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 fiscal year ended December 31, 2016

OR

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

For the transition period from _____ to _____

Commission File Number 001-36439

TRANSGENOMIC, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware	**91-1789357**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification Number)
12325 Emmet Street Omaha, NE	**68164**
(Address of Principal Executive Offices)	(Zip Code)

(402) 452-5400

(Registrant's Telephone Number, Including Area Code)

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

Title of Each Class	**Name of Each Exchange On Which Registered**
Common Stock, par value $0.01 per share	None

Securities registered pursuant to Section 12(g) of the Act:

None

(Title of Class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes _____ No __X__

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act.

Yes _____ No __X__

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes __X__ No _____

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes __X__ No _____

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) 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 Form10-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 the definitions of "large accelerated filer", "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large Accelerated Filer ☐ Accelerated Filer ☐

Non-Accelerated Filer ☐ Smaller Reporting Company ☒

(Do not check if a smaller reporting company)

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).

Yes _____ No __X__

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant based on the last reported closing price per share of Common Stock as reported on the Nasdaq Capital Market on the last business day of the registrant's most recently completed second quarter was approximately $18.6 million.

At March 24, 2017, the registrant had 26,868,062 shares of common stock outstanding.

TRANSGENOMIC, INC.
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This Annual Report on Form 10-K references the following registered trademarks which are the property of Transgenomic, Inc.: Transgenomic and FAMILION. This report may also refer to trade names and trademarks of other organizations.

PART I

FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K (this "Annual Report"), including Management's Discussion & Analysis of Financial Condition and Results of Operations, contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995, which statements involve substantial risks and uncertainties. These statements are based on management's current views, assumptions or beliefs of future events and financial performance and are subject to uncertainty and changes in circumstances. Readers of this report should understand that these statements are not guarantees of performance or results. Many factors could affect our actual financial results and cause them to vary materially from the expectations contained in the forward-looking statements. These factors include, among other things: our expected revenue, income (loss), receivables, operating expenses, supplier pricing, availability and prices of raw materials, insurance reimbursements, product pricing, foreign currency exchange rates, sources of funding operations and acquisitions, our ability to raise funds, sufficiency of available liquidity, future interest costs, future economic circumstances, business strategy, industry conditions and key trends, our ability to execute our operating plans, the success of our cost savings initiatives, competitive environment and related market conditions, expected financial and other benefits from our organizational restructuring activities, actions of governments and regulatory factors affecting our business, projections of future earnings, revenues, synergies, accretion or other financial items, any statements of the plans, strategies and objectives of management for future operations, retaining key employees and other risks as described in our reports filed with the Securities and Exchange Commission (the "SEC"). In some cases these statements are identifiable through the use of words such as "anticipate," "believe," "estimate," "expect," "intend," "plan," "project," "target," "can," "could," "may," "should," "will," "would" or the negative of such terms and other similar expressions.

You are cautioned not to place undue reliance on these forward-looking statements. The forward-looking statements we make are not guarantees of future performance and are subject to various assumptions, risks and other factors that could cause actual results to differ materially from those suggested by these forward-looking statements. Actual results may differ materially from those suggested by these forward-looking statements for a number of reasons, including those described in Item 1A, "Risk Factors," and other factors identified by cautionary language used elsewhere in this Annual Report.

We expressly disclaim any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

The following discussion should be read together with our financial statements and related notes contained in this Annual Report. Results for the year ended December 31, 2016 are not necessarily indicative of results that may be attained in the future.

Item 1. Our Business

Transgenomic, Inc. ("we", "us", "our", the "Company" or "Transgenomic") is a biotechnology company advancing personalized medicine for the detection and treatment of cancer and integrated diseases through our proprietary molecular technologies and clinical and research services. A key goal is to bring our Multiplexed ICE COLD-PCR ("MX-ICP") product to the clinical market through strategic partnerships and licensing agreements, enabling the use of blood and other bodily fluids for more effective and patient-friendly diagnosis, monitoring and treatment of cancer.

MX-ICP is technology proprietary to Transgenomic. It is a reagent that improves the ability to detect genetic mutations by 100 - 400 fold over existing technologies. This technology has been validated internally on all currently available sequencing platforms, including Sanger, Next Gen Sequencing and Digital PCR. By enhancing the level of detection of genetic mutations and suppressing the normal, or wild-type DNA, several benefits are provided. It is generally understood that most current technologies are unable to consistently identify mutations that occur in less than approximately 5% of a sample. However, many mutations found at much lower levels, even as low as 0.01%, are known to be clinically relevant and can have significant consequences to a patient: both in terms of how they will respond to a given drug or treatment and how a given tumor is likely to change over time. More importantly, in our view, is the ability to significantly improve the level of detection while using blood, saliva and even urine as a source for DNA, rather than depending on painful, expensive and potentially dangerous tumor biopsies. We believe that this is an important advancement in patient care with respect to cancer detection, treatment and monitoring and can result in significant cost savings for the healthcare system by replacing invasive procedures with the simple collection of blood or other bodily fluids. By broadening the types of samples that can be used for testing and allowing all sequencing platforms to provide improved identification of low level mutations, MX-ICP has the potential to make testing more readily available, more

patient friendly, enable genetic monitoring of disease progression, effectively guide treatment protocols, and reduce the overall cost of diagnosis and monitoring while significantly improving patient outcomes.

Our laboratory in Omaha, Nebraska is focused on providing genetic analytical services related to oncology and pharmacogenomics research services supporting Phase II and Phase III clinical trials conducted by pharmaceutical and biotechnology companies. Our laboratory employs a variety of genomic testing service technologies, including our proprietary MX-ICP technology. ICE COLD-PCR is a proprietary ultra-high sensitivity platform technology with breakthrough potential to enable wide adoption of personalized, precision medicine in cancer and other diseases. It can be run in any laboratory that contains standard PCR systems. MX-ICP enables detection of multiple known and unknown mutations from virtually any sample type, including tissue biopsies, blood, urine, saliva, cell-free DNA ("cfDNA") and circulating tumor cells ("CTCs") at levels greater than 1,000-fold higher than standard DNA sequencing techniques. It is easy to implement and use within existing workflows. Our laboratory in Omaha is certified under the Clinical Laboratory Improvement Amendments ("CLIA") as a high complexity laboratory and is accredited by the College of American Pathologists.

Our consolidated balance sheets, statements of operations and statements of cash flows for all periods presented reflect our former Genetic Assays and Platforms activities and Patient Testing business as discontinued operations (See Note 3 - "Discontinued Operations").

Merger and Related Transactions

Merger Agreement

On October 12, 2016, Transgenomic, New Haven Labs Inc., a wholly owned subsidiary of Transgenomic ("Merger Sub" and, together with Transgenomic, the "Transgenomic Parties"), and Precipio Diagnostics, LLC ("Precipio") entered into an Agreement and Plan of Merger (as amended by the Merger Agreement Amendment (as defined below) the "Merger Agreement") pursuant to which Precipio will become a wholly owned subsidiary of Transgenomic (the "Merger"), on the terms and subject to the conditions set forth in the Merger Agreement. On February 2, 2017, Transgenomic, Merger Sub and Precipio entered into a First Amendment to Agreement and Plan of Merger (the "Merger Agreement Amendment") which provided for, among other things, the revision of the exchange ratio set forth in the Merger Agreement, the waiver and removal of certain closing conditions and the authorization of certain actions taken by each of Transgenomic and Precipio since the date the Merger Agreement. The parties expect the Merger to close in the second quarter of 2017.

Upon the effectiveness of the Merger (the "Effective Time"), (i) the outstanding common units of Precipio will be converted into the right to receive approximately 160.6 million shares of common stock of New Precipio ("New Precipio common stock"), together with cash in lieu of fractional units, which will result in Precipio common unit holders owning approximately 52% of the issued and outstanding shares of New Precipio common stock on a fully diluted basis, taking into account the issuance of shares of convertible preferred stock of New Precipio ("New Precipio preferred stock") in the Merger and the private placement as discussed below (the "fully diluted New Precipio common stock") and (ii) the outstanding preferred units of Precipio will be converted into the right to receive approximately 24.1 million shares of New Precipio preferred stock with an aggregate face amount equal to $3 million (based upon the purchase price of the new preferred stock of New Precipio in the new preferred stock financing), which will result in the Precipio preferred unit holders owning approximately 8% of the fully diluted New Precipio common stock.

The board of managers of Precipio and the boards of directors of Transgenomic and Merger Sub, and Transgenomic, in its capacity as the sole stockholder of Merger Sub, have each approved the Merger Agreement and the board of managers of Precipio and the board of directors of Transgenomic have each recommended that their respective equity holders approve the transactions contemplated by the Merger Agreement. Transgenomic will hold a special meeting of its stockholders to approve the issuance of shares of Transgenomic common stock pursuant to the Merger, as required by Nasdaq Listing Rules, as well as certain other matters (the "Special Meeting").

The Merger Agreement contains various representations, warranties and covenants of the Transgenomic Parties and Precipio, including, among others, covenants (i) by each of Precipio and Transgenomic to operate its business in the ordinary course, (ii) by each of Precipio and Transgenomic not to engage in certain kinds of transactions during the period between the execution of the Merger Agreement and the completion of the Merger, (iii) by Precipio to have its members approve the Merger and (iv) by Transgenomic to hold the Special Meeting.

Under the Merger Agreement, Precipio and Transgenomic are subject to customary "no shop" provisions that limit their respective abilities to solicit alternative acquisition proposals from third parties or to provide confidential information to third parties, subject to a "fiduciary out" provision that allows Precipio and Transgenomic to provide information and participate in

discussions with respect to certain unsolicited written proposals and to terminate the Merger Agreement and enter into an acquisition agreement with respect to a superior proposal in compliance with the terms of the Merger Agreement (a "Superior Proposal").

Completion of the Merger is subject to various conditions, including, among others: (i) approval of the holders of a majority of Transgenomic's shares of outstanding common stock, (ii) approval of the requisite amount of the members of Precipio, (iii) approval of an amendment to the Certificate of Incorporation of Transgenomic contemplating the New Preferred Stock Financing (described below) and changing the name of Transgenomic to Precipio, Inc. or such other name as determined by Precipio, (iv) obtaining certain third party consents, (v) the absence of any judgment, injunction, order or decree prohibiting or enjoining the completion of the Merger, (vi) consummation of the New Preferred Stock Financing, (vii) approval of listing of New Precipio common stock on Nasdaq, (viii) the conversion of all outstanding membership interests of Precipio into common units or preferred units which will be converted into New Precipio common stock or New Precipio preferred stock as Merger consideration, as applicable, (ix) increase in the size of the Transgenomic board by two members and the appointment of designees in accordance with the Merger Agreement and (x) the lock-up of certain Transgenomic stockholders and Precipio members.

Upon completion of the merger, New Precipio will be required to meet the initial listing requirements to maintain the listing and continued trading of its shares on Nasdaq. These initial listing requirements are more difficult to achieve than the continued listing requirements. Pursuant to the Merger Agreement, Transgenomic agreed to use its commercially reasonable efforts to cause the shares of Transgenomic common stock being issued in the merger to be approved for listing on Nasdaq at or prior to the effective time of the merger. Based on information currently available to Transgenomic, Transgenomic anticipates that its stock will be unable to meet the $4.00 (or, to the extent applicable, $3.00) minimum bid price initial listing requirement at the closing of the merger unless it effects a reverse stock split. On October 31, 2016, the stockholders of Transgenomic authorized the Transgenomic Board to effect a reverse stock split of the shares of Transgenomic common stock at a ratio of between one-for-ten to one-for-thirty. In addition, often times a reverse stock split will not result in a trading price for the affected common stock that is proportional to the ratio of the split.

In addition, the obligation of the parties to complete the Merger is subject to certain other conditions, including (i) subject to the standards set forth in the Merger Agreement, the accuracy of the representations and warranties of the other party, (ii) compliance of each party with its covenants in all material respects and (iii) no material adverse effect of either party.

The Merger Agreement contains certain termination rights for both the Transgenomic Parties and Precipio. Either may terminate the Merger Agreement if the Merger is not completed on or before the date that is six months following the date of the Merger Agreement. In the Merger Agreement Amendment, this date was extended to June 30, 2017. Moreover, either party may terminate the Merger Agreement if the other party changes its recommendation to its security holders to approve the Merger and the related transactions or enter into an agreement with a third party regarding a Superior Proposal.

If the Merger Agreement is terminated by Precipio or Transgenomic pursuant to (i) the Transgenomic board failing to recommend that Transgenomic's stockholders vote to approve the issuance of New Precipio common stock in connection with the merger; (ii) Transgenomic failing to include in this proxy statement a recommendation by the Transgenomic board to vote in favor of the each of the proposals in this proxy statement; (iii) the Transgenomic board failing to make, withholding, withdrawing, amending, changing, qualifying or publicly proposing to withhold, withdraw, amend, change or qualify in a manner adverse to Precipio, its recommendation that the stockholders of Transgenomic vote in favor and adopt each of the proposals in this proxy statement, knowingly making any public statement inconsistent with such recommendation, failing to recommend against acceptance of any alternate acquisition proposal within ten business days after the public announcement of any such alternate acquisition proposal, approving, adopting, recommending or proposing publicly to approve, adopt or recommend any alternate acquisition proposal, or making any public statement inconsistent with its recommendation; (iv) Transgenomic entering into any letter of intent or similar document or any contract relating to any alternate acquisition proposal or (v) Transgenomic entering into a definitive agreement to effect an alternate acquisition proposal, then Transgenomic shall pay to Precipio, by wire transfer of immediately available funds within three business days after termination of the Merger Agreement, a nonrefundable fee in an amount equal to $256,500.

If the Merger Agreement is terminated by Transgenomic or Precipio pursuant to (i) Precipio's board of managers failing to recommend that its members vote or act by written consent to approve the merger; (ii) Precipio's board of managers failing to make, withholding, withdrawing, amending, changing, qualifying or publicly proposing to withhold, withdraw, amend, change or qualify in a manner adverse to Transgenomic, its recommendation that the members of Precipio vote in favor of each of the merger, the execution of the Merger Agreement and the consummation of the transaction contemplated therein, knowingly making any public statement inconsistent with such recommendation, failing to recommend against acceptance of any alternate acquisition proposal within ten business days after the public announcement of any such alternate acquisition proposal, approving, adopting, recommending or proposing publicly to approve, adopt or recommend any alternate acquisition proposal, or making any public statement inconsistent with its recommendation; (iii) Precipio entering into any letter of intent or similar document or any contract relating to any alternate acquisition proposal; or (iv) Precipio entering into a definitive agreement to effect an alternate acquisition

proposal, Precipio shall pay to Transgenomic, by wire transfer of immediately available funds within three business days after termination of the Merger Agreement, a nonrefundable fee in an amount equal to $256,500.

In connection with entering into the Merger Agreement, Transgenomic and members and warrant holders of Precipio (collectively, the "Supporting Members"), entered into a voting agreement (the "Precipio Voting Agreement") pursuant to which the Supporting Members agreed to, among other things, (i) authorize and approve the Merger Agreement and the transactions contemplated thereby and (ii) vote against any Acquisition Proposal (as defined in the Merger Agreement). Collectively, the shares held by the Supporting Members represent approximately 71% of Precipio's issued and outstanding membership interests.

Precipio and certain Transgenomic stockholders (the "Supporting Stockholders") also entered into a voting agreement (the "Transgenomic Voting Agreement") pursuant to which the Supporting Stockholders agreed to, among other things, (i) authorize and approve the Merger Agreement and the transactions contemplated thereby and (ii) vote against any Acquisition Proposal (as defined in the Merger Agreement). Collectively, the shares held by the Supporting Stockholders represent approximately 31.84% of Transgenomic's voting stock.

The Merger Agreement also provides that the combined company will enter into employment agreements with certain employees of Precipio at the Effective Time and that the officers of the combined company will be agreed to by the parties prior to the Effective Time.

Conversion of Secured Debt

In connection with the Merger, at the Effective Time, in addition to the New Precipio preferred stock to be issued to holders of preferred units of Precipio, New Precipio also will issue shares of New Precipio preferred stock and New Precipio common stock to holders of certain secured indebtedness of Transgenomic, whereby such holders will receive in exchange for such indebtedness, approximately 24.1 million shares of New Precipio Preferred Shares in an amount equal to $3.0 million, which represents approximately 8% of the fully diluted New Precipio common stock, and approximately 10.4 million shares of New Precipio common stock, which represents approximately 3% of the fully diluted New Precipio common stock.

Private Placement

In addition and as a condition to the Merger and conversion of secured debt, New Precipio also will issue shares of New Precipio preferred stock and New Precipio common stock in a related private placement, whereby New Precipio will issue for cash up to approximately 56.2 million shares of New Precipio preferred stock for $7.0 million to investors in a private placement, which represents approximately 18% of the fully diluted New Precipio common stock.

The New Precipio preferred stock issued in the Merger, the conversion of secured debt and the private placement will be issued based on a $25 million pre-money equity valuation of New Precipio and will represent, in the aggregate, approximately 34% of the fully diluted New Precipio common stock.

The New Precipio preferred stock to be issued in the Merger and the private placement will be new designations of preferred shares effectuated by a Certificate of Designation amending Transgenomic's Certificate of Incorporation. The cash proceeds received from the private placement will be used to finance the Merger, for working capital and growth capital to expand into new markets.

The shares of New Precipio preferred stock may be convertible into New Precipio common stock any time at an applicable conversion price. Certain material corporate events also will require the consent of a supermajority of holders of the New Precipio preferred stock. In the event of New Precipio's liquidation, dissolution or winding up, holders of the New Precipio preferred stock will be entitled to receive assets or surplus funds of New Precipio in an amount equal to the greater of (i) 1.5 times the original purchase price of the New Precipio preferred stock, *plus* an amount equal to all unpaid and accrued dividends and dividend equivalents and (ii) the amount that would be payable on the New Precipio preferred stock if it were converted into New Precipio common stock (the "Liquidation Preference"). This Liquidation Preference also would be due in the event of a future merger or sale of New Precipio, unless a supermajority of holders of New Precipio preferred stock elect otherwise. The New Precipio preferred stock will be entitled to an annual 8% cumulative payment in lieu of interest or dividends, payable in-kind for the first two years and in cash or in-kind thereafter, at the option of the holder. The New Precipio preferred stock also will be entitled to share on any dividends paid on the New Precipio common stock.

In connection with the private placement, New Precipio will enter into an investor rights agreement with the holders of the New Precipio preferred stock. The investor rights agreement will grant rights to such parties, including with respect to the designation of nominees for election to the New Precipio board of directors upon the closing of the Merger. The investor rights agreement also will contain transfer restrictions and standstill restrictions relating to shares of New Precipio common stock that will be issued to such parties in connection with the Merger and the private placement. In addition, the investor rights agreement

gives such parties rights with respect to the registration under the Securities Act of 1933, as amended, of the shares of New Precipio common stock to be issued to such parties, including the shares that may be issued upon future conversion of the New Precipio preferred stock.

