and the Journal Applied Laboratory Medicine in March 2017.

In late 2017, we established the Kidney Allograft Outcomes AlloSure Registry, or K-OAR, study to develop further data on the clinical utility of AlloSure for surveillance of kidney transplant recipients. We will invite 35 centers to join K-OAR, and we anticipate staggered activation of these study centers throughout 2018. As of March 31, 2018, 12 centers have been initiated as K-OAR study sites.

During the first three months of 2018, there were 1,051 AlloSure patient test results provided. Since launch, AlloSure has been ordered by 52 kidney transplant centers in the United States.

Pre-Transplant Products

The Company develops, manufactures, markets and sells 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 Human Leukocyte Antigen, or HLA alleles, based on the sequence specific primer, or SSP technology. Olerup SBT™ is a complete product range for sequence-based typing of HLA alleles. Olerup QTYPE® enables speed and precision in HLA typing at a low to intermediate resolution for samples that require a fast turn-around-time and uses real-time polymerase chain reaction, or PCR methodology. QTYPE received CE mark certification on April 10, 2018.

Recent Highlights

- Accelerated AlloSure penetration in key kidney transplant centers
  - As of March 31, 2018, 52 transplant centers have provided AlloSure testing to patients
  - Continued progress in AlloSure K-OAR enrollment, with 12 centers initiated as of March 31, 2018
- Achieved total revenue of $14.1 million for the first quarter of 2018, up 21% year-over-year
  - Testing revenue of $10.6 million, with 1,051 AlloSure and 3,847 AlloMap patient results provided
  - Product revenue of $3.3 million

- Broadened testing and product offerings
  - Entered into partnership with Illumina to develop and sell its Next Generation Sequencing transplant solutions
  - Launched HeartCare, a comprehensive solution for surveillance of heart transplant patients, combining AlloMap with AlloSure-Heart
  - Validated Olerup QTYPE on multiple platforms and received CE mark certification
- Refinanced outstanding debt
  - On April 17, 2018, the Company entered into a new credit agreement with Perceptive for an initial term loan of $15.0 million and repaid the outstanding indebtedness to Danske Bank and the Allenex Former Majority Shareholders.

Financial Operations Overview

Revenue

We derive our revenue from testing services, products sales and license and other revenues. On January 1, 2018, we adopted the new revenue accounting standard Revenue from Contracts with Customers (Topic 606) ("ASC 606") using the modified retrospective method. The adoption of ASC 606 resulted in a one-time adjustment of $2.9 million to accounts receivable and retained earnings. This adjustment reflects the estimated payment to be received for tests where the result had been delivered at December 31, 2017, but the associated revenue had not been recognized by December 31, 2017, because payment had not been received. Under the new accounting standard, revenue is recorded considering a five-step model that includes identifying the contract with a customer, identifying the performance obligations in the contract, determining the transaction price, allocating the transaction price to the performance obligations, and recognizing revenue when, or as, an entity satisfies a performance obligation.

Testing Revenue

Our testing revenue is derived from AlloMap and AlloSure tests, which represented 75% of our total revenues for the three months ended March 31, 2018, and 68% of our total revenues for the three months ended March 31, 2017, respectively. We currently market AlloMap and AlloSure 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. Amounts received by us vary from payer to payer based on each payer’s internal coverage practices and policies. We generally bill third-party payers upon delivery of an AlloMap or AlloSure test result report to the healthcare provider. As such, we take the assignment of benefits and the risk of collection from the third-party payer and individual patients.

Product Revenue

Our product revenue is derived primarily from sales of Olerup branded products. Product revenue represented 24% and 32% of total revenue for the three months ended March 31, 2018 and 2017, respectively. Product revenue is recognized from the sale of products to end-users, distributors and strategic partners when all revenue recognition criteria are satisfied, which is generally upon the product shipment.

License and Other Revenue

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 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. We make judgments that affect the periods over which we recognize revenue. We review our estimated periods of performance based on the progress under each arrangement and account for the impact of any change in estimated revenues.

We did not recognize any revenue connected with milestones during the three months ended March 31, 2018 or 2017.

Cost of Testing

Cost of testing reflects the aggregate costs incurred in delivering the Company's testing services. The components of cost of testing are materials and service costs, direct labor costs, stock-based compensation, equipment and infrastructure expenses associated with testing samples, shipping, logistics and specimen processing charges to collect and transport samples and allocated overhead including rent, information technology, equipment depreciation, utilities and royalties. Prior to adoption of the new revenue guidance, we recorded cost of testing associated with performing tests (except royalties) in the period when tests were performed without consideration if revenue was recognized in the same period. With the adoption of the new revenue standard on January 1, 2018,

revenue and cost of testing for tests performed are recognized in the same period. 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 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, including clinical operations, represent costs incurred to develop new pre- and post-transplant diagnostic solutions, high quality evidence to support use of our tests, as well as continued efforts related to improving our existing product lines. These expenses include payroll and related expenses, consulting expenses, laboratory supplies, clinical studies 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.

