

**UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549

**FORM 10-K**

(Mark One)

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**  
For the year ended December 31, 2017

**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: 001-34753

**GenMark Diagnostics, Inc.**  
(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)	27-2053069 (I.R.S. Employer Identification No.)
5964 La Place Court, Carlsbad, California (Address of principal executive offices)	92008-8829 (Zip code)

Registrant's telephone number, including area code: 760-448-4300

**Securities registered pursuant to Section 12(b) of the Act**

<u>Title of Each Class:</u>	<u>Name of Each Exchange on which Registered:</u>
Common Stock, par value \$0.0001 per share	The NASDAQ Stock Market LLC (NASDAQ Global Market)

**Securities registered pursuant to Section 12(g) of the Act: None**

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act of 1933, as amended. YES  NO

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934, as amended. YES  NO

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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/> (Do not check if a smaller reporting company)	Smaller reporting company	<input type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

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

As of June 30, 2017, the last business day of the registrant's most recent completed second quarter, the aggregate market value of the common stock held by non-affiliates of the registrant was approximately \$618,300,000 based on the closing sale price for the registrant's common stock on the NASDAQ Global Market on that date of \$11.83 per share. This number is provided only for the purpose of this report on Form 10-K and does not represent an admission by either the registrant or any such person as to the status of such person.

The number of outstanding shares of the registrant's common stock on February 23, 2018 was 55,166,687. The common stock is listed on the NASDAQ Global Market (trading symbol "GNMK").

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**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the registrant's definitive Proxy Statement to be filed with the Securities and Exchange Commission within 120 days after the close of the fiscal year are incorporated by reference into Part III of this report.

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## **Forward-Looking Statements**

*This Annual Report on Form 10-K, or Annual Report, particularly in Item 1. “Business” and Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and the documents incorporated herein by reference, include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. All statements, other than statements of historical fact are statements that could be deemed to be forward-looking statements, including, but not limited to, statements regarding our future financial position, business strategy, research and development efforts, and plans and objectives of management for future operations. When used in this Annual Report, the words “believe,” “may,” “could,” “will,” “estimate,” “continue,” “intend,” “expect,” “target,” “anticipate,” “aim,” “plan” and similar expressions, including their use in the negative, are intended to identify forward-looking statements.*

*These forward-looking statements are based on current expectations, estimates, forecasts and projections about our business and the industry in which we operate and management’s beliefs and assumptions. They are not guarantees of future performance or development and involve known and unknown risks, uncertainties and other factors that are in some cases beyond our control. As a result, any or all of our forward-looking statements in this Annual Report may turn out to be inaccurate. Risks and other factors that may cause such differences include, but are not limited to, those described under the heading “Risk Factors” in Item 1A of Part I of this Annual Report.*

*In light of these risks, uncertainties and assumptions, actual results and timing of events could differ materially and adversely from those anticipated or implied in the forward-looking statements. Accordingly, readers are cautioned not to place undue reliance on such forward-looking statements.*

*Except as required by law, we do not intend to update these forward-looking statements publicly or to update the reasons actual results could differ materially from those anticipated in these forward-looking statements, even if new information becomes available in the future.*

## **Trademarks and Trade Names**

GenMark<sup>®</sup>, eSensor<sup>®</sup>, XT-8<sup>®</sup>, ePlex<sup>®</sup> and our other logos and trademarks are the property of GenMark Diagnostics, Inc. or its subsidiaries. All other brand names or trademarks appearing in this Annual Report are the property of their respective holders. Our use or display of other parties’ trademarks, trade dress or products in this Annual Report does not imply that we have a relationship with, or the endorsement or sponsorship of, the trademark or trade dress owners.

## **Use of External Estimates**

This Annual Report includes market share and industry data and forecasts that we obtained from industry publications and surveys. Industry publications, surveys and forecasts generally state that the information contained therein has been obtained from sources believed to be reliable, but there can be no assurance as to the accuracy or completeness of such included information. We have not independently verified any of the data from third-party sources nor have we ascertained the underlying economic assumptions relied upon therein. While we are not aware of any misstatements regarding the industry and market data presented herein, the data involve risks and uncertainties and are subject to change based on various factors.

## PART I.

### Item 1. BUSINESS

GenMark Diagnostics, Inc., or GenMark, is a molecular diagnostics company focused on developing and commercializing multiplex molecular tests that aid in the diagnosis of complex medical conditions and help guide therapy decisions. References herein to “we,” “us” or “our” refer to GenMark Diagnostics, Inc. and its wholly owned subsidiaries, unless the context specifically requires otherwise.

#### Overview

We currently develop and commercialize high-value instruments and simple to perform, clinically relevant multiplex molecular tests based on our proprietary eSensor electrochemical detection technology. Our eSensor instruments are designed to support a broad range of molecular diagnostic tests with compact, easy-to-use workstations and self-contained, disposable test cartridges.

Our ePlex instrument is a multiplex, sample-to-answer platform that is designed to optimize laboratory efficiency and address a broad range of infectious disease testing needs, including respiratory, bloodstream, and gastrointestinal infections. We are currently commercializing our ePlex instrument and its diagnostic test panels, which we refer to as our ePlex system, in the United States and Europe. We expect to expand sales of our ePlex system in additional geographic regions. In June 2017, we received 510(k) market clearance from the United States Food and Drug Administration, or FDA, for both our ePlex instrument and ePlex Respiratory Pathogen (RP) Panel. In addition, we have obtained CE Mark for our ePlex family of blood culture identification (BCID) panels, which include gram-positive (GP), gram-negative (GN), and fungal pathogen (FP) BCID panels. We expect to submit our ePlex BCID family of panels to the FDA for 510(k) market clearance in 2018, and intend to develop a number of other diagnostic panels for use with our ePlex instrument targeting additional clinically relevant infectious disease conditions.

We sell our XT-8 instrument in the United States, along with related diagnostic and research tests, as well as certain custom manufactured reagents, which we collectively refer to as our XT-8 system. Our XT-8 system comprises a compact and easy-to-use workstation and disposable test cartridges that supports a broad range of molecular tests for aiding in the diagnosis of certain infectious diseases and genetic conditions.

Since inception, we have incurred net losses from operations each year, and we expect to continue to incur losses for the foreseeable future. Our net losses for the fiscal years ended December 31, 2017, 2016 and 2015 were approximately \$61.9 million, \$50.6 million, and \$42.2 million, respectively. As of December 31, 2017, we had an accumulated deficit of \$417.1 million. Our operations to date have been funded principally through sales of capital stock, borrowings, and cash from operations. We expect to incur increasing expenses over the next several years, principally to further expand our diagnostic test menu for our ePlex instrument, as well as to further increase our manufacturing capabilities and commercial organization.

#### Our Strategy

Our goal is to become the market leading provider of automated, multiplex molecular diagnostic testing systems. In order to achieve this objective, we intend to:

- **Successfully Commercialize our ePlex System.** We believe our ePlex system is an attractive solution for a broad range of hospitals and laboratories that need rapid, actionable identification of infectious pathogens as well as those hospitals and laboratories that may lack the technical or economic resources to perform molecular diagnostic testing with existing products and technology. We believe the ePlex system will expand our current potential user base from approximately 1,000 domestic customers to approximately 12,000 potential customers globally.
- **Expand our Menu of Clinical Diagnostic Products.** We intend to develop a broad menu of molecular diagnostic tests for our ePlex instrument that we believe will satisfy important medical needs and present attractive commercial opportunities. For example, we have developed an RP Panel, as well as a family of BCID panels, which include a GP, a GN, and an FP panel, for use with our ePlex instrument. We are also actively evaluating the development of additional panels that we believe will meet important, unmet clinical needs, which our ePlex system is uniquely positioned to address.
- **Grow our Installed Base of Customers.** We have identified laboratories and hospitals that we believe will benefit from our product portfolio. We intend to leverage our commercial organization to drive placements of our

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instruments. We anticipate that the expansion of our installed base of customers will drive sales of our test cartridges, from which we anticipate generating the majority of our revenues for the foreseeable future.

- **Increase Test Utilization.** We intend to increase the use of our diagnostic tests by developing and offering tools and support tailored to our products, such as education programs and seminars, product training for our customers, and advanced software features. Additionally, we plan to invest in research studies that establish the clinical and health economic utility of multiplex molecular diagnostic tests, which we believe will increase adoption of our products.
- **Develop Partnerships with Relevant Third Parties.** We plan to establish partnerships with other stakeholders in the diagnostic industry to expand our commercial, operations and research and development capabilities. We anticipate that these partnerships will increase awareness of our ePlex solution as well as bring additional value to our customers, helping us secure and grow our business.
- **Support Our Existing XT-8 Business.** We currently offer our XT-8 analyzers in the U.S. market and sell numerous diagnostic and research panels for use on our XT-8 system. We expect our XT-8 system to remain an important piece of our overall business for the foreseeable future and we intend to continue supporting this product line in the field with application support, customer education and training, and research programs.

Revenues, net loss, and total assets for the past three years are contained in our consolidated financial statements in Part II of this Annual Report. Substantially all of our revenues for the periods reported in our consolidated financial statements in Part II of this Annual Report were derived from customers located within the United States.

## **Our Technology**

### ***Our eSensor Technology***

Our proprietary eSensor technology is based on the principles of deoxyribonucleic acid, or DNA, hybridization and electrochemical detection. DNA naturally forms a double-stranded structure, with each strand binding with high affinity, or hybridizing, only to a complementary strand. Our technology takes advantage of this highly specific binding by first creating two types of single-stranded DNA, the capture probe and the signal probe. The capture probe and signal probe are each complementary to a different segment of the target DNA that is the focus of the particular diagnostic test. Using our technology and processes, we attach our capture probes to a proprietary monolayer on the surface of a gold electrode within our test cartridges. We separately attach ferrocene, a proprietary label, to our signal probes.

Before placing the sample into our XT-8 test cartridge, the technician mixes the amplified DNA sample with our signal probe. If the target biomarker is present in the prepared patient sample, a segment of the biomarker DNA will hybridize with a solution containing our signal probe. This solution is then run past an electrode, against which our capture probes have been immobilized. The as-yet unbound segment of the target biomarker binds to our capture probe, creating a target DNA, signal probe, capture probe complex at the surface of the electrode. This complex produces an electrochemical signal which is analyzed and interpreted by our XT-8 system.

With our ePlex sample-to-answer test cartridges, the operator adds a patient sample directly or with minimal preparation into the sample chamber, closes the lid, and inserts the test cartridge into the ePlex instrument. Within the instrument, the same steps performed by a technician with the XT-8 system are performed within the ePlex test cartridge, resulting in the delivery of target DNA and signal probes to the eSensor electrodes within the ePlex cartridge. As with XT-8, when a complex forms as a result of a target match, the complex produces an electrochemical signal that is interpreted by the ePlex system.

Our XT-8 and ePlex test cartridges utilize the combination of distinct electrodes and multiple signal probes to detect dozens of target biomarkers from a single sample, thereby enabling highly multiplexed testing. Our eSensor technology is highly specific for the target biomarker, and is not based on optical or fluorescent detection. As a result, our diagnostic tests are less prone to sample contamination risk and do not require many of the time-consuming washing and preparation steps required by competing technologies. The sample preparation steps required before using our XT-8 test cartridges are nucleic acid purification and a polymerase chain reaction, or PCR, amplification, which involves amplifying, or generating billions of copies of the target DNA molecules, followed by transfer of the sample to our test cartridge and insertion of the test cartridge into any open module in our XT-8 system. In some XT-8 tests, amplified DNA is subject to an additional enzymatic treatment to produce a single-stranded-DNA. In contrast, the ePlex system generally requires no pre-analytic steps to be performed by the user, except, in limited cases, certain minimal up-front sample handling.

We believe our proprietary electrochemical detection technology has several advantages over other signal detection platforms, including high sensitivity and accuracy, streamlined sample preparation, efficient multiplexing, effective use of lab space, low maintenance, and the ability to cost-effectively develop additional tests.

## Digital Microfluidics

Digital microfluidics is another innovative technology included within our ePlex system which we have exclusively licensed within a defined field of use from an affiliate of Illumina, Inc. Digital microfluidics is a technique for moving small droplets of liquid using electrowetting, a process for making a surface hydrophobic or hydrophilic based on the application of a voltage to a surface. Our ePlex printed circuit board contains eSensor electrodes capable of nucleic acid detection along with electrowetting electrodes capable of digital microfluidics. The ePlex system uses numerous choreographed digital inputs to perform the fluid manipulations associated with sample-to-answer molecular diagnostics. Drops are dispensed, mixed, merged, heated, cooled, split and delivered, all under precise and programmable digital control. In this manner, standard procedures of the molecular diagnostics lab (e.g., DNA purification, PCR, exonuclease digestion, etc.) can be performed automatically within our ePlex cartridge.

## Our Instrument Systems

**Our ePlex Instrument.** Our ePlex instrument is a multiplex, sample-to-answer platform that fully integrates nucleic acid extraction, amplification and detection and has a modular design consisting of an integrated touch screen and up to four analyzers. Each analyzer contains six test cartridge modules into which individual ePlex panel test cartridges are placed. The test cartridge modules operate independently supporting continuous random access of up to 24 independent test cartridges. We also offer a near-patient configuration of our ePlex instrument for lower volume customers, which contains three independent test cartridge modules in a single analyzer. In June 2017, we received 510(k) market clearance from the FDA for both our ePlex instrument and ePlex RP Panel. In addition, we have obtained CE Mark for our ePlex BCID-GP Panel, BCID-GN Panel and BCID-FP Panel, all of which we intend to submit to the FDA for 510(k) market clearance in 2018. In addition, we are actively evaluating the development of additional assay panels that we believe will meet important, unmet clinical needs, which our ePlex system is uniquely positioned to address.

**Our XT-8 Instrument.** Our XT-8 instrument is a post-PCR multiplex workstation that has a modular design consisting of an integrated touch screen and up to three analyzers. Each analyzer contains eight modules into which individual test cartridges are placed. The test cartridge modules operate independently of each other allowing up to 24 independent test cartridges to be loaded at one time, with the remaining modules available for use at any future time while the system is running. We offer the following four FDA-cleared assays on our XT-8 instrument: a Respiratory Viral Panel, a Cystic Fibrosis Genotyping Test, a Thrombophilia Risk Test, and a Warfarin Sensitivity Test. We also offer a Hepatitis C (HCV) Genotyping Test and associated custom manufactured reagents, as well as a 2C19 Genotyping Test, each of which is available for research use only (RUO).

## Market Opportunity

We believe the aggregate global total addressable market for the tests we currently offer, are actively developing on ePlex, or may consider developing is approximately \$2.5 billion. Many factors are driving the strong opportunity in this market, including increased demand for infectious disease diagnostic solutions and an increased focus on value-based medical care that enhances patient outcomes, improves key quality metrics, and reduces the total cost-of-care.

## Research and Development

Our research and development (R&D) team is focused on expanding our ePlex test menu. In addition, our R&D team is supporting the following initiatives:

- **On Market Product Support.** A role of our R&D team is to assist our manufacturing and quality assurance teams in ensuring high product quality and thorough complaint handling and investigation. This team also supports improvements in quality control methods and metrics and is an active participant in the continuous improvement processes utilized by our product manufacturing teams.
- **Improving the Clinical and Practical Utility of our Tests.** Our R&D organization also supports the clinical utility and value of our molecular diagnostic tests. We have previously and intend to continue to partner with academic and reference laboratories to perform validation and clinical studies on our tests. Key aspects of our efforts are aimed at improving workflow in the laboratory setting, positively comparing our tests to historical or “gold standard” tests, and demonstrating that our tests can help improve patient care and lower diagnostic and medical treatment costs. We intend to publish the results from these clinical studies in peer-reviewed or trade journals, submit them to regulatory bodies, and present them at industry conferences in support of our commercialization strategy.

## Manufacturing

We manufacture our proprietary test cartridges, certain related components and ancillary reagents in our Carlsbad, California facilities. We perform reagent formulation, test cartridge manufacturing and packaging of final components and test cartridges in accordance with applicable guidelines for medical device manufacturing. We currently lease an aggregate of approximately 87,000 square feet at two nearby locations in Carlsbad, California, where we maintain our corporate office and manufacturing facilities.

We outsource the manufacture of our ePlex instrument to Plexus Corp, or Plexus. We currently maintain an inventory of XT-8 instruments and related components to satisfy the expected demand for our XT-8 system for the foreseeable future, as well as to service XT-8 instruments installed at customer locations. We rely on third party suppliers, including in certain instances, sole source suppliers, for certain raw materials and other supplies and components used in our products.

We have implemented a quality management system designed to comply with FDA regulations and ISO standards governing diagnostic medical device products. These regulations control the design, manufacture, testing and release of diagnostics products, as well as raw material receipt and control. In 2012, our Carlsbad, California corporate headquarters facility obtained ISO 13485 certification. We control methods for the consistent manufacturing of our proprietary test cartridges and reagents at our facilities. Our key outsourcing partners are regularly audited to help ensure a continual supply of high quality components.

We plan to continue to manufacture components that we determine are highly proprietary or highly customized, while outsourcing more commodity-like components. We are likely to establish additional outsourcing partnerships as we manufacture additional products.

## Sales and Marketing

Our current sales and marketing strategy is to expand our business globally with the commercialization of our ePlex system in the United States, Europe, and certain other select geographic regions, while also continuing to support the placement and use of our XT-8 system in the United States. Our products are sold in the United States through a geographically dispersed direct sales and technically specialized service organization, which is supported by a centralized team of product managers and marketing, customer support, and technical support personnel. We utilize a direct sales and technical support team augmented by third party distributors to sell our ePlex system in certain European countries.

Our sales representatives typically have experience in molecular diagnostics and a network of laboratory contacts within their respective territories. We utilize our representatives' knowledge along with market research databases to target and qualify our customers. We execute a variety of sales campaigns and strategies to meet the buying criteria of the different customer segments we serve. To support the growth in our customer base and our launch plans for our ePlex system, we continue to make investments in these customer facing organizations.

Our sales cycle typically includes customer evaluations and validations of our products. Upon successful validation, a customer will generally acquire our instrument in the following ways:

- **Capital Purchase:** The instrument is paid for upfront and in its entirety by the customer. Customers are also eligible to receive structured pricing incentives if they enter into an optional annual minimum cartridge purchase commitment.
- **Reagent Rental:** A reagent rental agreement generally provides that a customer commits to purchase a minimum number of test cartridges over the term of the agreement, and a portion of the charge for each cartridge is attributable to a usage fee for the instrument.

## Customers

Our target customers include hospital-based laboratories and research institutions. We believe our ePlex system will expand our current potential user base from approximately 1,000 domestic customers to approximately 12,000 potential customers globally. In 2017, 2016, and 2015, Laboratory Corporation of America, Inc. represented 17%, 27% and 17%, respectively, of our total revenue.



## **Competition**

We primarily face competition in the molecular diagnostic testing markets with testing products and systems developed by public and private companies such as bioMérieux (which acquired Biofire Diagnostics, Inc.), Luminex Corporation (which acquired Nanosphere, Inc.), Danaher Corporation (which acquired Cepheid), Qiagen (which has agreed to acquire Stat-Dx), Siemens (which has agreed to acquire Fast Track Diagnostics), T2 BioSystems, Accelerate Diagnostics, Hologic, Inc., Seegene, Roche Diagnostics and Abbott Molecular Diagnostics. Our diagnostic tests also face competition with laboratory developed tests, or LDTs, developed by national and regional reference laboratories and hospitals. We believe that our testing systems compete largely on the basis of accuracy, reliability, enhanced laboratory workflow, multiplex capability, ease-of-use, customer service and support, patient safety, and return on investment for customers.

Many of our competitors have substantially greater financial, technical, research and other resources and larger, more established marketing, sales and distribution organizations than we do. Many of our competitors also offer broader product lines and have greater brand recognition than we do. Moreover, our existing and new competitors may make rapid technological developments that may result in our technologies and products becoming obsolete before we recover the expenses incurred to develop them or before they generate significant revenue.

## **Intellectual Property**

To establish and protect our proprietary technologies and products, we rely on a combination of our patents, copyrights, trademarks, and trade secrets, as well as other intellectual property rights in our technology and business information. Our intellectual property portfolio for our core electrochemical technology was initially built through the combination of our acquisition of the Clinical Micro Sensors business from Motorola and licensing patents from the California Institute of Technology. We also have exclusively licensed the digital microfluidics technology utilized in our ePlex system within a defined field of use from an affiliate of Illumina.

We believe that our patent portfolio, which includes over 100 owned and exclusively licensed U.S. and foreign patents and approximately 50 pending applications, provides us with extensive protection of our eSensor systems. We continue to pursue the issuance of new patents to protect our ongoing research, development and commercial activities, in particular with respect to our ePlex system and related consumables. In general, patents have a term of at least 20 years from the application filing date or earlier claimed priority date. A majority of our issued and exclusively licensed patents are scheduled to expire by 2021, with approximately one-half of the patents expiring by 2018. Several of our pending applications have the potential to mature into patents that may expire between 2028 and 2038. Our success depends to a significant degree upon our ability to police infringement and continue to develop proprietary products and technologies without infringing the intellectual property rights of others.

We also rely in part on trade secret protection of our intellectual property. We attempt to protect our trade secrets by entering into confidentiality agreements with third parties, employees and consultants. Our employees and consultants also sign agreements requiring that they assign to us their interests in intellectual property, such as patents and copyrights arising from their work for us. All employees sign an agreement not to compete unfairly with us during their employment and upon termination of their employment through the misuse of confidential information.

We also have filed for registration, or obtained registration, in the U.S. and other countries for marks used with our products and technology. Our issued trademarks in the United States and/or Europe include GenMark®, GenMark DX®, eSensor®, XT-8®, and ePlex®, among others.

## **Government Regulation**

The design, development, manufacture, testing and sale of our molecular diagnostic products are subject to regulation by numerous governmental authorities, principally the FDA, and corresponding state and foreign regulatory agencies.

**Regulation by the FDA**

In the United States, the Federal Food, Drug, and Cosmetic Act, or FDCA, FDA regulations, and other federal and state statutes and regulations govern, among other things, medical device design and development, preclinical and clinical testing, premarket clearance or approval, registration and listing, manufacturing, labeling, storage, advertising and promotion, sales and distribution, export and import, and post-market surveillance. The FDA regulates the design, manufacturing, servicing, sale and distribution of medical devices, including molecular diagnostic test kits and instrumentation systems. Failure to comply with applicable U.S. requirements may subject a company to a variety of administrative or judicial sanctions, such as FDA refusal to approve pending applications, warning letters, product recalls, product seizures, total or partial suspension of production or distribution, injunctions, fines, civil penalties and criminal prosecution. Unless an exemption applies, each medical device we wish to distribute commercially in the United States will require marketing authorization from the FDA prior to distribution.

The two primary types of FDA marketing authorization required applicable to a device are premarket notification, also called 510(k) clearance, and premarket approval, also called PMA. We have obtained 510(k) market clearance from the FDA for the following molecular diagnostic tests for use on our XT-8 system: the Respiratory Viral Panel, the eSensor Warfarin Sensitivity Test, the Cystic Fibrosis Genotyping Test, and the Thrombophilia Risk Test. In June 2017, we received 510(k) market clearance from the FDA for both our ePlex instrument and ePlex RP Panel.

**Proposed Regulation of Laboratory Developed Tests (LDTs).** In October 2014, the FDA promulgated draft guidance which describes a new proposed regulatory framework for LDTs. Based on this proposal, clinical laboratories that develop and use LDTs would be required to comply with specific regulatory requirements (e.g., adverse event reporting, quality system regulation, or QSR, premarket submission, and FDA review) prior to the use of LDTs for clinical diagnostic purposes. The timeline for phasing in the proposed regulatory requirements would begin upon finalization of the FDA guidance document. The ultimate impact of this draft guidance on our customers remains uncertain.

**Regulation after FDA Clearance or Approval.** Any devices we manufacture or distribute pursuant to clearance or approval by the FDA are subject to pervasive and continuing regulation by the FDA and certain state agencies. We are required to adhere to applicable regulations setting forth detailed Good Manufacturing Practices, or GMP, as set forth in the QSR, which includes testing, control and documentation requirements. Non-compliance with these standards can result in fines, injunctions, civil penalties, recalls or seizures of products, total or partial suspension of production, refusal of the government to grant 510(k) clearance or PMA of devices, withdrawal of marketing approvals and criminal prosecutions. We have designed and implemented quality system processes within our manufacturing facilities in order to comply with FDA's GMP requirements.

Because we are a medical device manufacturer, we must also comply with FDA's medical device reporting requirements whenever there is evidence that reasonably suggests that one of our products may have caused or contributed to a death or serious injury. We must also report any incident in which our product has malfunctioned if that malfunction would likely cause or contribute to a death or serious injury if it were to recur.

Labeling, advertising, and promotional activities are subject to scrutiny by the FDA and, in certain circumstances, by the Federal Trade Commission. Medical devices approved or cleared by the FDA may not be promoted for unapproved or uncleared uses, otherwise known as "off-label" promotion. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability, including substantial monetary penalties and criminal prosecution. We have implemented quality system processes and advertising/promotional policies designed to comply with these requirements.

**Environmental Regulations.** We are also subject to numerous federal, state and local laws relating to such matters as safe working conditions, manufacturing practices, environmental protection, fire hazard control and disposal of hazardous or potentially hazardous substances. Some of these laws require us to obtain licenses or permits to conduct our operations. We have numerous policies and quality system procedures in place to ensure compliance with these laws and to minimize the risk of occupational exposure to hazardous materials. We do not expect the operations of our products to produce significant quantities of hazardous or toxic waste or radiation that would require the use of extraordinary disposal practices. Although the costs to comply with these applicable laws and regulations have not been material, we cannot predict the impact on our business of new or amended laws or regulations or any changes in the way existing and future laws and regulations are interpreted or enforced, nor can we ensure we will be able to obtain or maintain any required licenses or permits.

**Export of Our Products.** Medical devices that are legally marketed in the U.S. may be exported anywhere in the world without prior FDA notification or approval. Devices that have not been approved or cleared in the U.S. must follow the export provisions of the FDCA. Depending on which section of the FDCA we may export under, we may need to request an export permit letter or export certificate, or we may need to submit a simple notification. Export certificates may be requested by foreign customers or foreign governments to provide proof of the products' status as regulated by the FDA. The export certificate is prepared by the FDA and contains information about a product's regulatory or marketing status in the United States.