Business Strategy

Our primary objective is to commercialize MX-ICP for the clinical diagnostics market through strategic licensing agreements. MX-ICP facilitates the use of blood and other bodily fluids for the effective and efficient diagnosis and treatment of cancer. It does this by enhancing the level of detection of mutant DNA by 100 - 400 fold. In tumors, mutations can often be found occurring with a frequency of around 5%, which current technologies can readily identify. However, other mutations can be present at much lower frequencies. MX-ICP makes possible as low as 0.01% levels of detection of mutant DNA. We believe that MX-ICP can help dramatically improve the diagnosis and treatment/monitoring of cancer patients. Using MC-ICP-based tests, clinicians can rapidly, effectively and economically monitor a patient's therapy and progress on an ongoing basis. We plan to commercialize this product directly, but also anticipate partnering with a significant number of life sciences companies and academic institutes to accelerate the adoption and use of the technology. We continue to collaborate with a number of major academics including the Dana Farber Cancer Institute ("DFCI") and Melbourne University.

Our next set of objectives focuses on strengthening our existing business opportunities around MX-ICP. We continue to provide products and services to biomedical researchers, physicians, medical institutions and diagnostic and pharmaceutical companies that are tied to identifying and understanding genetic mutations and variations and their roles in disease mainly focused on cancer. Our products and services help scientists and physicians understand and predict disease and drug response mainly focused on cancer. As medical practitioners learn to correlate specific mutations and patterns of mutation with specific cancer disease states, drug responses and patient outcomes, it becomes possible to optimize a treatment regimen to a specific patient. This is known as personalized or precision medicine.

Our internal estimates for the size of the cancer diagnostics market, based on multiple industry sources, suggests a rapidly growing market with a potential annual value of $28 billion (Piper Jaffray Report 2015), built on tissue biopsies and accounting for growth due to the potential for liquid biopsies or increased testing to monitoring cancer patients. Growth in this market has been in part fueled by the rapid adoption of Next-Generation Sequencing ("NGS") and Digital PCR, along with an emphasis by the U.S. Food & Drug Administration ("FDA") for better and more uniform compliance regarding Laboratory Designed Test assays and will be accelerated further by the adoption of liquid biopsies in association with the sequencing platforms. One of the main reasons for this is that there is still a need for more informative data to help guide treatment. We believe that this will only occur when there is a move to blood and liquid testing of cancer patients earlier and more regularly (monitoring) to ensure more accurate diagnoses and more targeted and effective treatments. Additionally the desire for less costly and easier sample collection will drive the adoption of blood and liquid testing. We believe that MX-ICP is at the forefront of technologies designed to accomplish this transition away from traditional tissue biopsies, analysis and monitoring and will help precision medicine to become a reality.

Transgenomic does not intend to build the extensive infrastructure necessary to fully commercialize MX-ICP alone. While there are applications of the technology that we will sell directly, we anticipate that the majority of revenues over time will be generated through a combination of exclusive, non-exclusive or semi-exclusive licenses to partners and collaborators. Our goal is to establish the fastest time to market possible for our product and to leverage already existing infrastructure rather than depend on making significant capital expenditures or other investments of our own. Our potential partners generally fall into one of three categories:

- L**aboratory instrumentation and reagents suppliers** (such as: Thermo Fisher Scientific, Inc., Illumina, Inc., Bio-Rad Laboratories, Inc., Qiagen N.V. and VWR, Inc.). The usefulness of MX-ICP across all platforms and its ability to detect tumor mutations in a wide range of samples make such companies natural partners for Transgenomic. We believe that MX-ICP has the potential to greatly expand the market for cancer monitoring as a complement, not as a competitor, to existing products.

- **Pharmaceutical/Biotechnology companies and Clinical Research Organizations (CRO's)** (such as: Amgen Inc., Novartis AG, Clovis Oncology, Inc., AstraZeneca plc, GlaxoSmithKline plc, Bristol-Myers Squibb Company, Covance Inc., Quintiles IMS Holdings, Inc. and PPD Inc). For companies developing and testing new cancer drugs, MX-ICP has the potential to allow the implementation of blood based testing for cancer, improve the level of detection of low level mutations, resurrect failed drug targets, reduce the risk of clinical trials, stratify populations before studies start to enhance success rates, identify low level mutations that cause side effects, as well as support the development of companion diagnostics to match drugs with patients.

- **Clinical Laboratories** (such as: LifeLabs, Laboratory Corporation of America Holdings, Quest Diagnostics Incorporated and the many CLIA-certified laboratories including major academic centers such as Dana Fabre

Cancer Institute (DFCI) Mayo, Johns Hopkins University (JHU) and MD Anderson throughout the United States). MX-ICP would allow clinical laboratories (Molecular Diagnostics Labs) to effectively compete with more specialized providers and to become full service providers as personalized, precision medicine becomes more widely adopted and improves patient care and outcomes.

The markets in which we compete require a wide variety of technologies, products and capabilities. The combination of technological complexity and rapid change within our markets makes it difficult for a single company to develop all of the solutions that it desires to offer as part of its family of products and services. We work to broaden the range of products and services we deliver to customers in target markets through acquisitions, investments and alliances. We employ the following strategies to address the need for new or enhanced products and services:

- Enhancing the product mutation coverage and improving its performance;
- Developing new technologies and products internally; and
- Entering into joint-development efforts with other companies and academics.

Our strategy is to leverage the discoveries in our laboratory to create “kits” or assays or CLIA tests, for clients in our laboratory, to distribute directly ourselves and via our strategic partnerships and licensing agreements.

We will continue to develop new applications for, and enhancements of, MX-ICP and capitalize on our expertise and intellectual properties to develop unique new applications of the MX-ICP technology for potential partnerships. We will focus on growth in our core markets via direct sales and business development activities with industry leaders across the globe.

Products

MX-ICP is our proprietary technology product with industry transforming potential. It is exclusively licensed by Transgenomic from Dana-Faber Cancer Institute. MX-ICP is a unique amplification technology that suppresses wild-type (normal) DNA and thereby enables the selective amplification of all mutations (genetic alterations) present in that region of the genome. As a result of its ultra-high sensitivity (1,000 times more sensitive than standard DNA sequencing alone), it works on almost all sample types that contain DNA, including tissue, blood, urine and saliva or sputum; it can be used on all sequencing platforms; and it is easily implemented into standard laboratory processes without significant investment of time or resources. MX-ICP has applications in all therapeutic areas, but the first and major focus at this time is the estimated expanding $28 billion market for liquid biopsies and cancer testing. The Company also believes that the current market for clinical diagnostic (MDx) use of PCR, which is estimated to be in excess of $10 billion in 2015 based on external reports, will continue to grow and is a validation of the size of market for this type of technology and product. Importantly, MX-ICP is platform agnostic and can therefore be integrated and implemented into any clinical testing, basic research or biopharmaceutical laboratory. In addition, the MX-ICP product is a simple chemical reagent that is able to be mass-produced and supplied efficiently to any end user.

Our highly specialized genetics analytical services and expertise are utilized in our CLIA-certified laboratory in Omaha, Nebraska. Our laboratory supports pharmaceutical companies and CRO's in their clinical trials, primarily Phase II and Phase III trials, and has over 20 years of clinical trials development experience and its clients include many of the top 20 worldwide pharmaceuticals and biotechnology companies.

Our expanding oncology tests are focused heavily on genetic mutations commonly associated with the major cancer types - NSCLC (lung), CRC (colorectal), breast, melanoma and prostate. We primarily test for mutations in the KRAS, NRAS, BRAF and PIK3CA genes, all associated with the most common types of cancers. The presence or absence of these mutations increasingly influences oncologists’ treatment choices for their patients. We have been focused on testing for low level mutations in colorectal cancer tissue biopsies that are targets for new therapies, and we intend to continue this and improve on it as we incorporate our MX-ICP technology products into our oncology testing menu. We also offer tests for hereditary cancer-predisposing syndromes.

Sales and Marketing

Our strategy for commercializing MX-ICP is to focus on enabling strategic technology licensing agreements with established partners in the fields of: instrumentation and reagent suppliers, biotechnology and pharmaceutical companies, and clinical laboratories.

The commercial focus is broken down into three categories:

1. **Services**: performing services for pharmaceuticals/biotechnology companies and CRO's in order to enable them to submit their drug targets to the FDA for approval
2. **Products**: this includes MX-ICP kits for research use and MX-ICP CLIA Testing for oncologists in the United States

3. **Licensing**: strategic partnerships and likening agreements to grant companies, academics and clinical laboratories with various levels of access to MX-ICP

We see over time that the majority of our revenues will come from the later "licensing" agreements and will be of a high margin, but in the near term (first two years) revenue is expected to be generated from all three commercial areas. We are focusing on these business to business activities and using our direct staff and external consultants with significant market and domain expertise to accelerate this strategy.

Customers

We expect to expand our customer base through licensing and partnership agreements for MX-ICP with pharmaceutical and biotechnology companies and clinical laboratories.

Research and Development

We continue to invest in research and development in order to remain competitive and to take advantage of new business opportunities as they arise. We maintain a program of research and development with respect to platform technologies, such as ICE COLD-PCR, instruments, test kits and services, engaging existing and new technologies to create scientific and medical applications that will add value to patient care as well as significant commercial value. Major areas of focus include the (i) development of ICE COLD-PCR applications for ultra-high sensitivity mutation detection in any liquid (including blood, sputum and urine) and tissue samples (fresh, frozen, FNA, FFPE, etc.); (ii) development of a new strategy for mutation detection and sequence confirmation using micro-capillary electrophoresis; (iii) use of commercially-available assays and the development of custom assays for detection of somatic mutations in cancer samples using NGS and digital PCR or droplet PCR; and (iv) development of biomarker assays for the marketplace. For the years ended December 31, 2016 and 2015, our research and development expenses related to continuing operations were $1.4 million and $1.9 million, respectively.

Manufacturing

Historically, we manufactured bioconsumable products including our test kits, separation columns, liquid reagents and enzymes. The major components of our WAVE Systems were manufactured for us by a third party. We integrated our hardware and software with these third party manufactured components. Our manufacturing facilities for WAVE Systems and bioconsumables were located in Omaha, Nebraska and San Jose, California. The historical costs of operating the manufacturing facilities are included in our results for discontinued operations.

Intellectual Property

To establish and protect our proprietary technologies and products, we rely on a combination of patent, copyright, trademark and trade secret laws, license agreements' contractual confidentiality provisions and confidentiality agreements. Our ICE COLD-PCR platform technology is protected by in-licensed patents that expire in various periods through 2031. As part of the FAMILION acquisition in 2010, we acquired exclusive rights to the FAMILION family of genetic tests for inherited disease, including the patents protecting this technology. Our FAMILION patents and acquired technology are included as part of our discontinued operations. As we expand our product offerings, we also are extending our patent development efforts to protect such product offerings. Established competitors, as well as companies that purchase and enforce patents and other intellectual property, may already have patents covering similar products. There is no assurance that we will be able to obtain patents covering our products, or that we will be able to obtain licenses from such companies on favorable terms or at all. While we have pursued and continue to pursue patent protection for our technologies, we may, from time to time, abandon certain patents and patent applications for business reasons. However, while patents are an important element of our success, our business as a whole is not significantly dependent on any one patent.

We will continue to file patent applications, seek new licenses, take advantage of available copyright and trademark protections and implement appropriate trade secret protocols to protect our intellectual property. Despite these precautions, there can be no assurance that misappropriation of our products and proprietary technologies will not occur.

Although we believe that our developed and licensed intellectual property rights do not infringe upon the proprietary rights of third parties, there can be no assurance that third parties will not assert infringement claims against us. Further, there can be no assurance that intellectual property protection will be available for our products in the U.S. or foreign countries.

Like many companies in the biotechnology and other high-tech industries, third parties have in the past and may in the future assert claims or initiate litigation related to patent, copyright, trademark or other intellectual property rights to business processes, technologies and related standards that are relevant to us and our customers. These assertions have increased over time as a result

of the general increase in patent claims assertions, particularly in the United States. Third parties may also claim that their intellectual property rights are being infringed by our customers' use of a business process method that utilizes products in conjunction with other products, which could result in indemnification claims against us by our customers. Any claim against us, with or without merit, could be time-consuming and a distraction to management, result in costly litigation, cause product delivery delays, require us to enter into royalty or licensing agreements or pay damages or amounts in settlement, prohibit us from selling certain products or require us to develop alternative non-infringing technology. We could also be required to defend or indemnify our customers against such claims.

Government Regulation

We are subject to a variety of federal, state and municipal environmental and safety laws based on our use of hazardous materials in both manufacturing and research and development operations. We believe that we are in material compliance with applicable environmental laws and regulations. However, if we cause contamination to the environment, intentionally or unintentionally, we could be responsible for damages related to the clean-up of such contamination or individual injury caused by such contamination. We cannot predict how changes in laws and regulations will impact how we conduct our business operations in the future or whether the costs of compliance will increase in the future.

Regulation by governmental authorities in the United States and other countries is not currently required for the current product offerings/services provided by Transgenomic and is not expected to be a significant factor in the manufacturing, labeling, distribution and marketing of our products and systems, especially when considering our current partnership and licensing strategy. However, we continue to monitor and engage in dialog with the FDA and other regulatory bodies. Please see the section of this Annual Report entitled "Risk Factors" for other risks associated with regulatory requirements.

Competition

The markets in which we operate are highly competitive and characterized by rapidly changing technological advances. Many of our competitors possess greater resources than us and may be able to develop and offer a greater breadth of products and/or services, coupled with significant marketing and distribution capabilities. We compete principally on the basis of uniquely enabling scientific technical advantages in specific but significant market segments.

Employees

As of December 31, 2016 and 2015, we had employees in continuing operations focused in the following areas of operation:

	December 31,	
	2016	**2015**
Manufacturing and Laboratory	5	11
Sales, Marketing and Administration	10	17
Research and Development	4	9
	19	37

All of our employees as of December 31, 2016 were full-time employees.

Our employees were employed in the following geographical locations:

	December 31,	
	2016	**2015**
United States	18	36
United Kingdom	1	1
	19	37

General Information

We were incorporated in Delaware on March 6, 1997. Our principal office is located at 12325 Emmet Street, Omaha, Nebraska 68164 (telephone: 402-452-5400). This facility houses certain administrative staff and laboratories.

Our Internet website is located at http://www.transgenomic.com. The information on our website is not a part of this Annual Report. We make available free of charge on our website our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the

Securities Exchange Act of 1934, as amended (the "Exchange Act"), as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Our SEC reports can be accessed through the investor relations section of our Internet website.

The public may also read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Room 1580, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains an Internet website that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. The SEC's Internet website is located at http://www.sec.gov.

Executive Officers of the Registrant

Paul Kinnon. Mr. Kinnon, age 53, has served as our President and Chief Executive Officer and a Director since September 2013. On October 31, 2014, Mr. Kinnon was appointed Interim Chief Financial Officer. Mr. Kinnon has more than 20 years of global leadership experience in innovative life science and diagnostics companies. From January through August 2013, he provided consulting services to the life science sector as a Partner at Arch Global Research. During a portion of this time, Mr. Kinnon provided consulting services to us. From January 2007 to December 2012, Mr. Kinnon was President, Chief Executive Officer and a Director of ZyGEM Corporation Limited, a biotechnology company, where he transformed the company from a regional enzyme provider into a leader in integrated microfluidic technologies for forensic and clinical diagnostic applications. From May 2006 to June 2007, Mr. Kinnon was Vice President & General Manager Environmental Diagnostics (later expanded to Applied Markets) at Invitrogen Corporation (now Life Technologies), a high growth life sciences and diagnostics firm, and from October 2004 until April 2006, he was Vice President, Global Strategic Alliances at Invitrogen. Previously, Mr. Kinnon also held business, sales and marketing roles of increasing responsibility at Guava Technologies, Inc., Cellomics, Inc. and other life science companies. Mr. Kinnon earned his Bachelor of Sciences degree in Applied Chemistry at Coventry University in the United Kingdom and holds a Diploma of Marketing. A petition in bankruptcy was filed against ZyGEM Corporation Limited in April 2013.

Recent Events

Amendment to Merger Agreement

As previously reported on October 13, 2016, Transgenomic, Merger Sub, and Precipio entered into the Merger Agreement pursuant to which Precipio will become a wholly-owned subsidiary of Transgenomic (the "Merger"), on the terms and subject to the conditions set forth in the Merger Agreement. Following the Merger, Transgenomic will change its name to Precipio, Inc. ("New Precipio").

On February 2, 2017, Transgenomic, Merger Sub and Precipio entered into a First Amendment to Agreement and Plan of Merger (the "Merger Agreement Amendment") which provided for, among other things, the following: (a) the authorization of a line of credit up to $250,000 provided by Precipio to Transgenomic pursuant to an unsecured promissory note (as discussed below under the caption "Bridge Financing"); (b) the revision of the exchange ratio set forth in the Merger Agreement to provide that issued and outstanding common units of Precipio prior to the effective time of the Merger will be converted into the right to receive an amount of shares of New Precipio common stock ("New Precipio common stock") equal to 79% of the issued and outstanding shares of New Precipio common stock (not taking into account the issuance of shares of convertible preferred stock of New Precipio ("New Precipio preferred stock") in the Merger or related private placement); (c) the waiver as a condition to the closing of the Merger of the continual listing of the existing shares of Transgenomic's common stock on the Nasdaq Capital Market; (d) the extension of the deadline pursuant to which a "shelf" registration statement on Form S-3 or other appropriate form is required to be filed by New Precipio with the Securities Exchange Commission to June 1, 2017; (e) the authorization for certain indebtedness of New Precipio to remain outstanding as of the effective date of the Merger; (f) the authorization of certain actions taken by each of Transgenomic and Precipio since the date the Merger Agreement; (g) the removal from the Merger Agreement of certain conditions to closing of the Merger; and (h) the extension of the date that either Transgenomic or Precipio may terminate the Merger Agreement if the Merger has not been consummated to June 30, 2017.

Conversion of Unsecured Convertible Promissory Notes

On January 20, 2015, Transgenomic entered into a series of Unsecured Convertible Promissory Notes with seven accredited investors (the "Investors") in the principal amount of $925,000 (the "Notes"). Pursuant to the terms of the Notes, interest accrues at a rate of 6% per year and is due and payable by Transgenomic on December 31, 2016 (the "Maturity Date"). Transgenomic also issued,

to its placement agent for the Notes, a convertible promissory note, upon the same terms and conditions as the Notes, in an aggregate principal amount equal to 5% of the proceeds received by Transgenomic, or $46,250 (the “Agent Note”). The Notes

are convertible into shares of Transgenomic's common stock at the option of the Investors and as of December 31, 2016 $400,000 of the aggregate principal amount of the Notes, and accrued interest thereon, has been converted into an aggregate of 281,023 shares of Transgenomic's common stock. On the Maturity Date, the then outstanding aggregate amount owed on the Notes and Agent Note of $638,016 ($571,250 in principal amount and $66,766 of accrued interest) became due. Pursuant to the terms of the Notes, Transgenomic's failure to pay any principal or interest within 10 days of the date such payment is due would constitute an event of default (the "Prospective Event of Default").