Sales and Marketing Expenses

Sales and marketing expenses represent costs incurred to sell, promote and increase awareness of our existing products and services to transplant centers and hospital laboratories. 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.

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 audit and accounting, certain financing transaction expenses, and legal and other contract and administrative services. We will continue to incur expenses as a result of operating as a public company.

Goodwill Impairment

We test goodwill and indefinite-lived intangibles for impairment at least annually and more frequently if impairment indicators are present. In the three months ended March 31, 2017, we determined that the decrease in our market capitalization constituted an indicator of impairment and therefore a goodwill impairment test was completed as of March 31, 2017. We identified an impairment of $2.0 million related to the goodwill allocated to the Pre-Transplant reporting unit.

No goodwill impairment indicators were present in the three months ended March 31, 2018 and therefore no impairment was recorded.

Change in Estimated Fair Value of Contingent Consideration

We revalue our contingent consideration obligation liability in connection with our acquisition of ImmuMetrix in 2014 at 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 and also includes debt discount amortization.

Other Expense

Other expense includes gains and losses on foreign currency transactions, on debt extinguishment, and other miscellaneous expenses. During the three months ended March 31, 2018 we recorded $2.8 million loss on the conversion of the JGB debt as the difference between the value of the shares of common stock issued on the days of conversion and the amount of principal debt converted on those days, net of the allocated debt discount and derivative liability balances.

Change in Estimated Fair Value of Common Stock Warrant Liability and Derivative Liability

Common stock warrants issued in connection with our debt and equity financings are considered freestanding financial instruments and are analyzed as to whether they meet equity or liability classification in accordance with US GAAP. Warrants that meet liability classification are re-measured at each period end with changes in fair value recorded in our condensed consolidated statements of operations until these warrants are exercised or expire. On January 1, 2018, we adopted new accounting standard ASU 2017-11, Accounting for Certain Financial Instruments with Down Round Features and Replacement of the Indefinite Deferral of Mandatorily Redeemable Financial Instruments of Certain Mandatorily Redeemable Noncontrolling Interests with a Scope Exception and this resulted in the liability balance for our warrants issued to JGB being reclassified to equity on the date of adoption.

The JGB debt included certain embedded derivatives that required bifurcation, including settlement and penalty provisions. The embedded derivative was remeasured at each reporting period with changes recorded in change in estimated fair value of common stock warrant liability and derivative liability in the condensed consolidated statements of operations. As of March 27, 2018, the JGB debt had fully converted to shares of our common stock. The change in the fair market value of the derivative liability through to March 27, 2018 was recorded in change in estimated fair value of common stock warrant liability and derivative liability in the condensed consolidated statements of operations.

Critical Accounting Policies and Significant Judgments and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our unaudited condensed consolidated financial statements, which have been prepared in accordance with United States generally accepted accounting principles, or U.S. GAAP. The preparation of these unaudited condensed consolidated financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the unaudited condensed consolidated financial statements, as well as the reported revenue generated and expenses incurred during the reporting periods. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

Our significant accounting policies are described in Note 2 of the unaudited condensed consolidated financial statements included elsewhere in this Quarterly Report on Form 10-Q for additional information. Some of these accounting policies require us to make difficult and subjective judgments, often as a result of the need to make estimates of matters that are inherently uncertain. We believe that the following critical accounting policies reflect the more significant estimates and assumptions used in the preparation of our financial statements. We believe the following critical accounting policies are affected by significant judgments and estimates used in the preparation of our Condensed Consolidated Financial Statements:

- Revenue recognition – estimation of variable consideration
- Determination of the accruals for clinical studies,
- Inventory valuation
- Valuation of common stock warrant liability
- Valuation of embedded derivative liability
- Valuation and impairment of goodwill, intangible assets and other long-lived assets;
- Goodwill and acquired intangible assets

- Share-based compensation; and
- Accounting for income taxes.

There were no material changes in the matters for which we make critical accounting estimates in the preparation of our Condensed Consolidated Financial Statements during the three months ended March 31, 2018 as compared to those disclosed in Management's Discussion and Analysis of Financial Condition and Results of Operations included in our annual report on Form 10-K for the year ended December 31, 2017, except as discussed in Note 2, Summary of Significant Accounting Policies, to the Condensed Consolidated Financial Statements in this quarterly report.

Recently Issued Accounting Standards

Refer to Note 2, Summary of Significant Accounting Policies - recent accounting Pronouncements, of the Notes to Condensed Consolidated Financial Statements in this quarterly report for a description of recently issued accounting pronouncements, including the expected dates of adoption and estimated effects on our results of operations, financial position and cash flows.