**Clinical Laboratory Improvement Amendments of 1988.** The use of our products is also affected by the Clinical Laboratory Improvement Amendments of 1988, or CLIA, and related federal and state regulations, which provide for regulation of laboratory testing. Any customers using our products for clinical use in the United States will be regulated under CLIA, which establishes quality standards for all laboratory testing to ensure the accuracy, reliability and timeliness of patient test results regardless of where the test was performed. In particular, these regulations mandate that clinical laboratories must be certified by the federal government or a federally approved accreditation agency, or must be located in a state that has been deemed exempt from CLIA requirements because the state has in effect laws that provide for requirements equal to or more stringent than CLIA requirements. Moreover, these laboratories must meet quality assurance, quality control and personnel standards, and they must undergo proficiency testing and inspections. The CLIA standards applicable to clinical laboratories are based on the complexity of the method of testing performed by the laboratory, which range from "waived" to "moderate complexity" to "high complexity." Our molecular diagnostic tests for use on our XT-8 system are categorized as "high complexity" and our ePlex instrument and ePlex RP Panel are categorized as "moderate complexity."

**Foreign Government Regulation.** We intend to market our products in European and other select international markets. The regulatory pre-market requirements for *in vitro* diagnostic, or IVD, devices vary from country to country. Some countries impose product standards, packaging requirements, labeling requirements and import restrictions on devices. Each country has its own tariff regulations, duties and tax requirements. Failure to comply with applicable foreign regulatory requirements may subject us to fines, suspension or withdrawal of regulatory approvals, product recalls, seizure of products, operating restrictions and criminal prosecution.

#### ***Fraud and Abuse Regulations***

We are subject to numerous federal and state health care anti-fraud laws, including the federal anti-kickback statute and False Claims Act, or the FCA, that are intended to reduce waste, fraud and abuse in the health care industry. These laws are broad and subject to evolving interpretations. They prohibit many arrangements and practices that are lawful in industries other than health care, including certain payments for consulting and other personal services, some discounting arrangements, the provision of gifts and business courtesies, the furnishing of free supplies and services, and waivers of payments. In addition, many states have enacted or are considering laws that limit arrangements between medical device manufacturers and physicians and other health care providers and require significant public disclosure concerning permitted arrangements. These laws are vigorously enforced against medical device manufacturers and have resulted in manufacturers paying significant fines and penalties and being subject to stringent corrective action plans and reporting obligations. We must operate our business within the requirements of these laws and, if we were accused of violating them, we could be forced to expend significant resources on investigation, remediation and monetary penalties.

#### ***Patient Protection and Affordable Care Act***

Our operations are affected by the federal Patient Protection and Affordable Care Act of 2010, as modified by the Health Care and Education Reconciliation Act of 2010, which we refer to as the Health Care Act. The Health Care Act imposes a 2.3% excise tax on sales of medical devices by manufacturers. In December 2015, the excise tax was suspended for 2016 and 2017, and, in January 2018, the excise tax was further suspended until 2020. We are unable to predict whether the suspension will be continued beyond 2020. Taxable devices include any medical device defined in section 201(h) of the FDCA and intended for use by humans, with limited exclusions for devices purchased by the general public at retail for individual use. There is no exemption for small companies, and we paid the tax from January 2013 through December 2015. The Health Care Act also requires manufacturers to report to the Department of Health and Human Services detailed information about financial arrangements with physicians and teaching hospitals. These reporting provisions preempt state laws that require reporting of the same information, but not those that require reports of different or additional information. Failure to comply with these requirements subjects the manufacturer to significant civil monetary penalties.

## **Employees**

As of December 31, 2017, we had 517 employees, of which: 112 employees were involved in research and development; 290 in operations, manufacturing and quality assurance; 73 in sales and marketing; and 42 in general and administrative functions. Our success will depend in large part upon our ability to attract and retain employees. We face competition in this regard from other companies, research and academic institutions, government entities and other organizations. None of our employees are covered by a collective bargaining agreement.

## **Corporate and Available Information**

Our corporate office is located at 5964 La Place Court, Carlsbad, California. We also lease additional manufacturing space nearby to our corporate office in Carlsbad, California.

We make available, free of charge, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to those reports, as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission, or the SEC. We also make these documents and certain public financial information available on our website, which is [www.genmarkdx.com](http://www.genmarkdx.com). Our SEC reports and other financial information can be accessed through the investor relations section of our website. Some of the information found on our website is not part of this or any other report we file with or furnish to the SEC.

**Item 1A. RISK FACTORS**

*You should consider each of the following factors as well as the other information in this Annual Report in evaluating our business and our prospects. The risks and uncertainties described below are not the only ones we face. If any of the following risks actually occur, our business and financial results could be harmed. In that case, the trading price of our common stock could decline. You should also refer to the other information set forth in this Annual Report, including our financial statements and the related notes.*

***We may not successfully commercialize our ePlex system at the levels, or within the time frame, we anticipate.***

Our current plan for achieving positive cash flow and our future growth projections relies upon the successful commercialization of our ePlex system at the levels we project. Our ePlex system integrates automated nucleic acid extraction and amplification with our eSensor technology to allow operators to place raw or minimally prepared patient samples directly into our test cartridges and obtain clinically relevant results. We believe that our ePlex system offers certain advantages over competitive systems, including superior multiplexing capability, reduced hands-on processing time, testing capacity and flexibility, and other attributes. However, the commercial success of ePlex will depend on a number of factors, including, but not limited to:

- our ability to consistently manufacture highly complex products that deliver valid and accurate results at the levels required for large-scale market adoption;
- product reliability;
- overall market acceptance;
- our ability to offer a broad and clinically relevant test menu at a competitive price;
- our ability to effectively sell our products into integrated delivery networks and group purchasing organizations;
- adequate reimbursement for our products; and
- the development of clinical utility and health economic evidence to support adoption of our products.

If we are unsuccessful in effectively commercializing our ePlex system at the levels we project within our expected time frame, or at all, our investment in anticipation of growth that does not materialize, or which develops more slowly than we expect, may harm our financial results, reduce our cash balances, and result in overcapacity, which may adversely affect our business and future prospects.

***Our financial results will depend on the acceptance and increased demand among our target customers and the medical community of our molecular diagnostic technologies and products.***

Our future success depends on the belief by our target customers and the medical community that our molecular diagnostic products, including our ePlex instrument and test menu, are a reliable, medically-relevant, accurate and cost-effective replacement for other diagnostic testing methods. Our business success depends on our ability to convince our target customers to perform these tests internally with our products if they have historically outsourced their testing needs or have historically used non-molecular methods to perform such testing, or to replace their current molecular testing platforms with our system and its related test offerings.

Many other factors may affect the market acceptance and commercial success of our molecular diagnostic technology and products, including:

- the relative convenience, ease of use, accuracy, reliability, validity, scalability, cost, and time-to-result of our diagnostic products over competing products;
- the introduction of new technologies and competing products that may make our technologies and products a less attractive solution for our target customers;
- the breadth and relevance of our menu of available diagnostic tests relative to our competitors;
- our success in training our customers in the proper use of our products;
- the acceptance in the medical community and key opinion leaders of our molecular diagnostic technology and products;
- the extent and success of our marketing and sales efforts; and
- general economic conditions.

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Professional societies, government agencies, practice management groups, private health/science foundations and organizations involved in healthcare issues may publish guidelines, recommendations or studies for the healthcare and patient communities. Recommendations of government agencies or these other organizations may relate to such matters as cost-effectiveness and use of related products. Organizations like these have in the past made recommendations about our competitors' products, such as the need for less frequent screening tests, which could result in reduced product sales. Moreover, the perception by the investment community or stockholders that recommendations, guidelines or studies will result in decreased use of our products could adversely affect the prevailing market price for our common stock.

***We face intense competition from established and new companies in the molecular diagnostics field and expect to face increased competition in the future.***

The markets for our technologies and products are highly competitive and we expect the intensity of competition to increase. We compete with companies engaged in the development, commercialization and distribution of similar products intended for clinical molecular diagnostic applications. Categories of our competitors include:

- companies developing and marketing multiplex molecular diagnostics systems, including: Luminex (which acquired Nanosphere, Inc.); bioMérieux (which acquired BioFire Diagnostics, Inc.); Abbott Molecular Diagnostics; Qiagen (which has agreed to acquire Stat-Dx), Siemens (which has agreed to acquire Fast Track Diagnostics), T2 BioSystems, Accelerate Diagnostics, Hologic, Inc.; Seegene and Danaher Corporation (which acquired Cepheid);
- large hospital-based laboratories and reference laboratories who provide large-scale testing using their own proprietary testing methods, including Quest Diagnostics Incorporated and Laboratory Corporation of America; and
- companies that manufacture laboratory-based tests and analyzers, including: Danaher; Siemens; Hologic, Inc.; Qiagen NV; bioMérieux; Roche Diagnostics; and Abbott Molecular Diagnostics.

Our diagnostic tests also face competition from LDTs developed by national and regional reference laboratories and hospitals. LDTs may not currently be subject to the same regulatory requirements, including those requiring clinical studies and FDA review and clearance or approval that may apply to our diagnostic products.

We anticipate that we will face increased competition in the future as new companies enter the market with new technologies, our competitors improve their current products and expand their menu of diagnostic tests, and as we expand our operations internationally. Many of our current and potential competitors have greater name recognition, more substantial intellectual property portfolios, longer operating histories, additional test menu, significantly greater resources to invest in new technologies, more substantial experience in new product development, greater regulatory expertise, and more extensive manufacturing and distribution capabilities. It is critical to our success that we anticipate changes in technology and customer requirements and successfully introduce enhanced and competitive technology to meet our customers' and prospective customers' needs on a timely basis.

In addition, we have limited marketing, sales and distribution experience and capabilities. Our ability to achieve profitability depends on attracting customers for our products and building brand loyalty. To successfully perform sales, marketing, distribution and customer support functions ourselves, we face a number of risks, including:

- our ability to attract and retain the skilled support team, marketing staff and sales force necessary to commercialize and gain market acceptance for our technology and our products;
- the ability of our sales and marketing team to identify and penetrate the potential customer base, including hospitals and national and regional reference laboratories; and
- the difficulty of establishing brand recognition and loyalty for our products.

Some hospital-based and reference laboratories may not consider adopting our instrument systems unless we offer a broader menu of diagnostic tests or may choose not to convert from competitive products. In addition, in order to commercialize our products, we are required to undertake time consuming and costly development activities, including clinical studies for which the outcome is uncertain. Products that appear promising during early development and preclinical studies may, nonetheless, fail to demonstrate the results needed to support regulatory approval or, if approved, may not generate the demand we expect. If we are unable to effectively compete, our revenues and our ability to achieve profitability will be significantly impaired.

***We may not expand sales of our ePlex system outside the United States at the levels or within the time frame we anticipate.***

In June 2016, we obtained CE Mark under the European In-Vitro Diagnostic Devices Directive (98/79/EC) for our ePlex instrument and ePlex RP Panel; in April 2017, we obtained CE Mark for our ePlex BCID-FP Panel; and in June 2017, we obtained CE Mark for our ePlex BCID-GP Panel and BCID-GN Panel. We are commercializing our ePlex system in Europe utilizing a direct sales and technical support team in certain European countries, which we have augmented with a third party logistics provider that is responsible for managing the international delivery of our products and providing certain other related services. We have also engaged a number of distributors in certain European countries and intend to further expand internationally over time. If we are unable to establish the infrastructure or recruit highly qualified personnel to support our international direct sales and support organization, if we fail to adequately plan for or integrate our direct sales activities with those of our third party logistics provider, or if we are unsuccessful in developing awareness and acceptance of our products and technology internationally, our anticipated revenue growth internationally may not materialize at the levels or within the time frame we expect, our customers may not receive the level of service or product dependability they expect from us, and our future financial performance may be adversely affected. Furthermore, any distributors we establish in particular geographic regions may not commit the necessary resources to market and sell our products to meet our expectations. If distributors do not perform adequately or in compliance with applicable laws and regulations in particular geographic areas, or if we are unable to locate distributors in particular geographic areas, our ability to realize revenue growth based on sales outside the United States would be harmed.

***If our customers are not adequately reimbursed or compensated for the use of our products, we may have difficulty selling our products.***

Our ability to sell our products depends in part on the extent to which reimbursement related to performing tests using our products is available from governmental authorities, such as Medicare and other domestic and foreign governmental programs, private insurance plans, managed care organizations and other organizations. There are ongoing efforts by governmental and third-party payors to contain or reduce the costs of healthcare coverage. For example, certain Medicare Administrative Contractors (MACs) recently issued draft local coverage determinations proposing to limit or eliminate Medicare reimbursement for the use of multiplex molecular respiratory tests on certain patient populations, which, if ultimately implemented, could negatively impact the use of our and our competitors' respiratory tests in those particular situations. In addition, efforts to reform the healthcare delivery system in the United States and Europe has increased pressure on healthcare providers to reduce costs. For example, implementation of certain provisions of the Protecting Access to Medicare Act (PAMA) in the United States as of January 1, 2018 will have a negative impact on reimbursement payments from the Centers for Medicare and Medicaid Services (CMS) for our diagnostics tests paid under the Clinical Laboratory Fee Schedule (CLFS). Under these provisions of PAMA, payments under the CLFS are likely to be reduced annually for the next several years. If purchasers or users of our products are not able to obtain adequate reimbursement for the cost of using our products, either directly or indirectly, they may forego or reduce their purchase and use of our products.

Obtaining coverage and reimbursement approval for a product from each government or third-party payor is a time consuming and costly process that could require us to provide supporting scientific, clinical and cost-effectiveness data for the use of our products to each government or third-party payor. We may not be able to provide data sufficient to gain acceptance with respect to coverage and reimbursement. In addition, eligibility for coverage does not imply that any product will be covered and reimbursed in all cases or reimbursed at a rate that allows our potential customers to make a profit or even cover their costs. Further, third-party payors may choose to reimburse our customers per test based on individual biomarker detection, rather than on the basis of the number of results given by the test. This may result in our customers electing to use separate tests to screen for each disease or condition so that they can receive reimbursement for each test they conduct. In that event, these entities may purchase separate tests for each disease, rather than products, such as ours, that can be used to return highly multiplexed test results.

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***From time to time we and our key suppliers experience, and may in the future experience, difficulties scaling manufacturing operations to the levels required to support our anticipated growth.***

To date, we have produced our products in limited quantities relative to the quantities necessary to achieve our desired revenue growth. Developing the necessary manufacturing and quality procedures internally and in conjunction with our key suppliers for a significant number of our newly developed, highly complex products and product components is a challenging process. From time to time we and our suppliers experience, and may in the future experience, manufacturing variability and may not be able to consistently produce sufficient quantities of high quality products and product components at the levels necessary to achieve our revenue growth expectations or to support our product development timelines. If we or our key suppliers continue to encounter difficulties in producing sufficient yields of high quality products or product components, or scaling manufacturing operations as a result of, among other things, process and manufacturing transfer complexities, quality control and quality assurance issues, and/or availability of subcomponents, equipment and raw material supplies, our reputation may be harmed and we may not achieve our anticipated financial results or product development goals within the time frame we expect, or at all. In addition, finding solutions to product quality, reliability, and variability issues is time consuming and expensive, and we may incur significant additional costs or lose revenue as a result of, among other things, delayed product introduction, product recalls, shipment holds, scrapped material, and warranty and service obligations.

To manage our anticipated future growth effectively, we must enhance our manufacturing and supply chain capabilities, infrastructure and operations, information technology infrastructure, and financial and accounting systems and controls. Organizational growth and scale-up of operations could strain our existing managerial, operational, financial and other resources. If our management is unable to effectively prepare for our expected future growth, our expenses may increase more than anticipated, our revenue could grow more slowly than expected, and we may not be able to achieve our commercialization or product development goals. Our failure to effectively implement the necessary processes and procedures and otherwise prepare for our anticipated growth could have a material adverse effect on our future financial condition and prospects.

***Disruptions in the supply of raw materials, consumable goods or other key product components, or issues associated with their cost or quality from our single source suppliers, could result in delays or difficulties successfully commercializing our ePlex system or a significant disruption in sales and profitability.***

We must manufacture or engage third parties to manufacture components of our products in sufficient quantities and on a timely basis, while maintaining product quality, acceptable manufacturing costs and complying with regulatory requirements. Our instrument systems and certain critical components are custom-made by only a few outside suppliers. In certain instances, we and our customers have a sole source supply for certain key products, product components and ancillary items used to run our tests. If we are unable to satisfy our forecasted demand from existing suppliers for our products, or we or our customers are unable to find alternative suppliers for key product components or ancillary items at reasonably comparable prices, it could have a material adverse effect on our financial condition and results of operations. Additionally, although we have entered into supply agreements with most of our suppliers of strategic reagents and parts to help ensure component availability and flexible purchasing terms with respect to the purchase of such components, if our suppliers discontinue production of a key component for one or more of our products, we may be unable to identify or secure a viable, cost-effective alternative on reasonable terms, or at all, which could limit our ability to manufacture our products.

In determining the required quantities of our products and the manufacturing schedule, we must make significant judgments and estimates based on seasonality, inventory levels, current market trends, product development timelines, overall capacity, and other related factors. Because of the inherent nature of estimates and our limited experience in marketing our products, there could be significant differences between our estimates and the actual amounts of products we require. This can result in shortages if we fail to anticipate demand, or excess inventory and write-offs if we order more than we need.

Reliance on third-party manufacturers entails risks to which we would not be subject if we manufactured these components ourselves, including:

- reliance on third parties for regulatory compliance and quality assurance;
- possible breaches of manufacturing agreements by the third parties because of factors beyond our control;
- possible regulatory violations or manufacturing problems experienced by our suppliers;
- possible termination or non-renewal of agreements by third parties, based on their own business priorities, at times that are costly or inconvenient for us;
- the potential obsolescence and/or inability of our suppliers to obtain required components;
- the potential delays and expenses of seeking alternate sources of supply or manufacturing services;
- the inability to qualify alternate sources without impacting performance claims of our products;



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- reduced control over pricing, quality and timely delivery due to the difficulties in switching to alternate suppliers or assemblers;
- the potential for financial hardship or other detrimental circumstances at key suppliers that may impact our ability to source key materials or services required for the manufacturing of our products; and
- increases in prices of raw materials and key components.

The manufacturing operations for our test cartridges use highly technical processes involving unique, proprietary techniques. In addition, the manufacturing equipment we use would be costly and time consuming to repair or replace. Any interruption in our operations or decrease in the production capacity of our manufacturing facilities or the facilities of any of our key suppliers because of equipment failure, natural disasters such as earthquakes, tornadoes and fires, or otherwise, would limit our ability to meet customer demand for our products and would have a material adverse effect on our business, financial condition and results of operations. In the event of a disruption, we may lose customers and we may be unable to regain those customers thereafter. Our insurance may not be sufficient to cover all of our potential losses and may not continue to be available to us on acceptable terms, or at all.

### ***If our products do not perform as expected our operating results and business would suffer.***

Our success depends on the market's confidence that we can provide reliable, high quality, molecular diagnostic products. We believe that customers in our target markets are likely to be particularly sensitive to product defects and errors. As a result, our reputation and the public image of our products and technologies will be significantly impaired if our products fail to perform as expected. Although our diagnostic systems are designed to be user friendly, the functions they perform are complex and our products may develop or contain undetected defects or errors.

We currently manufacture our proprietary test cartridges at our Carlsbad, California manufacturing facilities. We outsource the manufacture of our ePlex instrument to Plexus. We currently maintain an inventory of XT-8 instruments and related components to satisfy the expected demand for our XT-8 system for the foreseeable future, as well as to service XT-8 instruments installed at customer locations. Plexus specializes in the manufacturing of electronic and electro-mechanical devices. While we work closely with Plexus to ensure continuity of supply while maintaining high quality and reliability, and we believe our current stock of XT-8 instruments and related components will be sufficient for our and our customers' anticipated needs, we cannot guarantee that these efforts will be successful.

If we experience a material defect or error in any of our current or future products, it could result in the loss or delay of revenues, increased costs, delayed or reduced market acceptance, damaged reputation, diversion of development and management resources, legal and/or regulatory claims, recalls, increased insurance costs or increased service and warranty costs, any of which could materially harm our business, financial condition and results of operations.

We also face the risk of product liability exposure related to the sale of our products. We currently carry product liability insurance that covers us against specific product liability claims. We also carry a separate general liability and umbrella policy that covers us against certain claims but excludes coverage for product liability. Any claim in excess of our insurance coverage, or for which we do not have insurance coverage, would need to be paid out of our cash reserves, which would harm our financial condition. We cannot assure you that we have obtained sufficient insurance or broad enough coverage to cover potential claims. Also, we cannot assure you that we can or will maintain our insurance policies on commercially acceptable terms, or at all. A product liability claim could significantly harm our business, financial condition and results of operations.

### ***Our quarterly revenue and operating results may vary significantly and we may experience constraints or inefficiencies caused by unanticipated acceleration and/or deceleration of customer demand.***

Revenue from our infectious disease products fluctuates based upon the occurrence of related outbreaks and changes in testing recommendations and available therapies. Influenza and other respiratory-related outbreaks are usually more concentrated in the first and fourth quarters of the year. New information or the introduction of advanced treatment options with respect to a particular disease may also affect the rate of related diagnostic testing. Although certain infectious disease outbreaks tend to occur each year, the timing, severity and length of these incidents varies from one year to another and can vary across different patient populations. In addition, we may not accurately predict the impact of new therapies on disease prevalence or changes to infectious disease testing recommendations affecting our products. As a result of one or more of these factors, we may not be able to accurately forecast sales from our infectious disease products.

Also, unanticipated changes in customer demand for our products may result in constraints or inefficiencies related to our manufacturing, sales force, customer service and administrative infrastructure. These constraints or inefficiencies may adversely affect us as a result of delays, lost potential product sales or loss of current or potential customers due to their dissatisfaction.

***Our revenue, results of operations and cash flows would suffer upon the loss of a significant customer.***

Our largest customer, Laboratory Corporation of America, Inc., accounted for approximately 17% of our total revenue for the fiscal year ended December 31, 2017. The loss of a significant customer or a significant reduction in the amount of product ordered by our significant customers may adversely affect our revenue, results of operations and cash flows.

***We may not be able to correctly estimate or control our future operating expenses, which could lead to cash shortfalls.***

Our operating expenses may fluctuate significantly in the future as a result of a variety of factors, many of which may be outside of our control. These factors include, but are not limited to:

- the time and resources required to develop, and conduct clinical studies and obtain regulatory clearances for, our diagnostic tests;
- the expenses we incur for research and development required to maintain and improve our technology, including developing our ePlex test menu;
- the costs of preparing, filing, prosecuting, defending and enforcing patent claims and other patent related costs, including litigation costs and the results of such litigation;
- the expenses we incur in connection with commercialization activities, including product marketing, sales, and distribution expenses;
- the expenses we incur in licensing technologies from third parties to expand the menu of diagnostics tests we plan to offer;
- our sales strategy and whether the revenues from sales of our test cartridges or systems will be sufficient to offset our expenses;
- the costs to attract and retain personnel with the skills required for effective operations; and
- the costs associated with being a public company.

Our budgeted expense levels are based in part on our expectations concerning future revenues from sales of our products, as well as our assessment of the future investments needed to expand our commercial organization and support research and development activities in connection with our ePlex system. We may be unable to reduce our expenditures in a timely manner to compensate for any unexpected events or a shortfall in revenue. Accordingly, a shortfall in demand for our products or other unexpected events could have an immediate and material impact on our business and financial condition.

***The regulatory clearance or approval process for certain products is expensive, time consuming and uncertain, and the failure to obtain and maintain required clearances or approvals could prevent us from commercializing our products.***

We are investing significantly in the development of new ePlex molecular diagnostic tests to expand our future product offerings. Our newly developed ePlex tests will require 510(k) clearance or pre-market approval by the FDA prior to marketing those tests for commercial use in the United States. There are a number of potential risks associated with conducting clinical studies and obtaining regulatory clearance. For example, we may have difficulty maintaining the level of reliability and clinical accuracy required to timely complete clinical studies and obtain FDA clearance or approval. In addition, the FDA may require that we conduct additional studies that could impact the cost associated with product clearance and could potentially delay commercial launch of newly developed tests in the United States. We may be unsuccessful in obtaining FDA clearance for our expanding ePlex test menu within our expected timeframe, or at all, which could adversely impact our future financial performance and cause our stock price to decline.

The regulatory environment is constantly evolving. For example, the FDA conducted a review of the pre-market clearance process in response to internal and external concerns regarding the 510(k) program and, in January 2011, announced 25 action items designed to make the process more rigorous and transparent. Some of these proposals, if enacted, could impose additional regulatory requirements for device manufacturers which could delay our ability to obtain new 510(k) clearances, increase the costs of compliance or restrict our ability to maintain our current clearances. Similarly, the European Union, or EU, is transitioning from the existing European Directive 98/79/EC on *in vitro* diagnostic medical devices, or IVD Directive (IVDD), to the In Vitro Diagnostic Device Regulation, or IVDR. Under the IVDR, the classification of our molecular diagnostic products are impacted, and will result in additional regulatory requirements, which could delay our ability to CE Mark our products. Delays in receipt of, or failure to obtain, clearances or approvals for future products would result in delayed, or no, realization of revenues from such products and in substantial additional costs, which could decrease our profitability.

We must also comply with the applicable FDA and foreign regulatory agency post-market requirements. Any failure to maintain post-market compliance with FDA or foreign regulatory requirements could harm our business, operations, and/or financial condition.

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We derive revenues from the sale of research use only, or RUO, tests and custom manufactured reagents, which are not intended for diagnostic purposes. Clinical laboratories are regulated under CLIA and may validate the clinical diagnostic use of an LDT specifically for use in their laboratory using any labeled products. The FDA has traditionally practiced enforcement discretion regarding the use of the LDTs for clinical diagnostic purposes. However, the FDA has promulgated draft guidance which outlines stringent regulatory requirements for CLIA labs in order to use LDTs for clinical diagnostic application. These proposed requirements, if implemented, may result in a significant reduction in the sale of our RUO or custom manufactured products, which could reduce our revenues and adversely affect our operations and/or financial condition.

***We are subject to various federal and state laws pertaining to health care fraud and abuse, including anti-kickback, self-referral, false claims and fraud laws, and any violations by us of such laws could result in fines or other penalties.***

Our commercial, research and other financial relationships with healthcare providers and institutions are subject to various federal and state laws intended to prevent health care fraud and abuse. The federal anti-kickback statute prohibits the knowing offer, receipt or payment of remuneration in exchange for or to induce the referral of patients or the use of products or services that would be paid for in whole or part by Medicare, Medicaid or other federal health care programs. Remuneration has been broadly defined to include anything of value, including cash, improper discounts, and free or reduced price items and services. Many states have similar laws that apply to their state health care programs as well as private payors. Violations of the anti-kickback laws can result in exclusion from federal health care programs and substantial civil and criminal penalties.

The FCA imposes liability on persons who, among other things, present or cause to be presented false or fraudulent claims for payment by a federal health care program. The FCA has been used to prosecute persons submitting claims for payment that are inaccurate or fraudulent, that are for services not provided as claimed, or for services that are not medically necessary. We have implemented procedures designed to ensure our compliance with relevant legal requirements. Nevertheless, if our marketing, sales or other arrangements, including our reagent rental arrangements, were determined to violate anti-kickback or related laws, including the FCA, then our revenues could be adversely affected, which would likely harm our business, financial condition and results of operations.