On January 10, 2017, the Investors executed a waiver of the Prospective Event of Default, pursuant to which, the Investors agreed to waive the Prospective Event of Default on the condition that Transgenomic and the Investors enter into definitive documentation evidencing the terms for an extended Maturity Date of the Notes and the Agent Note on or before January 16, 2017 (the "Waiver Deadline").

On January 13, 2017, all but one Investor exercised their conversion rights relating to their respective Notes, including the Agent Note, and agreed to convert an aggregate amount of $499,359 of principal and interest due under the Notes and Agent Note into 416,133 shares of Transgenomic's common stock. The Waiver Deadline was extended with respect to the remaining Investor who had exercised conversion rights (the "Non-Converting Investor") so that the parties could continue to discuss a resolution of the Prospective Event of Default relating to such Investor's Note with an outstanding amount due of $139,876 as of January 13, 2017 ($125,000 in principal amount and $14,876 of accrued interest).

On January 17, 2017, the Non-Converting Investor agreed to extend the Maturity Date of its Note pursuant to an amendment to the Note (the "Amendment"). The Amendment provides that two-thirds of the outstanding principal amount of the Note must be paid upon the earlier to occur of the close of Transgenomic's merger with Precipio or June 16, 2017 (such applicable date, the "Deferred Maturity Date"). The remaining one-third of the principal amount outstanding on the Note must be paid on the six month anniversary of the Deferred Maturity Date (the "Extended Maturity Date").

On the applicable Deferred Maturity Date, all accrued and unpaid interest on the Note as of the Deferred Maturity Date will be converted into shares of Transgenomic's common stock at a conversion price based on the average closing price of Company common stock on The Nasdaq Stock Market LLC ("Nasdaq") for the 20 consecutive trading days immediately preceding the date of conversion, but in no event will the conversion price be less than $0.25 per share. Interest that accrues on the remaining principal amount of the Note from the Deferred Maturity Date will be payable on the Extended Maturity Date, unless the Note is converted in which case such interest will be payable in shares of Transgenomic's common stock as part of the conversion.

In exchange for extending the Maturity Date of the Note, Transgenomic will issue to the Non-Converting Investor on the applicable Deferred Maturity Date a warrant to purchase shares of Transgenomic's common stock having an aggregate value of $6,250 with an exercise price to be determined as of the date of issuance of the warrant based on the average closing price of Company common stock on Nasdaq for the 20 consecutive trading days immediately preceding the date of issuance of the warrant, subject to the approval of Nasdaq if necessary. The warrant will expire two years from the date of issuance.

Delisting from Nasdaq

As previously disclosed, on February 17, 2017, Transgenomic received written notification from the staff of Nasdaq that, as a result of Transgenomic's inability to maintain certain Nasdaq continued listing requirements, Nasdaq had determined to delist Transgenomic's shares from Nasdaq. Accordingly, trading in Transgenomic's shares was suspended, and on February 22, 2017, Transgenomic's shares began trading on the OTCQB exchange under the ticker "TBIO".

Change in Transgenomic's Independent Registered Public Accounting Firm

On January 12, 2017, the Audit Committee (the "Audit Committee") of the Board of Directors of Transgenomic approved the dismissal of Ernst & Young LLP ("Ernst & Young") as Transgenomic's independent registered public accounting firm and accordingly

Transgenomic notified Ernst & Young of such action effective as of January 12, 2017.

The dismissal of Ernst & Young as Transgenomic's independent registered public accounting firm did not result from any dissatisfaction with the quality of professional services rendered by Ernst & Young.

The audit reports of Ernst & Young on Transgenomic's consolidated financial statements as of and for the two most recent fiscal years did not contain an adverse opinion or a disclaimer of opinion, and were not qualified or modified as to uncertainty, audit scope or accounting principles other than reference to substantial doubt about the Company's ability to continue as a going concern.

During Transgenomic's two most recent fiscal years, and any subsequent interim period prior to termination of the client-auditor relationship with Ernst & Young on January 12, 2017, there were no "disagreements" (as that term is described in Item 304(a)(1)(iv) of Regulation S-K and the related instructions) between Transgenomic and Ernst & Young on any matters of accounting principles or practices, financial statement disclosure, or auditing scope or procedure which, if not resolved to the satisfaction of Ernst & Young, would have caused Ernst & Young to make reference to the subject matter of such disagreements in their reports on Transgenomic's consolidated financial statements with respect to such periods.

During Transgenomic's two most recent fiscal years, and any subsequent interim period prior to termination of the client-auditor relationship with Ernst & Young on January 12, 2017, there were no "reportable events" as that term is described in Item 304(a)(1)(v) of Regulation S-K and the related instructions, except for the material weaknesses in Transgenomic's internal control over financial reporting disclosed in its Form 10-K for the fiscal year ended December 31, 2014 (filed April 15, 2015), related to the design of controls over proper timing and recognition of revenue and over the elements used in Transgenomic's analysis and evaluation of the allowance for doubtful accounts to ensure that the allowance for doubtful accounts was reasonably stated. The ineffectiveness of these controls did not result in an adjustment to the financial statements or a restatement of prior year financial statements. In response to the material weaknesses, Transgenomic's management developed remediation plans to address the control deficiencies identified in 2014. These remediation actions were implemented during 2015 and included enhancements that included (i) with respect to revenue recognition, (a) a reconciliation of proof of delivery (fax confirmation) for invoiced and unbilled reports and (b) a review of error processing queues, among other steps, and (ii) with respect to allowances for doubtful accounts, (a) a review of the payor and client accounts receivable aging (b) review of write offs, (c) a review of current and historical payment trends and (d) a review of actual cash collections and a hindsight analysis, among other steps. Transgenomic's management determined that these remediation actions were effectively designed and demonstrated effective operation for a sufficient period of time to enable Transgenomic's management to conclude that the 2014 material weaknesses were remediated as of December 31, 2015.

Effective as of February 24, 2017, Transgenomic, as approved by the Audit Committee, engaged Marcum LLP ("Marcum") as Transgenomic's independent registered public accounting firm to audit Transgenomic's consolidated financial statements for its fiscal year ended December 31, 2016.

During Transgenomic's two most recent fiscal years ended December 31, 2014 and December 31, 2015 and in the subsequent interim period through February 24, 2017, neither Transgenomic nor anyone on its behalf consulted Marcum regarding either: (i) the application of accounting principles to a specified transaction, either completed or proposed, or the type of audit opinion that might be rendered on Transgenomic's financial statements, in connection with which either a written report or oral advice was provided to Transgenomic that Marcum concluded was an important factor considered by Transgenomic in reaching a decision as to the accounting, auditing or financial reporting issue; or (ii) any matter that was either the subject of a disagreement or reportable event as defined in Regulation S-K, Item 304(a)(1)(iv) and Item 304(a)(1)(v), respectively.

Amendment to Loan and Security Agreement

On February 2, 2017, Transgenomic entered into the Termination and Tenth Amendment (the "Loan Agreement Amendment") to its Loan and Security Agreement, dated March 13, 2013, with Third Security Senior Staff 2008 LLC, as administrative agent and a lender, and the other lenders party thereto (collectively, the "Lenders"), as amended, for a revolving line of credit and a term loan (as so amended, the "Loan Agreement"). The Loan Agreement Amendment, among other things, (i) provides that the Lenders will waive specified events of default under the terms of the Loan Agreement until the effective time of the Merger (or the termination of the Merger Agreement in accordance with its terms), (ii) provides for the conversion of all outstanding indebtedness owed to the Lenders under the Loan Agreement (the "Outstanding Indebtedness") into shares of Transgenomic common stock and preferred stock (collectively, the "Conversion Shares") effective as of the closing date of the Merger and (iii) the termination of the Loan Documents (as defined in the Loan Agreement) and the termination and release of all security interests and liens of the Lenders in the Collateral (as defined in the Loan Agreement) in each case immediately following the conversion of the Outstanding Indebtedness into Conversion Shares.

The effectiveness of certain provisions in the Loan Agreement Amendment, including provisions relating to conversion of the Conversion Shares and termination of the Loan Documents, is conditioned on, among other things, the consummation of the Merger, and, in the event that the Merger is not consummated, these provisions in the Loan Agreement Amendment will terminate.

As noted above, in connection with the Loan Agreement Amendment, the Lenders have agreed to convert the outstanding principal and accrued interest under the Loan Agreement into (i) approximately 10.4 million shares of New Precipio common stock immediately prior to the effectiveness of the Merger at a price equal to $0.50 per share and (ii) 24.1 million shares of New Precipio preferred stock. As of December 31, 2016, the outstanding amount owed under the Loan Agreement was approximately $7.2 million of principal and $0.6 million of accrued interest. The issuance of the Conversion Shares is subject to the approval of the Transgenomic stockholders in accordance with Nasdaq Capital Market listing rules.

The Lenders are affiliates of Third Security, LLC, whose affiliates hold more than 10% of the outstanding voting stock of Transgenomic. Additionally, Doit L. Koppler II, a director of Transgenomic, is affiliated with Third Security, LLC and its affiliates.

Legal Proceedings

Transgenomic is subject to a number of claims of various amounts that arise out of the normal course of its business. In addition to the claims described in this "Legal Proceedings" section, Transgenomic is delinquent on the payment of outstanding accounts payable amounting to approximately $0.6 million with certain of Transgenomic's vendors and suppliers who have taken or have threatened to take legal action to collect such outstanding amounts.

On February 25, 2016, UNMC filed a lawsuit against Transgenomic in the District Court of Douglas County, Nebraska, for breach of contract and seeking recovery of $0.7 million owed by Transgenomic to UNMC. Transgenomic and UNMC entered into a settlement agreement dated February 6, 2017, which included, among other things, a mutual general release of claims, and Transgenomic's agreement to pay $0.4 million to UNMC in installments over a period of time. As of March 15, 2017, Transgenomic's initial payment due to UNMC under their settlement agreement is delinquent. Transgenomic and UNMC are currently in discussions to extend the date of Transgenomic's intial payment due to UNMC. A $0.4 million and $0.7 million liability has been recorded and is reflected in accrued expenses at December 31, 2016 and December 31, 2015, respectively.

In addition, on April 13, 2016, Fox Chase filed a lawsuit against Transgenomic in the Court of Common Pleas, alleging, among other things, breach of contract, tortious interference with present and prospective contractual relations, unjust enrichment, fraudulent conversion and conspiracy and seeking punitive damages in addition to damages and other relief. This lawsuit relates to a license agreement between Transgenomic and Fox Chase (the "License Agreement") as well as the assignment of certain of Transgenomic's rights under the License Agreement to IDT pursuant to the IDT Agreement. Pursuant to the terms of the IDT Agreement, Transgenomic agreed to indemnify IDT with respect to certain of the claims asserted in the Fox Chase proceeding. On July 8, 2016, the Court of Common Pleas sustained Transgenomic's preliminary objections to several of Fox Chase's claims and dismissed the claims for tortious interference, fraudulent conversion, conspiracy, punitive damages and attorney's fees. Accordingly, the case has been narrowed so that only certain contract claims and an unjust enrichment claim remain pending against Transgenomic. Transgenomic believes that it has good and substantial defenses to the claims asserted by Fox Chase. Transgenomic is unable to determine whether any loss will occur or to estimate the range of such potential loss; therefore, no amount of loss has been accrued by Transgenomic as of the date of filing of this Annual Report on Form 10-K. Furthermore, there is no guarantee that Transgenomic will prevail in this suit or receive any damages or other relief if it does prevail.

On June 23, 2016, Mount Sinai filed a lawsuit against Transgenomic in the Supreme Court of the State of New York, County of New York, alleging, among other things, breach of contract and, alternatively, unjust enrichment and quantum merit, and seeking recovery of $0.7 million owed by Transgenomic to Mount Sinai for services rendered. Transgenomic and Mount Sinai entered into a settlement agreement dated October 27, 2016, which included, among other things, a mutual general release of claims, and Transgenomic's agreement to pay approximately $0.7 million to Mount Sinai in installments over a period of time. A $0.7 million liability has been recorded and is reflected in accrued expenses at December 31, 2016. Effective as of February 1, 2017, Transgenomic and Mount Sinai agreed to amend the terms of their settlement agreement to extend the date of Transgenomic's initial payment due to Mount Sinai.

On December 19, 2016, Todd Smith filed a lawsuit against Transgenomic in the District Court of Douglas County Nebraska, alleging breach of contract and seeking recovery of $2.2 million owed by Transgenomic to Todd Smith for costs and damages arising from a breach of Transgenomic's obligations pursuant to lease agreement between the parties. Transgenomic and Todd Smith are currently in discussions to determine a mutually agreeable means by which to settle the outstanding liability.

On February 21, 2017, XIFIN, Inc. ("XIFIN") filed a lawsuit against us in the District Court for the Southern District of California alleging breach of written contract and seeking recovery of approximately $0.27 million owed by us to XIFIN for damages arising from a breach of our obligations pursuant to a Systems Services Agreement between us and XIFIN, dated as of February 22, 2013, as amended and restated on September 1, 2014. On April 4, 2017, XIFIN filed an application for an entry of default by the clerk of the court against us. A $0.21 million liability has been recorded and is reflected in accrued expenses at December 31, 2016.

We and Science Park Development Corporation ("SPDC") entered into that certain Lease dated as of December 31, 2011, as modified by the First Amendment to Lease dated as of June 18, 2013, as further modified by a letter agreement dated as of February 2, 2015, as modified by the Second Amendment to Lease dated as of June 26, 2015 (the " SPDC Lease"). In November 2016, SPDC alleged that we defaulted on our obligations under the SPDC Lease. Specifically, SPDC alleges that we failed to pay approximately $0.4 million in rental payments due under the SPDC Lease and that we vacated a portion of the leased premises in violation of the terms of the SPDC Lease. Transgenomic and SPDC entered into a settlement agreement dated March 6, 2017, which included, among other things, a mutual general release of claims, and Transgenomic's agreement to pay approximately $0.4 million to SPDC in installments over a period of time.

CPA Global provides us with certain patent management services. On February 7, 2017, CPA Global claimed that we owe CPA Global approximately $0.2 million for certain patent maintenance services rendered. CPA Global has not filed claims against us in connection with this allegation. A liability of approximately $0.2 million has been recorded and is reflected in accrued expenses at December 31, 2016.

On March 9, 2016, counsel for Edge BioSystems, Inc. ("EdgeBio") sent a demand letter on behalf of EdgeBio to us in connection with the terms of that certain Asset Purchase Agreement dated September 8, 2015 (the "EdgeBio Agreement"). EdgeBio alleges, among other things, that certain customers of EdgeBio erroneously remitted payments to us, that such payments should have been paid to EdgeBio and that we failed to remit these funds to EdgeBio in violation of the terms of the EdgeBio Agreement. On September 13, 2016, we received a demand for payment letter from EdgeBio's counsel alleging that the balance due to EdgeBio is approximately $0.1 million. A liability of approximately $0.1 million has been recorded and is reflected in accrued expenses at December 31, 2016.

On February 17, 2017, Jesse Campbell ("Campbell") filed a lawsuit individually and on behalf of others similarly situated against us in the District Court for the District of Nebraska alleging we have a materially incomplete and misleading proxy relating to a potential merger and that the merger agreement's deal protection provisions deter superior offers. As a result, he alleges that we have violated Sections 14(a) and 20(a) of the Exchange Act and Rule 14a-9 promulgated thereafter. Although we intend to defend the lawsuit, there can be no assurance regarding the ultimate outcome of this case. Given the uncertainty of litigation, the legal standards that must be met for, among other things, class certification and success on the merits, we are unable to estimate the amount of loss, or range of possible loss, at this time that may result from this action. In the event that a settlement is reached related to these matters, the amount of such settlement may be material to our results of operations and financial condition and may have a material adverse impact on our liquidity.

Item 1A. Risk Factors.

We have a history of operating losses and may incur losses in the future.

We have experienced annual losses from continuing operations since inception of our operations. Our operating loss from continuing operations for the years ended December 31, 2016 and 2015 was $7.8 million and $8.9 million, respectively. These historical losses have been due principally to the expenses that we have incurred in order to develop and market our products, the fixed nature of our manufacturing costs and merger and acquisition costs.

Recurring operating losses raise substantial doubt about our ability to continue as a going concern.

We have incurred substantial operating losses and have used cash in our operating activities for the past several years. As of December 31, 2016, we had negative working capital of approximately $19.3 million.

The audit report issued by our independent registered public accounting firm for our financial statements for the fiscal year ended December 31, 2016 states that our independent registered public accounting firm has substantial doubt in our ability to continue as a going concern due to the risk that we may not have sufficient cash and liquid assets at December 31, 2016 to cover our operating and capital requirements for the next 12 month period from issuance of the Form 10-K. If that is the case, and if sufficient cash cannot be obtained, we would have to substantially alter, or possibly even discontinue, operations. Additionally, as of December 31, 2016, we do not believe that we will have sufficient cash to meet our operating requirements for at least the next 12 month period from issuance

of the Form 10-K. Our financial statements and related notes thereto included elsewhere in this Annual Report on Form 10-K do not include any adjustments that might result from the outcome of this uncertainty.

Our ability to continue as a going concern is dependent upon a combination of completing our planned merger with Precipio, generating additional revenue, improving cash collections, potentially selling underutilized assets and/or product lines related to discontinued operations and, if needed, raising necessary financing to meet our obligations and pay our liabilities arising from normal business operations when they come due. The outcome of these matters cannot be predicted with any certainty at this time and raises substantial doubt that we will be able to continue as a going concern. There is no assurance that we will complete the merger in a timely manner or at all. The merger agreement is subject to many closing conditions and termination rights. We also cannot be certain that additional financing, if needed, will be available on acceptable terms, or at all, and our failure to raise capital when needed could limit our ability to continue its operations.

We have substantial debt and other financial obligations and we may incur even more debt, and we are in default under our loan agreement with affiliates of Third Security, LLC, which means that the lenders under the loan agreement have the right to cease making additional advances, accelerate repayment of all sums due and take action to collect the amounts owed to them, including foreclosing on their security interest, each of which could adversely affect us.

Our revolving line of credit and term loan with affiliates of Third Security, LLC, a related party (the "Lenders"), are governed by a Loan and Security Agreement, as amended (the "Loan and Security Agreement"), which contains certain affirmative and negative covenants. As of December 31, 2016, we had borrowings of $7.2 million under the Loan and Security Agreement. Under the term loan, we agreed not to (i) pledge or otherwise encumber our assets other than to the Lenders, (ii) enter into additional borrowings or guarantees, (iii) repurchase our capital stock, or (iv) enter into certain mergers or acquisitions without the Lenders' consent. To secure the repayment of amounts borrowed under the revolving line of credit and term loan, we granted the Lenders a security interest in all of our assets. As of December 31, 2016, we were not in compliance with the Loan and Security Agreement, as amended by the Ninth Amendment, due to the fact that we did not make the required monthly interest payments during the third and fourth quarter and had not received a waiver for the non-compliance.