Results of Operations

Comparison of the Three Months Ended March 31, 2018 and 2017

(In thousands)

	Three Months Ended March 31,		
	2018	2017	Change
Revenue:			
Testing revenue	$10,604	$7,902	$2,702
Product revenue	3,307	3,667	(360)
License and other revenue	142	15	127
Total revenue	14,053	11,584	2,469
Operating expenses:			
Cost of testing	4,112	3,057	1,055
Cost of product	2,272	2,327	(55)
Research and development	3,368	3,283	85
Sales and marketing	4,085	3,222	863
General and administrative	5,307	6,502	(1,195)
Goodwill impairment	—	1,958	(1,958)
Change in estimated fair value of contingent consideration	144	(221)	365
Total operating expenses	19,288	20,128	(840)
Loss from operations	(5,235)	(8,544)	3,309
Interest expense	(2,695)	(790)	(1,905)
Other expense, net	(2,809)	(686)	(2,123)
Change in estimated fair value of common stock warrant liability and derivative liability	1,321	4,128	(2,807)
Income tax benefit	424	283	141
Net loss	(8,994)	(5,609)	(3,385)
Net loss attributable to noncontrolling interest	(25)	(47)	22
Net loss attributable to CareDx, Inc.	$(8,969)	$(5,562)	$(3,407)

Testing Revenue

Testing revenue increased by $2.7 million, or 34%, for the three months ended March 31, 2018 as compared to the same period in 2017. The increase is mainly due to the 1,051 AlloSure test results provided in the three months ended March 31, 2018, following the launch of AlloSure in October 2017, the increase in AlloMap test results provided from the 3,847 in the first three months ended March 31, 2018, compared to 3,750 in the same period in 2017, and the January 1, 2018, change in the Medicare reimbursement rate for AlloMap from $2,840 to $3,240.

As described in Note 2 of the Condensed Consolidated Financial Statements, the adoption of ASC 606 on January 1, 2018, had an immaterial impact on Testing Revenue for the three months ended March 31, 2018, as compared to the three months ended March 31, 2017.

Product Revenue

Product revenue decreased by $0.4 million, or 10%, for the three months ended March 31, 2018, compared to the same period in 2017.

License and Other Revenue

License, and other revenue increased by $0.1 million for the three months ended March 31, 2018, reflecting royalty revenue under our services agreement with CardioDx for which none was received in the same period in 2017.

Cost of Testing

Cost of testing increased by approximately $1.0 million, or 35%, for the three months ended March 31, 2018, compared to the same period in 2017, primarily due to the increase in test results provided for both AlloMap and AlloSure.

Cost of Product

Cost of product decreased by less than $0.1 million, or 2%, for the three months ended March 31, 2018, compared to the same period in 2017. The decrease in cost of product in the three months ended March 31, 2018 mainly reflects a decrease in sales for the period, partially offset by an increase in scrap and inventory obsolescence.

Research and Development

Research and development expenses increased by less than $0.1 million, or 3%, for the three months ended March 31, 2018, compared to the same period in 2017 due to an increase in registry study costs of $0.1 million.

Sales and Marketing

Sales and marketing expenses increased by approximately $0.9 million, or 27%, for the three months ended March 31, 2018, compared to the same period in 2017, primarily due to higher personnel costs of $0.5 million, increased travel expenses of $0.2 million, and a $0.2 million increase in marketing expenses.

General and Administrative

General and administrative expenses decreased by $1.2 million, or 18%, for the three months ended March 31, 2018, compared to the same period in 2017. This decrease primarily reflects a $1.3 million reduction in audit and tax fees in 2018 as compared to the 2017 period.

Goodwill Impairment

In the three months ended March 31, 2017, we determined that the decrease in our market capitalization constituted an indicator of impairment and therefore a goodwill impairment test was completed as of March 31, 2017. We recorded a goodwill impairment charge of $2.0 million as of March 31, 2017. No impairment was identified in the three months ended March 31, 2018.

Change in Estimated Fair Value of Contingent Consideration

We estimate the contingent consideration liability fair value at each period end based on our common stock price at the end of the period and a probability of meeting the contractual milestone related to the number of tests sold by June 2020, in accordance with the ImmuMetrix acquisition agreement. We recognized a non-cash loss of $0.1 million and a non-cash gain of $0.2 million for the three months ended March 31, 2018 and 2017 respectively.

Interest Expense

Interest expense increased by $1.9 million for the three months ended March 31, 2018, compared to the same period in 2017. This increase primarily consists of $1.8 million JGB Debt discount amortization, which was not included in the same period ended March 31, 2017 as the JGB debt was entered into on March 15, 2017.