The Health Care Act also imposes reporting and disclosure requirements on device manufacturers for payments to healthcare providers and ownership of their stock by healthcare providers. In February 2013, the Centers for Medicare and Medicaid Services, or, CMS, released the final rule implementing the federal Physician Payments Sunshine Act, or the Sunshine Act. The law requires certain pharmaceutical, biologic, and medical device manufacturers to annually report to CMS payments or other transfers of value they furnish to physicians and teaching hospitals. These reporting requirements took effect on August 1, 2013. Failure to submit required information may result in significant civil monetary penalties. We expect compliance with the Sunshine Act to impose significant administrative and financial burdens on us.

In addition, there has been a recent trend of increased federal and state regulation of payments made to physicians for marketing. Some states, such as California, Massachusetts and Vermont, mandate implementation of corporate compliance programs, along with the tracking and reporting of gifts, compensation and other remuneration to physicians. The shifting commercial compliance environment and the need to build and maintain robust and expandable systems to comply with different compliance and/or reporting requirements in multiple jurisdictions increases the possibility that a healthcare company may run afoul of one or more of the requirements.

We are also subject to the U.S. Foreign Corrupt Practices Act, or the FCPA, and other countries' anti-corruption/anti-bribery regimes, such as the U.K. Bribery Act. The FCPA prohibits improper payments or offers of payments to foreign governments and their officials for the purpose of obtaining or retaining business. Safeguards we implement to discourage improper payments or offers of payments by our employees, consultants, sales agents or distributors may be ineffective, and violations of the FCPA and similar laws may result in severe criminal or civil sanctions, or other liabilities or proceedings against us, any of which would likely harm our reputation, business, financial condition and results of operations.

***Legislative or regulatory healthcare reforms may have a material adverse effect on our business and results of operations.***

Federal and state governments in the United States are undertaking efforts to control growing health care costs through legislation, regulation and voluntary agreements with medical care providers and third-party payors. In March 2010, Congress enacted the Patient Protection and Affordable Care Act, or the PPACA. While the PPACA involves expanding coverage to more individuals, it includes regulatory mandates and other measures designed to constrain medical costs. Among other requirements, the PPACA imposes a 2.3% excise tax on sales of medical devices by manufacturers. In December 2015, the excise tax was suspended for 2016 and 2017, and, in January 2018, the excise tax was further suspended until 2020. Taxable devices include certain medical devices intended for use by humans, with limited exclusions for devices purchased by the general public at retail for individual use. There is no exemption for small companies, and we paid the tax from 2013 through 2015. Recently, Congress and the new administration have proposed and taken various steps to revise, repeal, or delay implementation of various aspects of PPACA. If the PPACA is significantly revised, repealed, or if implementation of various aspects are delayed, such modification, repeal, or delay may impact our business, financial condition, results of operations, cash flows and the trading price of our securities. Complying with PPACA may significantly increase our tax liabilities and costs, which could adversely affect our business and financial condition.

The Budget Control Act of 2011, provided, among other things, aggregate reductions to Medicare payments to providers of up to 2% per fiscal year, which began in 2013 and will remain in effect through 2025 unless additional Congressional action is taken. In addition to the potential impacts to PPACA under the current administration, there could be sweeping changes to the Budget Control Act and other healthcare reforms. For example, the Tax Cuts and Jobs Act enacted on December 22, 2017, eliminated the shared responsibility payment for individuals who fail to maintain minimum essential coverage under section 5000A of the Internal Revenue Code of 1986, commonly referred to as the individual mandate, beginning in 2019. Additional changes to the PPACA remain possible. We expect that additional state and federal healthcare reform measures will be adopted in the future, any of which could limit the amounts that federal and state governments will pay for healthcare products and services, which could result in reduced demand for our products or additional pricing pressure.

***Our products could infringe patent rights of others, which may require costly litigation and, if we are not successful, could cause us to pay substantial damages or limit our ability to commercialize our products.***

Our commercial success depends on our ability to develop, manufacture and market our systems and tests and use our proprietary technology without infringing the patents and other proprietary rights of third parties. As the molecular diagnostics industry expands and more patents are issued, the risk increases that there may be patents issued to third parties that relate to our products and technology of which we are not aware or that we must challenge to continue our operations as currently contemplated. Our products may infringe or may be alleged to infringe these patents.

The patent positions of medical device companies can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. No consistent policy regarding the breadth of claims allowed in patents in these fields has emerged to date in the United States or in many foreign jurisdictions. Both the U.S. Supreme Court and the Court of Appeals for the Federal Circuit have made, and will likely continue to make, changes in how the patent laws of the United States are interpreted. For example, three Supreme Court cases, *Association for Molecular Pathology et al. v. Myriad Genetics, Inc., et al.*, *Mayo Collaborative Services v. Prometheus Laboratories*, and *Alice v. CLS Bank*, have introduced additional questions regarding the patentability of isolated naturally occurring genes and gene fragments, proteins, peptides, natural products, and related diagnostic and therapeutic methods, which are likely to be resolved only through continued litigation. The overall impact of these decisions and others on the molecular diagnostics industry remains uncertain and our interpretation of the scope of these rulings on existing or future patents may be inaccurate.

There is a significant amount of uncertainty regarding the extent of patent protection and infringement. Companies may have filed pending patent applications that cover technologies we incorporate in our products. As a result, we could be subjected to substantial damages for past infringement or be required to modify our products or stop selling them if it is ultimately determined that our products infringe a third party's proprietary rights. Even if we are successful in defending against potential intellectual property infringement claims, we could incur substantial costs in doing so. Any litigation related to such claims could consume our resources and lead to significant damages, royalty payments, or an injunction on the sale of certain products. Any additional licenses to patented technology could obligate us to pay substantial additional royalties, which could adversely impact our product costs and harm our business.

***If we are unable to obtain, maintain and enforce intellectual property protection covering our products, others may be able to make, use or sell products substantially the same as ours, which could adversely affect our ability to compete in the market.***

Our commercial success is dependent in part on obtaining, maintaining and enforcing intellectual property rights, including our patents and other intellectual property rights. If we are unable to obtain, maintain and enforce intellectual property protection covering our products, others may be able to make, use or sell products that are substantially the same as ours without incurring the sizable development and licensing costs that we have incurred, which would adversely affect our ability to compete in the market.

We seek to obtain and maintain patents and other intellectual property rights to restrict the ability of others to market products that compete with our products. Currently, our patent portfolio is comprised on a worldwide basis of more than 100 owned and exclusively licensed patents and approximately 50 additional pending patent applications. In general, patents have a term of at least 20 years from the application filing date or earlier claimed priority date. A majority of our issued and exclusively licensed patents are scheduled to expire by 2021, with approximately one half of the patents expiring by 2018. Several of our pending applications have the potential to mature into patents that may expire between 2028 and 2038. However, not all of the pending or future patent applications owned by or licensed to us are guaranteed to mature into patents, and, moreover, issued patents owned by or licensed to us now or in the future may be found by a court to be invalid or otherwise unenforceable. Also, even if our patents are determined by a court to be valid and enforceable, they may not be sufficiently broad to prevent others from marketing products similar to ours or designing around our patents, despite our patent rights, nor provide us with freedom to operate unimpeded by the patent rights of others.

We also rely on trade-secret protection to protect our interests in proprietary know-how and for processes for which patents are difficult to obtain or enforce. We may not be able to protect our trade secrets adequately. We have limited control over the protection of trade secrets used by our licensors, collaborators and suppliers. Although we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors, outside scientific collaborators and other advisors may unintentionally or willfully disclose our information to competitors. Enforcing a claim that a third party illegally obtained and is using any of our trade secrets is difficult, expensive and time consuming, and the outcome is unpredictable. We rely, in part, on non-disclosure and confidentiality agreements with our employees, consultants and other parties to protect our trade secrets and other proprietary technology. These agreements may be breached and we may not have adequate remedies for any breach. Moreover, others may independently develop equivalent proprietary information, and third parties may otherwise gain access to our trade secrets and proprietary knowledge. Any disclosure of confidential data into the public domain or to third parties could allow our competitors to learn our trade secrets and use the information in competition against us.

***We and our suppliers, contract manufacturers and customers are subject to various governmental regulations, and we may incur significant expenses to comply with, and experience delays in our product commercialization as a result of, these regulations.***

Our manufacturing processes and facilities and those of some of our contract manufacturers must comply with the QSR, which covers the procedures and documentation of the design, testing, production, control, quality assurance, labeling, packaging, storage and shipping of our devices. The FDA enforces the QSR through periodic announced and/or unannounced inspections of manufacturing facilities. We and our contract manufacturers have been, and anticipate in the future being, subject to such inspections, as well as to inspections by other federal and state regulatory agencies.

We must also file reports of device corrections and removals and adhere to the FDA's rules on labeling and promotion. The FDA and other agencies actively enforce the laws and regulations prohibiting the promotion of off-label uses, and a company that is found to have improperly promoted off-label uses may be subject to significant liability, including substantial monetary penalties and criminal prosecution.

Failure to comply with applicable FDA requirements, or later discovery of previously unknown problems with our products or manufacturing processes, including our failure or the failure of one of our contract manufacturers to take satisfactory corrective action in response to an adverse QSR inspection, can result in, among other things:

- administrative or judicially imposed sanctions;
- injunctions or the imposition of civil penalties;
- recall or seizure of our products;
- total or partial suspension of production or distribution;
- withdrawal or suspension of marketing clearances or approvals;
- clinical holds;

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- warning letters;
- refusal to permit the import or export of our products; and
- criminal prosecution.

Any of these actions, in combination or alone, could prevent us from marketing, distributing or selling our products and would likely harm our business.

In addition, a product defect or regulatory violation could lead to a government-mandated or voluntary recall by us. We believe that the FDA would request that we initiate a voluntary recall if a product was defective or presented a reasonable risk of injury or gross deception. Regulatory agencies in other countries have similar authority to recall devices because of material deficiencies or defects in design or manufacture that could endanger health. Any recall would divert management attention and financial resources, could cause the price of our common stock to decline and expose us to product liability or other claims, including contractual claims from parties to whom we sold products, and harm our reputation with customers.

The use of our diagnostic products by our customers is also affected by CLIA and related federal and state regulations that provide for regulation of laboratory testing. CLIA is intended to ensure the quality and reliability of clinical laboratories in the United States by mandating specific standards in the areas of personnel qualifications, administration, participation in proficiency testing, patient test management, quality assurance, quality control and inspections. Current or future CLIA requirements or the promulgation of additional regulations affecting laboratory testing may prevent some laboratories from using some or all of our diagnostic products.

### ***Our credit facility contains restrictions that limit our flexibility in operating our business.***

We must comply with certain affirmative and negative covenants under our credit facility, including covenants that limit or restrict our ability to, among other things:

- incur additional indebtedness or issue certain preferred shares;
- pay dividends on, repurchase or make distributions in respect of, our capital stock or make other restricted payments;
- make certain investments or acquisitions;
- sell certain assets;
- create liens; or
- enter into certain transactions with our affiliates.

If we default under the agreement, because of a covenant breach or otherwise, the outstanding amounts thereunder could become immediately due and payable, and the lenders could terminate all commitments to extend further financing.

### ***We may need to raise additional funds in the future, and such funds may not be available on a timely basis, or at all.***

Until such time, if ever, as we can generate positive cash flows from operations, we will be required to finance our operations with our cash resources and amounts made available under our credit facility. We may need to raise additional funds in the future to support our operations. We cannot be certain that additional capital will be available as needed, on acceptable terms, or at all. If we require additional capital at a time when investment in our company, in molecular diagnostics companies, or the marketplace in general is limited, we may not be able to raise such funds at the time that we desire, or at all. If we do raise additional funds through the issuance of equity or convertible securities, the percentage ownership of holders of our common stock could be significantly diluted. In addition, newly issued securities may have rights, preferences or privileges senior to those of holders of our common stock. If we raise additional funds through collaborations and licensing arrangements, we could be required to relinquish significant rights to our technologies and products, or grant licenses on terms that are not favorable to us.

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***We have a history of net losses, and we may never achieve or maintain profitability.***

We have a history of significant net losses and a limited history commercializing our molecular diagnostic products. Our net losses were approximately \$61.9 million, \$50.6 million and \$42.2 million for the years ended December 31, 2017, 2016, and 2015, respectively. As of December 31, 2017, we had an accumulated deficit of \$417.1 million. We expect to continue to incur significant expenses for the foreseeable future in connection with our ongoing operations, primarily related to expanding our commercial organization (sales and marketing) and manufacturing activities related to our ePlex system, maintaining our existing intellectual property portfolio, obtaining additional intellectual property rights, and investing in corporate infrastructure. We cannot provide any assurance that we will achieve profitability and, even if we achieve profitability, that we will be able to sustain or increase profitability on a quarterly or annual basis. Further, because of our limited commercialization history and the rapidly evolving nature of our target market, we have limited insight into the trends that may emerge and affect our business. We may make errors in predicting and reacting to relevant business trends, which could harm our business and financial condition.

***We incur costs and demands upon management as a result of complying with the laws and regulations affecting public companies in the United States, and failure to comply with these laws could harm our business and the price of our common stock.***

As a public company listed in the United States, we incur significant legal, accounting and other expenses. In addition, changing laws, regulations and standards relating to corporate governance and public disclosure, including regulations implemented by the SEC, the Public Company Accounting Oversight Board (PCAOB), and The NASDAQ Global Market, may increase our legal and financial compliance costs and make some activities more time consuming. These laws, regulations and standards are subject to varying interpretations and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from revenue-generating activities to compliance activities. If we nevertheless fail to comply with new laws, regulations and standards, regulatory authorities may initiate legal proceedings against us and our business may be harmed.

***Economic conditions and an uncertain economic outlook may adversely impact our business, results of operations, financial condition or liquidity.***

Global economic conditions may remain challenging and uncertain for the foreseeable future. These conditions may not only limit our access to capital but also make it extremely difficult for our customers, our vendors and us to accurately forecast and plan future business activities, and they could cause U.S. and foreign businesses and consumers to slow spending on our products and services, which would delay and lengthen sales cycles. Some of our customers rely on government research grants to fund technology purchases. If negative trends in the economy affect the government's allocation of funds to research, there may be less grant funding available for certain of our customers to purchase technologies from us. Certain of our customers may face challenges gaining timely access to sufficient credit or may otherwise be faced with budget constraints, which could result in decreased purchases of our products or in an impairment of their ability to make timely payments to us. If our customers do not make timely payments to us, we may be required to assume greater credit risk relating to those customers, increase our allowance for doubtful accounts, and our days sales outstanding would be negatively impacted. Although we maintain allowances for doubtful accounts for estimated losses resulting from the inability of our customers to make required payments, we may not continue to experience the same loss rates that we have in the past. Additionally, these economic conditions and market turbulence may also impact our suppliers, causing them to be unable to supply sufficient quantities of customized components in a timely manner, thereby impairing our ability to manufacture on schedule and at commercially reasonable costs.

***We are exposed to risks associated with long-lived and intangible assets that may become impaired and result in an impairment charge.***

The carrying amounts of long-lived and intangible assets are affected whenever events or changes in circumstances indicate that the carrying amount of any asset may not be recoverable. These events or changes might include an inability to successfully deliver an instrument to the marketplace and attain customer acceptance, a change in the rights or use of licensed intellectual property, adjustments to our depreciation assumptions, or other matters. Adverse events or changes in circumstances may affect the estimated discounted future cash flows expected to be derived from long-lived and intangible assets. If at any time we determine that an impairment has occurred, we will be required to reflect the impaired value as a charge, resulting in a reduction in earnings in the quarter such impairment is identified and a corresponding reduction in our net asset value. In the past we have incurred, and in the future we may incur, impairment charges. A material reduction in earnings resulting from such a charge could cause us to fail to meet the expectations of investors and securities analysts, which could cause the price of our stock to decline.

***Providing instrument systems to our customers through reagent rental agreements may harm our liquidity.***

Many of our systems are provided to customers via “reagent rental” agreements, under which customers are generally afforded the right to use the instrument in return for a commitment to purchase minimum quantities of reagents and test cartridges over a period of time. Accordingly, we must either incur the expense of manufacturing instruments well in advance of receiving sufficient revenues from test cartridges to recover our expenses or obtain third party financing sources for the purchase of our instrument. The amount of capital required to provide instrument systems to customers depends on the number of systems placed. Our ability to generate capital to cover these costs depends on the amount of our revenues from sales of reagents and test cartridges sold through our reagent rental agreements. We do not currently sell enough reagents and test cartridges to recover all of our fixed expenses, and therefore we currently have a net loss. If we cannot sell a sufficient number of reagents and test cartridges to offset our fixed expenses, our liquidity will continue to be adversely affected.

***We use hazardous chemicals, biological materials and infectious agents in our business. Any claims relating to improper handling, storage or disposal of these materials could be time consuming and costly.***

Our research, product development and manufacturing processes involve the controlled use of hazardous materials, including chemicals, biological materials and infectious disease agents. Our operations produce hazardous waste products. We cannot eliminate the risk of accidental contamination or discharge and any resulting injury from these materials. We may be sued for any injury or contamination that results from our use or the use by third parties of these materials, and our liability may exceed our insurance coverage and our total assets. Federal, state and local laws and regulations govern the use, manufacture, storage, handling and disposal of these hazardous materials and specified waste products, as well as the discharge of pollutants into the environment and human health and safety matters. Our operations are regulated and may require that environmental permits and approvals be issued by applicable government agencies. Compliance with environmental laws and regulations may be expensive and may impair our research, development and production efforts. If we fail to comply with these requirements, we could incur substantial costs, including civil or criminal fines and penalties, clean-up costs or capital expenditures for control equipment or operational changes necessary to achieve and maintain compliance. In addition, we cannot predict the impact on our business of new or amended environmental laws or regulations or any changes in the way existing and future laws and regulations are interpreted and enforced.

***If we are unable to retain key employees or hire additional skilled employees, we may be unable to achieve our goals.***

Our performance is substantially dependent on the performance of our senior management. Competition for top management personnel is intense and we may not be able to recruit and retain the personnel we need. Our senior managers can terminate their relationship with us at any time. The loss of services of any of these key personnel could significantly reduce our operational effectiveness and investor confidence and our stock price could decline. We do not maintain key-man life insurance on any of our employees.

In addition, our product development and marketing efforts could be delayed or curtailed if we are unable to attract, train and retain highly skilled technical employees and scientific advisors. To expand our research, product development and commercial efforts, we will need to retain additional people skilled in areas such as electrochemical and molecular science, information technology, manufacturing, sales, marketing and technical support. Because of the complex and technical nature of our systems and the dynamic market in which we compete, any failure to attract and retain a sufficient number of qualified employees could materially harm our ability to develop and commercialize our technology. We may not be successful in hiring or retaining qualified personnel, and any failure to do so could have a material adverse effect on our business, financial condition and results of operations.



***Cyberattacks and other security breaches could compromise our proprietary information which could harm our business and reputation.***

In the ordinary course of our business, we generate, collect and store proprietary information, including intellectual property and business information. The secure storage, maintenance, and transmission of and access to this information is critical to our operations, business strategy, and reputation. Computer hackers may attempt to penetrate our computer systems or our third party IT service providers' systems and, if successful, misappropriate our proprietary information. In addition, an employee, contractor, or other third-party with whom we do business may attempt to circumvent our security measures in order to obtain such information, and may purposefully or inadvertently cause a breach involving such information. While we will continue to implement additional protective measures to reduce the risk of and detect cyberattacks, these incidents are becoming more sophisticated and frequent, and the techniques used in such attacks evolve rapidly and are difficult to detect. Despite our cybersecurity measures, our information technology networks and infrastructure may still be vulnerable to unpermitted access by hackers or other breaches, or employee error or malfeasance. Any such compromise of our, or our third party IT service providers' data security and access to, or public disclosure or loss of, confidential business or proprietary intellectual property information could disrupt our operations, damage our reputation, provide our competitors with valuable information, and subject us to additional costs which could adversely affect our business.

***Information technology systems implementation issues could disrupt our internal operations and adversely affect our financial results.***

Portions of our information technology infrastructure may experience interruptions, delays or cessations of service or produce errors in connection with ongoing systems implementation work. In particular, we have implemented an enterprise resource planning software system. To more fully realize the potential of this system, we are continually reassessing and upgrading processes and this may be more expensive, time consuming and resource intensive than planned. Any disruptions that may occur in the operation of this system or any future systems could increase our expenses and adversely affect our ability to report in an accurate and timely manner the results of our consolidated operations, our financial position and cash flows and to otherwise operate our business in a secure environment, all of which could adversely affect our financial results, stock price and reputation.

***Our ability to use our net operating loss carryforwards may be limited.***

As of December 31, 2017, we had net operating loss, or NOL, carryforwards available of approximately \$264.4 million for U.S. federal income tax purposes. These loss carryforwards will expire in varying amounts through 2037. Section 382 of the U.S. Internal Revenue Code of 1986, as amended, or the Code, generally imposes an annual limitation on the amount of NOL carryforwards that may be used to offset taxable income when a corporation has undergone significant changes in stock ownership. We have determined that we have experienced multiple ownership changes under Section 382 of the Code. Our ability to use the current NOL carryforwards may also be limited by the issuance of common stock in the future. To the extent our use of NOL carryforwards is limited, our income may be subject to corporate income tax earlier than it would if we were able to use NOL carryforwards. We have recorded a full valuation allowance against our net deferred tax assets.

We also had state NOL carryforwards of approximately \$186.9 million as of December 31, 2017. We have recorded a full valuation allowance against our net deferred tax assets.

***Provisions of our certificate of incorporation, our bylaws and Delaware law could make an acquisition of our Company, which may be beneficial to our stockholders, more difficult and may prevent attempts by our stockholders to replace or remove the current members of our board and management.***

Certain provisions of our certificate of incorporation and bylaws could discourage, delay or prevent a merger, acquisition or other change of control that stockholders may consider favorable, including transactions in which you might otherwise receive a premium for your shares. Furthermore, these provisions could prevent or frustrate attempts by our stockholders to replace or remove members of our Board of Directors. These provisions also could limit the price that investors might be willing to pay in the future for our common stock, thereby depressing the market price of our common stock. Stockholders who wish to participate in these transactions may not have the opportunity to do so. These provisions:

- allow the authorized number of directors to be changed only by resolution of our Board of Directors;
- provide that our stockholders may remove our directors only for cause;
- establish a classified board of directors, such that not all members of the Board of Directors may be elected at one time;

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- authorize our Board of Directors to issue without stockholder approval up to 100,000,000 shares of common stock, that, if issued, would dilute our stock ownership and could operate as a “poison pill” to dilute the stock ownership of a potential hostile acquirer to prevent an acquisition that is not approved by our Board of Directors;
- authorize our Board of Directors to issue without stockholder approval up to 5,000,000 shares of preferred stock, the rights of which will be determined at the discretion of the Board of Directors that, if issued, could operate as a “poison pill” to dilute the stock ownership of a potential hostile acquirer to prevent an acquisition that is not approved by our Board of Directors;
- require that stockholder actions must be effected at a duly called stockholder meeting or by unanimous written consent;
- establish advance notice requirements for stockholder nominations to our Board of Directors or for stockholder proposals that can be acted on at stockholder meetings;
- limit who may call stockholder meetings; and
- require the approval of the holders of 80% of the outstanding shares of our capital stock entitled to vote in order to amend certain provisions of our certificate of incorporation and bylaws.

In addition, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which may, unless certain criteria are met, prohibit large stockholders, in particular those owning 15% or more of the voting rights on our common stock, from merging or combining with us for a prescribed period of time.

### **Item 1B. UNRESOLVED STAFF COMMENTS**

None.

### **Item 2. PROPERTIES**

We currently operate from two facilities, each of which is located in Carlsbad, California. We do not own any real property. In February 2010, we entered into a lease for an approximately 31,000 square foot facility in Carlsbad, California, the term of which originally ran through September 2017. The facility is part of a three-building office and research and development project located at 5964 La Place Court, Carlsbad, California. In January 2012, we signed a lease amendment which expanded our executive and administrative office, research and development, and manufacturing space by approximately 22,000 additional square feet and extended the term of the lease through June 2021. In June 2015, we leased an additional 34,000 square feet at a nearby location in Carlsbad, California, which we utilize primarily for ePlex manufacturing operations. The term of the lease runs through September 2023, and we have an option to extend the term of the lease for an additional five years. We believe that our currently leased facilities are adequate to meet our needs for the foreseeable future.

### **Item 3. LEGAL PROCEEDINGS**

We are from time to time subject to various claims and legal actions in the ordinary course of our business. We believe that there are currently no claims or legal actions that would reasonably be expected to have a material adverse effect on our results of operations or financial condition.

### **Item 4. MINE SAFETY DISCLOSURES**

Not applicable.

**PART II.**

**Item 5. MARKET FOR REGISTRANT’S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES**

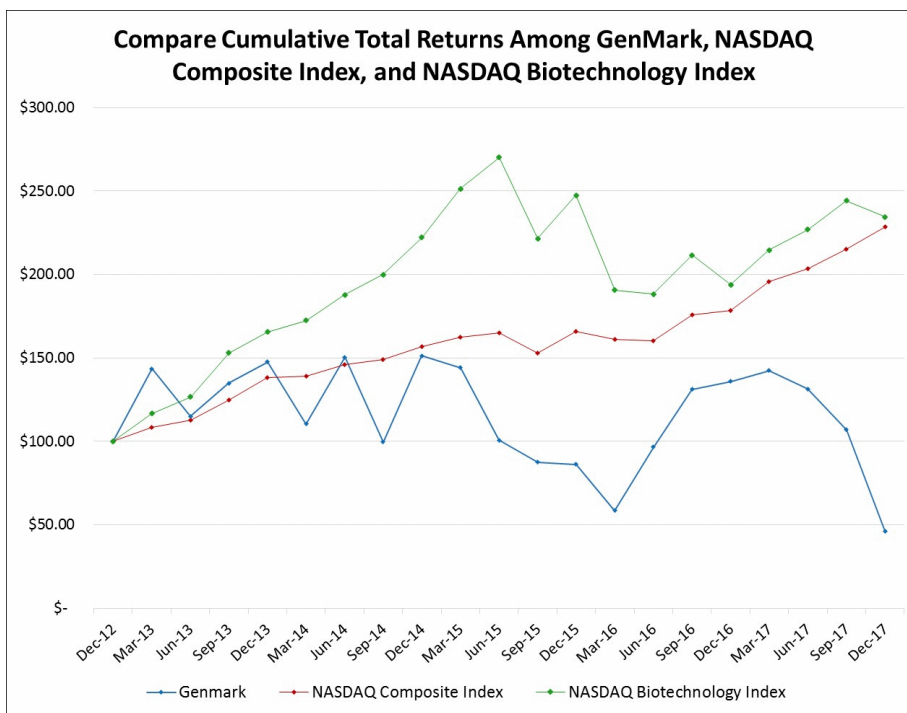
**Market Information**

Our common stock has been quoted on The NASDAQ Global Market under the symbol “GNMK” since May 28, 2010. The following table sets forth for the indicated periods the high and low sales prices per share of our common stock as reported on The NASDAQ Global Market.