On February 2, 2017, Transgenomic entered into the Termination and Tenth Amendment (the "Loan Agreement Amendment") to the Loan and Security Agreement. The Loan Agreement Amendment, among other things, (i) provides that the Lenders will waive specified events of default under the terms of the Loan and Security Agreement until the effective time of the Merger (or the termination of the Merger Agreement in accordance with its terms), (ii) provides for the conversion of all outstanding indebtedness owed to the Lenders under the Loan and Security Agreement (the "Outstanding Indebtedness") into shares of Transgenomic common stock and preferred stock (collectively, the "Conversion Shares") effective as of the closing date of the Merger and (iii) the termination of the Loan Documents (as defined in the Loan and Security Agreement) and the termination and release of all security interests and liens of the Lenders in the Collateral (as defined in the Loan and Security Agreement) in each case immediately following the conversion of the Outstanding Indebtedness into Conversion Shares.

The effectiveness of certain provisions in the Loan Agreement Amendment, including provisions relating to conversion of the Conversion Shares and termination of the Loan Documents, is conditioned on, among other things, the consummation of the Merger, and, in the event that the Merger is not consummated, these provisions in the Loan Agreement Amendment will terminate.

As noted above, in connection with the Loan Agreement Amendment, the Lenders have agreed to convert the outstanding principal and accrued interest under the Loan and Security Agreement into (i) approximately 10.4 million shares of the combined company's common stock immediately prior to the effectiveness of the Merger at a price equal to $0.50 per share and (ii) 24.1 million shares of the combined company's preferred stock. As of December 31, 2016, the outstanding amount owed under the Loan and Security Agreement was approximately $7.2 million of principal and $0.6 million of accrued interest. The issuance of the Conversion Shares is subject to the approval of the Transgenomic stockholders in accordance with Nasdaq Capital Market listing rules.

The Lenders are affiliates of Third Security, LLC, whose affiliates hold more than 10% of the outstanding voting stock of Transgenomic. Additionally, Doit L. Koppler II, a director of Transgenomic, is affiliated with Third Security, LLC and its affiliates.

In the event that the Merger is not consummated, we may be required to further amend our Loan and Security Agreement, refinance all or part of our existing debt, sell assets, incur additional indebtedness or raise equity. Further, based upon our actual performance levels, our covenants relating to income, debt coverage and cash flow and minimum working capital requirements could limit our ability to incur additional debt, which could hinder our ability to execute on our current business strategy. Our ability to make scheduled payments on our debt and other financial obligations and comply with financial covenants depends on our financial and operating performance. Our financial and operating performance will continue to be subject to prevailing economic conditions and to financial, business and other factors, some of which are beyond our control.

Our existing indebtedness could adversely affect our ability to fulfill our obligations and may place us at a competitive disadvantage in our industry.

We continue to have substantial debt outstanding and we may incur additional indebtedness from time to time to finance working capital, product development efforts, strategic acquisitions, investments and alliances, capital expenditures or other general corporate purposes, subject to the restrictions contained in our existing indebtedness and in any other agreements under which we incur indebtedness. Our outstanding indebtedness and debt service requirements could adversely affect our ability to operate our

business and may limit our ability to take advantage of potential business opportunities. For example, our existing level of indebtedness presents the following risks:

- we will be required to use a substantial portion of our cash flow from operations to pay principal and interest on our indebtedness, thereby reducing the availability of our cash flow to fund working capital, capital expenditures, product development efforts, acquisitions, investments and strategic alliances and other general corporate requirements;
- our debt service obligations could limit our flexibility in planning for, or reacting to, changes in our business and our industry and could limit our ability to pursue other business opportunities, borrow more money for operations or capital in the future and implement our business strategies;
- our level of indebtedness and the covenants within our debt instruments may restrict us from raising additional financing on satisfactory terms to fund working capital, capital expenditures, product development efforts, strategic acquisitions, investments and alliances, and other general corporate requirements; and
- our outstanding indebtedness may make it difficult for us to attract additional financing when needed.

O*ur future capital needs are uncertain and we may need to raise additional funds in the futur*e.

Our future capital needs are uncertain and we may need to raise additional funds in the future through debt or equity offerings. Our future capital requirements will depend on many factors, including, but not limited to:

- Revenue generated by sales of our products;
- Expenses incurred in manufacturing and selling our products;
- Costs of developing new products or technologies;
- Costs associated with capital expenditures;
- The number and timing of strategic transactions; and
- Working capital requirements related to growing existing business.

We may need additional capital to finance our growth or to compete, which may cause dilution to existing stockholders or limit our flexibility in conducting our business activities.

We may need to raise additional capital in the future to fund expansion, respond to competitive pressures or acquire complementary businesses, technologies or services. Such additional financing may not be available on terms acceptable to us or at all. To the extent that we raise additional capital by issuing equity securities, our stockholders may experience substantial dilution, and to the extent we engage in additional debt financing, if available, we may become subject to additional restrictive covenants that could limit our flexibility in conducting future business activities. If additional financing is not available or not available on acceptable terms, we may not be able to continue as a going concern, fund our expansion, promote our brands, take advantage of acquisition opportunities, develop or enhance services or respond to competitive pressures.

Governmental payers and health care plans have taken steps to control costs.

Medicare, Medicaid and private insurers have increased their efforts to control the costs of health care services, including clinical testing services. They may reduce fee schedules or limit/exclude coverage for certain types of tests that we perform. Medicaid reimbursement varies by state and is subject to administrative and billing requirements and budget pressures. We expect efforts to reduce reimbursements, impose more stringent cost controls and reduce utilization of testing services will continue. These efforts, including changes in laws or regulations, may have a material adverse impact on our business.

Weakness in U.S. or global economic conditions could have an adverse effect on our businesses.

The economies of the United States and other regions of the world in which we do business have experienced significant weakness, which, in the case of the U.S., has recently resulted in significant unemployment and slower growth in economic activity. A decline in economic conditions may adversely affect demand for our services and products, thus reducing our revenue. These conditions could also impair the ability of those with whom we do business to satisfy their obligations to us. The strengthening dollar has the potential to adversely impact U.S. businesses that operate overseas.

Sales have been variable.

Our laboratory performs project-based work that changes from quarter to quarter. Therefore, comparison of the results of successive quarters may not accurately reflect trends or results for the full year due to the fact that ICP is a new product and will enable the liquid biopsy market to evolve rapidly and ensure Precision Medicine is adopted globally. We see the ICP business and revenues growing as our commercial strategy is successful and our partnerships and licensing agreements become profitable.

Changes in payer mix could have a material adverse impact on our net sales and profitability.

Testing services are billed to physicians, patients, government payers such as Medicare, and insurance companies. Tests may be billed to different payers depending on a particular patient's medical insurance coverage. Government payers have increased their efforts to control the cost, utilization and delivery of health care services as well as reimbursement for laboratory testing services. Further reductions of reimbursement for Medicare and Medicaid services or changes in policy regarding coverage of tests or other requirements for payment, such as prior authorization or a physician or qualified practitioner's signature on test requisitions, may be implemented from time to time. Reimbursement for the laboratory services component of our business is also subject to statutory and regulatory reduction. Reductions in the reimbursement rates and changes in payment policies of other third party payers may occur as well. Such changes in the past have resulted in reduced payments as well as added costs and have decreased test utilization for the clinical laboratory industry by adding more complex new regulatory and administrative requirements. As a result, increases in the percentage of services billed to government payers could have an adverse impact on our net sales.

We may experience temporary disruptions and delays in processing biological samples at our facilities.

We may experience delays in processing biological samples caused by software and other errors. Any delay in processing samples could have an adverse effect on our business, financial condition and results of operations.

Our laboratories require ongoing CLIA certification.

The CLIA extended federal oversight to virtually all clinical laboratories by requiring that they be certified by the federal government or by a federally-approved accreditation agency. The CLIA requires that all clinical laboratories meet quality assurance, quality control and personnel standards. Laboratories must also undergo proficiency testing and are subject to inspections.

The sanctions for failure to comply with the CLIA requirements include suspension, revocation or limitation of a laboratory's CLIA certificate, which is necessary to conduct business, cancellation or suspension of the laboratory's approval to receive Medicare and/or Medicaid reimbursement, as well as significant fines and/or criminal penalties. The loss or suspension of a CLIA certification, imposition of a fine or other penalties, or future changes in the CLIA law or regulations (or interpretation of the law or regulations) could have a material adverse effect on us.

We believe that we are in compliance with all applicable laboratory requirements, but no assurances can be given that our laboratories will pass all future certification inspections.

Failure to comply with HIPAA could be costly.

The Health Insurance Portability and Accountability Act ("HIPAA") and associated regulations protect the privacy and security of certain patient health information and establish standards for electronic health care transactions in the United States. These privacy regulations establish federal standards regarding the uses and disclosures of protected health information. Our Molecular Labs are subject to HIPAA and its associated regulations. If we fail to comply with these laws and regulations we could suffer civil and criminal penalties, fines, exclusion from participation in governmental health care programs and the loss of various licenses, certificates and authorizations necessary to operate our Patient Testing business. We could also incur liabilities from third party claims.

Our business could be adversely impacted by health care reform.

Government attention to the health care industry in the United States is significant and may increase. The Patient Protection and Affordable Care Act passed by Congress and signed into law by President Obama in March 2010 could adversely impact our business. While certain portions of the legislation have already gone into effect, the ultimate impact of the legislation on the health care industry is still unknown, and the overall impact on our business is likely to be extensive and could result in significant changes to our business and our customers' businesses.

We are subject to a number of claims of various amounts that arise out of the normal course of our business.

We are subject to a number of claims of various amounts that arise out of the normal course of our business. In addition to the claims described in this Item 1A, we are delinquent on the payment of outstanding accounts payable amounting to approximately $0.6 million with certain of our vendors and suppliers who have taken or have threatened to take legal action to collect such outstanding amounts.

Specifically, on February 25, 2016, the Board of Regents of the University of Nebraska ("UNMC") filed a lawsuit against us in the District Court of Douglas County, Nebraska for breach of contract and seeking recovery of $0.7 million owed by us to UNMC. We and UNMC entered into a settlement agreement dated February 6, 2017, which included, among other things, a mutual

general release of claims, and Transgenomic's agreement to pay $0.4 million to UNMC in installments over a period of time. The settlement amount has been recorded and is reflected in accrued expenses at December 31, 2016. As of March 15, 2017, Transgenomic's initial payment due to UNMC under its settlement agreement is delinquent. Transgenomic and UNMC are currently in discussions to extend the date of Transgenomic's initial payment due to UNMC.

In addition, on April 13, 2016, Fox Chase Cancer Center ("Fox Chase") filed a lawsuit against us in the Court of Common Pleas of Philadelphia County, First Judicial District of Pennsylvania Civil Trial Division (the "Court of Common Pleas"), alleging, among other things, breach of contract, tortious interference with present and prospective contractual relations, unjust enrichment, fraudulent conversion and conspiracy and seeking punitive damages in addition to damages and other relief. This lawsuit relates to a license agreement we entered into with Fox Chase in August 2000, as amended (the "License Agreement"), as well as the assignment of certain of our rights under the License Agreement to Integrated DNA Technologies, Inc. ("IDT"), pursuant to the Surveyor Kit Patent, Technology and Inventory Purchase Agreement we entered into with IDT effective as of July 1, 2014 (the "IDT Agreement"). Pursuant to the terms of the IDT Agreement, we agreed to indemnify IDT with respect to certain of the claims asserted in the Fox Chase proceeding. On July 8, 2016, the Court of Common Pleas sustained our preliminary objections to several of Fox Chase's claims and dismissed the claims for tortious interference, fraudulent conversion, conspiracy, punitive damages and attorney's fees. Accordingly, the case has been narrowed so that only certain contract claims and an unjust enrichment claim remain pending against us. We believe that we have good and substantial defenses to the claims asserted by Fox Chase. However, there is no guarantee that we will prevail in this suit or receive any damages or other relief if we do prevail.

On June 23, 2016, the Icahn School of Medicine at Mount Sinai ("Mount Sinai") filed a lawsuit against us in the Supreme Court of the State of New York, County of New York, alleging, among other things, breach of contract and, alternatively, unjust enrichment and quantum merit, and seeking recovery of $0.7 million owed by us to Mount Sinai for services rendered. We and Mount Sinai entered into a settlement agreement dated October 27, 2016, which included, among other things, a mutual general release of claims, and our agreement to pay approximately $0.7 million to Mount Sinai in installments over a period of time. The settlement amount has been recorded and is reflected in accrued expenses at December 31, 2016. Effective as of February 1, 2017, we and Mount Sinai agreed to amend the terms of our settlement agreement to extend the date of our initial payment due to Mount Sinai.

On December 19, 2016, Todd Smith filed a lawsuit against Transgenomic in the District Court of Douglas County Nebraska, alleging breach of contract and seeking recovery of $2.2 million owed by Transgenomic to Todd Smith for costs and damages arising from a breach of Transgenomic's obligations pursuant to lease agreement between the parties. Transgenomic and Todd Smith are currently in discussions to determine a mutually agreeable means by which to settle the outstanding liability.

On February 21, 2017, XIFIN filed a lawsuit against us in the District Court for the Southern District of California alleging breach of written contract and seeking recovery of approximately $0.27 million owed by us to XIFIN for damages arising from a breach of our obligations pursuant to a Systems Services Agreement between us and XIFIN, dated as of February 22, 2013, as amended and restated on September 1, 2014. On April 4, 2017, XIFIN filed an application for an entry of default by the clerk of the court against us. A $0.21 million liability has been recorded and is reflected in accrued expenses at December 31, 2016.

We and Science Park Development Corporation ("SPDC") entered into that certain Lease dated as of December 31, 2011, as modified by the First Amendment to Lease dated as of June 18, 2013, as further modified by a letter agreement dated as of February 2, 2015, as modified by the Second Amendment to Lease dated as of June 26, 2015 (the "SPDC Lease"). In November 2016, SPDC alleged that we defaulted on our obligations under the SPDC Lease. Specifically, SPDC alleges that we failed to pay approximately $0.4 million in rental payments due under the SPDC Lease and that we vacated a portion of the leased premises in violation of the terms of the SPDC Lease. Transgenomic and SPDC entered into a settlement agreement dated March 6, 2017, which included, among other things, a mutual general release of claims, and Transgenomic's agreement to pay approximately $0.4 million to SPDC in installments over a period of time.

CPA Global provides us with certain patent management services. One February 6, 2017, CPA Global claimed that we owe CPA Global approximately $0.2 million for certain patent maintenance services rendered. CPA Global has not filed claims against us in connection with this allegation. A liability of approximately $0.2 million has been recorded and is reflected in accrued expenses at December 31, 2016.

On March 9, 2016, counsel for EdgeBio sent a demand letter on behalf of EdgeBio to us in connection with the terms of the EdgeBio Agreement. EdgeBio alleges, among other things, that certain customers of EdgeBio erroneously remitted payments to us, that such payments should have been paid to EdgeBio and that we failed to remit these funds to EdgeBio in violation of the terms of the EdgeBio Agreement. On September 13, 2016, we received a demand for payment letter from EdgeBio's counsel alleging that the

balance due to EdgeBio is approximately $0.1 million. A liability of approximately $0.1 million has been recorded and is reflected in accrued expenses at December 31, 2016.

On February 17, 2017, Campbell filed a lawsuit individually and on behalf of others similarly situated against us in the District Court for the District of Nebraska alleging we have a materially incomplete and misleading proxy relating to a potential merger and that the merger agreement's deal protection provisions deter superior offers. As a result, he alleges that we have violated Sections 14(a) and 20(a) of the Exchange Act and Rule 14a-9 promulgated thereafter. Although we intend to defend the lawsuit, there can be no assurance regarding the ultimate outcome of this case. Given the uncertainty of litigation, the legal standards that must be met for, among other things, class certification and success on the merits, we are unable to estimate the amount of loss, or range of possible loss, at this time that may result from this action. In the event that a settlement is reached related to these matters, the amount of such settlement may be material to our results of operations and financial condition and may have a material adverse impact on our liquidity.

Our ongoing and future litigation could result in significant additional costs and further divert the attention of our management and key personnel from our business operations and the implementation of our business strategy. In addition, the disposition of any of the pending claims against us, in excess of recorded accruals, could have a material adverse effect on our financial position, results of operations or cash flows.

We may be subject to client lawsuits.

Providers of clinical testing services may be subject to lawsuits alleging negligence or other legal claims. Potential suits could involve claims for substantial damages. Litigation could also have an adverse impact on our client base and our reputation. We maintain liability insurance coverage for certain claims that could result from providing or failing to provide clinical testing services, including inaccurate testing results and other exposures. Our insurance coverage limits our maximum recovery on individual claims and, therefore, there is no assurance that such coverage will be adequate.

Our dependence on our suppliers exposes us to certain risks.

We rely on various suppliers for products and materials to produce our products. In the event that they would be unable to deliver these items due to product shortages or business closures, we may be unable to deliver our products to our customers in a timely manner or may need to increase our prices. The current economy poses the additional risk of our suppliers' inability to continue their businesses as usual.

Our markets are very competitive.

Many of our competitors have greater resources than we do and may enjoy other competitive advantages. This may allow them to more effectively market their products to our customers or potential customers, to develop products that make our products obsolete or to produce and sell products less expensively than us. As a result of these competitive factors, demand for and pricing of our products and services could be negatively affected.

Our patents may not protect us from others using our technology, which could harm our business and competitive position.

Patent law relating to the scope of claims in the technology fields in which we operate is still evolving. The degree of future protection for our proprietary rights is uncertain. Furthermore, we cannot be certain that others will not independently develop similar or alternative products or technology, duplicate any of our products, or, if patents are issued to us, design around the patented products developed by us. Our patents or licenses could be challenged by litigation and, if the outcome of such litigation were adverse to us, our competitors could be free to use our technology. We may not be able to obtain additional patents for our technology, or if we are able to do so, patents may not provide us with adequate protection or be commercially beneficial. In addition, we could incur substantial costs in litigation if we are required to defend ourselves in patent suits brought by third parties or if we initiate such suits.

We cannot be certain that other measures taken to protect our intellectual property will be effective.

We rely upon trade secrets, copyright and trademark laws, non-disclosure agreements and other contractual confidentiality provisions to protect some of our confidential and proprietary information that we are not seeking patent protection for various reasons. Such measures, however, may not provide adequate protection for our trade secrets or other proprietary information. If such measures do not protect our rights, third parties could use our technology and our ability to compete in the market would be reduced.

We are dependent upon licensed technologies and may need to obtain additional licenses in the future to offer our products and remain competitive.