Other Expense, Net

Other expense increased $2.1 million in the three months ended March 31, 2018 compared to 2017. A loss of $2.8 million for the conversion of the JGB debt in the three months ended March 31, 2018, was offset by $0.3 million debt advisory fees, $0.2 million debt extinguishment costs, and additional foreign currency losses in the three months ended March 31, 2017. The $2.8 million loss on the conversion of the JGB debt resulted from the difference between the value of the shares of common stock issued on the days of conversion and the amount of principal debt converted on those days, net of debt discount and embedded derivative liability.

Change in Estimated Fair Value of Common Stock Warrant Liability and Derivative Liability

The change in estimated fair value of common stock warrant liability and derivative liability was $1.3 million income in the three months ended March 31, 2018 and $4.1 million income in the comparative period in 2017.

The $1.3 million income in the three months ended March 31, 2018, comprised of $2.5 million of income related to the changes in fair value of the JGB debt embedded derivative liability and $1.2 million of expense related to the change in value of our common stock warrant liability.

The $4.1 million income in the three months ended March 31, 2017, comprised a remeasurement gain of $3.3 million related to the changes in fair value of common stock warrant liability and $0.8 million of income related to the changes in fair value of JGB debt embedded derivative between March 15, 2017, the issuance date, and March 31, 2017. The remeasurement gains in the three months ended March 31, 2017 reflect the decline in the price of shares of our common stock during this period.

As of January 1, 2018, we adopted the new accounting standard and reclassified the outstanding common stock warrant issued in connection with the JGB debt to equity. This warrant is not re-measured through earnings after January 1, 2018. Warrants issued in connection with Private Placement and Subsequent Financing during 2016 continue to be classified as liability and will be re-measured at the end of each reporting period until expired or exercised. Changes in the common stock fair value, estimated volatility and expected contractual term will significantly impact the fair value of the warrant liability.

Income Tax Benefit

For the three months ended March 31, 2018, we recorded an income tax benefit of $0.4 million on a loss before income taxes of $9.4 million. This benefit primarily resulted from the expectation that amortization of the various intangible assets acquired, when completed and placed in service, is not expected to be deductible for tax purposes. Accordingly, a deferred tax liability was recorded at the acquisition date for the difference between the financial reporting and tax basis of the intangibles.

Cash Flows for the Three Months Ended March 31, 2018 and 2017

The following table summarizes the primary sources and uses of cash for the periods presented:

	Three Months Ended March 31,	
	2018	2017
	(in thousands)	
Net cash (used in) provided by:		
Operating activities	$(4,518)	$(6,741)
Investing activities	(754)	(68)
Financing activities	(2,318)	11,131
Effect of exchange rate changes on cash, cash equivalents and restricted cash	17	17
Net increase (decrease) in cash, cash equivalents and restricted cash	$(7,573)	$4,339

Operating Activities

Net cash used in operating activities consists of net loss, adjusted for certain noncash items in the statement of operations and changes in operating assets and liabilities. Cash used in operating activities for the three months ended March 31, 2018 was $4.5 million. Our net loss of $9.0 million was our primary use of cash in operating activities and included a number of noncash items. Our noncash items included $2.8 million loss on the conversion of debt to shares of our common stock, $2.0 million of amortized debt discount related to the conversion of the JGB debt, and $1.3 million net gain on the revaluation of warrant and derivative liability to estimated fair value. Net operating assets decreased by $1.1 million.

Cash used in operating activities for the three months ended March 31, 2017 was $6.7 million. Our net loss of $5.6 million was our primary use of cash in operating activities; which also included a number of noncash items. Our noncash items included uses of cash due to a $4.1 million gain on revaluation of warrants and derivative liabilities to estimated fair value and $0.2 million gain on a contingent consideration liability related to our acquisition of IMX in June 2014, partially offset by $2.0 million of goodwill impairment related to our purchase of Allenex, $0.9 million of depreciation and amortization, $0.6 million of amortization of debt discount and noncash interest expense, $0.4 million of stock-based compensation. Net operating assets decreased $0.7 million.

Investing Activities

For the three months ended March 31, 2018, net cash used in investing activities was less than $0.7 million related to the acquisition of the Allenex AB minority interest and purchases and disposals of property and equipment.

For the three months ended March 31, 2017, net cash used in investing activities was $0.1 million, primarily related to purchases of property and equipment.

Financing Activities

Net cash used in financing activities for the three months ended March 31, 2018 of $2.3 million was primarily related to the repayment of the SSP Primers Note of $1.2 million, debt issuance fees of $0.6 million in connection with the term loan agreement with Perceptive Credit Holdings II, LP, or Perceptive, and the quarterly Danske bank term loan facility amortization of $0.4 million as well as a reduction in the outstanding balance of the Danske credit facility of $0.2 million.