	<b>High</b>	<b>Low</b>
<b>Year Ended December 31, 2017</b>		
First Quarter	\$ 13.62	\$ 9.80
Second Quarter	\$ 13.67	\$ 11.45
Third Quarter	\$ 12.55	\$ 8.88
Fourth Quarter	\$ 9.87	\$ 3.63
<b>Year Ended December 31, 2016</b>		
First Quarter	\$ 7.73	\$ 4.20
Second Quarter	\$ 9.48	\$ 5.13
Third Quarter	\$ 12.17	\$ 8.03
Fourth Quarter	\$ 13.29	\$ 10.01

**Stock Performance Graph**

The graph below compares the cumulative total stockholder returns on our common stock, the cumulative total stockholder returns on the NASDAQ Composite Index, and the NASDAQ Biotechnology Index for the five years ended December 31, 2017. The graph assumes that \$100 was invested in the Company's common stock and in each index as of the market close on December 31, 2012 and that all dividends were reinvested. No cash dividends have been declared on our common stock. Stockholder returns over the indicated period should not be considered indicative of future stockholder returns.



## **Stockholders**

The last reported sale price of our common stock on February 23, 2018 as reported on the NASDAQ Global Market was \$4.25. As of February 23, 2018, there were 1,244 holders of record of our common stock.

## **Dividend Policy**

We have never declared or paid any cash dividends on our common stock and do not expect to pay any dividends for the foreseeable future. In addition, our credit facility contains a negative covenant which may limit our ability to pay dividends. We currently intend to retain any future earnings to fund the operation, development and expansion of our business. Any future determination to pay dividends will be at the sole discretion of our Board of Directors and will depend upon a number of factors, including our results of operations, capital requirements, financial condition, future prospects, contractual arrangements, restrictions imposed by applicable law, any limitations on payments of dividends present in our current and future debt arrangements, and other factors our Board of Directors may deem relevant.

## **Item 6. SELECTED CONSOLIDATED FINANCIAL DATA**

The following selected consolidated financial data relates to GenMark Diagnostics, Inc. and its consolidated subsidiaries. The selected consolidated statement of comprehensive loss data presented below of GenMark Diagnostics, Inc. for the years ended December 31, 2017, 2016, and 2015 and the selected consolidated balance sheet data of GenMark Diagnostics, Inc. as of December 31, 2017 and 2016 have been derived from the audited consolidated financial statements of GenMark Diagnostics, Inc., which have been prepared in accordance with generally accepted accounting principles in the United States, or U.S. GAAP, included elsewhere in this Annual Report. The selected consolidated statement of comprehensive loss data presented for the years ended December 31, 2014 and 2013 and the selected consolidated balance sheet data as of December 31, 2015, 2014, and 2013 have been derived from audited financial statements not included in this Annual Report.

The results for the periods shown below are not necessarily indicative of the results to be expected for any future periods. The selected consolidated financial data should be read together with the “Management’s Discussion and Analysis of Financial Condition and Results of Operations” section and with the consolidated financial statements and condensed consolidated financial statements of GenMark Diagnostics, Inc. and related notes included elsewhere in this Annual Report.

**FIVE YEAR SELECTED FINANCIAL DATA**

	Years ended December 31,				
	2017	2016	2015	2014	2013
<b>Consolidated Statements of Comprehensive Loss Data:</b>					
(In thousands, except per share data)					
<b>Revenue</b>					
Product revenue	\$ 52,260	\$ 48,914	\$ 39,029	\$ 30,328	\$ 27,204
License and other revenue	259	360	382	266	200
Total revenue	52,519	49,274	39,411	30,594	27,404
Cost of revenue	32,514	19,700	15,317	13,127	15,570
Gross profit	20,005	29,574	24,094	17,467	11,834
<b>Operating expenses:</b>					
Sales and marketing	20,557	14,734	14,385	12,629	12,818
General and administrative	16,205	14,363	13,772	12,069	11,836
Research and development	42,760	49,458	37,472	31,823	22,060
Total operating expenses	79,522	78,555	65,629	56,521	46,714
Loss from operations	(59,517)	(48,981)	(41,535)	(39,054)	(34,880)
<b>Other income (expense):</b>					
Interest income	561	176	125	244	403
Interest expense	(3,042)	(1,536)	(880)	(20)	(19)
Other income (expense)	249	(160)	133	(6)	897
Total other income (expense)	(2,232)	(1,520)	(622)	218	1,281
Loss before provision for income taxes	(61,749)	(50,501)	(42,157)	(38,836)	(33,599)
Income tax expense (benefit)	101	100	40	(573)	44
Net loss	\$ (61,850)	\$ (50,601)	\$ (42,197)	\$ (38,263)	\$ (33,643)
Net loss per share, basic and diluted	\$ (1.21)	\$ (1.15)	\$ (1.00)	\$ (0.93)	\$ (0.95)
Weighted average number of shares outstanding basic and diluted	51,169	44,100	42,157	41,346	35,253

**As of December 31,**

	2017	2016	2015	2014	2013
(In thousands)					
<b>Consolidated Balance Sheet Data:</b>					
Cash and cash equivalents and marketable securities (1)(2)(3)	\$ 71,990	\$ 41,566	\$ 45,465	\$ 70,506	\$ 105,589
Total assets	121,562	80,324	70,667	91,970	121,754
Long-term liabilities	23,399	15,752	11,481	1,653	2,349
Total liabilities	51,142	42,173	22,070	13,946	12,586
Accumulated deficit	(417,120)	(355,270)	(304,669)	(262,472)	(224,209)
Total stockholders' equity (1)(2)(3)	70,420	38,151	48,597	78,024	109,168

(1) In June 2017, we issued approximately 7.3 million shares of common stock at a price of \$11.75 per share. We raised approximately \$80.7 million in net proceeds.

(2) In August and September 2016, we issued approximately 3.3 million shares of common stock at an average price of \$9.04 per share. We raised approximately \$28.9 million in net proceeds.

(3) In August 2013, we issued approximately 8.7 million shares of common stock at a price of \$9.84 per share. We raised approximately \$81.0 million in net proceeds.

**Item 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS**

*You should read the following in conjunction with the "Selected Consolidated Financial Data" and the consolidated financial statements of GenMark and the related notes thereto that appear elsewhere in this Annual Report. In addition to historical information, the following discussion and analysis includes forward looking information that involves risks, uncertainties and assumptions. Actual results and the timing of events could differ materially from those anticipated by these forward looking statements as a result of many factors, including those discussed under the heading "Risk Factors" included elsewhere in this Annual Report. See also "Forward Looking Statements" included elsewhere in this filing.*

**Overview**

GenMark was formed by Osmetech plc, or Osmetech, as a Delaware corporation in February 2010, and had no operations prior to its initial public offering, which was completed in June 2010. Immediately prior to the closing of the initial public offering, GenMark acquired all of the outstanding ordinary shares of Osmetech in a reorganization under the applicable laws of the United Kingdom. Following the reorganization, Osmetech became a wholly-owned subsidiary controlled by GenMark, and the former shareholders of Osmetech received shares of GenMark. Any historical discussion of GenMark relates to Osmetech and its consolidated subsidiaries prior to the reorganization. In September 2012, GenMark placed Osmetech into liquidation to simplify its corporate structure. The liquidation of Osmetech was completed in the fourth quarter of 2013.

We are a molecular diagnostics company focused on developing and commercializing multiplex molecular tests that aid in the diagnosis of complex medical conditions and help guide therapy decisions. We currently develop and commercialize high-value, simple to perform, clinically relevant multiplex molecular tests based on our proprietary eSensor electrochemical detection technology.

Since inception, we have incurred net losses from operations each year, and we expect to continue to incur losses for the foreseeable future. Our net losses for the years ended December 31, 2017, 2016, and 2015 were approximately \$61.9 million, \$50.6 million, and \$42.2 million, respectively. As of December 31, 2017, we had an accumulated deficit of \$417.1 million. Our operations to date have been funded principally through sales of capital stock, borrowings, and cash from operations. We expect to incur increasing expenses over the next several years, principally to further expand our diagnostic test menu for our ePlex instrument, as well as to further increase our manufacturing capabilities and commercial organization.

***Our Products and Technology***

We offer our sample-to-answer ePlex instrument and Respiratory Pathogen (RP) Panel for sale in the United States and Europe. We have also obtained CE Mark for our ePlex BCID-GP Panel, ePlex BCID-GN Panel, and ePlex BCID-FP Panel. We intend to submit 510(k) applications to the FDA for all three of our ePlex BCID panels in 2018 and we continue to actively evaluate the development of additional assay panels that we believe will meet important, unmet clinical needs, which our ePlex system is uniquely positioned to address.

We offer four FDA-cleared diagnostic tests which run on our XT-8 instrument: our Respiratory Viral Panel; our Cystic Fibrosis Genotyping Test; our Warfarin Sensitivity Test; and our Thrombophilia Risk Test. We have also developed a number of hepatitis C virus, or HCV, genotyping tests and custom manufactured reagents, as well as other research-based and pharmacogenomics products, versions of which are available for use with our XT-8 instrument for research use only (RUO).

***Revenue***

Revenue from operations includes product sales, principally of our diagnostic tests. We primarily place our instruments with customers through a reagent rental agreement, under which we retain title to the instrument and customers commit to purchasing minimum quantities of reagents and test cartridges over a period of one to five years. We also offer our instruments for sale.

***Cost of Revenues***

Cost of revenues includes the cost of materials, direct labor and manufacturing overhead costs used in the manufacture of our consumable tests, including royalties on product sales. Cost of revenues also includes depreciation on revenue generating instruments that have been placed with our customers under a reagent rental agreement, cost of instruments sold to customers, amortization of licenses related to our products and other costs such as warranty, royalty and customer and product technical support. We manufacture our test cartridges in our facilities and have recently invested in significant capacity for expansion. Any potential underutilized capacity may result in a high cost of revenues relative to revenue, if manufacturing volumes are not able to fully absorb operating costs. Our instruments are procured from contract manufacturers. We expect our cost of revenues

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to increase as we place additional instruments and manufacture and sell additional diagnostic tests; however, over time, we expect our cost per unit to decrease as production volume increases, manufacturing efficiencies are realized, improvements to procurement practices are made, instrument reliability increases and other improvements decrease costs.

### ***Sales and Marketing Expenses***

Sales and marketing expenses include costs associated with our direct sales force, sales management, marketing, technical support and business development activities. These expenses primarily consist of salaries, commissions, benefits, stock-based compensation, travel, advertising, promotions, product samples and trade show expenses. We expect sales and marketing expenses to continue to increase as we scale-up our domestic and international commercial efforts and expand our customer base.

### ***Research and Development Expenses***

Research and development expenses primarily include costs associated with the development of our ePlex instrument and its expanding test menu. These expenses also include certain clinical study expenses incurred in preparation for FDA clearance for these products, intellectual property prosecution and maintenance costs, and quality assurance expenses. The expenses primarily consist of salaries, benefits, stock-based compensation, outside design and consulting services, laboratory supplies, costs of consumables and materials used in product development, contract research organization costs, clinical studies and facility costs. We expense all research and development expenses in the periods in which they are incurred.

### ***General and Administrative Expenses***

Our general and administrative expenses include costs associated with our executive, accounting and finance, compliance, information technology, legal, facilities, human resource, administrative and investor relations activities. These expenses consist primarily of salaries, benefits, stock-based compensation costs, independent auditor costs, legal fees, consultants, insurance, and public company expenses, such as stock transfer agent fees and listing fees for NASDAQ.

### ***Foreign Exchange Gains and Losses***

Transactions in currencies other than our functional currency are translated at the prevailing rates on the dates of the applicable transaction. Foreign exchange gains and losses arise from differences in exchange rates during the period between the date a transaction denominated in a foreign currency is consummated and the date on which it is settled or translated.

### ***Interest Income and Interest Expense***

Interest income includes interest earned on our cash and cash equivalents and investments. Interest expense represents interest incurred on our loan payable and on other liabilities.

### ***Provision for Income Taxes***

We make certain estimates and judgments in determining income tax expense for financial statement purposes. These estimates and judgments occur in the calculation of certain tax assets and liabilities, which arise from differences in the timing of recognition of revenue and expense for tax and financial statement purposes.

We assess the likelihood that we will be able to recover our deferred tax assets. We consider all available evidence, both positive and negative, including historical levels of income, expectations and risks associated with estimates of future taxable income, and ongoing prudent and feasible tax planning strategies in assessing the need for the valuation allowance. If it is more likely than not that we will not recover our deferred tax assets, we will increase our provision for income taxes by recording a valuation allowance against the deferred tax assets that we estimate will not ultimately be recoverable.

Our income tax returns are based on calculations and assumptions that are subject to examination by the Internal Revenue Service and other tax authorities. In addition, the calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax regulations. We recognize liabilities for uncertain tax positions based on a two-step process. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50% likely of being realized upon settlement. While we believe we have appropriate support for the positions taken on our tax returns, we regularly assess the potential outcomes of examinations by tax authorities in determining the adequacy of our provision for income taxes. We continually assess the likelihood and amount of potential adjustments and adjust the income tax provision, income taxes payable, and deferred taxes in the period in which the facts that give rise to a revision become known.

## Critical Accounting Policies and Significant Judgments and Estimates

### Revenue

We recognize revenue from product sales and contractual arrangements, net of discounts and sales related taxes. We recognize revenue from product sales when there is persuasive evidence that an arrangement exists, delivery has occurred, the price is fixed or determinable and collectability is reasonably assured. Where applicable, all revenue is stated net of sales taxes and trade discounts. Revenue related to royalties received from licenses is generally recognized evenly over the contractual period to which the license relates. In those cases where we bill shipping and handling costs to customers, the amounts billed are classified as product revenue.

We offer customers the choice to either purchase an instrument outright or to receive possession of an instrument free of charge in exchange for a commitment to purchase an annual minimum amount of molecular diagnostic test cartridges.

When an instrument is sold, revenue is generally recognized upon shipment of the unit consistent with contract terms. When an instrument is placed free of charge under a reagent rental agreement, we retain title to the instrument and it remains capitalized on our balance sheet under property and equipment. Under our reagent rental agreements, our customers pay an instrument usage fee, which is included in the price of each test cartridge purchased. Our reagents and diagnostic test cartridges (consumables) are priced to include the expense of instrument usage and maintenance and are included in product revenue in our consolidated financial statements.

We sell our durable instruments and disposable test cartridges through a direct sales force in the United States and certain European countries and through distributor arrangements in other European jurisdictions. The instrument price is not dependent upon the purchase of any amount of disposable test cartridges. Revenue on instrument and test cartridge sales is generally recognized upon shipment consistent with contract terms, which is when title and the risk of loss and rewards of ownership have been transferred to the customer and there are no other post-shipment obligations.

### Allowance for Doubtful Accounts Receivable

We maintain an allowance for doubtful accounts for estimated losses resulting from the inability of our customers to make required payments. Our allowance for doubtful accounts is based on our assessment of the collectability of specific customer accounts, the aging of accounts receivable, and the general condition of the economy. Changes in our allowance for doubtful accounts are charged to sales and marketing expense.

### Inventory

We value inventories at the lower of cost or net realizable value on a part-by-part basis and provide an inventory reserve for estimated obsolescence and excess inventory based upon historical turnover and assumptions about future demand for our products and market conditions. We determine excess and obsolete inventories based on an estimate of the future demand for our products within a specified time horizon, which is generally 12 months. The estimates we use for demand are also used for near-term capacity planning and inventory purchasing and are consistent with our revenue forecasts. If our actual demand is less than our forecast demand, we may be required to take additional excess inventory charges, which would decrease gross margin and adversely impact net operating results in the future.

### Property and Equipment — net

Property, equipment and leasehold improvements are recorded at cost and depreciated using the straight-line method over the assets' estimated useful lives, which are noted below. Each category of property and equipment is analyzed to determine its useful life. We look at the manufacturers' estimates of useful life and adjust these for actual experience in our operating environment. Useful lives are reviewed periodically and occasionally changed as circumstances dictate.

Machinery and laboratory equipment	3 - 5 years
Instruments	4 - 5 years
Office equipment	3 - 7 years
Leasehold improvements	over the shorter of the remaining life of the lease or the useful economic life of the asset

Repair and maintenance costs are expensed as incurred. During 2017, 2016, and 2015, we disposed of certain assets no longer in use with a net book value of \$207,000, \$76,000 and \$153,000, respectively, recorded to cost of revenue, sales and marketing, research and development, or general and administrative expenses based on the asset's respective use.



### ***Impairment of Long-Lived Assets***

We assess the recoverability of long-lived assets, including intangible assets and instruments at customer locations by periodically evaluating the carrying value of such assets whenever events or changes in circumstances indicate that the carrying amount of these assets may not be recoverable. If impairment is indicated, we write down the carrying value of the asset to the estimated fair value.

### ***Stock-Based Compensation***

We generally grant employees and non-employee directors stock-based awards, which typically comprise stock options, restricted stock units, and/or market-based stock units, in connection with their employment or service. We grant stock options with an exercise price equal to the closing price of our common stock on the NASDAQ Global Market on the applicable grant date. We use the Black-Scholes option-pricing model as the method for determining the estimated fair value of stock options, the Monte Carlo Simulation Valuation Model as the method for determining the estimated fair value of our market-based stock units, and we use the grant date fair value of our common stock for valuing restricted stock awards and units. The estimated fair value of stock-based awards exchanged for employee and non-employee director services are expensed over the requisite service period. The stock-based compensation expense related to shares issued under our 2013 Employee Stock Purchase Plan, or ESPP, is also estimated using the Black-Scholes option-pricing model. These models require the use of highly subjective and complex assumptions which determine the fair value of stock-based awards, including the stock award's expected term and the price volatility of the underlying stock. These assumptions include:

- *Expected Term.* The expected term represents the period that our stock-based awards are expected to be outstanding and is determined by using the simplified method.
- *Expected Volatility.* Expected volatility represents the expected volatility in our stock price over the expected term of the stock option or award.
- *Expected Dividend.* The pricing models require a single expected dividend yield as an input. We assumed no dividends as we have never paid dividends and have no plans to do so.
- *Risk-Free Interest Rate.* The risk-free interest rates used in the models is based on published government rates in effect at the time of grant for periods corresponding with the expected term of the option or award.

### ***Income Taxes***

Our income tax expense, deferred tax assets and liabilities, and reserves for unrecognized tax benefits reflect management's best assessment of estimated future taxes to be paid. We file income tax returns in the United States, Switzerland, Germany, the United Kingdom, France, and various state jurisdictions. Significant judgments and estimates are required in determining our consolidated income tax expense.

We believe that it is more likely than not that the benefit from our deferred tax assets will not be realized. In recognition of this risk, we have provided a full valuation allowance on the net deferred tax assets relating to our net operating loss carryforwards and other deferred tax assets. If our assumptions change and we determine that we will be able to realize our deferred tax assets, the tax benefits relating to any reversal of the valuation allowance on deferred tax assets will be accounted for as a reduction of income tax expense.

Changes in tax laws and rates could also affect recorded deferred tax assets and liabilities in the future. The Tax Cuts and Jobs Act, or the Jobs Act, was enacted on December 22, 2017. The Jobs Act reduces the U.S. federal corporate tax rate from 34% to 21%, and requires companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred. Due to the timing of the enactment and the complexity involved in applying the provisions of the Jobs Act, we have made reasonable estimates of the effects and recorded provisional amounts in our consolidated financial statements. As a result of the Jobs Act, we remeasured certain deferred tax assets and liabilities based on the rates at which they are expected to reverse in the future, which is generally 21%. We do not anticipate to incur any liability for the one-time transition tax due to the losses generated by our foreign subsidiaries. As additional guidance is issued, and interpretation and analysis of the Jobs Act evolves, we may make adjustments to the provisional amounts recorded. We are not aware of any other such changes in tax laws and rates that would have a material effect on our results of operations, cash flows or financial position.

We recognize tax liabilities in accordance with Accounting Standards Codification, or ASC, Topic 740 and we adjust these liabilities when our judgment changes as a result of the evaluation of new information not previously available. Due to the complexity of some of these uncertainties, the ultimate resolution may result in a payment that is materially different from our current estimate of the tax liabilities. These differences will be reflected as increases or decreases to income tax expense in the period in which they are determined.

**Recent Accounting Pronouncements**

For a summary of recent accounting pronouncements applicable to our consolidated financial statements, see Note 2, "Summary of Significant Accounting Policies and Significant Accounts" to the Consolidated Financial Statements in Part II, Item 8 of this Annual Report.

**Results of Operations****Comparison of Years Ended December 31, 2017, 2016 and 2015 (tables in thousands):**

	Years ended December 31,			2017 vs 2016		2016 vs 2015	
	2017	2016	2015	\$ Change	% Change	\$ Change	% Change
Revenue	\$ 52,519	\$ 49,274	\$ 39,411	\$ 3,245	7%	\$ 9,863	25%

Revenue for the year ended December 31, 2017 increased by \$3,245,000 due in part to higher reagent revenues of \$47,866,000 for the year ended December 31, 2017 compared to \$46,946,000 for the year ended December 31, 2016. The increase in consumables revenue was primarily driven by purchases of our infectious disease assays, due to an expanding customer base. Pricing changes did not have a material impact on the increase in revenue for the year ended December 31, 2017. Additionally, instrument revenues were \$3,974,000 for the year ended December 31, 2017, compared to \$1,592,000 for the year ending December 31, 2016.

For the year ended December 31, 2016, our revenue grew 25%, or \$9,863,000, compared to 2015. Consumables revenue during the year ended December 31, 2016 increased by 23% to \$46,946,000, compared to \$38,061,000 in the prior year. This increase in consumables revenue was primarily driven by increased product purchases by several key customers. Pricing changes did not have a significant impact on revenue during the current period. Additionally, during the year ended December 31, 2016, instrument revenue increased \$957,000 compared to the same period of the prior year, primarily due to the sale of ePlex instruments.

	Years ended December 31,			2017 vs 2016		2016 vs 2015	
	2017	2016	2015	\$ Change	% Change	\$ Change	% Change
Cost of Revenue	\$ 32,514	\$ 19,700	\$ 15,317	\$ 12,814	65%	\$ 4,383	29%
Gross Profit	\$ 20,005	\$ 29,574	\$ 24,094	\$ (9,569)	(32)%	\$ 5,480	23%

The increase in cost of revenue for the year ended December 31, 2017 compared to the year ended December 31, 2016 was primarily related to increased production and production-related investments associated with manufacturing expansion for continued commercialization of the ePlex system. Increases in our cost of revenue were attributable to product costs of \$3,925,000 corresponding to volume increases, increased support expenses of \$3,260,000, unfavorable absorption variances of \$3,010,000, increased inventory reserve expense of \$908,000, decreased production efficiencies of \$892,000, increased instrument depreciation, repair, and warranty expense of \$376,000 driven by a greater instrument installed base, and increased reagent warranty expense \$422,000. The decrease in gross profit was primarily due to increased product sales and product support costs related to the commercialization of the ePlex system.

The increase in cost of revenue for the year ended December 31, 2016 compared to the year ended December 31, 2015 was primarily related to the increase in consumables revenue in the current year. Increases in our cost of revenue were attributable to product costs of \$3,177,000, increased product warranty and support expenses of \$519,000, and increased royalty expense of \$431,000 corresponding to sales volume increases, less favorable manufacturing yields and variances of \$235,000, and increased overhead expenses of \$412,000, partially offset by decreased inventory reserve expense of \$387,000. The improvement to gross profit during the year ended December 31, 2016, compared to December 31, 2015, was primarily due to increased sales of higher margin products.

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	Years ended December 31,			2017 vs 2016		2016 vs 2015	
	2017	2016	2015	\$ Change	% Change	\$ Change	% Change
Sales and Marketing	\$ 20,557	\$ 14,734	\$ 14,385	\$ 5,823	40%	\$ 349	2%

The increase in sales and marketing expense for the year ended December 31, 2017 compared to the year ended December 31, 2016 was primarily driven by an increase in employee-related expenses of \$3,906,000 due to an increase in headcount, increased travel expenses of \$428,000, increased supplies and equipment of \$966,000 associated with additional instrument placements, increased marketing expenses of \$224,000 associated with the commercial launch of the ePlex system, and an increase of \$221,000 in outside service expense, primarily related to increased activity associated with our international distribution center.

The increase in sales and marketing expense for the year ended December 31, 2016, compared to the year ended December 31, 2015, was primarily driven by increased marketing and trade show expense of \$582,000, increased freight and postage expense of \$184,000, and increased travel expenses of \$112,000 incurred in connection with expanding our domestic and international commercial organization, partially offset by a decrease in employee-related expenses of \$522,000.

	Years ended December 31,			2017 vs 2016		2016 vs 2015	
	2017	2016	2015	\$ Change	% Change	\$ Change	% Change
General and Administrative	\$ 16,205	\$ 14,363	\$ 13,772	\$ 1,842	13%	\$ 591	4%

The increase in general and administrative expense for the year ended December 31, 2017 compared to the year ended December 31, 2016, was primarily driven by an increase in employee-related expenses of \$1,311,000, including a \$1,112,000 increase in stock-based compensation expense, an increase in travel expense of \$147,000, and an increase in consulting services of \$411,000, partially offset by a decrease in audit and tax expenses of \$281,000 due to timing of payments, and a decrease in facility and supplies expense of \$303,000.

The increase in general and administrative expense for the year ended December 31, 2016 compared to the year ended December 31, 2015 was primarily driven by an increase in employee-related expenses of \$536,000, an adjustment to our indirect tax accrual of \$274,000, and an increase in travel-related expenses of \$168,000, partially offset by a decrease in medical device tax expense of \$447,000 as a result of the suspension of the excise tax in December 2015.

	Years ended December 31,			2017 vs 2016		2016 vs 2015	
	2017	2016	2015	\$ Change	% Change	\$ Change	% Change
Research and Development	\$ 42,760	\$ 49,458	\$ 37,472	\$ (6,698)	(14)%	\$ 11,986	32%

The decrease in research and development expense for the year ended December 31, 2017 compared to the year ended December 31, 2016, was primarily driven by a decrease in ePlex system development expenses of \$10,067,000, a decrease in clinical trial expense of \$392,000 due to the timing of trials, a decrease in repairs and maintenance expense of \$303,000 and a decrease in freight expense of \$514,000, partially offset by an increase in supplies and prototype materials utilized by our assay development teams of \$4,413,000 and an increase in intellectual property prosecution and maintenance expenses of \$206,000.