We have licensed key components of our technologies from third parties. If these agreements were to terminate prematurely due to our breach of the terms of these licenses or we otherwise fail to maintain our rights to such technologies, we

may lose the right to manufacture or sell a substantial portion of our products. In addition, we may need to obtain licenses to additional technologies in the future in order to keep our products competitive. If we fail to license or otherwise acquire necessary technologies, we may not be able to develop new products that we need to remain competitive.

The protection of intellectual property in foreign countries is uncertain.

A significant percentage of our sales are to customers located outside the U.S. Patent and other intellectual property laws of some foreign countries may not protect our intellectual property rights to the same extent as U.S. laws. We may need to bring proceedings to defend our patent rights or to determine the validity of our competitors' foreign patents. These proceedings could result in substantial cost and diversion of our other efforts. Finally, some of the patent protections available to us in the U.S. are not available to us in foreign countries due to the laws of those countries.

Our products could infringe on the intellectual property rights of others.

There are a significant number of U.S. and foreign patents and patent applications submitted for technologies in, or related to, our area of business. As a result, our use of our technology could infringe patents or proprietary rights of others. This may lead others to assert patent infringement or other intellectual property claims against us. We could incur substantial costs in litigation if we are required to defend against intellectual property claims by third parties. Additionally, any licenses that we might need as a result of any actual infringement might not be available to us on commercially reasonable terms, if at all.

Our failure to comply with any applicable government laws and regulations or otherwise respond to claims relating to improper handling, storage or disposal of hazardous chemicals that we use may adversely affect our results of operations.

Our research and development and manufacturing activities involve the controlled use of hazardous materials and chemicals. We are subject to federal, state, local and international laws and regulations governing the use, storage, handling and disposal of hazardous materials and waste products. If we fail to comply with applicable laws or regulations, we could be required to pay penalties or be held liable for any damages that result and this liability could exceed our financial resources. We cannot be certain that accidental contamination or injury will not occur. Any such accident could damage our research and manufacturing facilities and operations, resulting in delays and increased costs.

We may issue a substantial amount of our common stock to holders of options and warrants and this could reduce the market price for our stock.

At December 31, 2016, we had obligations to issue 8,265,584 shares of common stock upon exercise of outstanding stock options, warrants or conversion rights. The issuance of these securities may be dilutive to our current stockholders and could negatively impact the market price of our common stock.

Our common stock is thinly traded and a large percentage of our shares are held by a small group of unrelated, institutional owners.

At December 31, 2016, we had 26,446,927 shares of common stock outstanding. The sale of a significant number of shares into the public market has the potential to cause significant downward pressure on the price of our common stock. This is particularly the case if the shares being placed into the market exceed the market's ability to absorb the stock. This presents an opportunity for short sellers to contribute to the further decline of our stock price. If there are significant short sales of our stock, the price decline that would result from this activity will cause the share price to decline more so, which, in turn, may cause long holders of the stock to sell their shares, thereby contributing to sales of our stock in the market. In addition, the large concentration of our shares are held by a small group of stockholders which could result in increased volatility in our stock price due to the limited number of shares available in the market.

We have previously identified material weaknesses and ineffective internal controls that could impact our business and financial results.

Our internal control over financial reporting may not prevent or detect misstatements because of its inherent limitations, including the possibility of human error, the circumvention or overriding of controls, or fraud. In the course of auditing our financial statements as of and for the year ended December 31, 2014, our independent registered public accounting firm identified material weaknesses in our internal control over financial reporting relating to proper timing and recognition of revenue and the elements used in our analysis and evaluation of the allowance for doubtful accounts to ensure that the allowance for doubtful accounts is reasonably stated. We remediated these material weaknesses in the year ended December 31, 2015.

Even effective internal controls can provide only reasonable assurance with respect to the preparation and fair presentation of financial statements. If we fail to maintain the adequacy of our internal controls, including any failure to implement required new or improved controls, or if we experience difficulties in their implementation, our business and financial results could be

harmed, we could fail to meet our financial reporting obligations and we may not be able to accurately report financial results or prevent fraud.

Our common stock was delisted from Nasdaq and began trading on the over-the-counter markets, which may negatively impact the price of our common stock and our ability to access the capital markets.

On February 22, 2017, the Nasdaq Stock Market LLC ("Nasdaq") suspended trading of our common stock on the Nasdaq Capital Market and, in April 2017, our common stock will be delisted. Our common stock is currently trading on the over-the-counter markets, which could adversely affect the liquidity of our common stock. Stocks traded on the over-the-counter market generally have limited trading volume and exhibit a wider spread between the bid/ask quotation, as compared to securities listed on a national securities exchange. Consequently, you may not be able to liquidate your investment in the event of an emergency or for any other reason. Some significant material adverse consequences of trading on the over-the-counter markets may include:

- a limited availability of market quotations for our common stock;
- a reduced amount of news and analyst coverage for us;
- a decreased ability to issue additional securities or obtain additional financing in the future;
- reduced liquidity for our stockholders;
- potential loss of confidence by partners and employees; and
- loss of institutional investor interest and fewer business development opportunities.

The Merger is subject to the completion of the related private placement, which is subject to its own certain conditions, and therefore may not be completed.

It is a condition to the completion of the Merger that we will have consummated the related private placement. The purchase agreement for the shares of the combined company's preferred stock has not yet been entered into and the private placement is subject to due diligence and legal review. There can be no assurance that all of these conditions will be satisfied or that we will be able to consummate the private placement.

Failure to complete the Merger, the conversion of the secured debt and the related private placement could negatively impact our stock price and our future business and financial results.

Although we have agreed to use reasonable efforts to obtain stockholder approval of the proposal to issue shares of our common stock and preferred stock in connection with the Merger, there is no assurance that these proposals will be approved. If these proposals are not approved, and as a result the Merger is not completed:

- Our ongoing business may be adversely affected; and
- We may be required, under certain circumstances, to pay Precipio a termination fee of up to $256,500.

The announcement and pendency of the Merger may cause disruptions in our business, which could have an adverse effect on our businesses, financial conditions or results of operations.

The announcement and pendency of the Merger could cause disruptions in our business. Specifically:

- our current and prospective employees may experience uncertainty about their future roles with the combined company following completion of the Merger, which might adversely affect our ability to retain key personnel and attract new personnel;
- third parties may seek to terminate and/or renegotiate their relationships with us as a result of the transaction; and
- our management's attention has been focused on the Merger, which may divert management's attention from our core business and other opportunities that could have been beneficial to us.

These disruptions could be exacerbated by a delay in the completion of the Merger or termination of the Merger Agreement and could have an adverse effect on our business, financial condition or results of operations prior to the completion of the Merger.

The Merger is subject to the receipt of consents and approvals that may not be received.

The Merger Agreement provides that the parties cannot complete the Merger unless they receive various consents and approvals from Nasdaq and other third parties. While we believe that we will receive the requisite approvals, there can be no assurance that such approvals will be received.

Our stockholders will experience a significant reduction in percentage ownership and voting power with respect to the Transgenomic common stock you currently own as a result of the Merger with Precipio and the related private placement and the exercise or exchange of the Warrants.

In connection with the Merger, the combined company will issue approximately 160.6 million shares of the combined company's common stock, as well as approximately 24.1 million shares of the combined company's preferred stock, pursuant to the Merger Agreement, approximately 24.1 million shares of the combined company's preferred stock and approximately 10.4 million shares of the combined company's common stock in a related private placement in exchange for certain of our indebtedness, approximately 56.2 million shares of the combined company's preferred stock to investors in a related private placement and approximately 104.4 million shares of the combined company's common stock issuable upon conversion of the combined company's preferred stock. In addition, the exercise or exchange of the Warrants will result in the issuance of 3.0 million shares of our common stock that would not have otherwise been issuable without stockholder approval. Upon completion of the Merger, the conversion of secured debt and the private placement, the existing holders of our common stock will own approximately 9% of the fully diluted combined company's common stock. Therefore, following the completion of the Merger and the private placement and the exercise or exchange of the Warrants, existing stockholders will experience a substantial reduction in their respective percentage ownership interests and effective voting power relative to their respective percentage ownership interests in our common stock and effective voting power prior to the Merger. This reduction in ownership and voting power will decrease our existing stockholders' ability to influence the election of directors and other matters. In addition, the issuance of shares of our common stock could have an adverse effect on the market price for our securities or on our ability to obtain future public financing. If and to the extent the shares are issued, existing stockholders may experience dilution in their earnings.

While the Merger is pending, we will be subject to contractual limitations that could adversely affect our business.

The Merger Agreement restricts us from taking certain specified actions while the Merger is pending without Precipio's consent, including incurring indebtedness, making capital expenditures in excess of $5,000, acquiring any assets or selling, leasing or otherwise transferring any assets, and increasing in any material manner the compensation, bonuses or benefits of any directors, officers, employees, former employees or consultants, subject to certain exceptions in the ordinary course of business. These restrictions may prevent us from pursuing otherwise attractive business opportunities that may arise and making other changes to our business prior to the closing of the Merger or termination of the Merger Agreement.

The Merger Agreement restricts our ability to pursue certain alternatives to the Merger and requires us to pay a reverse termination fee to Precipio if we do.

The Merger Agreement contains non-solicitation provisions that, subject to limited exceptions, restrict our ability to initiate, solicit or encourage or take any action to discuss or accept a competing third-party proposal. Although our Board of Directors is permitted to change its recommendation that stockholders approve the matters relating to the Merger if it determines in good faith that this action is reasonably likely to be required to comply with its fiduciary duties and certain other conditions, doing so in certain situations would require us to pay a termination fee to Precipio of $256,500. Additionally, these non-solicitation provisions could discourage a potential acquiror that might have an interest in acquiring all or a significant part of us from considering or proposing that acquisition, or might result in a potential acquiror proposing to pay a lower per share price to acquire us than it might otherwise have proposed to pay because of the added expense of the termination fee that may become payable to Precipio in certain circumstances.

We have incurred and will continue to incur substantial expenses in connection with the Merger.

We have incurred and will incur additional substantial expenses in connection with the Merger, whether or not the Merger is completed. These costs include fees for financial advisors, attorneys and accountants, filing fees and financial printing costs. If the Merger is not consummated, we will be responsible for our own expenses, which are not reimbursable in the event the Merger does not occur. Upon completion of the merger, the amount of transaction costs, including the amount of Precipio's transaction costs, will, in effect, reduce the cash reserves available for the combined company to pursue its plan of business.

We may not be able to complete the Merger and may elect to pursue another strategic transaction similar to the Merger or a financing, which may not occur on commercially reasonably terms or at all.

There is no assurance that we will complete the Merger in a timely manner or at all. The Merger Agreement is subject to many closing conditions and termination rights. If we do not complete the Merger, our Board of Directors may elect to attempt to complete another strategic transaction similar to the Merger or a financing. Such attempts will likely be costly and time consuming, and there is no assurance that a future strategic transaction or financing will occur on commercially reasonable terms or at all.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

The following table summarizes certain information regarding our leased facilities. Annual rent amounts presented in the table are reflected in thousands.

Location	Function	Square Footage	2017 Scheduled Rent	Lease Term Expires
Omaha, Nebraska	Multi Functional [1]	18,265	$ 226	July 2022

(1) Multi Functional facilities include functions related to manufacturing, services, sales and marketing, research and development and/or administration.

We believe that this facility is adequate to meet our current and planned needs. We believe that if additional space is needed in the future, we could find alternate space at competitive market rates without a substantial increase in cost.

Previously, we leased a facility in New Haven, Connecticut pursuant to that certain Lease between us and Science Park Development Corporation ("SPDC"), dated as of December 31, 2011, as modified by the First Amendment to Lease dated as of June 18, 2013, as further modified by a letter agreement dated as of February 2, 2015, as modified by the Second Amendment to Lease dated as of June 26, 2015 (the "SPDC Lease"). In November 2016, SPDC alleged that we defaulted on our obligations under the SPDC Lease. Specifically, SPDC alleges that we failed to pay approximately $0.4 million in rental payments due under the SPDC Lease and that we vacated a portion of the leased premises in violation of the terms of the SPDC Lease. Transgenomic and SPDC entered into a settlement agreement dated March 6, 2017, which included, among other things, a mutual general release of claims, and Transgenomic's agreement to pay approximately $0.4 million to SPDC in installments over a period of time.

Item 3. Legal Proceedings.

We are subject to a number of claims of various amounts that arise out of the normal course of our business. In addition to the claims described in this Item 3, we are delinquent on the payment of outstanding accounts payable amounting to approximately $0.6 million with certain of our vendors and suppliers who have taken or have threatened to take legal action to collect such outstanding amounts.

On February 25, 2016, UNMC filed a lawsuit against us in the District Court of Douglas County, Nebraska for breach of contract and seeking recovery of $0.7 million owed by us to UNMC. We and UNMC entered into a settlement agreement dated February 6, 2017, which included, among other things, a settlement of the outstanding liability and a mutual general release of claims, and our agreement to pay $0.4 million to UNMC in installments over a period of time. As of March 15, 2017, our initial payment due to UNMC under the settlement agreement is delinquent. We and UNMC are currently in discussions to extend the date of our initial payment due to UNMC.

In addition, on April 13, 2016, Fox Chase filed a lawsuit against us in the Court of Common Pleas of Philadelphia County, First Judicial District of Pennsylvania Civil Trial Division (the "Court of Common Pleas"), alleging, among other things, breach of contract, tortious interference with present and prospective contractual relations, unjust enrichment, fraudulent conversion and conspiracy and seeking punitive damages in addition to damages and other relief. This lawsuit relates to a license agreement we entered into with Fox Chase in August 2000, as amended (the "License Agreement"), as well as the assignment of certain of our rights under the License Agreement to Integrated DNA Technologies, Inc. ("IDT"), pursuant to the Surveyor Kit Patent, Technology and Inventory Purchase Agreement we entered into with IDT effective as of July 1, 2014 (the "IDT Agreement"). Pursuant to the terms of the IDT Agreement, we agreed to indemnify IDT with respect to certain of the claims asserted in the Fox Chase proceeding. On July 8, 2016, the Court of Common Pleas sustained our preliminary objections to several of Fox Chase's claims and dismissed the claims for tortious interference, fraudulent conversion, conspiracy, punitive damages and attorney's fees. Accordingly, the case has been narrowed so that only certain contract claims and an unjust enrichment claim remain pending against us. We believe that we have good and substantial defenses to the claims asserted by Fox Chase. However, there is no guarantee that we will prevail in this suit or receive any damages or other relief if we do prevail.

On June 23, 2016, Mount Sinai filed a lawsuit against us in the Supreme Court of the State of New York, County of New York, alleging, among other things, breach of contract and, alternatively, unjust enrichment and quantum merit, and seeking recovery of $0.7 million owed by us to Mount Sinai for services rendered. We and Mount Sinai entered into a settlement agreement

dated October 27, 2016, which included, among other things, a mutual general release of claims, and our agreement to pay approximately $0.7 million to Mount Sinai in installments over a period of time. Effective as of February 1, 2017, we and Mount Sinai agreed to amend the terms of our settlement agreement to extend the date of our initial payment due to Mount Sinai.

On December 19, 2016, Todd Smith filed a lawsuit against Transgenomic in the District Court of Douglas County Nebraska, alleging breach of contract and seeking recovery of $2.2 million owed by Transgenomic to Todd Smith for costs and damages arising from a breach of Transgenomic's obligations pursuant to lease agreement between the parties. We and Todd Smith are currently in discussions to determine a mutually agreeable means by which to settle the outstanding liability.

On February 21, 2017, XIFIN filed a lawsuit against us in the District Court for the Southern District of California alleging breach of written contract and seeking recovery of approximately $0.27 million owed by us to XIFIN for damages arising from a breach of our obligations pursuant to a Systems Services Agreement between us and XIFIN, dated as of February 22, 2013, as amended and restated on September 1, 2014. On April 4, 2017, XIFIN filed an application for an entry of default by the clerk of the court against us. A $0.21 million liability has been recorded and is reflected in accrued expenses at December 31, 2016.

We and Science Park Development Corporation ("SPDC") entered into that certain Lease dated as of December 31, 2011, as modified by the First Amendment to Lease dated as of June 18, 2013, as further modified by a letter agreement dated as of February 2, 2015, as modified by the Second Amendment to Lease dated as of June 26, 2015 (the "SPDC Lease"). In November 2016, SPDC alleged that we defaulted on our obligations under the SPDC Lease. Specifically, SPDC alleges that we failed to pay approximately $0.4 million in rental payments due under the SPDC Lease and that we vacated a portion of the leased premises in violation of the terms of the SPDC Lease. Transgenomic and SPDC entered into a settlement agreement dated March 6, 2017, which included, among other things, a mutual general release of claims, and Transgenomic's agreement to pay approximately $0.4 million to SPDC in installments over a period of time.

CPA Global provides us with certain patent management services. On February 6, 2017, CPA Global claimed that we owe CPA Global approximately $0.2 million for certain patent maintenance services rendered. CPA Global has not filed claims against us in connection with this allegation. A liability of approximately $0.2 million has been recorded and is reflected in accrued expenses at December 31, 2016.

On March 9, 2016, counsel for EdgeBio sent a demand letter on behalf of EdgeBio to us in connection with the terms of the EdgeBio Agreement. EdgeBio alleges, among other things, that certain customers of EdgeBio erroneously remitted payments to us, that such payments should have been paid to EdgeBio and that we failed to remit these funds to EdgeBio in violation of the terms of the EdgeBio Agreement. On September 13, 2016, we received a demand for payment letter from EdgeBio's counsel alleging that the balance due to EdgeBio is approximately $0.1 million. A liability of approximately $0.1 million has been recorded and is reflected in accrued expenses at December 31, 2016.

On February 17, 2017, Campbell filed a lawsuit individually and on behalf of others similarly situated against us in the District Court for the District of Nebraska alleging we have a materially incomplete and misleading proxy relating to a potential merger and that the merger agreement's deal protection provisions deter superior offers. As a result, he alleges that we have violated Sections 14(a) and 20(a) of the Exchange Act and Rule 14a-9 promulgated thereafter. Although we intend to defend the lawsuit, there can be no assurance regarding the ultimate outcome of this case. Given the uncertainty of litigation, the legal standards that must be met for, among other things, class certification and success on the merits, we are unable to estimate the amount of loss, or range of possible loss, at this time that may result from this action. In the event that a settlement is reached related to these matters, the amount of such settlement may be material to our results of operations and financial condition and may have a material adverse impact on our liquidity.

The outcome of legal proceedings and claims brought against us are subject to significant uncertainty. Therefore, although management considers the likelihood of such an outcome to be remote, if one or more of these legal matters were resolved against us in the same reporting period for amounts in excess of management's expectations, our financial statements for such reporting period could be materially adversely affected. In general, the resolution of a legal matter could prevent us from offering our services or products to others, could be material to our financial condition or cash flows, or both, or could otherwise adversely affect our operating results.

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 was suspended from trading on the Nasdaq Capital Market on February 17, 2017, and is subject to delisting in April 2017. On February 22, 2017, our shares began trading on the OTCQB exchange under the ticker "TBIO".