Net cash provided by financing activities for the three months ended March 31, 2017 of $11.1 million consisted primarily of $24.0 million in net proceeds received from the JGB debt agreement in March 2017, partly offset by $12.9 million of principal payments on debt and capital lease obligations.

Liquidity and Capital Resources

We have incurred significant losses and negative cash flows from operations since our inception and had an accumulated deficit of $274.1 million at March 31, 2018. As of March 31, 2018, we had cash and cash equivalents of $18.7 million, and $10.2 million of debt outstanding under our debt obligations, of which $0.5 million was current.

On April 17, 2018, we entered into a new credit agreement with Perceptive for an initial term loan of $15.0 million and repaid the outstanding indebtedness of the Allenex Notes and the Danske bank term loan facility and credit facility. A second tranche of $10.0 million will be available at our option subject to the satisfaction of customary conditions.

Deferred Purchase Consideration

On November 14, 2017 we entered into amendments to the Conditional Share Purchase Agreement with the Former Majority Shareholders, whereby we immediately repaid the total remaining deferred purchase consideration of $4.7 million, plus accrued interest.

Allenex Notes and Danske Bank Term Loan

All outstanding amounts under the Allenex Notes of $4.4 million and Danske bank term loan facility and credit facility of $6.7 million were repaid on April 17, 2018 with proceeds from the Perceptive term loan refinancing.

We were not in compliance with certain quarterly covenants on December 31, 2017 or March 31, 2018, as related to Danske bank term loan. We classified $0.5 million as current debt and $9.7 as long-term debt in accordance with accounting standards as related to refinancing short-term obligations with long-term debt as of March 31, 2018.

JGB Debt

On March 1, 2018, we notified JGB of our intent to prepay on April 13, 2018, in full the outstanding principal and interest under the JGB Debentures. During the three months ended, March 31, 2018, JGB converted all outstanding $26.7 million of principal and accrued interest of the JGB debt into an aggregate of 6,161,331 shares of our common stock. Restricted cash of $9.4 million was released from any restrictions after the conversion and included in our cash and cash equivalent balance as of March 31, 2018.

Going Concern

As of March 31, 2018, we had cash and cash equivalents of $18.7 million and an accumulated deficit of $274.1 million. On April 17, 2018, we entered into a new credit agreement with Perceptive for an initial term loan of $15.0 million and repaid the outstanding indebtedness of the Allenex Notes and the Danske bank term loan facility and credit facility. A second tranche of $10.0 million will be available at our option subject to the satisfaction of customary conditions.

We may require additional financing in the future to fund working capital and pay our obligations as they come due. Additional financing might include one or more offerings and one or more of a combination of equity securities, debt arrangements or collaborations. However, there can be no assurance that we will be successful in acquiring additional funding at levels sufficient to fund our operations or on terms favorable to us. We believe that the net proceeds from the Perceptive refinancing, as well as our existing cash balance and expected revenues, will be sufficient to meet our anticipated cash requirements for at least the next 12 months.

Factors Affecting Our Performance

The Number of AlloMap and AlloSure Tests We Receive and Report

The growth of our post-transplant business is tied to the number of AlloMap and AlloSure tests we receive and report. Historically, less than two percent of AlloMap tests received are not reported due to improper sampling, damage in transit or other causes. We incur costs in connection with collecting and shipping all samples and a portion of the costs when we cannot ultimately issue a test report. As a result, the number of samples received largely correlates directly to the number of test reports.

The Number of Pre-Transplant Diagnostic Products We Sell

The growth of our pre-transplant business is tied to the sales of the Olerup SSP, Olerup QTYPE, and Olerup SBT product lines. The pre-transplant sales organization is located in Stockholm, Sweden; Vienna, Austria; Fremantle, Australia and West Chester, Pennsylvania. Pre-transplant products are sold directly to customers in 12 countries. The pre-transplant business also uses distributors to sell in approximately 60 countries.

Continued Adoption of and Reimbursement for AlloMap

AlloMap test volume and the corresponding reimbursement revenue has generally increased over time since the launch of AlloMap, as Medicare provided reimbursement and payers adopt coverage policies and fewer payers consider AlloMap to be experimental and investigational. The rate at which our tests are covered and reimbursed has, and is expected to continue to vary by payer. Revenue growth depends on our ability to maintain Medicare reimbursement, achieve broader reimbursement from third party payers and to expand the number of tests per patient and the base of healthcare providers.

On June 10, 2016, Centers for Medicare & Medicaid Services, or CMS, announced proposed changes in reimbursement for a number of established molecular diagnostic tests, including AlloMap. Under the gapfill reimbursement rate for 2017, AlloMap reimbursement for patients covered by Medicare would have been reduced from $2,821 to $1,921, effective January 1, 2017. This reimbursement rate, determined by gapfill submissions from the Medicare contractors, was open to reconsideration until October 31, 2016. We submitted a request for reconsideration of the reimbursement rate determined by the Medicare contractors and in November 2016 CMS released the final 2017 Clinical Laboratory Fee Schedule reflecting the rate of reimbursement at $2,841 for AlloMap.