The increase in research and development expense for the year ended December 31, 2016, compared to the year ended December 31, 2015, was primarily driven by increased materials, equipment and consumables used in the development and expansion of our ePlex test menu totaling \$10,523,000, increased employee-related expenses of \$2,993,000, and increased clinical trials expense of \$887,000, partially offset by reduced outside services expenditures of \$3,420,000.

	Years ended December 31,			2017 vs 2016		2016 vs 2015	
	2017	2016	2015	\$ Change	% Change	\$ Change	% Change
Other Income (Expense)	\$ (2,232)	\$ (1,520)	\$ (622)	\$ (712)	47%	\$ (898)	144%

Other income (expense) represents non-operating income and expense, including, but not limited to, earnings on cash, cash equivalents, restricted cash, marketable securities, foreign exchange gains and losses of foreign currency denominated balances, and interest expense related to debt.

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The change in other income (expense) for the year ended December 31, 2017, compared to the year ended December 31, 2016, was primarily due to an increase in interest expense of \$1,506,000 on amounts due under our debt facility, partially offset by an increase in interest income of \$385,000 and an increase of \$415,000 related to foreign currency fluctuations.

The change in other income (expense) for the year ended December 31, 2016, compared to the year ended December 31, 2015, was due primarily to an increase in interest expense of \$655,000 under our debt facility, and a decrease in income as a result of less interest earned on marketable securities of \$217,000 in the current period.

	Years ended December 31,			2017 vs 2016		2016 vs 2015	
	2017	2016	2015	\$ Change	% Change	\$ Change	% Change
Income Tax Expense	\$ 101	\$ 100	\$ 40	\$ 1	1%	\$ 60	150%

Due to net losses incurred, the tax provisions recorded relate to minimum tax payments in the United States and tax liabilities generated by our foreign subsidiaries. Income tax expense for the year ended December 31, 2017, compared to the year ended December 31, 2016, remained consistent and related primarily to international income taxes. The increase for the year ended December 31, 2016 compared to December 31, 2015, was primarily a result of international income taxes due to increased foreign operations.

**Liquidity and Capital Resources**

To date we have funded our operations primarily from the sale of our common stock, borrowings and cash from operations. We have incurred net losses from operations each year and have not yet achieved profitability. As of December 31, 2017, we had \$67,664,000 of working capital, including \$71,990,000 in cash, cash equivalents, and marketable securities.

**Cash Flows**

The following table shows cash flow information for the years ended December 31, 2017, 2016 and 2015:

	Years Ended December 31,		
	2017	2016	2015
Cash used in operating activities	\$ (53,422)	\$ (35,637)	\$ (31,915)
Cash provided by (used in) investing activities	(24,908)	(24,123)	19,321
Cash provided by financing activities	89,050	40,359	11,133
Effect of exchange rate changes on cash	75	(25)	(9)
Net increase (decrease) in cash and cash equivalents	\$ 10,795	\$ (19,426)	\$ (1,470)

**Cash flows used in operating activities**

Net cash used in operating activities increased \$17,785,000 to \$53,422,000 for the year ended December 31, 2017, compared to \$35,637,000 for the year ended December 31, 2016. The increase in cash used in operating activities was primarily due to an \$11,249,000 increase in net loss and a \$12,317,000 increase from changes in operating assets and liabilities. The main factors affecting the change in operating assets and liabilities included an increase in inventory purchases and accounts receivable, and decreases in accounts payables, accrued compensation, and other liabilities. These increases were partially offset by non-cash adjustments of \$5,781,000, including increased stock-based compensation expense of \$2,934,000, an increase in depreciation and amortization expense of \$1,401,000 and non-cash adjustments to inventory of \$1,189,000.

Net cash used in operating activities increased \$3,722,000 to \$35,637,000 for the year ended December 31, 2016, compared to \$31,915,000 for the year ended December 31, 2015. The increase in cash used in operating activities was primarily due to an \$8,404,000 increase in our net loss and \$535,000 in lower non-cash changes primarily the result of lower stock-based compensation expense, partially offset by an additional \$5,217,000 cash inflow from changes in operating assets and liabilities. The main factors affecting operating assets and liabilities included increases in accounts payable, accrued compensation and other liabilities and increases in inventory and accounts receivable.

**Cash flows provided by (used in) investing activities**

Net cash used in investing activities for the year ended December 31, 2017, compared to the year ended December 31, 2016, increased \$785,000 primarily due to an increase in net purchases and sales of marketable securities of \$31,420,000,

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partially offset by decreases in purchases of property, plant, and equipment of \$2,185,000, intellectual property milestone payments of \$1,000,000, and the maturities of marketable securities of \$27,450,000.

Net cash used in investing activities for the year ended December 31, 2016, compared to the year ended December 31, 2015, increased \$43,444,000 primarily due to a \$36,000,000 decrease from the maturity of short-term marketable securities, an increase in purchases of marketable securities of \$11,042,000, and increased purchase of property, plant, equipment and licenses of \$4,194,000, partially offset by a \$7,792,000 increase in proceeds from the sale of marketable securities.

### ***Cash flows provided by financing activities***

Net cash provided by financing activities increased \$48,691,000 to \$89,050,000 for the year ended December 31, 2017, compared to \$40,359,000 for the year ended December 31, 2016, primarily due to a net increase in proceeds from the sale of our common stock of \$52,021,000 and an increase in net proceeds from debt issuance of \$4,903,000, partially offset by an increase in the repayments of principal borrowings of \$7,808,000 and a decrease in proceeds from the exercise of employee stock options of \$425,000.

Net cash provided by financing activities increased \$29,226,000 to \$40,359,000 for the year ended December 31, 2016, compared to \$11,133,000 for the year ended December 31, 2015, primarily due to a \$28,893,000 increase in net proceeds generated from an at-the-market equity offering, and an absence of debt issuance costs of \$628,000 incurred in the prior year, partially offset by a decrease in proceeds from the exercise of employee stock options of \$277,000.

We have prepared cash flow forecasts which indicate, based on our current cash resources available, that we will have sufficient resources to fund our business for at least the next 12 months. We expect capital outlays and operating expenditures to increase over the next several years as we grow our customer base and revenues, and expand our research and development, commercialization and manufacturing activities. Factors that could affect our capital requirements, in addition to those previously identified, include, but are not limited to:

- the level of revenues and the rate of our revenue growth;
- change in demand from our customers;
- the level of expenses required to expand our commercial (sales and marketing) and manufacturing activities;
- the level of research and development investment required to develop our diagnostic systems and test menu;
- our need to acquire or license complementary technologies;
- the costs of filing, prosecuting, defending and enforcing patent claims and other intellectual property rights;
- competing technological and market developments; and
- changes in regulatory policies or laws that affect our operations.

### ***Loan and Security Agreement***

In January 2015, we entered into a Loan and Security Agreement, or the LSA, with Solar Capital Partners (as successor-in-interest to General Electric Capital Corporation), and certain other financial institutions party thereto, as lenders, pursuant to which we obtained up to \$35,000,000 in a series of term loans and a revolving loan in the maximum amount of \$5,000,000. As of June 2017, we borrowed all \$35,000,000 under the terms loans as provided in the LSA. As of December 31, 2017, we had not borrowed any of the \$5,000,000 available under the revolving loan.

In December 2017, we and the lenders agreed to extend the interest-only period in respect of amounts borrowed under the LSA, or the Interest-Only Period, until August 1, 2018 and the final maturity date on which all of our loans, debts, obligations and other liabilities under the LSA become due, or the Final Maturity Date, until October 12, 2019. We may further extend the Interest-Only Period until January 1, 2019 and the Final Maturity Date until March 12, 2020, subject in each case to the satisfaction of certain financial conditions.

Pursuant to the terms of the LSA, the lenders are granted a security interest in (a) all of our personal property, other than intellectual property (which is subject to a negative pledge), but including our rights to payment in respect of intellectual property, (b) the stock of all of our domestic subsidiaries, and (c) 65% of the voting stock and 100% of the non-voting stock of each of our non-U.S. subsidiaries.

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The LSA contains customary affirmative and negative covenants, including, without limitation, delivering reports and notices relating to our financial condition and certain regulatory events and intellectual property matters, as well as limiting the creation of liens, the incurrence of indebtedness, and the making of certain investments, payments and acquisitions, other than as specifically permitted by the LSA.

**Common Stock Equity Offering**

On June 13, 2017, we entered into an Underwriting Agreement, or the Underwriting Agreement, with J.P. Morgan Securities LLC and Merrill Lynch, Pierce, Fenner & Smith Incorporated acting as joint book-running managers and as representatives of the underwriters, or the Underwriters, relating to the issuance and sale of 6,382,978 shares of our common stock, or the Offering. The price to the public in the Underwriting Agreement was \$11.75 per share, before underwriting discounts and commissions. Under the terms of the Underwriting Agreement, we granted the Underwriters an option, exercisable for 30 days, to purchase up to an additional 957,446 shares of our common stock.

The Offering was completed on June 19, 2017, pursuant to which we sold a total of 7,340,424 shares of our common stock for gross proceeds of \$86,250,000. We incurred \$5,175,000 in related transaction costs, comprised of underwriting discounts and commissions paid in accordance with the Underwriting Agreement, and approximately \$345,000 in additional miscellaneous offering expenses.

**Equity Distribution Agreement**

On June 14, 2016, we entered into an Equity Distribution Agreement, or the Distribution Agreement, with Canaccord Genuity Inc., as sales agent, or Canaccord, pursuant to which we could, at our discretion, offer and sell, from time to time, through Canaccord shares of our common stock having an aggregate offering price of up to \$30,000,000. Under the Distribution Agreement, Canaccord could sell shares by any method deemed to be an “at-the-market” offering as defined in Rule 415 under the Securities Act or any other method permitted by law, including in privately negotiated transactions.

We began sales under the Distribution Agreement in August 2016 pursuant to an effective shelf registration statement on Form S-3 previously filed with the SEC. During the three months ended September 30, 2016, we sold 3.3 million shares of our common stock, at an average per share price of \$9.04, for aggregate gross proceeds of \$30,000,000. We incurred \$1,143,000 in related transaction costs, comprising commissions paid to Canaccord of 3.0% of the aggregate gross proceeds from each sale of shares occurring pursuant to the Distribution Agreement, or \$900,000, and \$243,000 in additional miscellaneous expenses.

**Letter of Credit**

In September 2012, we provided a \$758,000 letter of credit issued by Banc of California to the landlord of our executive office facility in Carlsbad, California. This letter of credit was secured with \$758,000 of restricted cash at December 31, 2017.

If we require additional capital, we cannot be certain that it will be available when needed or that our actual cash requirements will not be greater than anticipated. If we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our stockholders could be significantly diluted, and these newly issued securities may have rights, preferences or privileges senior to those of existing stockholders. If we raise additional funds through collaborations or licensing arrangements, we may be required to relinquish significant rights to our technologies or products, or grant licenses on terms that are not favorable to us.

**Contractual Obligations**

As of December 31, 2017, we had the following contractual obligations (in thousands):

	Payments due by period				
	Total	Less than 1 Year	1-3 Years	4-5 Years	After 5 Years
Lease obligations (1)	\$ 8,592	\$ 1,868	\$ 5,358	\$ 1,366	\$ —
Licensing payment obligations	755	635	90	30	—
Total obligations	\$ 9,347	\$ 2,503	\$ 5,448	\$ 1,396	\$ —

- (1) We enter into leases in the ordinary course of business with respect to facilities. Our lease agreements have fixed payment terms based on the passage of time. Certain facility leases require payment of maintenance and real estate taxes. Our future operating lease obligations could change if we terminate certain contracts or if we enter into additional leases.

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In January 2012, we entered into a lease amendment with the landlord of our Carlsbad, California executive office facility to rent an additional 22,000 square feet. The lease amendment required an additional security deposit of \$22,000 and an increase in our standby letter of credit to \$758,000. We took possession of the additional space on January 1, 2013, at which time the rent increased by approximately \$35,000 per month, subject to annual increases of between 3% and 4%. The term of the lease was also extended to June 30, 2021.

In June 2015, we entered into a lease agreement for additional manufacturing space located in Carlsbad, California. Pursuant to the lease agreement, rent payments total \$4,490,000 over the 90-month lease term.

**Impact of Inflation**

The effect of inflation and changing prices on our operations was not significant during the periods presented.

**Off-Balance Sheet Arrangements**

We have no off-balance sheet arrangements. We have provided a \$758,000 standby letter of credit to our landlord as security for future rent in connection the lease of our Carlsbad, California corporate headquarters, which is recorded as restricted cash on our consolidated balance sheet.

**Item 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

**Quantitative and Qualitative Disclosures about Market Risk**

Our exposure to market risk is limited to our cash and cash equivalents, all of which have maturities of less than three months, and marketable securities, which have maturities of less than one year. The goals of our investment policy are preservation of capital, fulfillment of liquidity needs, and fiduciary control of cash and investments. We also seek to maximize income from our investments without assuming significant risk. To achieve our goals, we may in the future maintain a portfolio of cash equivalents and investments in a variety of securities that management believes to be of high credit quality. We currently do not hedge interest rate exposure. Because of the short-term maturities of our cash equivalents and short-term investments, we do not believe that an increase in market rates would have a material negative impact on the value of our portfolio.

**Interest Rate Risk**

As of December 31, 2017, based on current interest rates and total debt outstanding, a hypothetical 100 basis point increase or decrease in interest rates would have an insignificant pre-tax impact on our results of operations.

**Foreign Currency Exchange Risks**

We are a U.S. entity and our functional currency is the U.S. dollar. Substantially all of our revenues were derived from sales in the United States. We have business transactions in foreign currencies, however, we believe we do not have significant exposure to risk from changes in foreign currency exchange rates at this time. We do not currently engage in hedging or similar transactions to reduce our foreign currency risks. We will continue to monitor and evaluate our internal processes relating to foreign currency exchange, including the potential use of hedging strategies.

**Item 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of GenMark Diagnostics, Inc.

**Opinion on the Financial Statements**

We have audited the accompanying consolidated balance sheets of GenMark Diagnostics, Inc. (the Company) as of December 31, 2017 and 2016, the related consolidated statements of comprehensive loss, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2017, and the related notes (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 27, 2018 expressed an unqualified opinion thereon.

**Basis for Opinion**

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Ernst & Young LLP

We have served as the Company's auditor since 2013.

San Diego, California

February 27, 2018



**GENMARK DIAGNOSTICS, INC.**  
**CONSOLIDATED BALANCE SHEETS**  
(In thousands, except par value)

	As of December 31,	
	2017	2016
<b>ASSETS:</b>		
Current Assets:		
Cash and cash equivalents	\$ 26,754	\$ 15,959
Short-term marketable securities	45,236	25,607
Accounts receivable, net of allowances of \$2,754 and \$2,740, respectively	10,676	9,048
Inventories	10,949	6,633
Prepaid expenses and other current assets	1,792	1,202
Total current assets	95,407	58,449
Property and equipment, net	22,581	18,268
Intangible assets, net	2,624	2,670
Restricted cash	758	758
Other long-term assets	192	179
Total assets	\$ 121,562	\$ 80,324
<b>LIABILITIES AND STOCKHOLDERS' EQUITY:</b>		
Current liabilities:		
Accounts payable	\$ 11,171	\$ 8,703
Accrued compensation	5,419	5,650
Current portion of long-term debt	7,927	7,935
Other current liabilities	3,226	4,133
Total current liabilities	27,743	26,421
Deferred rent	3,059	3,652
Long-term debt	20,099	11,880
Other noncurrent liabilities	241	220
Total liabilities	51,142	42,173
Commitments and contingencies - See Note 7		
Stockholders' equity		
Preferred stock, \$0.0001 par value; 5,000 authorized, none issued	—	—
Common stock, \$0.0001 par value; 100,000 authorized; 55,066 and 46,554 shares issued and outstanding, respectively	6	4
Additional paid-in capital	487,525	393,322
Accumulated deficit	(417,120)	(355,270)
Accumulated other comprehensive income	9	95
Total stockholders' equity	70,420	38,151
Total liabilities and stockholders' equity	\$ 121,562	\$ 80,324

See accompanying Notes to Consolidated Financial Statements.

**GENMARK DIAGNOSTICS, INC.**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS**  
(In thousands, except per share data)

	Years ended December 31,		
	2017	2016	2015
Revenue			
Product revenue	\$ 52,260	\$ 48,914	\$ 39,029
License and other revenue	259	360	382
Total revenue	52,519	49,274	39,411
Cost of revenue	32,514	19,700	15,317
Gross profit	20,005	29,574	24,094
Operating expenses:			
Sales and marketing	20,557	14,734	14,385
General and administrative	16,205	14,363	13,772
Research and development	42,760	49,458	37,472
Total operating expenses	79,522	78,555	65,629
Loss from operations	(59,517)	(48,981)	(41,535)
Other income (expense):			
Interest income	561	176	125
Interest expense	(3,042)	(1,536)	(880)
Other income (expense)	249	(160)	133
Total other income (expense)	(2,232)	(1,520)	(622)
Loss before provision for income taxes	(61,749)	(50,501)	(42,157)
Income tax expense	101	100	40
Net loss	\$ (61,850)	\$ (50,601)	\$ (42,197)
Net loss per share, basic and diluted	\$ (1.21)	\$ (1.15)	\$ (1.00)
Weighted average number of shares outstanding basic and diluted	51,169	44,100	42,157
Other comprehensive loss			
Net loss	\$ (61,850)	\$ (50,601)	\$ (42,197)
Other comprehensive income/(loss):			
Foreign currency translation adjustments, net of tax	(84)	77	36
Net unrealized losses on marketable securities, net of tax	(2)	(11)	3
Total other comprehensive income/(loss)	(86)	66	39
Total comprehensive loss	\$ (61,936)	\$ (50,535)	\$ (42,158)

See accompanying Notes to Consolidated Financial Statements.

**GENMARK DIAGNOSTICS, INC.**  
**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**  
(In thousands)

	Common Stock		Additional paid-in capital	Accumulated other comprehensive loss	Accumulated deficit	Total stockholders' equity
	Shares	Par Value				
Balance—December 31, 2014	41,859	\$ 4	\$ 340,502	\$ (10)	\$ (262,472)	\$ 78,024
Issuance of stock in lieu of accrued bonuses	105	—	863	—	—	863
Stock-based compensation expense	—	—	9,995	—	—	9,995
Issuance of employee stock purchase plan shares	122	—	884	—	—	884
Restricted stock awards issued, net of cancellations	284	—	—	—	—	—
Shares issued under stock-based compensation plans	181	—	989	—	—	989
Net loss	—	—	—	—	(42,197)	(42,197)
Foreign currency translation adjustments	—	—	—	36	—	36
Unrealized gain on marketable securities	—	—	—	3	—	3
Balance—December 31, 2015	42,551	4	353,233	29	(304,669)	48,597
Issuance of stock in lieu of accrued bonuses	28	—	364	—	—	364
Stock-based compensation expense	—	—	9,236	—	—	9,236
Issuance of employee stock purchase plan shares	138	—	921	—	—	921
Restricted stock awards issued, net of cancellations	421	—	—	—	—	—
Shares issued under stock-based compensation plans	99	—	712	—	—	712
Issuance of common stock, net of offering expenses	3,317	—	28,856	—	—	28,856
Net loss	—	—	—	—	(50,601)	(50,601)
Foreign currency translation adjustments	—	—	—	77	—	77
Unrealized loss on marketable securities	—	—	—	(11)	—	(11)
Balance—December 31, 2016	46,554	4	393,322	95	(355,270)	38,151
Stock-based compensation expense	—	—	12,170	—	—	12,170
Issuance of employee stock purchase plan shares	175	—	1,016	—	—	1,016
Restricted stock awards issued, net of cancellations	955	—	—	—	—	—
Shares issued under stock-based compensation plans	42	—	287	—	—	287
Issuance of common stock, net of offering expenses	7,340	2	80,730	—	—	80,732
Net loss	—	—	—	—	(61,850)	(61,850)
Foreign currency translation adjustments	—	—	—	(84)	—	(84)
Unrealized loss on marketable securities	—	—	—	(2)	—	(2)
Balance—December 31, 2017	55,066	\$ 6	\$ 487,525	\$ 9	\$ (417,120)	\$ 70,420

See accompanying Notes to Consolidated Financial Statements.

**GENMARK DIAGNOSTICS, INC.**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**  
(In thousands)

	Years ended December 31,		
	2017	2016	2015
<b>Operating activities:</b>			
Net loss	\$ (61,850)	\$ (50,601)	\$ (42,197)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	5,317	3,916	3,405
Net amortization/(accretion) of premiums/discounts on investments	(39)	89	180
Gain on sale of investment in preferred stock	—	(9)	(223)
Amortization of deferred debt issuance costs	1,132	388	285
Stock-based compensation	12,170	9,236	9,995
Provision for bad debt	14	13	25
Non-cash inventory adjustments	1,323	134	594
Other non-cash adjustments	(224)	145	186
Changes in operating assets and liabilities:			
Accounts receivable	(1,555)	(2,250)	(1,983)
Inventories	(10,512)	(3,450)	(1,286)
Prepaid expenses and other assets	(599)	(613)	(36)
Accounts payable	2,557	4,105	(757)
Accrued compensation	(263)	2,172	(458)
Other current and non-current liabilities	(893)	1,088	355
Net cash used in operating activities	(53,422)	(35,637)	(31,915)
<b>Investing activities:</b>			
Payments for intellectual property licenses	(500)	(1,500)	(550)
Purchases of property and equipment	(4,815)	(7,000)	(3,756)
Purchases of marketable securities	(70,989)	(33,688)	(22,646)
Proceeds from sales of marketable securities	13,896	8,015	223
Maturities of marketable securities	37,500	10,050	46,050
Net cash provided by (used in) investing activities	(24,908)	(24,123)	19,321
<b>Financing activities:</b>			
Proceeds from issuance of common stock	87,267	30,920	884
Costs incurred in conjunction with public offering	(5,469)	(1,143)	—
Principal repayment of borrowings	(7,848)	(40)	(22)
Proceeds from borrowings	15,000	10,000	10,000
Costs associated with debt issuance	(187)	(90)	(718)
Proceeds from stock option exercises	287	712	989
Net cash provided by financing activities	89,050	40,359	11,133
Effect of exchange rate changes on cash	75	(25)	(9)
Net increase (decrease) in cash and cash equivalents	10,795	(19,426)	(1,470)
Cash and cash equivalents at beginning of year	15,959	35,385	36,855
Cash and cash equivalents at end of year	\$ 26,754	\$ 15,959	\$ 35,385
<b>Non-cash investing and financing activities:</b>			
Transfer of systems from property and equipment into inventory	\$ 4,885	\$ 263	\$ 225
Property and equipment costs incurred but not paid included in accounts payable	\$ 227	\$ 1,159	\$ 146
Intellectual property acquisition included in accrued expenses	\$ —	\$ —	\$ 800
<b>Supplemental cash flow information:</b>			
Cash paid for interest	\$ 1,643	\$ 1,130	\$ 572
Cash paid for income taxes, net	\$ 61	\$ 65	\$ 10

See accompanying Notes to Consolidated Financial Statements.

GENMARK DIAGNOSTICS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

**1. Organization and basis of presentation**

***Organization***

GenMark Diagnostics, Inc., the Company or GenMark, was formed by Osmetech plc, or Osmetech, as a Delaware corporation in February 2010, and had no operations prior to its initial public offering, or the IPO, which was completed in June 2010. Immediately prior to the closing of the IPO, GenMark acquired all of the outstanding ordinary shares of Osmetech in a reorganization, accounted for in a manner similar to a pooling-of-interests, under the applicable laws of the United Kingdom. As a result of the reorganization, all of the issued ordinary shares in Osmetech were cancelled in consideration of (i) the issuance of common stock of GenMark to the former shareholders of Osmetech and (ii) the issuance of new shares in Osmetech to GenMark. Following the reorganization, Osmetech became a subsidiary controlled by GenMark, and the former shareholders of Osmetech received shares of GenMark. Any historical discussion of GenMark relates to Osmetech and its consolidated subsidiaries prior to the reorganization. In September 2012, GenMark placed Osmetech into liquidation to simplify its corporate structure. The liquidation of Osmetech was completed in the fourth quarter of 2013.

The Company is a leading provider of multiplex molecular solutions designed to enhance patient care, improve key quality metrics, and reduce the total cost-of-care. The Company's products include the XT-8 instrument and related diagnostic and research tests, as well as certain custom manufactured reagents, collectively referred to as the XT-8 system. Additionally, the Company offers a sample-to-answer ePlex instrument and associated molecular diagnostic panels. The Company sells its products in the U.S. and Europe directly and through distributors.

***Basis of Presentation and Principles of Consolidation***

The accompanying consolidated financial statements have been prepared in accordance with United States generally accepted accounting principles, or U.S. GAAP, and applicable regulations of the U.S. Securities and Exchange Commission, or the SEC. The consolidated financial statements include the accounts of the Company and its wholly owned subsidiaries. All intercompany accounts and transactions have been eliminated in consolidation.

The accompanying consolidated financial statements have been prepared on a going-concern basis, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. The Company has incurred net losses from operations since its inception and has an accumulated deficit of \$417,120,000 at December 31, 2017. Management expects operating losses to continue through the foreseeable future. The Company's ability to transition to attaining profitable operations is dependent upon achieving a level of revenues adequate to support its cost structure through expanding its product offerings and consequently increasing its product revenues. Cash, cash equivalents, and marketable securities at December 31, 2017 totaled \$71,990,000. The Company has prepared cash flow forecasts which indicate, based on the Company's current cash resources available, that the Company will have sufficient resources to fund its business for at least the next 12 months from the date of this filing.

***Segment Reporting***

The Company currently operates as one operating segment. Operating segments are defined as components of an enterprise for which separate financial information is evaluated regularly by the chief operating decision maker, who is the chief executive officer, in deciding how to allocate resources and assessing performance. The Company's business operates in one operating segment because the Company's chief operating decision maker evaluates the Company's financial information and resources and assesses the performance of these resources on a consolidated basis. Since the Company operates in one operating segment, all required financial segment information can be found in the consolidated financial statements.

***Use of Estimates***

The preparation of these consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the financial statements and the notes thereto. The Company's significant estimates included in the preparation of the financial statements are related to accounts receivable, inventories, property and equipment, intangible assets, employee related compensation accruals, warranty liabilities, tax valuation accounts and stock-based compensation. Actual results could differ from those estimates.

## 2. Summary of Significant Accounting Policies and Significant Accounts

### *Cash and Cash Equivalents and Marketable Securities*

Cash and cash equivalents consist of cash on deposit with banks, money market instruments and certificates of deposit with original maturities of three months or less at the date of purchase. Marketable securities consist of certificates of deposits that mature in greater than three months. Marketable securities are accounted for as "available-for-sale" with the carrying amounts reported in the balance sheets stated at cost, which approximates their fair market value, with unrealized gains and losses, if any, reported as a separate component of stockholders' equity and included in comprehensive loss.