The following table sets forth the high and low closing prices for our common stock on the Nasdaq Capital Market during each of the quarters of 2016 and 2015. The over-the-counter market quotations reflect inter-dealer prices, without retail mark-up, mark-down or commission and may not necessarily represent actual transactions.

	High	Low
Year Ended December 31, 2016		
First Quarter	$ 1.08	$ 0.54
Second Quarter	$ 0.73	$ 0.50
Third Quarter	$ 0.58	$ 0.28
Fourth Quarter	$ 0.37	$ 0.16
Year Ended December 31, 2015		
First Quarter	$ 3.90	$ 1.41
Second Quarter	$ 2.63	$ 1.39
Third Quarter	$ 1.72	$ 0.92
Fourth Quarter	$ 1.36	$ 0.75

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

Holders. At March 24, 2017, there were 26,868,062 shares of our common stock outstanding and approximately 76 holders of record.

Dividends. We have never declared or paid any cash dividends on our common stock and we do not anticipate paying any cash dividends on our common stock in the foreseeable future. Dividends on our common stock will be paid only if and when declared by our Board. The Board's ability to declare a dividend is subject to limits imposed by Delaware corporate law. Pursuant to the terms of the Loan and Security Agreement by and between us and affiliates of the Lenders, our Board also may not pay any dividends without the prior consent of the Lenders; provided that our Board may pay dividends solely in common stock without such consent. In determining whether to declare dividends, the Board may consider our financial condition, results of operations, working capital requirements, future prospects and other relevant factors.

Issuance of Unregistered Securities.

From January 1, 2016, through December 31, 2016, we consummated the following transactions involving the issuance of unregistered securities:

- On January 6, 2016, we entered into a Securities Purchase Agreement (the "A-1 Preferred Purchase Agreement") with certain accredited investors (the "A-1 Preferred Investors"), pursuant to which, on January 8, 2016, we sold to the A-1 Preferred Investors, and the A-1 Preferred Investors purchased from us (the "A-1 Preferred Offering"), an aggregate of approximately $2.2 million of units (the "Units") consisting of (1) an aggregate of 2,365,243 shares (the "A-1 Preferred Shares") of our Series A-1 Convertible Preferred Stock (the "A-1 Preferred"), and (2) warrants (the "Warrants") to purchase up to an aggregate of 1,773,929 shares of our common stock. Each Unit was sold to the A-1 Preferred Investors at a purchase price of $0.93 per Unit. The A-1 Preferred Shares are convertible into shares of common stock at an initial rate of 1-for-1, which conversion rate is subject to further adjustment as set forth in our Certificate of Designation of Series A-1 Convertible Preferred Stock, which was filed with the Secretary of State of

the State of Delaware on January 8, 2016 (the "Series A-1 Certificate of Designation"). Pursuant to the terms of the Series A-1 Certificate of Designation, the holders of the A-1

Preferred Shares will generally be entitled to that number of votes as is equal to the product obtained by multiplying: (a) the number of whole shares of common stock into which the A-1 Preferred may be converted as of the record date of such vote or consent, by (b) 0.93, rounded down to the nearest whole number. Therefore, every 1.075269 shares of A-1 Preferred will generally initially be entitled to one vote.

- On May 31, 2016, we issued to a vendor an aggregate of 78,000 shares of our common stock and, on June 14, 2016, we issued to a second vendor an aggregate of 64,153 shares of our common stock. Such shares of common stock were issued to the vendors in lieu of an aggregate cash amount of approximately $89,000 owed by us to such vendors for services previously performed by such vendors. We issued the shares to the vendors in transactions exempt from registration under the Securities Act of 1933, as amended (the "Securities Act"), in reliance on the exemptions provided by Section 4(a)(2) of the Securities Act and/or Regulation D promulgated thereunder and in reliance on similar exemptions under applicable state laws. The offering of the shares to the vendors did not involve a public offering, and no general solicitation or advertisement was made in connection with the offering of the shares to the vendors.

Issuer Purchases of Equity Securities. We made no purchases of our common stock during the year ended December 31, 2016. Therefore, tabular disclosure is not presented.

Item 6. Selected Consolidated Financial Data.

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

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

This Management's Discussion and Analysis contains forward-looking statements that involve risks and uncertainties. Please see the section entitled "Forward-Looking Statements" at the beginning of Item 1 and the section entitled "Risk Factors" under Item 1A for important information to consider when evaluating such statements.

You are cautioned not to place undue reliance on these forward-looking statements. The forward-looking statements we make are not guarantees of future performance and are subject to various assumptions, risks and other factors that could cause actual results to differ materially from those suggested by these forward-looking statements.

We expressly disclaim any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

Transgenomic, Inc. ("we", "us", "our", the "Company" or "Transgenomic") is a biotechnology company advancing personalized medicine for the detection and treatment of cancer and integrated diseases through our proprietary molecular technologies and clinical and research services. A key goal is to bring our Multiplexed ICE COLD-PCR ("MX-ICP") product to the clinical market through strategic partnerships and licensing agreements, enabling the use of blood and other bodily fluids for more effective and patient-friendly diagnosis, monitoring and treatment of cancer.

MX-ICP is technology proprietary to Transgenomic. It is a reagent that improves the ability to detect genetic mutations by 100 - 400 fold over existing technologies. This technology has been validated internally on all currently available sequencing platforms, including Sanger, Next Gen Sequencing and Digital PCR. By enhancing the level of detection of genetic mutations and suppressing the normal or wild-type DNA, several benefits are provided. It is generally understood that most current technologies are unable to consistently identify mutations that occur in less than approximately 5% of a sample. However, many mutations found at much lower levels, even as low as 0.01%, are known to be clinically relevant and can have significant consequences to a patient: both in terms of how they will respond to a given drug or treatment and how a given tumor is likely to change over time. More importantly, in our view, is the ability to significantly improve the level of detection while using blood, saliva and even urine as a source for DNA, rather than depending on painful, expensive and potentially dangerous tumor biopsies. We believe that this is an important advancement in patient care with respect to cancer detection, treatment and monitoring and can result in significant cost savings for the healthcare system by replacing invasive procedures with the simple collection of blood or other bodily fluids. By broadening the types of samples that can be used for testing and allowing all sequencing platforms to provide improved identification of low level mutations, MX-ICP has the potential to make testing more readily available, more patient friendly, enable genetic monitoring of disease progression, effectively guide treatment protocols, and reduce the overall cost of diagnosis and monitoring while significantly improving patient outcomes.

Our laboratory in Omaha, Nebraska is focused on providing genetic analytical services related to oncology and pharmacogenomics research services supporting Phase II and Phase III clinical trials conducted by pharmaceutical and biotechnology companies. Our laboratory employs a variety of genomic testing service technologies, including our proprietary MX-ICP technology. ICE COLD-PCR is a proprietary ultra-high sensitivity platform technology with breakthrough potential to enable wide adoption of personalized, precision medicine in cancer and other diseases. It can be run in any laboratory that contains standard PCR systems. MX-ICP enables detection of multiple known and unknown mutations from virtually any sample type, including tissue biopsies, blood, urine, saliva, cell-free DNA ("cfDNA") and circulating tumor cells ("CTCs") at levels greater than 1,000-fold higher than standard DNA sequencing techniques. It is easy to implement and use within existing workflows. Our laboratory in Omaha is certified under the Clinical Laboratory Improvement Amendments ("CLIA") as a high complexity laboratory and is accredited by the College of American Pathologists.

The following discussion should be read together with our financial statements and related notes contained in this Annual Report. Results for the year ended December 31, 2016 are not necessarily indicative of results that may be attained in the future.

Executive Summary

2016 Results of Continuing Operations

Net sales for the year ended December 31, 2016 of $1.6 million decreased $0.4 million or 19% versus the $1.9 million reported for the year ended December 31, 2015. The decrease primarily reflects a decrease in sales of our contract laboratory services.

Gross profit was a negative $0.2 million for the year ended December 31, 2016. The negative gross margin is due to revenues that were insufficient to cover our laboratory's fixed direct costs.

Operating expenses of $7.6 million for the year ended December 31, 2016 were $1.3 million lower than the comparable 2015 period. This is due to decreases in stock compensation costs, research and development expenses and franchise taxes in 2016 as compared to 2015.

The loss from operations for the year ended December 31, 2016 was $7.8 million, versus $8.9 million for the comparable 2015 period, due to the lower operating expenses offset by a decrease in net sales.

We reported a net loss from continuing operations of $8.3 million in 2016 as compared to $9.9 million for the year ended December 31, 2015.

2016 Overview and Recent Highlights

We are a biotechnology company advancing personalized medicine for the detection and treatment of cancer and integrated diseases through our proprietary molecular technologies and clinical and research services. A key goal is to bring our Multiplexed ICE COLD-PCR ("MX-ICP") product to the clinical market through strategic partnerships and licensing agreements, enabling the use of blood and other bodily fluids for more effective and patient-friendly diagnosis, monitoring and treatment of cancer.

Below is a summary of our most recent business activities:

- Launched First Rapid Turnaround Breast Cancer Analysis Panel - Transgenomic's new liquid biopsy test uses Multiplexed ICE COLD-PCR to detect actionable tumor mutations in genes relevant to treatment decisions with high sensitivity. Notably, results are available in 7-10 days, in contrast to turnaround times of up to four weeks for other testing methods.

- Transgenomic Study at ASCO Shows High Concordance between ICE COLD-PCR Liquid Biopsies and Conventional Tissue Biopsies - Study released at ASCO confirmed concordance of ICP-enriched and conventional testing, identifying 97% of the mutations detected by standard tissue biopsy PCR. The study confirmed that ICP's ultra-high sensitivity enables accurate use of plasma-based liquid biopsies for cancer mutation detection.

- Licensed Commercial Rights to Long QT Syndrome Testing Portfolio to LabCorp - In July 2016, we signed a commercial license agreement with Laboratory Corporation of America® Holdings for Transgenomic's portfolio of intellectual property pertaining to DNA testing for Long QT syndrome (LQTS), a congenital heart rhythm disorder. Certain medications and activities can trigger LQTS, so accurately identifying individuals at risk is important.

- Launched First Commercially Available CLIA Test for Detection of EGFR C797S Mutations that Predict Resistance to New Kinase Therapies for Lung Cancer - In July 2016, we launched high sensitivity Multiplexed ICE COLD-PCR based-assays and panels that can use blood, serum or tissue samples to detect predictors of resistance to 3rd-generation TKI drugs in non-small cell lung cancer patients. The C797S detection test is available as a solo assay and in three EGFR panels.

- VWR to Distribute Transgenomic's ICEme Kits that Enable Liquid Biopsies - In July 2016, we signed a non-exclusive agreement with VWR for distribution of ICEme™ Kits to researchers and laboratories in North America. The kits are based on Multiplexed ICE COLD-PCR technology and are designed to facilitate genomics-based cancer research by providing accurate detection of mutations using any type of sample and any downstream sequencing platform.

- Signed Data Sharing Agreement with Ventana Medical Systems, Inc. - In September 2016, we signed a data sharing agreement with Ventana Medical Systems, Inc., a subsidiary of Roche Holdings ("Ventana"). The agreement allows

Ventana to access DNA test results from an existing research agreement between us and the University of Melbourne in Australia. As part of this research agreement, the University of Melbourne is conducting additional clinical validation studies of our MX-ICP technology.

- Added New Distributors in China and India for our ICEme Kits that Enable Liquid Biopsy Cancer Testing on Existing Platforms - In September 2016, we signed agreements with two additional distributors in China and India for our ICEme™ Mutation Enrichment Kits for cancer genomic testing. The kits incorporate our MX-ICP technology and are designed to enable virtually any laboratory to conduct high quality DNA mutation detection in cancer patients using plasma, blood or tissue samples and existing sequencing platforms. The new distributors, Joying Bio in China and Biotron Healthcare in India, are important suppliers of advanced life science products in their respective markets.

- Leading Clinical Laboratory Services Provider LifeLabs Selects ICE COLD-PCR (ICP) as Its Mutation Enrichment Platform - In January 2017, we announced a licensing agreement with leading Canadian laboratory services provider LifeLabs, which has selected our ICP technology as its mutation enrichment platform for cancer testing. LifeLabs intends to use ICP with tissue samples and is receiving a three-year non-exclusive license to the ICP technology in Canada. The three-year renewable agreement also allows LifeLabs to benefit from technology improvements and additional product launches during its term.

Merger and Related Transactions

Merger Agreement

On October 12, 2016, Transgenomic, New Haven Labs Inc., a wholly owned subsidiary of Transgenomic ("Merger Sub" and, together with Transgenomic, the "Transgenomic Parties"), and Precipio Diagnostics, LLC ("Precipio") entered into an Agreement and Plan of Merger (as amended by the Merger Agreement Amendment (as defined below) the "Merger Agreement") pursuant to which Precipio will become a wholly owned subsidiary of Transgenomic (the "Merger"), on the terms and subject to the conditions set forth in the Merger Agreement. On February 2, 2017, Transgenomic, Merger Sub and Precipio entered into a First Amendment to Agreement and Plan of Merger (the "Merger Agreement Amendment") which provided for, among other things, the revision of the exchange ratio set forth in the Merger Agreement, the waiver and removal of certain closing conditions and the authorization of certain actions taken by each of Transgenomic and Precipio since the date the Merger Agreement. The parties expect the Merger to close in the second quarter of 2017.

Upon the effectiveness of the Merger (the "Effective Time"), (i) the outstanding common units of Precipio will be converted into the right to receive approximately 160.6 million shares of common stock of New Precipio ("New Precipio common stock"), together with cash in lieu of fractional units, which will result in Precipio common unit holders owning approximately 52% of the issued and outstanding shares of New Precipio common stock on a fully diluted basis, taking into account the issuance of shares of convertible preferred stock of New Precipio ("New Precipio preferred stock") in the Merger and the private placement as discussed below (the "fully diluted New Precipio common stock") and (ii) the outstanding preferred units of Precipio will be converted into the right to receive approximately 24.1 million shares of New Precipio preferred stock with an aggregate face amount equal to $3.0 million (based upon the purchase price of the new preferred stock of New Precipio in the new preferred stock financing), which will result in the Precipio preferred unit holders owning approximately 8% of the fully diluted New Precipio common stock.

The board of managers of Precipio and the boards of directors of Transgenomic and Merger Sub, and Transgenomic, in its capacity as the sole stockholder of Merger Sub, have each approved the Merger Agreement and the board of managers of Precipio and the board of directors of Transgenomic have each recommended that their respective equity holders approve the transactions contemplated by the Merger Agreement. Transgenomic will hold a special meeting of its stockholders to approve the issuance of shares of Transgenomic common stock pursuant to the Merger, as required by Nasdaq Listing Rules, as well as certain other matters (the "Special Meeting").

The Merger Agreement contains various representations, warranties and covenants of the Transgenomic Parties and Precipio, including, among others, covenants (i) by each of Precipio and Transgenomic to operate its business in the ordinary course, (ii) by each of Precipio and Transgenomic not to engage in certain kinds of transactions during the period between the execution of the Merger Agreement and the completion of the Merger, (iii) by Precipio to have its members approve the Merger and (iv) by Transgenomic to hold the Special Meeting.

Under the Merger Agreement, Precipio and Transgenomic are subject to customary "no shop" provisions that limit their respective abilities to solicit alternative acquisition proposals from third parties or to provide confidential information to third parties, subject to a "fiduciary out" provision that allows Precipio and Transgenomic to provide information and participate in

discussions with respect to certain unsolicited written proposals and to terminate the Merger Agreement and enter into an acquisition agreement with respect to a superior proposal in compliance with the terms of the Merger Agreement (a "Superior Proposal").

Completion of the Merger is subject to various conditions, including, among others: (i) approval of the holders of a majority of Transgenomic's shares of outstanding common stock, (ii) approval of the requisite amount of the members of Precipio, (iii) approval of an amendment to the Certificate of Incorporation of Transgenomic contemplating the New Preferred Stock Financing (described below) and changing the name of Transgenomic to Precipio, Inc. or such other name as determined by Precipio, (iv) obtaining certain third party consents, (v) the absence of any judgment, injunction, order or decree prohibiting or enjoining the completion of the Merger, (vi) consummation of the New Preferred Stock Financing, (vii) approval of listing of New Precipio common stock on Nasdaq, (viii) the conversion of all outstanding membership interests of Precipio into common units or preferred units which wil be converted into New Precipio common stock or New Precipio preferred stock as Merger consideration, as applicable, (ix) increase in the size of the Transgenomic board by two members and the appointment of designees in accordance with the Merger Agreement and (x) the lock-up of certain Transgenomic stockholders and Precipio members.

Upon completion of the merger, New Precipio will be required to meet the initial listing requirements to maintain the listing and continued trading of its shares on Nasdaq. These initial listing requirements are more difficult to achieve than the continued listing requirements. Pursuant to the Merger Agreement, Transgenomic agreed to use its commercially reasonable efforts to cause the shares of Transgenomic common stock being issued in the merger to be approved for listing on Nasdaq at or prior to the effective time of the merger. Based on information currently available to Transgenomic, Transgenomic anticipates that its stock will be unable to meet the $4.00 (or, to the extent applicable, $3.00) minimum bid price initial listing requirement at the closing of the merger unless it effects a reverse stock split. On October 31, 2016, the stockholders of Transgenomic authorized the Transgenomic Board to effect a reverse stock split of the shares of Transgenomic common stock at a ratio of between one-for-ten to one-for-thirty. In addition, often times a reverse stock split will not result in a trading price for the affected common stock that is proportional to the ratio of the split.

In addition, the obligation of the parties to complete the Merger is subject to certain other conditions, including (i) subject to the standards set forth in the Merger Agreement, the accuracy of the representations and warranties of the other party, (ii) compliance of each party with its covenants in all material respects and (iii) no material adverse effect of either party.

The Merger Agreement contains certain termination rights for both the Transgenomic Parties and Precipio. Either may terminate the Merger Agreement if the Merger is not completed on or before the date that is six months following the date of the Merger Agreement. In the Merger Agreement Amendment, this date was extended to June 30, 2017. Moreover, either party may terminate the Merger Agreement if the other party changes its recommendation to its security holders to approve the Merger and the related transactions or enter into an agreement with a third party regarding a Superior Proposal.

If the Merger Agreement is terminated by Precipio or Transgenomic pursuant to (i) the Transgenomic board failing to recommend that Transgenomic's stockholders vote to approve the issuance of New Precipio common stock in connection with the merger; (ii) Transgenomic failing to include in this proxy statement a recommendation by the Transgenomic board to vote in favor of the each of the proposals in this proxy statement; (iii) the Transgenomic board failing to make, withholding, withdrawing, amending, changing, qualifying or publicly proposing to withhold, withdraw, amend, change or qualify in a manner adverse to Precipio, its recommendation that the stockholders of Transgenomic vote in favor and adopt each of the proposals in this proxy statement, knowingly making any public statement inconsistent with such recommendation, failing to recommend against acceptance of any alternate acquisition proposal within ten business days after the public announcement of any such alternate acquisition proposal, approving, adopting, recommending or proposing publicly to approve, adopt or recommend any alternate acquisition proposal, or making any public statement inconsistent with its recommendation; (iv) Transgenomic entering into any letter of intent or similar document or any contract relating to any alternate acquisition proposal or (v) Transgenomic entering into a definitive agreement to effect an alternate acquisition proposal, then Transgenomic shall pay to Precipio, by wire transfer of immediately available funds within three business days after termination of the Merger Agreement, a nonrefundable fee in an amount equal to $256,500.