The Protecting Access to Medicare Act of 2014, or PAMA, includes a substantial new payment system for clinical laboratory tests under the CLFS. Under PAMA, laboratories that receive the majority of their Medicare revenues from payments made under the CLFS would report initially and then on a subsequent three-year basis thereafter (or annually for advanced diagnostic laboratory tests, or ADLTs), private payer payment rates and volumes for their tests. The final PAMA ruling was issued June 17, 2016 indicating that data for reporting for the new PAMA process would begin in 2017 and the new market based rates took effect on January 1, 2018. Effective January 1, 2018, Medicare plans to reimburse us $3,240 for AlloMap testing of Medicare beneficiaries, which represents a 14% increase over the 2017 reimbursement rate. AlloMap has also received positive coverage decisions for reimbursement from many of the largest U.S. private payers, including Aetna, Anthem, Cigna, Health Care Services Corporation (HCSC), Humana, Kaiser Foundation Health Plan, Inc., and TRICARE.

Reimbursement for AlloSure

On September 26, 2017 we received notice that the Molecular Diagnostics Services, or MolDX, Program developed by Palmetto GBA has set AlloSure reimbursement at $2,841. Effective October 9, 2017, AlloSure was made available

for commercial testing with Medicare coverage and reimbursement. We believe the use of AlloSure, in conjunction with other clinical indicators, can help healthcare providers and their patients better manage long-term care following a kidney transplant. In particular, we believe AlloSure can improve patient care by helping healthcare providers to reduce the use of invasive biopsies and determine the appropriate dosage levels of immunosuppressants.

Development of Additional Products

We rely on sales of AlloMap, AlloSure, Olerup SSP, Olerup SBT and Olerup QTYPE to generate the majority of our revenue. Our product development pipeline includes other transplant diagnostic solutions to help clinicians and transplant centers make personalized treatment decisions throughout a transplant patient's lifetime. We expect to invest in research and development in order to develop additional products. Our success in developing new products will be important in our efforts to grow our business by expanding the potential market for our products and diversifying our sources of revenue.

Timing of Research and Development Expenses

Our spending on experiments may vary substantially from quarter to quarter. We also expend funds to secure clinical samples that can be used in discovery, product development, clinical validation, utility and outcome studies. The timing of these research and development activities is difficult to predict. If a substantial number of clinical samples are acquired in a given quarter or if a high-cost experiment is conducted in one quarter versus the next, the timing of these expenses will affect our financial results. We conduct clinical studies to validate our new products, as well as on-going clinical and outcome studies to further the published evidence to support our commercialized AlloMap and AlloSure tests. Spending on research and development for both experiments and studies may vary significantly by quarter depending on the timing of these various expenses.

Contractual Obligations

We are a smaller reporting company, as defined by Rule 12b-2 of the Securities Exchange Act of 1934, as amended, or the Exchange Act, and are not required to provide the information required under this item.

Off-Balance Sheet Arrangements

As of March 31, 2018, we had no off-balance sheet arrangements as defined under Regulation S-K 303(a)(4) of the Exchange Act, and the instructions thereto.

JOBS Act Accounting Election

We are an emerging growth company, as defined in the Jumpstart Our Business Startups Act of 2012, or the JOBS Act. Under the JOBS Act, emerging growth companies can delay adopting new or revised accounting standards issued subsequent to the enactment of the JOBS Act until such time as those standards apply to private companies. We have irrevocably elected not to avail ourselves of this exemption from new or revised accounting standards and, therefore, we will be subject to the same new or revised accounting standards as other public companies that are not emerging growth companies.

Foreign Operations

The accompanying condensed consolidated balance sheets contain certain recorded assets in foreign countries, namely Stockholm, Sweden, Vienna, Austria and Fremantle, Australia. Although these countries are considered economically stable and we have experienced no notable burden from foreign exchange transactions, export duties or government regulations, unanticipated events in foreign countries could have a material adverse effect on our operations.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Risk

We are exposed to market risks in the ordinary course of our business. We had cash and cash equivalents of $18.7 million and $16.9 million at March 31, 2018 and December 31, 2017, respectively, which consisted of bank deposits and money market funds. Additionally, we had debt of $10.2 million and $34.1 million as of March 31, 2018 and December 31, 2017, respectively. Such variable interest-bearing instruments carry a degree of risk. However, we have not been exposed to, nor do we anticipate being exposed to, material risks due to changes in interest rates. A

hypothetical fifty basis point increase or decrease in interest rates would have an immaterial impact on our unaudited condensed consolidated financial statements.