### *Restricted Cash*

Restricted cash represents amounts designated for uses other than current operations and includes \$758,000 as of December 31, 2017 held as security for the Company's letter of credit with Banc of California.

### *Fair Value of Financial Instruments*

The Company uses a fair value hierarchy with three levels of inputs, of which the first two are considered observable and the last unobservable, to measure fair value:

- *Level 1* — Quoted prices in active markets for identical assets or 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 carrying amounts of financial instruments such as accounts receivable, prepaid expenses and other current assets, accounts payable, and accrued liabilities approximate the related fair values due to the short-term maturities of these instruments.

### *Receivables*

Accounts receivable consist of amounts due to the Company for sales to customers and are recorded net of an allowance for doubtful accounts. The allowance for doubtful accounts is determined based on an assessment of the collectability of specific customer accounts, the aging of accounts receivable, and a reserve for unknown items based upon the Company's historical experience.

The allowance for doubtful accounts as of December 31, 2017 and 2016, comprised the following (in thousands):

	<b>Allowance for doubtful accounts</b>
Balance at December 31, 2015	\$ 2,727
Provision for doubtful accounts	13
Balance at December 31, 2016	\$ 2,740
Provision for doubtful accounts	14
Balance at December 31, 2017	\$ 2,754

The Company has included \$2,702,000 in the allowance for doubtful accounts as of December 31, 2017 and 2016 for past due amounts from its former customer, Natural Molecular Testing Corporation.

### *Inventories*

Inventories are stated at the lower of cost (first-in, first-out) or net realizable value and include direct labor, materials, and manufacturing overhead. The Company periodically reviews inventory for evidence of slow-moving or obsolete parts, and writes inventory down to net realizable value, as needed. This write-down is based on management's review of inventories on hand, compared to estimated future usage and sales, shelf-life assumptions, and assumptions about the likelihood of obsolescence. If actual market conditions are less favorable than those projected by the Company, additional inventory write-downs may be required. Inventory impairment charges establish a new cost basis for inventory and charges are not reversed subsequently to income, even if circumstances later suggest that increased carrying amounts are recoverable.

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**Property and Equipment, net**

Property, equipment and leasehold improvements are recorded at cost and depreciated using the straight-line method over the estimated useful lives of the assets, which are:

Plant and Machinery	3 – 5 years
Instruments	4 – 5 years
Office equipment	3 – 7 years
Leasehold improvements	over the shorter of the remaining life of the lease or the useful economic life of the asset

Property and equipment includes diagnostic instruments used for sales demonstrations or placed with customers under several types of arrangements, including performance evaluation programs, or PEPs, and reagent rental agreements. Instruments are placed with customers under PEPs for limited evaluation periods and the Company retains title to the instruments under these arrangements. Maintenance and repair costs are expensed as incurred.

Leased property meeting certain capital lease criteria is capitalized, and the net present value of the related lease payments is recorded as a liability. Amortization for assets noted as capital leases is recorded using the straight-line method over the shorter of the estimated useful lives or the lease terms.

**Intangible Assets**

Intangible assets are comprised of licenses or sublicenses to technology covered by patents owned by third parties, and are amortized on a straight-line basis over the expected useful lives of these assets, which is generally 10 years. Amortization of licenses typically begins upon the Company obtaining access to the licensed technology and is recorded in cost of revenues for licenses supporting commercialized products. The amortization of licenses to technology supporting products in development is recorded in research and development expenses.

**Impairment of Long-Lived Assets**

The Company assesses the recoverability of long-lived assets, including intangible assets, by periodically evaluating the carrying value whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. If impairment is indicated, the Company writes down the carrying value of the asset to its estimated fair value. This fair value is primarily determined based on estimated discounted cash flows. The Company did not recognize any impairment charges during the years ended December 31, 2017, 2016, and 2015.

**Revenue Recognition**

The Company recognizes revenue from product sales and contract arrangements, net of discounts and sales related taxes. The Company recognizes revenue from product sales when there is persuasive evidence that an arrangement exists, delivery has occurred, the price is fixed or determinable and collectability is reasonably assured.

The Company offers customers the choice to either purchase a system outright or to receive a system free of charge in exchange for an annual minimum purchase commitment for diagnostic test cartridges. When a system is sold, the Company generally recognizes revenue upon shipment of the unit, however, if the end user already has the instrument being purchased installed at its location, revenue is recognized when the revenue recognition terms other than delivery have been satisfied. When a system is placed free of charge under a “reagent rental” agreement, the Company retains title to the equipment and it remains capitalized on the balance sheet under property and equipment. Under reagent rental agreements, the Company’s customers pay an additional system rental fee for each test cartridge purchased which varies based on the monthly volume of test cartridges purchased. The system rental fee and diagnostic test cartridges are recognized as contingent rental payments and are included in product revenue in the Company’s consolidated financial statements.

The Company has not had significant product returns and is not contractually obligated to accept returns unless such returns are related to warranty provisions. The Company generally does not accept reagent product returns, mainly due to FDA regulations, and does not offer volume rebates or provide price protection.

The Company enters into PEP agreements pursuant to which an instrument is installed on the premises of a pre-qualified customer for the purpose of allowing the customer to evaluate the instrument’s functionality over an extended trial period. The customer is generally required to purchase a minimum quantity of reagents and, at the end of the evaluation period, must purchase or return the instrument or sign a reagent rental agreement.

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Revenues related to royalties received from licenses are recognized evenly over the contractual period to which the license relates. In those cases where the Company bills shipping and handling costs to customers, the amounts billed are included in product revenue.

In the years ended December 31, 2017, 2016 and 2015, Laboratory Corporation of America, Inc. represented 17%, 27%, and 17%, respectively, of the Company's total revenue.

**Product Warranties**

The Company generally offers a one-year warranty for its instruments sold to customers and up to a sixty day warranty for reagents and provides for the estimated cost of the product warranty at the time the system sale is recognized. Factors that affect the Company's warranty reserves include the number of units sold, historical and anticipated rates of warranty repairs and the cost per repair. The Company periodically assesses the adequacy of the warranty reserve and adjusts the amount as necessary.

Product warranty reserve activity for the years ended December 31, 2017, 2016 and 2015 is as follows (in thousands):

	2017	2016	2015
Beginning balance	\$ 219	\$ 118	\$ 195
Warranty expenses incurred	(1,160)	(421)	(430)
Provisions	1,411	522	353
Ending balance	<u>\$ 470</u>	<u>\$ 219</u>	<u>\$ 118</u>

**Research and Development Costs**

The Company expenses all research and development costs in the periods in which they are incurred unless there is alternative future use that supports the capitalization of an asset.

**Income Taxes**

Current income tax expense is the amount of income taxes expected to be payable for the current year. A deferred income tax liability or asset is established for the expected future tax consequences resulting from the differences in financial reporting and tax bases of assets and liabilities. A valuation allowance is provided if it is more likely than not that some or all of the deferred tax assets will not be realized. A full valuation allowance has been recorded against the Company's net deferred tax assets due to the uncertainty surrounding the Company's ability to utilize these assets in the future. The Company provides for uncertain tax positions when such tax positions do not meet the recognition thresholds or measurement standards prescribed by the authoritative guidance on income taxes. Amounts for uncertain tax positions are adjusted in periods when new information becomes available or when positions are effectively settled. The Company recognizes accrued interest related to uncertain tax positions as a component of income tax expense.

A tax position that is more likely than not to be realized is measured at the largest amount of tax benefit that is greater than 50% likely of being realized upon settlement with the taxing authority that has full knowledge of all relevant information. Measurement of a tax position that meets the more likely than not threshold considers the amounts and probabilities of the outcomes that could be realized upon settlement using the facts, circumstances and information available at the reporting date.

**Stock-Based Compensation**

The Company recognizes stock-based compensation expense related to stock options, shares purchased under the Company's 2013 Employee Stock Purchase Plan, or ESPP, restricted stock awards, restricted stock units, and market-based stock units granted to employees and directors in exchange for services. The compensation expense is based on the fair value of the applicable award utilizing various assumptions regarding the underlying attributes of the award. The stock-based compensation expense is recorded in cost of revenues, sales and marketing, research and development, and/or general and administrative expenses based on the employee's respective function.



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The estimated fair value of stock granted, net of forfeitures expected to occur during the vesting period, is amortized as compensation expense that approximates straight-line expense to reflect vesting as it occurs. The stock option expense is derived from the Black-Scholes Option Pricing Model that uses several judgment-based variables to calculate the expense. The market-based stock expense is derived from the Monte Carlo Simulation Valuation. The inputs utilized in the valuation of the stock-based awards include the following factors:

- *Expected Term.* Expected term represents the period that the stock-based awards are expected to be outstanding and is determined by using the simplified method.
- *Expected Volatility.* Expected volatility represents the expected volatility in the Company's stock price over the expected term of the option or market-based award and is determined by review of the Company's and similar companies' historical experience.
- *Expected Dividend.* The valuation methods requires a single expected dividend yield as an input. The Company assumed no dividends as it has never paid dividends and has no current plans to do so.
- *Risk-Free Interest Rate.* The risk-free interest rate is based on published U.S. Treasury rates in effect at the time of grant for periods corresponding with the expected term of the option or market-based award.

The compensation expense related to the grant of restricted stock awards or units is calculated as the fair market value of the stock on the grant date as further adjusted to reflect expected forfeitures.

### **Foreign Currency Translation**

The Company translates the assets and liabilities of the Company's entities outside the U.S. into U.S. Dollars based on the foreign currency exchange rates at the end of each period. Gains or losses resulting from these foreign currency translations are recorded in accumulated comprehensive loss in the consolidated statement of stockholders' equity. Foreign currency translation impacts recorded in accumulated other comprehensive loss for the years ended December 31, 2017, 2016, and 2015 were \$84,000, \$77,000, and \$36,000, respectively.

Revenue and expenses are translated at weighted average exchange rates during the applicable period. Transactions in foreign currencies were recognized using the rate of exchange prevailing at the date of the transaction. Foreign exchange gains, which are included in the accompanying consolidated statements of operations, totaled \$225,000, \$169,000, and \$91,000 for the years ended December 31, 2017, 2016 and 2015, respectively, and relate primarily to transactions denominated in Euros.

### **Net Loss per Common Share**

Basic net loss per share is calculated by dividing loss available to stockholders of our common stock (the numerator) by the weighted average number of shares of the Company's common stock outstanding during the period (the denominator). Shares issued during the period and shares reacquired during the period are weighted for the portion of the period that they were outstanding. Diluted loss per share is calculated in a similar way to basic loss per share except that the denominator is increased to include the number of additional shares that would have been outstanding if the dilutive potential shares had been issued unless the effect would be anti-dilutive.

The calculations of diluted net loss per share for the years ended December 31, 2017, 2016 and 2015 did not include the effects of the following stock options or other unvested equity awards which were outstanding as of the end of each year because the inclusion of these securities would have been anti-dilutive (in thousands).

	Year Ended December 31,		
	2017	2016	2015
Options outstanding to purchase common stock	2,490	2,570	3,004
Other unvested equity awards	2,307	2,000	1,267
Total	4,797	4,570	4,271

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**Concentration of Risk**

Financial instruments which potentially subject us to concentrations of credit risk consist primarily of cash, cash equivalents, short-term investment securities, and accounts receivable. We limit our exposure to credit loss by placing our cash with high credit quality financial institutions. We have established guidelines relative to diversification of our cash and investment securities and their maturities that are intended to secure safety and liquidity. The following table summarizes customers who accounted for 10% or more of net accounts receivable:

	December 31,	
	2017	2016
Laboratory Corporation of America, Inc.	23%	33%

**Comprehensive Loss**

The Company has the option to present the total of comprehensive income, the components of net income, and the components of other comprehensive income either in a single continuous statement of comprehensive income or in two separate but consecutive statements. The Company's comprehensive loss comprises net losses, unrealized gains and losses on available for sale securities, and foreign currency translation.

**Recent Accounting Pronouncements**

From time to time, new accounting pronouncements are issued by the Financial Accounting Standards Board, or FASB, or other standard setting bodies that the Company adopts as of the specified effective date.

In November 2016, the FASB issued Accounting Standards Update, or ASU, 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash*, which requires amounts generally described as restricted cash and restricted cash equivalents to be included in the cash and cash equivalents when reconciling the beginning-of-period and end-of-period total amounts shown on the statement of cash flows. ASU 2016-08 is effective for fiscal years beginning after December 15, 2017 (including interim periods within those periods) using a retrospective transition method for each period presented. Early adoption is permitted. The Company will adopt ASU 2016-18 in the first quarter of 2018 and anticipates the impact of adoption will result in a beginning and ending cash balance increase of approximately \$758,000. The Company does not anticipate a material impact on its cash flow resulting from fluctuations in the restricted cash balance.

In March 2016, the FASB issued ASU 2016-09, *Improvements to Employee Share-Based Payment Accounting*. This guidance simplifies how several aspects of share-based payments are accounted for and presented in the financial statements and is effective for fiscal years beginning after December 15, 2016, including interim periods within those fiscal years. The Company adopted this guidance in the first quarter of 2017 and elected to apply this adoption prospectively. The adoption of the guidance resulted in excess tax benefits for which a benefit could not be previously recognized of approximately \$1,976,000. Upon adoption, the balance of the unrecognized excess tax benefits was reversed with the impact recorded to retained earnings, including a corresponding change to the valuation allowance. Due to the full valuation allowance on the Company's U.S. deferred tax assets, there was no impact to the consolidated financial statements as a result of adoption and, therefore, no adjustments to prior period were needed. The Company continues to record stock-based compensation expense net of estimated forfeitures.

In February 2016, the FASB issued ASU 2016-02, *Leases*. This ASU outlines a comprehensive lease accounting model and supersedes the current lease guidance. The new guidance requires lessees to recognize lease liabilities and corresponding right-of-use assets for all leases with lease terms of greater than 12 months. It also changes the definition of a lease and expands the disclosure requirements of lease arrangements. The new guidance must be adopted using the modified retrospective approach and will be effective for the Company starting in the first quarter of 2019, with early adoption permitted. The Company believes that adoption will modify its analysis and disclosures of lease agreements because operating agreements are a significant portion of the Company's total lease commitments. The Company is in the process of determining the effects adoption of this guidance will have on its consolidated financial statements.

In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*. The new standard (and all subsequent amendments) is based on the principle that revenue should be recognized in an amount that reflects the consideration to which the entity expects to be entitled in exchange for the transfer of promised goods or services. The new standard provides enhancements to the quality and consistency of how revenue is reported by companies while also improving comparability in the financial statements of companies reporting using International Financial Reporting Standards or U.S. GAAP.

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Companies are to apply the standard using either the full retrospective method by applying the standard to each prior reporting period presented, or the modified retrospective method. Under the modified retrospective method, the cumulative effect of applying the standard would be recognized, at the effective date of adoption of the standard, directly to retained earnings. The Company will adopt the standard under the modified retrospective method in the first quarter of 2018.

The Company has assessed impact of the new standard with the Company's current accounting policies for customer contracts and related disclosures and has not identified any accounting policy changes that would materially impact the amount or timing of revenues reported. Based on the analysis of open contracts as of December 31, 2017, the cumulative effect of applying the new standard is not material.

### 3. Intangible Assets, net

Intangible assets as of December 31, 2017 and 2016 comprised the following (in thousands):

	December 31, 2017			December 31, 2016		
	Gross carrying amount	Accumulated amortization	Net carrying amount	Gross carrying amount	Accumulated amortization	Net carrying amount
Licensed intellectual property	\$ 4,750	\$ (2,126)	\$ 2,624	\$ 4,250	\$ (1,580)	\$ 2,670

In July 2012, the Company entered into a development collaboration and license agreement with Advanced Liquid Logic, Inc., or ALL, which was acquired by Illumina, Inc. in July 2013. Under the terms of the agreement, the Company established a collaborative program to develop in-vitro diagnostic products incorporating ALL's proprietary electrowetting technology in conjunction with the Company's electrochemical detection technology. The Company paid ALL an upfront license payment of \$250,000 and agreed to pay up to \$1,750,000 in potential additional milestone payments. In June 2017, the Company satisfied the final commercial milestone under this agreement requiring the payment of \$500,000, which was recorded as licensed intellectual property.

Intellectual property licenses had a weighted average remaining amortization period of 4.43 years as of December 31, 2017. Amortization expense for intangible assets amounted to \$546,000, \$406,000, and \$294,000 for the years ended December 31, 2017, 2016 and 2015, respectively.

Estimated future amortization expense for these licenses is as follows (in thousands):

Years Ending December 31,	Future Amortization Expense
2018	\$ 593
2019	593
2020	593
2021	593
2022	252
Total	\$ 2,624

### 4. Stockholders' Equity

On June 13, 2017, the Company entered into an Underwriting Agreement, or the Underwriting Agreement, with J.P. Morgan Securities LLC and Merrill Lynch, Pierce, Fenner & Smith Incorporated acting as joint book-running managers and as representatives of the underwriters, or the Underwriters, relating to the issuance and sale of 6,382,978 shares of the Company's common stock, or the Offering. The price to the public in the Underwriting Agreement was \$11.75 per share, before underwriting discounts and commissions. Under the terms of the Underwriting Agreement, the Company granted the Underwriters an option, exercisable for 30 days, to purchase up to an additional 957,446 shares of common stock.

The Offering was completed on June 19, 2017, pursuant to which the Company sold a total of 7,340,424 shares of its common stock for gross proceeds of \$86,250,000. The Company incurred \$5,520,000 in related transaction costs, comprising underwriting discounts and commissions of \$5,175,000 paid in accordance with the Underwriting Agreement, and approximately \$345,000 in additional miscellaneous offering expenses.

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On June 14, 2016, the Company entered into an Equity Distribution Agreement, or the Distribution Agreement, with Canaccord Genuity Inc., as sales agent, or Canaccord, pursuant to which the Company could, at its discretion, offer and sell, from time to time, through Canaccord shares of its common stock having an aggregate offering price of up to \$30,000,000. Under the Distribution Agreement, Canaccord could sell shares by any method deemed to be an “at-the-market” offering as defined in Rule 415 under the Securities Act or any other method permitted by law, including in privately negotiated transactions.

The Company began sales under the Distribution Agreement in August 2016 pursuant to an effective shelf registration statement on Form S-3 previously filed with the SEC. During the three months ended September 30, 2016, the Company sold 3.3 million shares of common stock, at an average per share price of \$9.04, for aggregate gross proceeds of \$30,000,000. The Company incurred \$1,143,000 in related transaction costs, comprising commissions paid to Canaccord of 3.0% of the aggregate gross proceeds from each sale of shares occurring pursuant to the Distribution Agreement, or \$900,000, and \$243,000 in additional miscellaneous expenses.

## 5. Stock-Based Compensation

In 2010, the Company adopted the 2010 Equity Incentive Plan, or the 2010 Plan, which provides for the grant of incentive and nonstatutory stock options, restricted stock, stock appreciation rights, restricted stock units, restricted stock bonuses and other stock-based awards. Employee participation in the 2010 Plan is at the discretion of the compensation committee of the board of directors of the Company. As of December 31, 2017, there were 650,142 shares available for future grant of awards under the 2010 Plan.

The Company estimates potential forfeitures of stock-based award grants and adjusts compensation cost recorded accordingly. The estimate of forfeitures is based on historical forfeiture experience and is adjusted over the requisite service period to the extent that actual forfeitures differ, or are expected to differ, from such estimates. Changes in estimated forfeitures will be recognized through a cumulative catch-up adjustment in the period of evaluation and will also impact the amount of stock compensation expense to be recognized in future periods.

### Stock Options

All stock options granted under the 2010 Plan are exercisable at a price equal to the closing quoted market price of the Company’s shares on the NASDAQ Global Market on the date of grant and vest over a period of 4 years. Stock options are generally exercisable for a period up to 10 years after grant and are forfeited if employment is terminated before the options vest.

The following table summarizes stock option activity during the year ended December 31, 2017:

	Number of shares	Weighted average exercise price
Outstanding at December 31, 2016	2,569,550	\$ 9.53
Granted	—	\$ —
Exercised	(42,466)	\$ 6.77
Canceled	(36,619)	\$ 8.67
Outstanding at December 31, 2017	2,490,465	\$ 9.59
Vested and expected to vest at December 31, 2017	2,474,976	\$ 9.57
Exercisable at December 31, 2017	2,271,442	\$ 9.29

No stock options were granted in the year ended December 31, 2017. The weighted average fair value of stock options granted during the years ended December 31, 2016 and 2015 was \$2.27 and \$6.02 per share, respectively. Options that were exercisable as of December 31, 2017 had a remaining weighted average contractual term of 4.97 years and an aggregate intrinsic value of \$61,000. As of December 31, 2017, there was \$1,165,000 of unrecognized compensation cost related to stock options, which is expected to be recognized over a weighted average period of 0.86 years. The intrinsic value of options exercised during the years ended December 31, 2017, 2016 and 2015 was \$173,000, \$184,000 and \$930,000, respectively. As of December 31, 2017, there were 2,490,465 stock options outstanding, which had a remaining weighted average contractual term of 5.14 years and an aggregate intrinsic value of \$61,000.

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The Company uses the Black-Scholes model to estimate the fair value on the date of grant of stock options. The assumptions used in the valuation of stock options granted in the years ended December 31, 2017, 2016 and 2015, are summarized in the following table:

	Years Ended December 31,		
	2017	2016	2015
Expected volatility	—%	51%	49%
Expected life (years)	—	5.90	6.06
Risk free rate	—%	1.35%	1.67%
Expected dividend yield	—%	—%	—%

**Restricted Stock Awards and Units**

In March 2013, the Company transitioned to granting restricted stock units under the 2010 Plan in lieu of granting restricted stock awards. Restricted stock awards or units may be granted at the discretion of the compensation committee of the board of directors under the 2010 Plan in connection with the hiring or retention of personnel and are subject to certain conditions. Restrictions expire after the grant date in accordance with specific provisions in the applicable award agreement.

The Company's restricted stock activity for the year ended December 31, 2017 was as follows:

	Restricted Stock Awards		Restricted Stock Units	
	Number of shares	Weighted Average Grant Date Fair Value	Number of shares	Weighted Average Grant Date Fair Value
Unvested at December 31, 2016	156	\$ 11.19	1,766,123	\$ 7.18
Granted	—	\$ —	1,257,950	\$ 10.65
Vested	(156)	\$ 11.19	(761,201)	\$ 7.14
Canceled	—	\$ —	(189,432)	\$ 8.97
Unvested at December 31, 2017	—	\$ —	2,073,440	\$ 9.14

As of December 31, 2017, all compensation expense related to restricted stock awards has been recognized. The total fair value of restricted stock awards that vested during the years ended December 31, 2017, 2016 and 2015 was \$2,000, \$190,000 and \$580,000, respectively.

As of December 31, 2017, there was \$12,244,000 of unrecognized compensation cost related to restricted stock units, which is expected to be recognized over a weighted average period of 2.55 years. The total fair value of restricted stock units that vested during the years ended December 31, 2017, 2016 and 2015 was \$7,813,000, \$3,192,000 and \$4,457,000, respectively.

**Market-Based and Performance Stock Units**

The Company issued market-based stock units in February 2017, 2016, and 2015, which may result in the recipient receiving shares of stock equal to up to 200% of the target number of units granted. The vesting and issuance of Company stock depends on the Company's stock performance as compared to the NASDAQ Composite Index over the three-year period following the grant. As of December 31, 2017, there was \$1,088,000 of unrecognized stock-based compensation expense related to these awards, which is expected to be recognized over a weighted average period of 1.86 years. Based on performance, no market-stock units vested in the year ended December 31, 2017. The total fair value of market-stock units that vested during the years ended December 31, 2016 and 2015 was \$2,433,000 and \$29,000, respectively.

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The Company's market-based stock unit activity for the year ended December 31, 2017 was as follows:

	Market-Based Stock Units	
	Number of Shares	Weighted Average Grant Date Fair Value
Unvested at December 31, 2016	150,871	\$ 11.10
Units granted	166,434	\$ 13.82
Vested	—	\$ —
Canceled	(83,562)	\$ 17.13
Unvested at December 31, 2017	233,743	\$ 10.88

The fair value of these market-based stock units was estimated on the date of grant using the Monte Carlo Simulation Valuation Model, which estimates the potential outcome of achieving the market condition based on simulated future stock prices, with the following assumptions:

	Years Ended December 31,		
	2017	2016	2015
Expected volatility	54%	49%	45%
Risk-free interest rate	1.50%	0.90%	1.10%
Expected dividend	—%	—%	—%
Weighted average fair value	\$ 13.82	\$ 4.94	\$ 18.07

The Company granted 43,200 performance-based restricted stock units in March 2014 with a grant date fair value of \$12.30 per share. The vesting and issuance of Company stock pursuant to these awards depended on obtaining regulatory clearance of a designated number of ePlex products within a defined time. Stock-based compensation expense for performance-based awards is recognized when it is probable that the applicable performance criteria will be satisfied. The probability of achieving the relevant performance criteria is evaluated on a quarterly basis. On December 31, 2014, 10,800 units were earned and vested with a total fair value of \$147,000. On each of December 31, 2017, 2016, and 2015, 10,800 units were forfeited and canceled as the related performance metrics were not achieved by such dates. As of December 31, 2017, all compensation related to the performance-based restricted stock units has been recognized.

**Employee Stock Purchase Plan**

Following the adoption of the ESPP by the Company's board of directors in March 2013, the Company's stockholders approved the ESPP in May 2013 at the Company's Annual Meeting of Stockholders. A total of 650,000 shares of the Company's common stock are reserved for issuance under the ESPP, which permits eligible employees to purchase common stock at a discount through payroll deductions.

The price at which stock is purchased under the ESPP is equal to 85% of the fair market value of the common stock on the first or the last day of the offering period, whichever is lower. Generally, each offering under the ESPP will be for a period of six months as determined by the Company's board of directors; provided that no offering period may exceed 27 months. Employees may invest up to 10% of their gross compensation through payroll deductions. In no event may an employee purchase more than 1,500 shares of common stock during any six-month offering period. As of December 31, 2017, there were 93,116 shares of common stock available for issuance under the ESPP. The ESPP is a compensatory plan as defined by the authoritative guidance for stock compensation. As a result, stock-based compensation expense related to the ESPP has been recorded during the year ended December 31, 2017.