If the Merger Agreement is terminated by Transgenomic or Precipio pursuant to (i) Precipio's board of managers failing to recommend that its members vote or act by written consent to approve the merger; (ii) Precipio's board of managers failing to make, withholding, withdrawing, amending, changing, qualifying or publicly proposing to withhold, withdraw, amend, change or qualify in a manner adverse to Transgenomic, its recommendation that the members of Precipio vote in favor of each of the merger, the execution of the Merger Agreement and the consummation of the transaction contemplated therein, knowingly making any public statement inconsistent with such recommendation, failing to recommend against acceptance of any alternate acquisition proposal within ten business days after the public announcement of any such alternate acquisition proposal, approving, adopting, recommending or proposing publicly to approve, adopt or recommend any alternate acquisition proposal, or making any public statement inconsistent with its recommendation; (iii) Precipio entering into any letter of intent or similar document or any contract relating to any alternate acquisition proposal; or (iv) Precipio entering into a definitive agreement to effect an alternate acquisition

proposal, Precipio shall pay to Transgenomic, by wire transfer of immediately available funds within three business days after termination of the Merger Agreement, a nonrefundable fee in an amount equal to $256,500.

In connection with entering into the Merger Agreement, Transgenomic and members and warrantholders of Precipio (collectively, the "Supporting Members"), entered into a voting agreement (the "Precipio Voting Agreement") pursuant to which the Supporting Members agreed to, among other things, (i) authorize and approve the Merger Agreement and the transactions contemplated thereby and (ii) vote against any Acquisition Proposal (as defined in the Merger Agreement). Collectively, the shares held by the Supporting Members represent approximately 71% of Precipio's issued and outstanding membership interests.

Precipio and certain Transgenomic stockholders (the "Supporting Stockholders") also entered into a voting agreement (the "Transgenomic Voting Agreement") pursuant to which the Supporting Stockholders agreed to, among other things, (i) authorize and approve the Merger Agreement and the transactions contemplated thereby and (ii) vote against any Acquisition Proposal (as defined in the Merger Agreement). Collectively, the shares held by the Supporting Stockholders represent approximately 31.84% of Transgenomic's voting stock.

The Merger Agreement also provides that the combined company will enter into employment agreements with certain employees of Precipio at the Effective Time and that the officers of the combined company will be agreed to by the parties prior to the Effective Time.

Conversion of Secured Debt

In connection with the Merger, at the Effective Time, in addition to the New Precipio preferred stock to be issued to holders of preferred units of Precipio, New Precipio also will issue shares of New Precipio preferred stock and New Precipio common stock to holders of certain secured indebtedness of Transgenomic, whereby such holders will receive in exchange for such indebtedness, approximately 24.1 million shares of New Precipio Preferred Shares in an amount equal to $3.0 million, which represents approximately 8% of the fully diluted New Precipio common stock, and approximately 10.4 million shares of New Precipio common stock, which represents approximately 3% of the fully diluted New Precipio common stock.

Private Placement

In addition and as a condition to the Merger and conversion of secured debt, New Precipio also will issue shares of New Precipio preferred stock and New Precipio common stock in a related private placement, whereby New Precipio will issue for cash up to approximately 56.2 million shares of New Precipio preferred stock for $7.0 million to investors in a private placement, which represents approximately 18% of the fully diluted New Precipio common stock.

The New Precipio preferred stock issued in the Merger, the conversion of secured debt and the private placement will be issued based on a $25 million pre-money equity valuation of New Precipio and will represent, in the aggregate, approximately 34% of the fully diluted New Precipio common stock.

The New Precipio preferred stock to be issued in the Merger and the private placement will be new designations of preferred shares effectuated by a Certificate of Designation amending Transgenomic's Certificate of Incorporation. The cash proceeds received from the private placement will be used to finance the Merger, for working capital and growth capital to expand into new markets.

The shares of New Precipio preferred stock may be convertible into New Precipio common stock any time at an applicable conversion price. Certain material corporate events also will require the consent of a supermajority of holders of the New Precipio preferred stock. In the event of New Precipio's liquidation, dissolution or winding up, holders of the New Precipio preferred stock will be entitled to receive assets or surplus funds of New Precipio in an amount equal to the greater of (i) 1.5 times the original purchase price of the New Precipio preferred stock, *plus* an amount equal to all unpaid and accrued dividends and dividend equivalents and (ii) the amount that would be payable on the New Precipio preferred stock if it were converted into New Precipio common stock (the "Liquidation Preference"). This Liquidation Preference also would be due in the event of a future merger or sale of New Precipio, unless a supermajority of holders of New Precipio preferred stock elect otherwise. The New Precipio preferred stock will be entitled to an annual 8% cumulative payment in lieu of interest or dividends, payable in-kind for the first two years and in cash or in-kind thereafter, at the option of the holder. The New Precipio preferred stock also will be entitled to share on any dividends paid on the New Precipio common stock.

In connection with the private placement, New Precipio will enter into an investor rights agreement with the holders of the New Precipio preferred stock. The investor rights agreement will grant rights to such parties, including with respect to the designation of nominees for election to the New Precipio board of directors upon the closing of the Merger. The investor rights agreement also will contain transfer restrictions and standstill restrictions relating to shares of New Precipio common stock that will be issued to such parties in connection with the Merger and the private placement. In addition, the investor rights agreement

gives such parties rights with respect to the registration under the Securities Act of 1933, as amended, of the shares of New Precipio common stock to be issued to such parties, including the shares that may be issued upon future conversion of the New Precipio preferred stock.

Results of Continuing Operations For The Years Ended December 31, 2016 and 2015.

Net Sales.

Net sales were as follows:

	Dollars in Thousands			
	Year Ended December 31,		Change	
	2016	2015	$	%
Total net sales	$ 1,557	$ 1,929	$ (372)	(19)%

Net sales decreased $0.4 million during the year ended December 31, 2016 as compared to the same period of 2015. The decrease reflects fewer sales of our contract laboratory services as a result of fewer customers with active projects in the current year partially offset by increased grant revenues in the current year.

Costs of Goods Sold.

Costs of goods sold includes material costs for the products that we sell and substantially all other costs associated with our manufacturing facilities (primarily personnel costs, rent and depreciation) associated with the operations of our laboratories.

Gross Profit.

Gross profit and gross margins were as follows:

	Dollars in Thousands			
	Year Ended December 31,		Margin %	
	2016	2015	2016	2015
Gross profit	$ (205)	$ (11)	(13)%	(1)%

Gross profit was a negative $0.2 million, or (13)% of total net sales, during the year ended December 31, 2016, compared to a negative gross margin of less than $0.1 million , or (1)% of total net sales, during the same period of 2015. The decrease in gross profit in the current year is a result of lower revenues during the year ended December 31, 2016 and the negative gross margin in the current year is due to lower revenues being insufficient to cover our laboratory's fixed direct costs.

Operating expenses.

The following table summarizes operating expenses further described below for the years ended December 31, 2016 and 2015:

	Dollars in Thousands	
	Year Ended December 31,	
	2016	2015
Selling, general and administrative	$ 6,192	$ 7,055
Research and development	1,422	1,853
Total	$ 7,614	$ 8,908

Selling, General and Administrative Expenses.

Selling, general and administrative expenses consist primarily of personnel costs, marketing, travel costs, professional fees, facility costs and bad debt provisions. Our selling, general and administrative costs decreased to $6.2 million during the year ended

December 31, 2016 compared to $7.1 million for the same period in 2015. Included in selling, general and administrative costs, we had a $0.6 million decrease in stock compensation costs and a decrease in franchise tax expense in 2016 as compared to 2015.

Research and Development Expenses.

Research and development expenses include primarily personnel costs, intellectual property legal fees, outside services and supplies and facility costs and are expensed in the period in which they are incurred. During the years ended December 31, 2016 and 2015 these costs totaled $1.4 million and $1.9 million, respectively. Research and development expenses totaled 91% and 96% of net sales during the years ended December 31, 2016 and 2015, respectively.

Other Income (Expense), net.

The following table summarizes other income (expense) for the years ended December 31, 2016 and 2015:

	Dollars in Thousands	
	Year Ended December 31,	
	2016	2015
Interest expense	$ (1,038)	$ (724)
Income (loss) from change in fair value of warrants	788	(205)
Loss on sale/disposal of assets	(199)	(14)
Other, net	(1)	—
Total other expense, net	$ (450)	$ (943)

Other expense, net for the year ended December 31, 2016 totaled $0.5 million. Other expense, net included interest expense primarily relating to our debt along with a loss on sale/disposal of assets, partially offset by the income associated with the change in fair value of the common stock warrants. The income associated with the common stock warrants is a non-cash item.

Other expense, net for the year ended December 31, 2015 totaled $0.9 million. Other expense, net included interest expense related to our debt and expense associated with the change in fair value of the common stock warrants.

Income Tax Expense (Benefit).

We continue to assess the recoverability of deferred tax assets and the related valuation allowance. To the extent we begin to generate taxable income in future periods and determine that such valuation allowance is no longer required, the tax benefit of the remaining deferred tax assets will be recognized at such time. Our net operating loss carry-forwards of $167.9 million will expire at various dates from 2018 through 2036, if not utilized. We also had state income tax loss carry-forwards of $62.0 million at December 31, 2016. These carry-forwards will also expire at various dates from 2018 to 2035 if not utilized.

Discontinued Operations For The Years Ended December 31, 2016 and 2015.

During the third quarter of 2015, we decided to divest our Genetic Assays and Platforms business, resulting in a strategic shift that will have a major effect on our operations and financial results. Therefore, the divested Genetic Assays and Platforms operations meet the criteria to be reported as discontinued operations.

During the fourth quarter of 2015, our Board of Directors took actions to begin the process of divesting our Patient Testing business located in New Haven, Connecticut. In March of 2016, we announced that we had suspended testing services in our Patient Testing laboratory as we review and evaluate various strategic alternatives for that business. As a result of these actions, as of December 31, 2015, our Patient Testing business meets the criteria to be reported as discontinued operations.

In addition, during 2016 the Company determined it was going to continue providing services related to its oncology testing. As such, revenues previously reported in discontinued operations for the year ended December 31, 2015 were reclassified to continuing operations. The result was, revenue from continuing operations increased and loss from discontinued operations increased by $0.3 million for the year ended December 31, 2015.

The related assets, liabilities, results of operations and cash flows for both the Genetic Assays and Platforms business and Patient Testing business are classified as assets held for sale, liabilities held for sale and discontinued operations for all periods presented.

Revenues and net income (loss) of the discontinued operations consisted of the following:

(in thousands)	Year ended December 31, 2016	2015
Net sales	$ 2,163	$ 18,308
Operating loss from discontinued operations, before gain or loss on sale of business and tax	$ (288)	$ (23,516)
Gain on settlement of accounts payable	325	—
Gain (loss) on sale of assets/business	1,047	(224)
Income tax expense (benefit)	431	(648)
Income (loss) from discontinued operations	$ 653	$ (23,092)

Liquidity and Capital Resources

Our working capital positions at December 31, 2016 and 2015 were as follows (in thousands):

	December 31, 2016	2015	Change
Current assets (including cash and cash equivalents of $110 and $444 respectively)	$ 495	$ 3,282	$ (2,787)
Current liabilities	19,824	16,981	(2,843)
Working capital	$ (19,329)	$ (13,699)	$ (5,630)

Conversion Agreement

On January 6, 2016, we entered into a Conversion Agreement (the "Conversion Agreement") with the holders (the "Preferred Holders") of all of our outstanding shares of Series A Convertible Preferred Stock (the "Series A Preferred"), and Series B Convertible Preferred Stock (the "Series B Preferred"), pursuant to which, among other things, the Preferred Holders: (1) elected to convert all of the outstanding shares of Series A Preferred and Series B Preferred into shares of our common stock in each case in accordance with the terms thereof, and (2) agreed that all accrued and unpaid dividends on the Series A Preferred and Series B Preferred would be paid by us in shares of common stock at a rate of $1.00 per share of common stock (collectively, the "Conversion").

The outstanding shares of Series A Preferred were convertible into shares of common stock at a rate of 1-for-3, and the outstanding shares of Series B Preferred were convertible into shares of common stock at a rate of 1-for-1. Prior to the entry into the Conversion Agreement, there were 2,586,205 shares of Series A Preferred outstanding, which were converted into 862,057 shares of common stock, and 1,443,297 shares of Series B Preferred outstanding, which were converted into 1,443,297 shares of common stock, for an aggregate of 2,305,354 shares of common stock issued upon conversion of the Series A Preferred and Series B Preferred. At the time of the entry into the Conversion Agreement, there were $3.7 million in accrued and unpaid dividends on the outstanding shares of Series A Preferred, which were converted, in accordance with the Conversion Agreement, into 3,681,590 shares of common stock, and $0.8 million in accrued and unpaid dividends on the outstanding shares of Series B Preferred, which were converted, in accordance with the terms of the Conversion Agreement, into 793,235 shares of common stock, for an aggregate of 4,474,825 shares of our common stock issued pursuant to the accrued and unpaid dividends on the Series A Preferred and Series B Preferred. Therefore, in connection with the full conversion of the Series A Preferred and Series B Preferred, plus the conversion of all accrued and unpaid dividends thereon, we issued an aggregate of 6,780,179 shares of common Stock to the Preferred Holders on January 6, 2016.

January 2016 Private Placement

On January 6, 2016, we entered into a Securities Purchase Agreement (the "A-1 Preferred Purchase Agreement") with certain accredited investors (the "A-1 Preferred Investors"), pursuant to which, on January 8, 2016, we sold to the A-1 Preferred Investors, and the A-1 Preferred Investors purchased from us (the "A-1 Preferred Offering"), an aggregate of approximately $2.2 million of

units (the "Units") consisting of (1) an aggregate of 2,365,243 shares (the "A-1 Preferred Shares") of our Series A-1 Convertible Preferred Stock (the "A-1 Preferred"), and (2) warrants (the "Warrants") to purchase up to an aggregate of 1,773,929 shares of our common stock. Each Unit was sold to the A-1 Preferred Investors at a purchase price of $0.93 per Unit. The A-1 Preferred Shares are convertible into shares of common stock at an initial rate of 1-for-1, which conversion rate is subject to further adjustment as set forth in our Certificate of Designation of Series A-1 Convertible Preferred Stock, which was filed with the Secretary of State of the State of Delaware on January 8, 2016 (the "Series A-1 Certificate of Designation"). Pursuant to the terms of the Series A-1 Certificate of Designation, the holders of the A-1 Preferred Shares will generally be entitled to that number of votes as is equal to the product obtained by multiplying: (a) the number of whole shares of common stock into which the A-1 Preferred may be converted as of the record date of such vote or consent, by (b) 0.93, rounded down to the nearest whole number. Therefore, every 1.075269 shares of A-1 Preferred will generally initially be entitled to one vote.

The Warrants were immediately exercisable upon issuance, have a term of five years and have an exercise price of $1.21 per share of common stock. Each Warrant also includes both cash and cashless exercise features and an exchange feature whereby the holder of the Warrant may exchange all or any portion of the Warrant for a number of shares of our common stock equal to the quotient obtained by dividing the "Exchange Amount" by the closing bid price of our common stock on the second trading day prior to the date the Warrant is exchanged (the "Exchange Right"). Under the Warrants, the "Exchange Amount" is based upon a Black Scholes option pricing model, and the aggregate Exchange Amount under all of the Warrants will be $1.4 million, subject to adjustment to the extent that the risk-free U.S. Treasury rate fluctuates between the date of issuance of the Warrants and the date the Warrants are exchanged. Each Warrant provides that the number of shares that may be issued upon exercise of the Exchange Right is limited to the number of shares that may be purchased pursuant to the terms of the Warrant, unless we have previously obtained stockholder approval or approval from The Nasdaq Stock Market LLC to issue any additional shares of our common stock (the "Additional Shares") pursuant to the Exchange Right (the "Required Approvals"). For any Exchange Right exercised more than 90 days following the issuance of the Warrants, if we have not obtained either of the Required Approvals, we will be required to pay the Warrant holder an amount in cash for any Additional Shares that we cannot issue without the Required Approvals based on the Exchange Amount.

At the Market Offering

On June 7, 2016, we entered into an At the Market Offering Agreement (the "ATM Agreement") with Craig-Hallum Capital Group LLC, as sales agent ("Craig-Hallum"), pursuant to which we may offer and sell, from time to time, through Craig-Hallum, up to $3,500,000 of shares (the "Shares") of our common stock. Any Shares offered and sold in the offering will be issued pursuant to our effective shelf registration statement on Form S-3 (File No. 333-201907) and the related prospectus previously declared effective by the Securities and Exchange Commission (the "SEC") on February 13, 2015, as supplemented by a prospectus supplement, dated June 7, 2016, that we filed with the SEC pursuant to Rule 424(b)(5) under the Securities Act. The number of shares eligible for sale under the ATM Agreement will be subject to the limitations of General Instruction I.B.6 of Form S-3. During the year ended December 31, 2016, we sold 1,177,849 shares under the ATM Agreement. The average sales price per common share was $0.35 and the aggregate net proceeds from the sales totaled $0.5 million.

Please see the section entitled "Contractual Obligations and Other Commitments" that follows in this Annual Report and Note 5 "Debt" to our accompanying consolidated financial statements for additional information regarding our outstanding debt and debt servicing obligations.

At December 31, 2016, we had cash and cash equivalents of $0.1 million. The Company's ability to continue as a going concern is dependent upon a combination of completing its planned merger with Precipio, generating additional revenue, improving cash collections, potentially selling underutilized assets and/or product lines related to discontinued operations and, if needed, raising necessary financing to meet its obligations and pay its liabilities arising from normal business operations when they come due. The outcome of these matters cannot be predicted with any certainty at this time and raises substantial doubt that the Company will be able to continue as a going concern. There is no assurance that the Company will complete the merger in a timely manner or at all. The merger agreement is subject to many closing conditions and termination rights. The Company also cannot be certain that additional financing, if needed, will be available on acceptable terms, or at all, and its failure to raise capital when needed could limit its ability to continue its operations.

Analysis of Cash Flows From Continuing Operations

The following table presents a summary of our cash flows from continuing operations:

	(amounts in thousands)	
	2016	2015
Net cash (used in) provided by:		
Operating activities	$ (4,955)	$ (7,578)
Investing activities	(41)	(423)
Financing activities	2,210	8,991
Net increase in cash and cash equivalents, from continuing operations	$ (2,786)	$ 990

Net Change in Cash and Cash Equivalents. Cash and cash equivalents from continuing operations decreased by $2.8 million and increased by $1.0 million for the years ended December 31, 2016 and 2015, respectively.