Foreign Currency Exchange Risk

Our pre-transplant business has operations in Sweden, Austria, Australia and sells to other countries throughout the world. As a result, we are subject to significant foreign currency risks, including transacting in foreign currencies, investment in a foreign entity, as well as assets and debts denominated in foreign currencies. Our testing revenue is primarily denominated in U.S. dollars. Our product revenue is denominated primarily in Swedish Krona, the Euro, the Australian dollar and U.S. dollars. Consequently, our revenue denominated in foreign currency is subject to foreign currency exchange risk. A portion of our operating expenses are incurred outside of the U.S. and are denominated in Swedish Krona, the Euro, and the Australian Dollar, which are also subject to fluctuations due to changes in foreign currency exchange rates. An unfavorable 10% change in foreign currency exchange rates for our assets and liabilities denominated in foreign currencies at March 31, 2018, would have negatively impacted our financial results for the three months ended March 31, 2018 by $0.2 million. Currently, we do not have any near-term plans to enter into a formal hedging program to mitigate the effects of foreign currency volatility. We will continue to reassess our approach to managing our risk relating to fluctuations in foreign currency exchange rates.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Management, including our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(b) and 15d-15(e) promulgated under the Exchange Act), as of the end of the period covered by this Quarterly Report on Form 10-Q. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of disclosure controls and procedures must reflect the fact that there are resource constraints and that we are required to apply our judgment in evaluating the benefits of possible controls and procedures relative to our costs. Based on such evaluation, the Chief Executive Officer and Chief Financial Officer concluded that, as of the end of the period covered by this Quarterly Report on Form 10-Q, our disclosure controls and procedures were effective at the reasonable assurance level and are effective to provide reasonable assurance that information required to be disclosed in the reports we file and submit under the Exchange Act, is (i) recorded, processed, summarized and reported as and when required and (ii) accumulated and communicated to our management, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely discussion regarding required disclosure.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the three months ended March 31, 2018 that have materially affected or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

From time to time, we may become subject to legal proceedings and claims that arise in the ordinary course of business. Although we do not believe that any matters presently pending will have a material adverse effect, individually or in the aggregate, on our financial position, results of operations or liquidity, legal matters and proceedings are inherently unpredictable and subject to significant uncertainties, some of which are beyond our control. As such, there can be no assurance that the final outcome of these matters will not materially and adversely affect our financial position, results of operations or liquidity.

ITEM 1A. RISK FACTORS

Our Annual Report on Form 10-K for the year ended December 31, 2017, filed with the SEC on March 22, 2018, Part I –Item 1A, Risk Factors, describes important risk factors that could cause our business, financial condition, results of operations and growth prospects to differ materially from those indicated or suggested by forward-looking statements made in this Quarterly Report on Form 10-Q or presented elsewhere by management from time to time. There have been no material changes in the risk factors that appear in Part I - Item 1A of the Company's Annual Report on Form 10-K for the year ended December 31, 2017, filed with the SEC on March 22, 2018 other than those listed below. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial may also materially and adversely affect our business.

Our debt agreement contains restrictive and financial covenants that may limit our operating flexibility.

Our debt agreement with Perceptive Credit Holdings II, LP, or Perceptive, contains certain restrictive covenants that limit our ability to merge with other companies or consummate certain changes of control, acquire other companies, make certain investments or acquisitions, pay dividends, transfer or dispose of assets, amend certain material agreements, incur additional indebtedness, permit additional liens or enter into various specified transactions. We therefore may not be able to engage in any of the foregoing transactions unless we obtain the consent of the lender or terminate our existing debt agreement. There is no guarantee that we will be able to generate sufficient cash flow or sales to pay the principal and interest under our debt agreement.

Refer to Note 17 of the notes to the unaudited condensed consolidated financial statements included in Part I, Item I of this Quarterly Report on Form 10-Q for details on debt agreement with Perceptive.

Our License and Commercialization Agreement with Illumina may not result in material benefits to our business.

Pursuant to our License and Commercialization Agreement with Illumina, or the Illumina License Agreement, we acquired the worldwide distribution, development and commercialization rights to Illumina, Inc.’s next generation sequencing product line for use in the field of bone marrow transplantation diagnostic testing and solid organ transplantation diagnostic testing.

Under the Illumina License Agreement, we are obligated to complete timely development and commercialization of future products, including meeting certain commercialization milestones. The failure to meet any such milestones could result in the loss of exclusivity for the affected licensed products. Additionally, we agreed to minimum purchase commitments of finished products and raw materials from Illumina, Inc. through 2023 and we are required to pay royalties in the mid-single to low-double digits on sales of future commercialized products.