A summary of ESPP activity for the years ended December 31, 2017, 2016, and 2015 is as follows (in thousands, except share and per share data):

	Years Ended December 31,		
	2017	2016	2015
Shares issued	174,723	138,058	122,245
Weighted average fair value of shares issued	\$ 5.82	\$ 6.67	\$ 7.22
Employee purchases	\$ 1,016	\$ 921	\$ 884

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The Company uses the Black-Scholes model to estimate the fair value on the date of grant for ESPP purchase rights. The assumptions used in the valuation for the years ended December 31, 2017, 2016 and 2015, are summarized in the following table:

	Years Ended December 31,		
	2017	2016	2015
Expected volatility	90% - 36%	69% - 52%	63% - 43%
Expected life (years)	0.50	0.50	0.50
Risk free rate	1.5% - 0.6%	0.6% - 0.4%	0.4% - 0.1%
Expected dividend yield	—%	—%	—%

**Stock-Based Compensation Expense Recognition**

Stock-based compensation was recognized in the consolidated statements of comprehensive loss as follows (in thousands):

	Years Ended December 31,		
	2017	2016	2015
Cost of revenue	\$ 546	\$ 258	\$ 209
Sales and marketing	2,819	2,329	3,050
Research and development	3,039	2,482	2,498
General and administrative	5,766	4,167	4,238
Total stock-based compensation expense	\$ 12,170	\$ 9,236	\$ 9,995

No stock-based compensation was capitalized during the periods presented, and there was no unrecognized tax benefit related to stock-based compensation for the years ended December 31, 2017, 2016 and 2015, respectively.

**6. Income Taxes**

The Company's income (loss) before provision (benefit) for income taxes for the years ended December 31, 2017, 2016, and 2015, respectively, was generated in the following jurisdictions (in thousands):

	Years Ended December 31,		
	2017	2016	2015
Domestic	\$ (62,495)	\$ (50,651)	\$ (42,221)
Foreign	746	150	64
Total loss before income taxes	\$ (61,749)	\$ (50,501)	\$ (42,157)

The components of income tax expense (benefit) were as follows for the years ended December 31, 2017, 2016, and 2015, respectively (in thousands):

	Years Ended December 31,		
	2017	2016	2015
Current expense (benefit):			
U.S. Federal	\$ (1)	\$ 11	\$ —
State	22	35	18
Foreign	80	51	29
Total current expense	101	97	47
Deferred expense (benefit):			
U.S. Federal	—	2	(6)
State	—	1	(1)
Total deferred expense	—	3	(7)
Provision for income taxes	\$ 101	\$ 100	\$ 40

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The components of net deferred income taxes consisted of the following at December 31, 2017 and 2016, respectively (in thousands):

	As of December 31,	
	2017	2016
Deferred income tax assets:		
NOL and credit carryforwards	\$ 64,486	\$ 74,375
Compensation accruals	4,143	4,660
Accruals and reserves	2,207	3,437
State tax provision	5	8
Inventory adjustments	1,329	996
Intangible assets	455	645
Other	65	144
Gross deferred tax assets	72,690	84,265
Less: valuation allowance	(71,464)	(82,481)
Total deferred tax assets	1,226	1,784
Deferred income tax liabilities:		
Depreciation	1,226	1,784
Total deferred tax liabilities	1,226	1,784
Net deferred tax assets (liabilities)	\$ —	\$ —

A reconciliation of income tax expense to the amount computed by applying the statutory federal income tax rate to the loss from operations is summarized for the years ended December 31, 2017, 2016, and 2015, respectively, as follows:

	Years Ended December 31,		
	2017	2016	2015
U.S. Federal statutory income tax rate	34.0 %	34.0 %	34.0 %
Permanent differences	(0.2)%	(0.3)%	(0.1)%
State taxes	2.8 %	2.3 %	2.4 %
Executive compensation limitation	(0.5)%	(0.1)%	(0.8)%
Tax reform	(59.0)%	— %	— %
Stock-based compensation	1.4 %	(3.5)%	(1.4)%
Other	0.2 %	(0.4)%	1.9 %
Valuation allowance	21.1 %	(32.2)%	(36.9)%
Total tax provision	(0.2)%	(0.2)%	(0.9)%

The Company had federal net operating loss (NOL) carryforwards available of approximately \$264,400,000 as of December 31, 2017 after consideration of limitations under Section 382 of the Internal Revenue Code, or Section 382, as further described below. Additionally, the Company had state NOL carryforwards available of \$186,900,000 as of December 31, 2017. These federal and state NOLs may be used to offset future taxable income and will begin to expire in 2025 and 2018, respectively.

The Company adopted ASU 2016-09 in the first quarter of 2017. Under the new guidance, companies will no longer record excess tax benefits and certain tax deficiencies related to share-based payment to employees in additional paid-in capital. Instead, all income tax effects of awards will be recognized in the income statement when awards vest or are settled. All excess tax benefits not previously recognized were to be recorded to retained earnings as a cumulative effect adjustment upon adoption. Upon adoption, no adjustment to retained earnings was necessary due to the Company's valuation allowance position. Approximately \$1,976,000 attributable to excess tax benefits on stock compensation that had not been previously recognized was added to the deferred tax asset for NOLs with a corresponding increase to the valuation allowance.



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The future utilization of the Company's NOL carryforwards to offset future taxable income may be subject to a substantial annual limitation as a result of changes in ownership by stockholders that hold 5% or more of the Company's common stock. An assessment of such ownership changes under Section 382 was completed through December 31, 2017. As a result of this assessment, the Company determined that it experienced multiple ownership changes through 2017 which will limit the future utilization of NOL carryforwards. The Company has reduced its deferred tax assets related to NOL carryovers that are anticipated to expire unused as a result of ownership changes. These tax attributes have been excluded from deferred tax assets with a corresponding reduction of the valuation allowance with no net effect on income tax expense or the effective tax rate. Additionally, future ownership changes may further impact the utilization of existing NOLs.

The Company has established a full valuation allowance for its deferred tax assets due to uncertainties that preclude it from determining that it is more likely than not that the Company will be able to generate sufficient taxable income to realize such assets. Management assesses the available positive and negative evidence to estimate if sufficient future taxable income will be generated to utilize the existing deferred tax assets. A significant piece of objective negative evidence evaluated was the cumulative loss incurred over the three year period ended December 31, 2017. Such objective evidence limits the ability to consider other subjective evidence, such as the Company's projections for future growth. Based on this evaluation, as of December 31, 2017, a valuation allowance of \$71,464,000 has been recorded in order to measure only the portion of the deferred tax asset that more likely than not will be realized. The amount of the deferred tax asset considered realizable, however, could be adjusted if objective negative evidence in the form of cumulative losses is no longer present and additional weight may be given to subjective evidence, such as estimates of future taxable income during carryforward periods and the Company's projections for growth.

The Tax Cuts and Jobs Act, or the Jobs Act, was enacted on December 22, 2017 and introduces significant changes to U.S. income tax law. Effective in 2018, the Jobs Act reduces the U.S. federal corporate tax rate from 34% to 21%, requires companies to pay a one-time transition tax on earnings of certain foreign subsidiaries that were previously tax deferred, and creates new taxes on certain foreign sourced earnings. Due to the timing of the enactment and the complexity involved in applying the provisions of the Jobs Act, the Company has made reasonable estimates of the effects and recorded provisional amounts in the consolidated financial statements as of December 31, 2017. As a result of the remeasurement of certain deferred tax assets and liabilities based on the rates at which they are expected to reverse in the future, which is generally 21%, the Company recorded an expense of \$36,400,000, which was fully offset by a corresponding decrease in its valuation allowance. The one-time transition tax is based on the total post-1986 earnings and profits (E&P) previously deferred from U.S. income taxes. In aggregate, the Company has a deficit in post-1986 E&P from its foreign subsidiaries resulting in no increase in income tax expense. No amounts have been provided for any additional outside basis difference inherent in these entities, as these amounts continue to be indefinitely reinvested in foreign operations. As additional guidance is issued by the U.S. Treasury Department, the IRS, and other standard-setting bodies, the Company may make adjustments to the provisional amounts recorded. The Company expects to complete the accounting for tax effects of the Jobs Act in 2018.

The Company applies the two-step approach to recognizing and measuring uncertain tax positions. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount, which is more than 50% likely of being realized upon ultimate settlement. Income tax positions must meet a more likely than not recognition threshold at the effective date to be recognized upon the adoption of ASC 740 and in subsequent periods. This interpretation also provides guidance on measurement, derecognition, classification, interest and penalties, accounting in interim periods, disclosure and transition. There were no unrecognized tax benefits for the years ended December 31, 2017, 2016 and 2015.

At December 31, 2017 and December 31, 2016, the Company had not accrued any interest or penalties related to uncertain tax positions. The Company does not anticipate that there will be a significant change in the amount of unrecognized tax benefits over the next twelve months. The Company recognizes interest and penalties related to uncertain tax positions in income tax expense.

The Company is subject to taxation in the United States and various state and foreign jurisdictions. The Company's Federal and state tax returns since inception are subject to examination due to the carryover of net operating losses. As of December 31, 2017, the Company's tax years from 2011 through 2012 are subject to examination by the United Kingdom tax authorities. The statute of limitations for the assessment and collection of income taxes related to other foreign tax returns varies by country. In the foreign countries where the Company has operations, these time periods generally range from three to five years after the year for which the tax return is due or the tax is assessed.

## 7. Commitments and Contingencies

### Leases

The Company has lease agreements for its office, manufacturing, warehousing and laboratory space and for office equipment. Rent and operating expenses charged were \$1,654,000, \$1,871,000 and \$1,233,000 for the years ended December 31, 2017, 2016, and 2015, respectively. Pursuant to the Company's lease agreements, a portion of the monthly rent has been deferred. The balance deferred at December 31, 2017 and 2016 was \$3,652,000 and \$4,097,000, respectively.

Annual future minimum obligations for leases as of December 31, 2017 are as follows (in thousands):

<u>Years Ending December 31,</u>	<u>Amount</u>
2018	\$ 1,868
2019	1,989
2020	1,997
2021	1,372
2022	771
Thereafter	595
Total minimum lease payments	<u>\$ 8,592</u>

### Legal Proceedings

From time to time, the Company is party to litigation and other legal proceedings in the ordinary course, and incidental to the conduct of its business. While the results of any litigation or other legal proceedings are uncertain, the Company does not believe the ultimate resolution of any pending legal matters is likely to have a material effect on its financial position or results of operations.

## 8. Inventories

Inventory on hand as of December 31, 2017 and 2016 comprised the following (in thousands):

	<u>December 31,</u>	
	<u>2017</u>	<u>2016</u>
Raw materials	\$ 4,534	\$ 2,171
Work-in-process	3,638	1,488
Finished goods	2,777	2,974
Total inventory	<u>\$ 10,949</u>	<u>\$ 6,633</u>

## 9. Property and Equipment, net

Property and equipment comprised the following as of December 31, 2017 and 2016 (in thousands):

	<u>December 31,</u>	
	<u>2017</u>	<u>2016</u>
Property and equipment—at cost:		
Plant and machinery	\$ 13,762	\$ 10,145
Instruments	13,347	9,869
Office equipment	1,948	1,714
Leasehold improvements	10,480	10,100
Total property and equipment—at cost	39,537	31,828
Accumulated depreciation and amortization	(16,956)	(13,560)
Total property and equipment, net	<u>\$ 22,581</u>	<u>\$ 18,268</u>

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Depreciation expense was \$4,771,000, \$3,510,000 and \$3,112,000 for the years ended December 31, 2017, 2016 and 2015, respectively. During the years ended December 31, 2017, 2016 and 2015, the Company disposed of certain assets no longer in use with a net book value of \$207,000, \$76,000, and \$153,000, respectively, recorded to cost of revenue, sales and marketing, research and development, or general and administrative expenses based on the asset's respective use.

## 10. Loan Payable

As of December 31, 2017 and 2016, long-term debt consisted of the following (in thousands):

	December 31,	
	2017	2016
<b>Term Loans</b>		
Term Loan A - 6.9% principal	\$ 10,000	\$ 10,000
Term Loan B - 6.9% principal	10,000	10,000
Term Loan C - 7.4% principal	15,000	—
Final fee obligation	2,429	400
Repayment of principal	(7,762)	—
Unamortized issuance costs	(1,641)	(585)
Total debt, net	28,026	19,815
Current portion of long-term debt	(7,927)	(7,935)
Long-term debt	\$ 20,099	\$ 11,880

### Term Loans

In January 2015, the Company entered into a Loan and Security Agreement, or the LSA, with Solar Capital Partners (as successor-in-interest to General Electric Capital Corporation), and certain other financial institutions party thereto, as lenders, pursuant to which the Company obtained (a) up to \$35,000,000 in a series of term loans and (b) a revolving loan in the maximum amount of \$5,000,000. As of December 31, 2017, the Company had borrowed all \$35,000,000 under the term loans as provided in the the LSA.

The term loans will accrue interest at a rate equal to (a) the greater of 1.00% or the 3-year treasury rate in effect at the time of funding, plus (b) an applicable margin between 4.95% and 5.90% per annum. The Company is only required to make interest payments on amounts borrowed pursuant to the term loans from the applicable funding date until August 1, 2018, or the Interest Only Period. Following the Interest Only Period, monthly installments of principal and interest under the Term Loans will be due until the original principal amount and applicable interest is fully repaid by October 12, 2019, or the Maturity Date. The Company may further extend the Interest-Only Period until January 1, 2019 and the Final Maturity Date until March 12, 2020, subject in each case to the satisfaction of certain financial conditions. Interest expense recognized on the term loans for the years ended December 31, 2017, 2016, and 2015 totaled \$1,820,000, \$1,184,000, and \$611,000, respectively.

Under the LSA, the Company is required to comply with certain affirmative and negative covenants, including, without limitation, delivering reports and notices relating to the Company's financial condition and certain regulatory events and intellectual property matters, as well as limiting the creation of liens, the incurrence of indebtedness, and the making of certain investments, payments and acquisitions, other than as specifically permitted by the LSA. As of December 31, 2017, the Company was in compliance with all covenants under the LSA.

### Revolving Loan

Pursuant to the LSA, the Company may borrow up to \$5,000,000 under the revolving loan facility. Borrowings under the revolving loan will accrue interest at a rate equal to (a) the greater of 1.25% per annum or a base rate as determined by a three-month LIBOR-based formula, plus (b) an applicable margin between 2.95% and 3.95% based on certain criteria as set forth in the LSA. All principal and interest outstanding under the revolving loan is due and payable on the Maturity Date. Following the funding of Term Loan A, the Company is required to pay a commitment fee equal to 0.75% per annum of the amounts made available but unborrowed under the revolving loan. As of December 31, 2017, the Company had not borrowed any amounts pursuant the revolving loan facility. Interest expense recognized for the unused revolving loan facility fee for the years ended December 31, 2017, 2016, and 2015 was \$35,000, \$42,000, and \$34,000, respectively.

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**Debt Issuance Costs**

As of December 31, 2017 and 2016, the Company had \$1,641,000 and \$585,000, respectively, of unamortized debt issuance discount, which is offset against borrowings in long-term and short-term debt.

For the twelve months ended December 31, 2017, 2016, and 2015, amortization of debt issuance costs were \$1,132,000, \$298,000, and \$208,000, respectively, which was included in interest expense in the Company's consolidated statements of comprehensive loss for the periods presented.

**Letter of Credit**

In September 2012, the Company provided a \$758,000 letter of credit issued by Banc of California to the landlord of its executive office facility in Carlsbad, California. This letter of credit was secured with \$758,000 of restricted cash as of December 31, 2017.

**11. Employee Benefit Plan**

The Company has a 401(k) tax-deferred savings plan, whereby eligible employees may contribute a percentage of their eligible compensation. The Company may make matching contributions under the 401(k) plan; however, the Company has not made any such contributions to date.

**12. Other Current Liabilities**

Other current liabilities as of December 31, 2017 and 2016 comprised the following (in thousands):

	December 31,	
	2017	2016
Accrued royalties	\$ 605	\$ 949
Accrued warranties	469	219
Accrued tenant improvements	—	789
Deferred revenue	448	658
Other accrued liabilities	1,704	1,518
Total other current liabilities	<u>\$ 3,226</u>	<u>\$ 4,133</u>

**13. Fair Value of Financial Instruments**

The following table presents the financial instruments measured at fair value on a recurring basis on the financial statements of the Company and the valuation approach applied to each class of financial instruments at December 31, 2017 and 2016, respectively, (in thousands):

	<b>December 31, 2017</b>			
	<b>Quotes Prices in Active Markets for Identical Assets (Level 1)</b>	<b>Significant Other Observable Inputs (Level 2)</b>	<b>Significant Unobservable Inputs (Level 3)</b>	<b>Total</b>
<b>Cash equivalents</b>				
Money market funds	\$ 6,362	\$ —	\$ —	\$ 6,362
Corporate notes and bonds	—	1,498	—	1,498
<b>Marketable securities</b>				
Corporate notes and bonds	—	26,278	—	26,278
U.S. government and agency securities	—	11,976	—	11,976
Commercial paper	—	6,982	—	6,982
<b>Total</b>	<b>\$ 6,362</b>	<b>\$ 46,734</b>	<b>\$ —</b>	<b>\$ 53,096</b>
	<b>December 31, 2016</b>			
	<b>Quotes Prices in Active Markets for Identical Assets (Level 1)</b>	<b>Significant Other Observable Inputs (Level 2)</b>	<b>Significant Unobservable Inputs (Level 3)</b>	<b>Total</b>
<b>Cash equivalents</b>				
Money market funds	\$ 556	\$ —	\$ —	\$ 556
<b>Marketable securities</b>				
Corporate notes and bonds	—	18,821	—	18,821
U.S. government and agency securities	—	3,503	—	3,503
Commercial paper	—	3,283	—	3,283
<b>Total</b>	<b>\$ 556</b>	<b>\$ 25,607</b>	<b>\$ —</b>	<b>\$ 26,163</b>

At December 31, 2017, the carrying value of the financial instruments measured and classified within Level 1 was based on quoted prices and marked to market. Level 2 inputs for the valuations are limited to quoted prices for similar assets or liabilities in active markets and inputs other than quoted prices that are observable for the asset or liability.

**14. Marketable Securities**

The following table summarizes the Company's marketable securities at December 31, 2017 and 2016 (in thousands):

<b>December 31, 2017</b>	<b>Amortized Cost</b>	<b>Gross Unrealized Gains</b>	<b>Gross Unrealized Losses</b>	<b>Estimated Fair Value</b>
Corporate notes and bonds	\$ 26,303	\$ —	\$ (25)	\$ 26,278
U.S. government and agency securities	11,981	—	(5)	11,976
Commercial paper	6,982	—	—	6,982
Total marketable securities	<u>\$ 45,266</u>	<u>\$ —</u>	<u>\$ (30)</u>	<u>\$ 45,236</u>

<b>December 31, 2016</b>	<b>Amortized Cost</b>	<b>Gross Unrealized Gains</b>	<b>Gross Unrealized Losses</b>	<b>Estimated Fair Value</b>
Corporate notes and bonds	\$ 18,846	\$ —	\$ (25)	\$ 18,821
U.S. government and agency securities	3,506	—	(3)	3,503
Commercial paper	3,283	—	—	3,283
Total marketable securities	<u>\$ 25,635</u>	<u>\$ —</u>	<u>\$ (28)</u>	<u>\$ 25,607</u>

The following table summarizes the maturities of the Company's marketable securities at December 31, 2017 (in thousands):

	<b>Amortized Cost</b>	<b>Estimated Fair Value</b>
Due in one year or less	\$ 45,266	\$ 45,236
Due after one year through two years	—	—
Total	<u>\$ 45,266</u>	<u>\$ 45,236</u>

During 2013, the Company sold its preferred stock investment in ALL in connection with ALL's acquisition by Illumina, Inc., resulting in a \$1,392,000 realized gain. Additionally, in 2016 and 2015 the Company received \$9,000 and \$223,000, respectively, related to the release of escrowed proceeds.

[Table of Contents](#)**15. Quarterly financial data (unaudited)**

The following tables show a summary of the Company's quarterly financial results for each of the four quarters of 2017 and 2016 (in thousands, except for per share amounts):

	<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>
2017:				
Total revenue	\$ 12,535	\$ 12,359	\$ 11,603	\$ 16,022
Gross profit	\$ 6,183	\$ 4,884	\$ 4,203	\$ 4,735
Loss from operations	\$ (13,556)	\$ (17,267)	\$ (14,731)	\$ (13,963)
Net loss	\$ (13,917)	\$ (17,989)	\$ (15,408)	\$ (14,536)
Earnings per share data <sup>(1)</sup> :				
Net loss per common share—basic and diluted	\$ (0.30)	\$ (0.37)	\$ (0.28)	\$ (0.26)

	<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>
2016:				
Total revenue	\$ 11,064	\$ 12,512	\$ 10,813	\$ 14,885
Gross profit	\$ 6,689	\$ 7,792	\$ 6,451	\$ 8,642
Loss from operations	\$ (12,708)	\$ (12,588)	\$ (11,627)	\$ (12,058)
Net loss	\$ (12,958)	\$ (12,907)	\$ (12,058)	\$ (12,678)
Earnings per share data <sup>(1)</sup> :				
Net loss per common share—basic and diluted	\$ (0.30)	\$ (0.30)	\$ (0.27)	\$ (0.27)

(1) Basic and diluted earnings per share are computed independently for each of the quarters presented. As such, the sum of the quarterly basic and diluted earnings per share information may not equal annual basic and diluted earnings per share.

**Item 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE**

None.

**Item 9A. CONTROLS AND PROCEDURES****Evaluation of Disclosure Controls and Procedures**

We maintain disclosure controls and procedures designed to provide reasonable assurance that information required to be disclosed in reports we file under the Securities Exchange Act of 1934, as amended, or the Exchange Act, is recorded, processed, summarized and reported within the specified time periods and accumulated and communicated to management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure. The design of any system of controls is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

As of the end of the period covered by this Annual Report on Form 10-K, we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act. Based on this evaluation, our management, with the participation of our Chief Executive Officer and Chief Financial Officer, concluded that, as of December 31, 2017, our disclosure controls and procedures were effective.

### **Changes in Internal Control Over Financial Reporting**

There has been no change in our internal control over financial reporting that occurred in the quarter ended December 31, 2017 that materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

### **Management's Report on Internal Control over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f) of the Exchange Act). Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States and includes those policies and procedures that:

- pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of our assets;
- provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
- provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Because of inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risks that controls may become inadequate because of changes in conditions or that the degree of compliance with policies or procedures may deteriorate.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2017 based on the framework in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (COSO). Based on our evaluation under this framework, our management concluded that our internal control over financial reporting was effective as of December 31, 2017.

Management's assessment of the effectiveness of our internal control over financial reporting as of December 31, 2017 has been audited by Ernst & Young LLP, an independent registered public accounting firm, as stated in their report which is included herein.



REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of GenMark Diagnostics, Inc.

**Opinion on Internal Control over Financial Reporting**

We have audited GenMark Diagnostics, Inc.'s internal control over financial reporting as of December 31, 2017, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). In our opinion, GenMark Diagnostics, Inc. (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on the COSO criteria.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2017 and 2016, the related consolidated statements of comprehensive loss, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2017, and the related notes and our report dated February 27, 2018 expressed an unqualified opinion thereon.

**Basis for Opinion**

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

**Definition and Limitations of Internal Control Over Financial Reporting**

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ Ernst & Young LLP  
San Diego, California  
February 27, 2018

**Item 9B. OTHER INFORMATION**

None.

**PART III.**

**Item 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE**

The information required by this Item is incorporated in this Annual Report by reference from the information under the captions “Board of Directors Information,” “Executive Officers” and “Section 16(a) Beneficial Ownership Reporting Compliance” contained in the Proxy Statement to be filed in connection with our 2018 Annual Meeting of Stockholders, or the Proxy Statement.

**Code of Business Conduct and Ethics**

We have adopted a code of business conduct and ethics for our directors, officers and employees, which is available on our website at [www.genmarkdx.com](http://www.genmarkdx.com) in the Investor Relations section under “Corporate Governance.” If we make any substantive amendments to the code of business conduct and ethics or grant any waiver from a provision of the code of business conduct and ethics to any executive officer or director, we will promptly disclose, within four business days of such amendment or waiver, the nature of the amendment or waiver on our website. The information on, or that can be accessed from, our website is not incorporated by reference into this Annual Report.

**Item 11. EXECUTIVE COMPENSATION**

The information required by this Item is incorporated in this Annual Report by reference from the information under the captions “Executive Compensation,” “Compensation Committee Interlocks and Insider Participation” and “Report of the Compensation Committee” contained in the Proxy Statement.

**Item 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS**

The information required by this Item is incorporated in this Annual Report by reference from the information under the captions “Security Ownership of Certain Beneficial Owners and Management” and “Equity Compensation Plan Information” contained in the Proxy Statement.

**Item 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE**

The information required by this Item is incorporated in this Annual Report by reference from the information under the captions “Certain Relationships and Related Transactions,” and “Board of Directors Information” contained in the Proxy Statement.

**Item 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

The information required by this Item is incorporated in this Annual Report by reference from the information under the captions “Principal Accountant Fees and Services” and “Report of the Audit Committee” contained in the Proxy Statement.

**Item 15. EXHIBITS, FINANCIAL STATEMENTS AND SCHEDULES**

(a) Documents filed as part of this Annual Report.

1. The following financial statements of GenMark Diagnostics, Inc. and Report of Independent Registered Public Accounting Firm, are included in this report:

[Report of Independent Registered Public Accounting Firm](#)

[Consolidated Balance Sheets at December 31, 2017 and 2016](#)

[Consolidated Statements of Comprehensive Loss for the years ended December 31, 2017, 2016 and 2015](#)

[Consolidated Statements of Stockholders' Equity for the years ended December 31, 2017, 2016 and 2015](#)

[Consolidated Statements of Cash Flows for the years ended December 31, 2017, 2016 and 2015](#)

[Notes to Consolidated Financial Statements](#)

2. List of financial statement schedules. All schedules are omitted because they are not applicable or the required information is shown in the financial statements or notes thereto.
3. List of Exhibits required by Item 601 of Regulation S-K. See Item 15(b) below.