We cannot make any assurances that our efforts under the Illumina License Agreement will be successful. As a result, we may not be able to fully realize the anticipated strategic benefits of the Illumina License Agreement. If we fail to successfully execute on the Illumina License Agreement, we may not realize the benefits expected from the transaction and our business may be harmed.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Issuer Purchases of Equity Securities

We satisfy certain U.S. federal and state tax withholding obligations due upon the vesting of restricted stock unit awards by automatically withholding from the shares being issued in connection with such award a number of shares of our common stock with an aggregate fair market value on the date of vesting equal to the minimum tax withholding obligations. The following table sets forth information with respect to shares of our common stock repurchased by us to satisfy certain tax withholding obligations during the three months ended March 31, 2018:

	(a) Total Number of Shares (or Units) Purchased		(b) Average Price Paid per Share (or Unit)
January 1, 2018- January 31, 2018	19,101	(1)	$ 6.27
February 1, 2018-February 28, 2018	1,625		$ 5.82
March 1, 2018- March 31, 2018	—		—
Total	20,726		-

(1) Represents shares of our common stock withheld from employees for the payment of taxes.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 5. OTHER INFORMATION

None.

ITEM 6. EXHIBITS

Exhibit Number	
3.1(1)	Amended and Restated Certificate of Incorporation.
3.2(2)	Amended and Restated Bylaws.
4.1 (3)	Form of Registrant's common stock certificate.
4.2(4)	Sixth Amended and Restated Investors Rights Agreement, dated July 1, 2009, as amended on March 29, 2012, June 10, 2014, and July 14, 2014, between the Registrant and certain holders of the Registrant's capital stock named therein.
4.3(5)#	1998 Equity Incentive Plan and forms of agreements thereunder.

4.4(6)#	2008 Equity Incentive Plan and forms of agreement thereunder.
4.5(7)#	ImmuMetrix, Inc. 2013 Equity Plan
4.6(8)#	2014 Equity Incentive Plan and forms of agreements thereunder.
4.7(9)#	Form of Option Agreement under the 2014 Equity Incentive Plan for New Options.
4.8(10)#	2014 Employee Stock Purchase Plan and forms of agreements thereunder.
4.9(11)#	2016 Inducement Equity Plan.
4.10(12)#	Form of Warrant.
4.11(13)	Form of Common Stock Purchase Warrant issued to the Purchasers on March 15, 2017.
10.1*	Commitment Letter, dated March 1, 2018, between the Registrant and Perceptive Credit Holdings II, LP.
31.1*	Certification of Periodic Report by Chief Executive Officer under Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Periodic Report by Chief Financial Officer under Section 302 of the Sarbanes-Oxley Act of 2002.
32.1**	Certification of Chief Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS*	XBRL Instance Document
101.SCH*	XBRL Taxonomy Extension Schema Document
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document

101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document

(1) Incorporated by reference to Exhibit 3.1 to the Registrant's Form 10-Q filed with the Securities and Exchange Commission (the "SEC") on August 28, 2014.
(2) Incorporated by reference to Exhibit 3.4 to the Registrant's Form 10-Q filed with the SEC on August 28, 2014.
(3) Incorporated by reference to Exhibit 4.1 to the Registrant's Form 10-K filed with the SEC on March 31, 2015.
(4) Incorporated by reference to Exhibit 4.2 to the Registrant's Form 10-K filed with the SEC on March 31, 2015.
(5) Incorporated by reference to Exhibit 10.2 to the Registrant's Form S-1 filed with the SEC on June 3, 2014.
(6) Incorporated by reference to Exhibit 10.3 to the Registrant's Form S-1 filed with the SEC on June 3, 2014.
(7) Incorporated by reference to Exhibit 10.19 to the Registrant's Form S-1 filed with the SEC on June 3, 2014.
(8) Incorporated by reference to Exhibit 4.4 to the Registrant's Form S-8 filed with the SEC on July 18, 2014.
(9) Incorporated by reference to Exhibit 99(d)(3) to the Registrant's Form SC TO-I filed with the SEC on October 12, 2017.
(10) Incorporated by reference to Exhibit 4.5 to the Registrant's Form S-8 filed with the SEC on July 18, 2014.
(11) Incorporated by reference to Exhibit 4.1 to the Registrant's Form S-8 filed with the SEC on May 23, 2016.
(12) Incorporated by reference to Exhibit 10.3 to the Registrant's Form 8-K filed with the SEC on April 14, 2016.
(13) Incorporated by reference to Exhibit 4.2 to the Registrant's Form 8-K filed with the SEC on March 15, 2017.

# Indicates management contract or compensatory plan or arrangement.
* Filed herewith.
** Furnished herewith.

SIGNATURES

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

CAREDX, INC.
(Registrant)

Date: May 10, 2018 By: /s/ PETER MAAG
Peter Maag
President and Chief Executive Officer
(Principal Executive Officer)

By: /s/ MICHAEL BELL
Michael Bell
Chief Financial Officer
(Principal Accounting and Financial Officer)