(b) Exhibits

<b>Exhibit</b>	<b>Description</b>
3.1	<a href="#">Certificate of Incorporation (incorporated by reference to our Registration Statement on Form S-1 (File No. 333-165562) filed with the Commission on March 19, 2010).</a>
3.2	<a href="#">Amended and Restated By-Laws (incorporated by reference to our Current Report on 8-K filed on October 31, 2014).</a>
10.1	<a href="#">Lease between The Campus Carlsbad, LLC and Clinical Micro Sensors, Inc. dba Osmetech Molecular Diagnostics, dated February 8, 2010 (incorporated by reference to our Registration Statement on Form S-1 (File No. 333-165562) filed with the Commission on March 19, 2010).</a>
10.2	<a href="#">Settlement and Release Agreement and First Amendment to Lease between The Campus Carlsbad, LLC and Clinical Micro Sensors, Inc., dated July 1, 2010 (incorporated by reference herein from our Form 10-K as filed with the SEC on March 14, 2013).</a>
10.3	<a href="#">Settlement and Release Agreement and Second Amendment to Lease, dated January 19, 2012, by and between the Campus Carlsbad, LLC and Clinical Micro Sensors, Inc. d.b.a. GenMark Diagnostics, Inc. (incorporated by reference to our Annual Report on Form 10-K filed with the Commission on March 21, 2012).</a>
10.4	<a href="#">Third Amendment to Lease Agreement dated August 28, 2012, by and between The Campus Carlsbad, LLC and Clinical Micro Sensors, Inc. dba GenMark Diagnostics, Inc. (incorporated by reference herein from our Form 10-Q as filed with the SEC on November 8, 2012).</a>
10.5	<a href="#">Second Amendment to License Agreement dated June 20, 2000 by and between California Institute of Technology and Clinical Micro Sensors, Inc. (incorporated by reference herein from our Form 10-K/A as filed with the SEC on April 18, 2013).</a> †
10.6	<a href="#">Amended and Restated Chemically Modified Enzymes Kit Patent License Agreement by and between Roche Molecular Systems, Inc., F. Hoffman-La Roche Ltd., and Clinical Micro Sensors, Inc. dba Osmetech Molecular Diagnostics, dated February 27, 2008 (incorporated by reference to our Registration Statement on Form S-1 (File No. 333-165562) filed with the Commission on May 21, 2010).</a> †
10.7	<a href="#">Non-Exclusive License Agreement by and between Clinical Micro Sensors, Inc. d.b.a. GenMark Diagnostics, Inc. and Caliper Life Sciences Inc. dated effective as of March 27, 2012 (incorporated by reference herein from our Form 10-Q as filed with the SEC on May 10, 2012).</a> †
10.8	<a href="#">Development Collaboration and License Agreement, dated July 26, 2012, by and between Advanced Liquid Logic, Inc. and Clinical Micro Sensors, Inc. dba GenMark Diagnostics, Inc. (incorporated by reference herein from our Form 10-Q/A as filed with the SEC on March 22, 2013).</a> †

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<b><u>Exhibit</u></b>	<b><u>Description</u></b>
10.9	<a href="#"><u>Amendment Number One to Development Collaboration and License Agreement, effective as of January 18, 2016, by and among Clinical Micro Sensors, Inc. d.b.a. GenMark Diagnostics, Inc., Advanced Liquid Logic, Inc., and Illumina, Inc. (incorporated by reference herein from our Form 10-Q as filed with the SEC on May 3, 2016).</u></a> †
10.10	<a href="#"><u>Loan and Security Agreement dated as of January 12, 2015 by and among GenMark Diagnostics, Inc., as borrower, its domestic subsidiaries, as guarantors, General Electric Capital Corporation, and certain other financial institutions as lenders (incorporated by reference herein to our Form 10-Q filed with the SEC on May 5, 2015).</u></a> †
10.11	<a href="#"><u>Amendment to Loan and Security Agreement dated September 30, 2015 by and among GenMark Diagnostics, Inc., as borrower, General Electric Capital Corporation, as agent and lender, and the lenders signatory thereto (incorporated by reference herein to our Form 10-Q filed with the SEC on October 27, 2015).</u></a> †
10.12	<a href="#"><u>Letter agreement dated March 17, 2016 by and among GenMark Diagnostics, Inc., as borrower, Healthcare Financial Solutions, LLC, as agent and lender, and the lenders signatory thereto (incorporated by reference herein from our Form 10-Q as filed with the SEC on May 3, 2016).</u></a> †
10.13	<a href="#"><u>First Amendment to Loan and Security Agreement dated July 27, 2016 by and among GenMark Diagnostics, Inc., as borrower, its domestic subsidiaries, as guarantors, Solar Senior Capital Ltd., as administrative and collateral agent, and certain other financial institutions as lenders (incorporated by reference herein from our Form 10-Q as filed with the SEC on November 3, 2016).</u></a> †
10.14	<a href="#"><u>Second Amendment to Loan and Security Agreement dated as of February 27, 2017 by and among GenMark Diagnostics, Inc., as borrower, its domestic subsidiaries, as guarantors, Solar Senior Capital Ltd., as administrative and collateral agent, and certain other financial institutions as lenders (incorporated by reference herein from our Form 10-Q as filed with the SEC on May 2, 2017).</u></a>
10.15	<a href="#"><u>Third Amendment to Loan and Security Agreement dated as of May 31, 2017 by and among GenMark Diagnostics, Inc., as borrower, its domestic subsidiaries, as guarantors, Solar Senior Capital Ltd., as administrative and collateral agent, and certain other financial institutions as lenders (incorporated by reference herein from our Form 10-Q as filed with the SEC on August 1, 2017).</u></a>
10.16	<a href="#"><u>Fourth Amendment to Loan and Security Agreement dated as of June 7, 2017 by and among GenMark Diagnostics, Inc., as borrower, its domestic subsidiaries, as guarantors, Solar Senior Capital Ltd., as administrative and collateral agent, and certain other financial institutions as lenders (incorporated by reference herein from our Form 10-Q as filed with the SEC on August 1, 2017).</u></a>
10.17	<a href="#"><u>Fifth Amendment to Loan and Security Agreement dated as of June 7, 2017 by and among GenMark Diagnostics, Inc., as borrower, its domestic subsidiaries, as guarantors, Solar Senior Capital Ltd., as administrative and collateral agent, and certain other financial institutions as lenders.</u></a> + ✓
10.18	<a href="#"><u>Manufacturing and Supply Agreement, dated December 15, 2015, by and between Plexus Corp. and Clinical Micro Sensors, Inc. d.b.a GenMark Diagnostics, Inc. (incorporated by reference herein from our Form 10-K filed with the SEC on February 28, 2017).</u></a>
10.19	<a href="#"><u>Form of Market Stock Units Grant Notice and Award Agreement (incorporated by reference herein from our Form 10-Q filed with the SEC on May 5, 2015).</u></a> *
10.20	<a href="#"><u>The GenMark Diagnostics, Inc. 2016 Bonus Plan (incorporated by reference herein to our Form 8-K as filed with the SEC on February 24, 2016).</u></a> *
10.21	<a href="#"><u>The GenMark Diagnostics, Inc. 2017 Bonus Plan (incorporated by reference herein from our Form 8-K as filed with the SEC on February 24, 2017).</u></a> *
10.22	<a href="#"><u>GenMark Diagnostics, Inc. 2010 Equity Incentive Plan, as amended (incorporated by reference to our Definitive Proxy Statement on Schedule 14A filed with the SEC on April 17, 2014).</u></a> *
10.21	<a href="#"><u>Form of Stock Option Agreement (incorporated by reference to our Registration Statement on Form S-1 (File No. 333-165562) filed with the Commission on April 20, 2010).</u></a> *
10.22	<a href="#"><u>Form of Restricted Stock Agreement (incorporated by reference herein to our Form 10-Q as filed with the SEC on November 9, 2010).</u></a> *
10.23	<a href="#"><u>Form of Restricted Stock Units Grant Notice and Agreement (incorporated by reference herein to our Form 8-K as filed with the SEC on March 12, 2013).</u></a> *
10.24	<a href="#"><u>Form of Amendment of Restricted Stock, Restricted Stock Unit and/or Stock Option Agreement(s) (incorporated by reference herein to our Form 10-K filed with the SEC on February 28, 2017).</u></a> *

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<b><u>Exhibit</u></b>	<b><u>Description</u></b>
10.25	<a href="#"><u>GenMark Diagnostics, Inc. 2013 Employee Stock Purchase Plan (incorporated by reference to our Definitive Proxy Statement on Schedule 14A filed with the Commission on April 5, 2013).</u></a> *
10.26	<a href="#"><u>Form of Director and Officer Indemnification Agreement (incorporated by reference to our Registration Statement on Form S-1 (File No. 333-165562) filed with the Commission on March 19, 2010).</u></a> *
10.27	<a href="#"><u>Executive Employment Agreement, dated as of April 5, 2011, by and between GenMark Diagnostics, Inc. and Hany Massarany (incorporated by reference herein from our Form 10-Q as filed with the SEC on May 13, 2011).</u></a> *
10.28	<a href="#"><u>Employment Offer Letter effective May 7, 2014 by and between GenMark Diagnostics, Inc. and Scott Mendel (incorporated by reference to our Current Report on Form 8-K filed with the SEC on May 12, 2014).</u></a> *
10.29	<a href="#"><u>GenMark Diagnostics, Inc. Non-Plan Stock Option Agreement with Scott Mendel (incorporated by reference to our Registration Statement on Form S-8 (File No. 333-195924) filed with the SEC on May 13, 2014).</u></a> *
10.30	<a href="#"><u>GenMark Diagnostics, Inc. Non-Plan Restricted Stock Units Agreement with Scott Mendel (incorporated by reference to our Registration Statement on Form S-8 (File No. 333-195924) filed with the SEC on May 13, 2014).</u></a> *
10.31	<a href="#"><u>Executive Employment Agreement dated April 13, 2010 by and between Osmetech Molecular Diagnostics and Jennifer Williams (incorporated by reference herein from our Form 10-K as filed with the SEC on March 14, 2013).</u></a> *
10.32	<a href="#"><u>Executive Employment Agreement dated October 12, 2012 by and between GenMark Diagnostics, Inc. and Eric Stier (incorporated by reference herein from our Form 10-K as filed with the SEC on February 28, 2017).</u></a> *
10.33	<a href="#"><u>Equity Distribution Agreement dated June 14, 2016 by and between GenMark Diagnostics, Inc. and Canaccord Genuity Inc. (incorporated by reference herein from our Form 10-Q as filed with the SEC on July 28, 2016).</u></a>
10.3	<a href="#"><u>Underwriting Agreement, dated June 13, 2017, by and among GenMark Diagnostics, Inc., J.P. Morgan Securities LLC and Merrill Lynch, Pierce, Fenner &amp; Smith (incorporated by reference to our Current Report on Form 8-K filed with the SEC on June 14, 2017).</u></a>
21.1	<a href="#"><u>List of Subsidiaries (incorporated by reference to our Form 10-K as filed with the SEC on February 24, 2015).</u></a>
23.1	<a href="#"><u>Consent of Ernst &amp; Young LLP, Independent Registered Public Accounting Firm.</u></a> ✓
24.1	<a href="#"><u>Power of Attorney (included on the signature page hereto).</u></a> ✓
31.1	<a href="#"><u>Certification of principal executive officer pursuant to Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.</u></a> ✓
31.2	<a href="#"><u>Certification of principal financial officer pursuant to Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as amended.</u></a> ✓
32.1	<a href="#"><u>Certification of the principal executive officer pursuant to Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. section 1350.</u></a> ✓
32.2	<a href="#"><u>Certification of the principal financial officer pursuant to Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, and 18 U.S.C. section 1350.</u></a> ✓
101	XBRL Instance Document
101	XBRL Taxonomy Extension Schema Document
101	XBRL Taxonomy Calculation Document
101	XBRL Taxonomy Definition Linkbase Document
101	XBRL Taxonomy Label Linkbase Document
101	XBRL Taxonomy Presentation Linkbase Document

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\* Indicates a management contract or compensatory plan or arrangement in which any director or named executive officer participates.

✓ Included in this filing.

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- † Confidential treatment has been granted with respect to certain portions of this exhibit.
- + GenMark has requested confidential treatment with respect to certain portions of this exhibit.

**Item 16. FORM 10-K SUMMARY**

None.



## FIFTH AMENDMENT TO LOAN AND SECURITY AGREEMENT AND FOURTH AMENDMENT TO AMENDED AND RESTATED FEE LETTER

THIS FIFTH AMENDMENT TO LOAN AND SECURITY AGREEMENT AND FOURTH AMENDMENT TO AMENDED AND RESTATED FEE LETTER (this “**Amendment**”), dated as of December 13, 2017 (the “**Fifth Amendment Effective Date**”), is made among GenMark Diagnostics, Inc., a Delaware corporation (the “**Borrower**”), the other Loan Parties party to that certain Loan and Security Agreement (as defined below), Solar Senior Capital Ltd., in its capacity as administrative and collateral agent (in such capacity, together with its successors and assigns in such capacity, “**Agent**”), SUNS SPV LLC, as lender, East West Bank, as lender, and the other Lenders party to the Loan and Security Agreement or otherwise a party thereto from time to time (each a “**Lender**” and collectively, the “**Lenders**”).

The Borrower, the other Loan Parties, the Lenders and Agent are parties to a Loan and Security Agreement dated as of January 12, 2015 (as amended by that certain letter agreement dated as of September 30, 2015, that certain letter agreement dated as of March 17, 2016, that certain First Amendment to Loan and Security Agreement dated as of July 27, 2016, that certain Second Amendment to Loan and Security Agreement dated as of February 27, 2017, that certain Third Amendment to Loan and Security Agreement and Second Amendment to Fee Letter dated as of May 31, 2017 (the “**Third Amendment**”), that certain Fourth Amendment to Loan and Security Agreement and Third Amendment to Fee Letter, dated as of June 7, 2017 (the “**Fourth Amendment**”), and as further amended, amended and restated, supplemented or otherwise modified from time to time, the “**Loan and Security Agreement**”). The Borrower and Agent are parties to that certain Amended and Restated Fee Letter dated January 9, 2015 (as amended pursuant to that certain First Amendment to Amended and Restated Fee Letter dated as of February 27, 2017, the Third Amendment, the Fourth Amendment and as further amended, amended and restated, supplemented or otherwise modified from time to time, the “**Fee Letter**”). The Borrower has requested that the Lenders agree to certain amendments to the Loan and Security Agreement and the Fee Letter. The Lenders have agreed to such request, subject to the terms and conditions hereof.

Accordingly, the parties hereto agree as follows:

**SECTION 1 Definitions; Interpretation.**

(a) **Terms Defined in Loan and Security Agreement.** All capitalized terms used in this Amendment (including in the preamble and recitals hereof) and not otherwise defined herein shall have the meanings assigned to them in the Loan and Security Agreement.

(b) **Interpretation.** The rules of interpretation set forth in Section 1.1 of the Loan and Security Agreement shall be applicable to this Amendment and are incorporated herein by this reference.

**SECTION 2 Amendments to the Loan and Security Agreement and Fee Letter.**

(a) The following definitions in the Loan and Security Agreement shall be amended and restated as follows effective as of the Fifth Amendment Effective Date:

“**Applicable Final Payment Fee Percentage**” means \*\*\*%.

“**Final Maturity Date**” means October 12, 2019; provided that, if the Initial Term Loan Payment Date is January 1, 2019, then March 12, 2020.

\*\*\* Portions of this page have been omitted pursuant to a request for Confidential Treatment filed separately with the Commission.

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“Third Interest Only Extension Conditions” shall mean satisfaction of each of the following: (a) no Default or Event of Default shall have occurred and is continuing; (b) on or before \*\*\*, Agent shall have received evidence that Borrower has achieved revenue as of \*\*\* determined in accordance with GAAP of at least \*\*\*, measured on a trailing \*\*\* basis; and (c) as of \*\*\*, Borrower’s cash and Cash Equivalents held in Accounts subject to an Account Control Agreement shall be greater than or equal to the sum of (i) \*\*\*, plus (ii) the amount, if any, of Borrower’s accounts payable under GAAP as of \*\*\* that have not been paid after the \*\*\* day following the invoice date for such accounts payable.

“Initial Term Loan Payment Date” means August 1, 2018; provided that, if the Third Interest Only Extension Conditions are satisfied and Borrower notifies Agent in writing on or before \*\*\* that it wishes to extend the Initial Term Loan Payment Date, then January 1, 2019.

(b) Section (b) of the Fee Letter shall be amended and restated as follows as follows effective as of the Fifth Amendment Effective Date:

“( b ) Final Payment Fee: A non-refundable final payment fee in an amount equal to the Applicable Fee Letter Final Payment Fee Percentage of the original principal amount of each Term Loan, which fee shall be fully earned on the date of funding of the applicable Term Loan, and which fee shall be due and payable on the date such Term Loan is repaid in full, or if earlier, required to be repaid in full (whether by scheduled payment, voluntary prepayment, mandatory prepayment or otherwise), provided that if for any reason any Term Loan is prepaid in part prior to its scheduled maturity date, Borrower shall pay on the date of any such partial prepayment a fee equal to the Applicable Fee Letter Final Payment Fee Percentage of the principal amount of any Term Loan so prepaid. For the purposes of this Fee Letter, “Applicable Fee Letter Final Payment Fee Percentage” means \*\*\*%.”

(c) **References Within Loan and Security Agreement and Fee Letter.** Each reference in the Loan and Security Agreement and the Fee Letter, as applicable, to “this Agreement” and the words “hereof,” “herein,” “hereunder,” or words of like import, shall mean and be a reference to the Loan and Security Agreement or the Fee Letter, as applicable, as amended by this Amendment.

**SECTION 3 Conditions of Effectiveness.** The effectiveness of Section 2 of this Amendment shall be subject to the satisfaction of each of the following conditions precedent:

(a) **Fees and Expenses.** The Borrower shall have paid (i) all invoiced costs and expenses then due in accordance with Section 5(d), and (ii) all other fees, costs and expenses, if any, due and payable as of the Fifth Amendment Effective Date under the Loan and Security Agreement.

(b) **This Amendment.** Agent shall have received this Amendment, executed by Agent, the Lenders and the Loan Parties.

(c) **Representations and Warranties; No Default.** On the Fifth Amendment Effective Date, after giving effect to the amendment of the Loan and Security Agreement and Fee Letter contemplated hereby:

(i) The representations and warranties contained in Section 4 shall be true and correct on and as of the Fifth Amendment Effective Date as though made on and as of such date; and

(ii) There exist no Defaults or Events of Default.

\*\*\* Portions of this page have been omitted pursuant to a request for Confidential Treatment filed separately with the Commission.

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**SECTION 4 Representations and Warranties.** To induce the Lenders to enter into this Amendment, each Loan Party hereby confirms, as of the date hereof, (a) that the representations and warranties made by it in Section 5 of the Loan and Security Agreement and in the other Loan Documents are true and correct in all material respects; *provided, however*, that such materiality qualifier shall not be applicable to any representations and warranties that already are qualified or modified by materiality in the text thereof; (b) that there has not been and there does not exist a Material Adverse Effect; and (c) that, other than as updated on Exhibit A hereto, the information included in the Perfection Certificate delivered to Agent on June 7, 2016, as updated by Exhibit A attached to the Third Amendment, remains true and correct. For the purposes of this Section 4, (i) each reference in Section 5 of the Loan and Security Agreement to “this Agreement,” and the words “hereof,” “herein,” “hereunder,” or words of like import in such Section, shall mean and be a reference to the Loan and Security Agreement as amended by this Amendment, and (ii) any representations and warranties which relate solely to an earlier date shall not be deemed confirmed and restated as of the date hereof (provided that such representations and warranties shall be true, correct and complete as of such earlier date).

**SECTION 5 Miscellaneous.**

(a) **Loan Documents Otherwise Not Affected; Reaffirmation.** Except as expressly amended pursuant hereto or referenced herein, the Loan and Security Agreement, the Fee Letter and the other Loan Documents shall remain unchanged and in full force and effect and are hereby ratified and confirmed in all respects. The Lenders’ and Agent’s execution and delivery of, or acceptance of, this Amendment shall not be deemed to create a course of dealing or otherwise create any express or implied duty by any of them to provide any other or further amendments, consents or waivers in the future. Each Loan Party hereby reaffirms the grant of security under Section 3.1 of the Loan and Security Agreement and hereby reaffirms that such grant of security in the Collateral secures all Obligations under the Loan and Security Agreement and all Guaranteed Obligations (as defined in the Guaranty), as applicable, including without limitation any Term Loans funded on or after the Fifth Amendment Effective Date, as of the date hereof.

(b) **Conditions.** For purposes of determining compliance with the conditions specified in Section 3, each Lender that has signed this Amendment shall be deemed to have consented to, approved or accepted or to be satisfied with, each document or other matter required thereunder to be consented to or approved by or acceptable or satisfactory to a Lender unless Agent shall have received notice from such Lender prior to the Fifth Amendment Effective Date specifying its objection thereto.

(c) **No Reliance.** Each Loan Party hereby acknowledges and confirms to Agent and the Lenders that such Loan Party is executing this Amendment on the basis of its own investigation and for its own reasons without reliance upon any agreement, representation, understanding or communication by or on behalf of any other Person.

(d) **Costs and Expenses.** The Borrower agrees to pay to Agent within ten (10) days of its receipt of an invoice (or on the Fifth Amendment Effective Date to the extent invoiced on or prior to the Fifth Amendment Effective Date), the reasonable, documented, out-of-pocket costs and expenses of Agent and the Lenders party hereto, and the reasonable, documented, fees and disbursements of counsel to Agent and the Lenders party hereto, in connection with the negotiation, preparation, execution and delivery of this Amendment and any other documents to be delivered in connection herewith on the Fifth Amendment Effective Date or after such date.

(e) **Binding Effect.** This Amendment binds and is for the benefit of the successors and permitted assigns of each party.

(f) **Governing Law.** **THIS AMENDMENT AND THE RIGHTS AND OBLIGATIONS OF THE PARTIES HEREUNDER SHALL IN ALL RESPECTS BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH, THE INTERNAL LAWS OF THE STATE OF NEW YORK INCLUDING ALL MATTERS OF CONSTRUCTION, VALIDITY AND PERFORMANCE, REGARDLESS OF THE LOCATION OF THE COLLATERAL, PROVIDED, HOWEVER, THAT IF THE LAWS OF ANY JURISDICTION OTHER THAN NEW YORK SHALL GOVERN IN REGARD TO THE VALIDITY PERFECTION OR EFFECT OF PERFECTION OF ANY LIEN OR IN REGARD TO PROCEDURAL MATTERS AFFECTING ENFORCEMENT OF ANY LIENS IN COLLATERAL, SUCH LAWS OF SUCH OTHER JURISDICTIONS SHALL CONTINUE TO APPLY TO THAT EXTENT.**

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(g) **Complete Agreement; Amendments.** This Amendment and the Loan Documents represent the entire agreement about this subject matter and supersede prior negotiations or agreements with respect to such subject matter. All prior agreements, understandings, representations, warranties, and negotiations between the parties about the subject matter of this Amendment and the Loan Documents merge into this Amendment and the Loan Documents.

(h) **Severability of Provisions.** Each provision of this Amendment is severable from every other provision in determining the enforceability of any provision.

(i) **Counterparts.** This Amendment may be executed in any number of counterparts and by different parties on separate counterparts, each of which, when executed and delivered, is an original, and all taken together, constitute one Amendment. Delivery of an executed counterpart of a signature page of this Amendment by facsimile, portable document format (.pdf) or other electronic transmission will be as effective as delivery of a manually executed counterpart hereof.

(j) **Loan Documents.** This Amendment and the documents related hereto shall constitute Loan Documents.  
*[Balance of Page Intentionally Left Blank; Signature Pages Follow]*

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IN WITNESS WHEREOF, the parties hereto have duly executed this Amendment, as of the date first above written.

**BORROWER:**

**GENMARK DIAGNOSTICS, INC.,**  
as Borrower

By: /s/ Scott Mendel  
Title: Chief Financial Officer

**GUARANTORS:**

**CLINICAL MICRO SENSORS, INC.,**  
as Guarantor

By: /s/ Scott Mendel  
Title: Chief Financial Officer

**OSMETECH INC.,**  
as Guarantor

By: /s/ Scott Mendel  
Title: Chief Financial Officer

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**AGENT AND LENDERS:**

**SOLAR SENIOR CAPITAL LTD.,**  
as Agent

By: /s/ Anthony J. Storino  
Name: Anthony J. Storino  
Title: Authorized Signatory

**SUNS SPV LLC,**  
as Lender

By: /s/ Anthony J. Storino  
Name: Anthony J. Storino  
Title: Authorized Signatory

**EAST WEST BANK,**  
as Lender

By: /s/ James Tai  
Name: James Tai  
Title: Managing Director/Life Sciences Group Head

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EXHIBIT A

**Updates to Perfection Certificate**

The schedule attached to the Perfection Certificate in respect of Intellectual Property matters is amended to reflect the following updates:

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\*\*\* Portions of this page have been omitted pursuant to a request for Confidential Treatment filed separately with the Commission.

CONSENT OF ERNST & YOUNG LLP, INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statement (Form S-3 Nos. 333-187371 and 333-212010) of GenMark Diagnostics, Inc.,
- (2) Registration Statement (Form S-8 No. 333-189348) pertaining to the 2013 Employee Stock Purchase Plan of GenMark Diagnostics, Inc.,
- (3) Registration Statement (Form S-8 Nos. 333-194514, 333-187393, 333-182268, 333-168892, 333-202286, 333-202286 and 333-216387) pertaining to the 2010 Equity Incentive Plan of GenMark Diagnostics, Inc., and
- (4) Registration Statement (Form S-8 No. 333-195924) pertaining to the GenMark Diagnostics, Inc. Non-Plan Stock Option Agreement with Scott Mendel and GenMark Diagnostics, Inc. Non-Plan Restricted Stock Units Agreement with Scott Mendel;

of our reports dated February 27, 2018, with respect to the consolidated financial statements of GenMark Diagnostics, Inc. and the effectiveness of internal control over financial reporting of GenMark Diagnostics, Inc. included in this Annual Report (Form 10-K) of GenMark Diagnostics, Inc. for the year ended December 31, 2017.

/s/ Ernst & Young LLP

San Diego, California  
February 27, 2018

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

I, Hany Massarany, certify that:

1. I have reviewed this Annual Report on Form 10-K of GenMark Diagnostics, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: 2/27/2018

By: /s/ Hany Massarany

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Hany Massarany

President and Chief Executive Officer



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

I, Scott Mendel, certify that:

1. I have reviewed this Annual Report on Form 10-K of GenMark Diagnostics, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
  - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: 2/27/2018

By: /s/ Scott Mendel

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Scott Mendel  
Chief Financial Officer

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

In connection with the Annual Report of GenMark Diagnostics, Inc. (the "Company") on Form 10-K for the fiscal year ended December 31, 2017 (the "Report"), as filed with the Securities and Exchange Commission on or about the date hereof, I, Hany Massarany, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

- (i) the Report fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended; and
- (ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: 2/27/2018

By: /s/ Hany Massarany

Hany Massarany

President and Chief Executive Officer

This certification accompanies the Form 10-K to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of GenMark Diagnostics, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-K), irrespective of any general incorporation language contained in such filing.

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

In connection with the Annual Report of GenMark Diagnostics, Inc. (the "Company") on Form 10-K for the fiscal year ended December 31, 2017 (the "Report"), as filed with the Securities and Exchange Commission on or about the date hereof, I, Scott Mendel, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

- (i) the Report fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934, as amended; and
- (ii) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: 2/27/2018

By: /s/ Scott Mendel

\_\_\_\_\_  
Scott Mendel  
Chief Financial Officer

This certification accompanies the Form 10-K to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of GenMark Diagnostics, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-K), irrespective of any general incorporation language contained in such filing.