Cash Flows Used In Operating Activities. In 2016, cash flows used in operating activities from continuing operations of $5.0 million reflects the Company's net loss from continuing operations of $8.3 million and a decrease in accrued expenses and other liabilities of $0.8 million. These were offset by an increase in accounts payable of $3.1 million, a decrease in other assets of $0.4 million and a change in non-cash adjustments of $0.6 million. During 2015, the cash flows used in operating activities of $7.6 million includes our loss from operations of $9.9 million, an increase in prepaid expenses and other current assets of $0.7 million and a decrease in accounts payable of $0.4 million. These were partially offset by an increase in accrued expenses and other liabilities of $1.8 million and increases in non-cash items of $1.5 million.

Cash Flows Used In Investing Activities. Cash flows used in investing activities totaled less than $0.1 million for the year ended December 31, 2016. For the year ended December 31, 2015, cash flows used in investing activities totaled $0.4 million and included purchases of property and equipment of $0.2 million.

Cash Flows Provided By Financing Activities. Cash flows provided by financing activities totaled $2.2 million for the year ended December 31, 2016, which included net proceeds of approximately $1.8 million from our Unit issuance, $0.5 million from sales under the ATM Agreement and $0.5 million from borrowing on our debt. These proceeds were partially offset by payments on our debt of approximately $0.6 million. Cash flows provided by financing activities totaled $9.0 million for the year ended December 31, 2015, which included net proceeds of approximately $9.0 million from our common stock offerings during the year and $0.9 million from the issuance of unsecured convertible promissory notes in January 2015. These proceeds were partially offset by payments on our debt and capital lease obligations.

Contractual Obligations and Other Commitments

At December 31, 2016, our contractual obligations and other commitments were as follows:

	(Amounts in thousands)						
	2017	2018	2019	2020	2021	After 2021	Total
Long term debt[1]	$ 7,814	$ —	$ —	$ —	$ —	$ —	$ 7,814
Interest[1]	623	—	—	—	—	—	623
Capital lease obligations[2]	1	—	—	—	—	—	1
Operating lease obligations[3]	226	230	235	239	244	144	1,318
Purchase obligations[4]	57	—	—	—	—	—	57
	$ 8,721	$ 230	$ 235	$ 239	$ 244	$ 144	$ 9,813

(1) See Note 5 - "Debt" to our accompanying consolidated financial statements.
(2) See Note 6 - "Capital Leases" to our accompanying consolidated financial statements.
(3) These amounts represent non-cancellable operating leases for equipment, vehicles and operating facilities
(4) These amounts represent purchase commitments, including all open purchase orders

Off Balance Sheet Arrangements

At December 31, 2016 and 2015, we did not have any off-balance sheet arrangements that have or are reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

Critical Accounting Policies

Accounting policies used in the preparation of the consolidated financial statements may involve the use of management judgments and estimates. Certain of our accounting policies are considered critical as they are both important to the portrayal of our financial statements and require significant or complex judgments on the part of management. The preparation of consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of net sales and expenses during the reported period. In addition, estimates and assumptions associated with the determination of the fair value of certain assets and related impairments require considerable judgment by management. Our judgments and estimates are based on experience and assumptions that we believe are reasonable under the circumstances. Further, we evaluate our judgments and estimates from time to time as circumstances change. Actual financial results based on judgments or estimates may vary under different assumptions or circumstances. The following are certain critical accounting policies that may involve the use of judgments or estimates.

Allowance for Doubtful Accounts and Contractual Allowances.

While payment terms are generally 30 days, we have also provided extended payment terms certain cases. Accounts receivable are carried at original invoice amount and shown net of allowance for doubtful accounts and contractual allowances. The estimate made for doubtful accounts is based on a review of all outstanding amounts on a quarterly basis. The estimate for contractual allowances is based on contractual terms or historical reimbursement rates and is recorded when revenue is recorded. We determine the allowance for doubtful accounts and contractual allowances by regularly evaluating individual payor receivables and considering a payor's financial condition, credit history, reimbursement rates and current economic conditions. Accounts receivable are written off when deemed uncollectible and after all collection efforts have been exhausted. Recoveries of accounts receivable previously written off are recorded as a reduction in bad debt expense when received.

Inventories.

Inventories are stated at the lower of cost or market net of allowance for obsolete and slow moving inventory. Cost is computed using standard costs for finished goods and average or latest actual cost for raw materials and work in process, which approximates the first-in, first-out (FIFO) method. We write down slow-moving and obsolete inventory by the difference between the value of the inventory and our estimate of the reduced value based on potential future uses, the likelihood that overstocked inventory will be sold and the expected selling prices of the inventory. If our ability to realize value on slow-moving or obsolete inventory is less favorable than assumed, additional write-downs of the inventory may be required.

Property and Equipment.

Property and equipment are carried at cost. Depreciation is computed by the straight-line method over the estimated useful lives of the related assets.

Goodwill and Intangible Assets.

Intangible assets include intellectual property and patents.

1. Intellectual Property. Initial costs paid to license intellectual property from independent third parties are capitalized and amortized using the straight-line method over the license period. Ongoing royalties related to such licenses are expensed as incurred.

2. Patents. We capitalize legal costs, filing fees and other expenses associated with obtaining patents on new discoveries and amortize these costs using the straight-line method over the shorter of the legal life of the patent or its economic life beginning on the date the patent is issued.

We test our intangible assets for impairment when factors are present that indicate the carrying value of an intangible asset (group) may not be recoverable. Impairment occurs when the carrying value is determined to be not recoverable, thereby causing the carrying value of the goodwill or intangible asset (group) to exceed its fair value. If impaired, the asset's carrying value is reduced to its fair value.

Common Stock Warrants.

Certain of our issued and outstanding warrants to purchase common stock do not qualify to be treated as equity, and accordingly, are recorded as a liability ("Common Stock Warrant Liability"). We are required to present these instruments at fair value at each reporting date and any changes in fair values are recorded as an adjustment to earnings. The Common Stock Warrant Liability is considered a level three financial instrument. See Footnote 12 "Fair Value" to our accompanying consolidated financial statements.

Stock Based Compensation.

All stock-based awards to date have exercise prices equal to the market price of our common stock on the date of grant and have ten-year contractual terms. Unvested awards as of December 31, 2016 had vesting periods of one or three years from date of grant. None of the stock awards outstanding at December 31, 2016 are subject to performance or market-based vesting conditions.

We measure and recognize compensation expense for all stock-based awards made to employees and directors, including stock options. Compensation expense is based on the calculated fair value of the awards as measured at the grant date for stock options and for Stock Appreciation Rights ("SAR") is based on the calculated mark-to-market value of the awards at quarter end, with both expensed over the service period of the awards. The values are determined using the Black-Scholes methodology.

Income Taxes.

Deferred tax assets and liabilities are determined based on the differences between the financial reporting and tax basis of assets and liabilities at each balance sheet date using tax rates expected to be in effect in the year the differences are expected to reverse. Deferred tax assets are reduced by a valuation allowance to the extent that it is more likely than not that they will not be realized. We had no material interest or penalties during fiscal 2016 or fiscal 2015, and we do not anticipate any such items during the next twelve months. Our policy is to record interest and penalties directly related to uncertain tax positions as income tax expense in the Consolidated Statements of Operations.

Net Sales Recognition.

Revenue is realized and earned when all of the following criteria are met:

- Persuasive evidence of an arrangement exists;
- Delivery has occurred or services have been rendered;
- The seller's price to the buyer is fixed or determinable; and
- Collectability is reasonably assured.

In our Biomarker Identification laboratory, we perform services on a project by project basis. When we receive payment in advance, we recognize revenue when we deliver the service. These projects typically do not extend beyond one year.

Net sales from Patient Testing laboratories are recognized on an individual test basis and, since collectability is not reasonably assured, are recognized when cash is received. There are no deferred net sales associated with our Patient Testing services. Historically, adjustments to the allowances, based on actual receipts from third party payers, are reflected in the estimated contractual allowance applied prospectively. In the fourth quarter of 2015, we adjusted our contractual allowance rates to better reflect the reimbursement level we expect to achieve on Patient Testing billings. Our Patient Testing revenues are reported as part of discontinued operations (See Note 3 - "Discontinued Operations").

Net sales of Genetic Assays and Platforms products, reported as discontinued operations (See Note 3 - "Discontinued Operations") are recognized in accordance with the terms of the sales arrangement. Such recognition is based on receipt of an unconditional customer order and transfer of title and risk of ownership to the customer, typically upon shipment of the product under a purchase order. Our sales terms do not provide for the right of return unless the product is damaged or defective. Net sales from certain services associated with the analytical instruments, to be performed subsequent to shipment of the products, is deferred and recognized when the services are provided. Such services, mainly limited to installation and training services that are not essential to the functionality of the instruments, typically are performed in a timely manner subsequent to shipment of the instrument. We also enter into various service contracts that cover installed instruments. These contracts cover specific time periods and net sales associated with these contracts are deferred and recognized ratably over the service period.

Taxes collected from customers and remitted to government agencies for specific net sales producing transactions are recorded net with no effect on the income statement.

Research and Development.

Research and development and various collaboration costs are charged to expense when incurred.

Loss Per Share.

Basic earnings per share is calculated based on the weighted-average number of common shares outstanding during each period. Diluted earnings per share include shares issuable upon exercise of outstanding stock options, warrants or conversion rights that have exercise or conversion prices below the market value of our common stock.

Recently Issued Accounting Pronouncements

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2014-09, Revenue from Contracts with Customers. This guidance requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to a customer. ASU No. 2014-09 will replace most existing revenue recognition guidance in generally accepted accounting principles in the U.S. when it becomes effective. In July 2015, the FASB decided to defer the effective date of this new accounting guidance by one year. As a result, ASU No. 2014-09 will be effective for us for all annual and interim reporting periods beginning after December 15, 2017 and early adoption would be permitted as of the original effective date. The new standard permits the use of either the retrospective or cumulative effect transition method. We do not expect to early adopt this guidance and we have not selected a transition method. We are currently evaluating the impact this guidance will have on our financial condition, results of operations and cash flows.

In August 2014, the FASB issued ASU No. 2014-15, Presentation of Financial Statements - Going Concern (Subtopic 205-40). The new guidance addresses management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern and to provide related footnote disclosures. This standard is effective for annual periods ending after December 15, 2016, and for annual and interim periods thereafter. Early adoption is permitted. The adoption of ASU 2014-15 did not have a material effect on our consolidated financial statements, however it may affect future disclosures.

In February 2016, the FASB issued ASU No. 2016-02, Leases. The new standard amends the recognition of lease assets and lease liabilities by lessees for those leases currently classified as operating leases and amends disclosure requirements associated with leasing arrangements. The new standard is effective for fiscal years and interim periods within those fiscal years beginning after December 15, 2018. Early adoption is permitted. The new standard must be adopted using a modified retrospective transition, and provides for certain practical expedients. Transition will require application of the new guidance at the beginning of the earliest comparative period presented. We are currently assessing the impact that the adoption of this ASU will have on our consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-09, Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting. The new standard simplifies several aspects related to the accounting for share-based payment transactions, including the accounting for income taxes, statutory tax withholding requirements, forfeitures and classification on the statement of cash flows. This guidance is effective for fiscal years and interim periods within those fiscal years beginning after December 15, 2016; however, early adoption is permitted. We do not expect to early adopt this guidance and are currently evaluating the impact this guidance will have on our financial condition, results of operations and cash flows.

In August 2016, FASB issued ASU No. 2016-15, Classification of Certain Cash Receipts and Cash Payments. ASU No. 2016-15 eliminates the diversity in practice related to the classification of certain cash receipts and payments in the statement of cash flows by adding or clarifying guidance on eight specific cash flow issues. ASU No. 2016-15 is effective for fiscal years beginning after December 15, 2017, and for interim periods within that fiscal year. We do not believe ASU No. 2016-15 will have a material effect on our financial position and results of operations.

Impact of Inflation

We do not believe that inflation has had a material effect on our current business, financial condition or results of operations. If our costs were to become subject to significant inflationary pressures, for example, if the cost of our materials or the cost of shipping our products to customers were to incur substantial increases as a result of the rapid rise in the cost of oil, we may not be able to fully offset such higher costs through price increases. Our inability or failure to do so could harm our business, financial condition and results of operations.

Item 7A. Quantitative and Qualitative Disclosure about Market Risk.

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

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Audit Committee of the
Board of Directors and Stockholders
of Transgenomic, Inc.

We have audited the accompanying consolidated balance sheet of Transgenomic, Inc. and Subsidiary (the "Company") as of December 31, 2016, and the related consolidated statements of operations, comprehensive loss, stockholders' deficit and cash flows for the year then ended. These 2016 financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the 2016 financial statements referred to above present fairly, in all material respects, the consolidated financial position of Transgenomic, Inc. and Subsidiary, as of December 31, 2016, and the consolidated results of its operations and its cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has incurred operating losses and used cash for operating activities for the past several years. This raises substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

We also audited the adjustments described in Note 3 that were applied to restate the 2015 financial statements. In our opinion, such adjustments are appropriate and have been properly applied. We were not engaged to audit, review or apply any procedures to the 2015 financial statements of the Company other than with respect to the adjustments and, accordingly, we do not express an opinion or any other form of assurance on the 2015 financial statements taken as a whole.

/s/ Marcum LLP

Marcum LLP
Hartford, CT
April 12, 2017

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders
Transgenomic, Inc.

We have audited, before the effects of the adjustments to retrospectively apply the change in accounting described in Note 3, the accompanying consolidated balance sheet of Transgenomic, Inc. and Subsidiary (the Company) as of December 31, 2015, and the related consolidated statements of operations, comprehensive loss, stockholders' (deficit) and cash flows for the year then ended (the 2015 financial statements before the effects of the adjustments discussed in Note 3 are not presented herein). These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audit included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the financial statements, before the effects of the adjustments to retrospectively apply the change in accounting described in Note 3, referred to above present fairly, in all material respects, the consolidated financial position of Transgenomic, Inc. and Subsidiary at December 31, 2015, and the consolidated results of their operations and their cash flows for the year then ended in conformity with U.S. generally accepted accounting principles.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has recurring losses from operations that raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

We were not engaged to audit, review, or apply any procedures to the adjustments to retrospectively apply the change in accounting described in Note 3 and, accordingly, we do not express an opinion or any other form of assurance about whether such adjustments are appropriate and have been properly applied. Those adjustments were audited by Marcum LLP.

/s/ Ernst & Young LLP

Hartford, Connecticut
April 14, 2016

TRANSGENOMIC, INC. AND SUBSIDIARY
CONSOLIDATED BALANCE SHEETS
December 31, 2016 and 2015
(Dollars in thousands except share data)

	2016	2015
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 110	$ 444
Accounts receivable, net	225	264
Inventories	24	50
Other current assets	105	537
Assets held for sale	31	1,987
Total current assets	495	3,282
PROPERTY AND EQUIPMENT:		
Equipment	5,592	5,593
Furniture, fixtures & leasehold improvements	1,565	1,565
	7,157	7,158
Less: accumulated depreciation and amortization	(7,013)	(6,899)
	144	259
OTHER ASSETS:		
Intangibles, net	562	1,170
Other assets	58	105
	$ 1,259	$ 4,816
LIABILITIES AND STOCKHOLDERS' DEFICIT		
CURRENT LIABILITIES:		
Current maturities of long term debt	$ 7,814	$ 7,596
Accounts payable	6,541	3,781
Accrued compensation	224	321
Accrued expenses	3,546	3,734
Deferred revenue	170	217
Other current liabilities	1,529	1,068
Liabilities held for sale	—	264
Total current liabilities	19,824	16,981
LONG TERM LIABILITIES:		
Common stock warrant liability	582	350
Other long-term liabilities	203	305
Total liabilities	20,609	17,636
STOCKHOLDERS' DEFICIT:		
Preferred stock, $.01 par value, 15,000,000 shares authorized, 214,705 shares in 2016 and 4,029,502 shares in 2015 issued and outstanding	2	40
Common stock, $.01 par value, 150,000,000 shares authorized, 26,446,927 shares in 2016 and 13,915,691 shares in 2015 issued and outstanding	264	139
Additional paid-in capital	205,877	200,403
Accumulated other comprehensive income	—	10
Accumulated deficit	(225,493)	(213,412)
Total stockholders' deficit	(19,350)	(12,820)

$	1,259	$ 4,816

See notes to consolidated financial statements.

TRANSGENOMIC, INC. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF OPERATIONS
Years Ended December 31, 2016 and 2015
(Dollars in thousands except per share data)

	2016	2015
NET SALES	$ 1,557	$ 1,929
COST OF GOODS SOLD	1,762	1,940
Gross loss	(205)	(11)
OPERATING EXPENSES:		
Selling, general and administrative	6,192	7,055
Research and development	1,422	1,853
	7,614	8,908
OPERATING LOSS FROM CONTINUING OPERATIONS	(7,819)	(8,919)
OTHER INCOME (EXPENSE):		
Interest expense, net	(1,038)	(724)
Warrant revaluation	788	(205)
Loss on sale/disposal of assets	(199)	(14)
Other, net	(1)	—
	(450)	(943)
LOSS FROM CONTINUING OPERATIONS BEFORE INCOME TAXES	(8,269)	(9,862)
INCOME TAX EXPENSE (BENEFIT)	—	—
LOSS FROM CONTINUING OPERATIONS	$ (8,269)	$ (9,862)
INCOME (LOSS) FROM DISCONTINUED OPERATIONS, NET OF TAXES	653	(23,092)
NET LOSS	(7,616)	(32,954)
PREFERRED STOCK DIVIDENDS	(393)	(1,324)
NET LOSS FROM CONTINUING OPERATIONS AVAILABLE TO COMMON STOCKHOLDERS	$ (8,662)	$ (11,186)
NET INCOME (LOSS) FROM DISCONTINUED OPERATIONS AVAILABLE TO COMMON STOCKHOLDERS	$ 653	$ (23,092)
NET LOSS AVAILABLE TO COMMON STOCKHOLDERS	$ (8,009)	$ (34,278)
BASIC AND DILUTED LOSS PER COMMON SHARE FROM CONTINUING OPERATIONS	$ (0.38)	$ (0.91)
BASIC AND DILUTED INCOME (LOSS) PER COMMON SHARE FROM DISCONTINUED OPERATIONS	$ 0.03	$ (1.87)
BASIC AND DILUTED LOSS PER COMMON SHARE	$ (0.35)	$ (2.78)
BASIC AND DILUTED WEIGHTED AVERAGE SHARES OF COMMON STOCK OUTSTANDING	22,689,831	12,321,739

See notes to consolidated financial statements.

TRANSGENOMIC, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
Years Ended December 31, 2016 and 2015
(Dollars in thousands)

	2016	2015
Net Loss	$ (7,616)	$ (32,954)
Other Comprehensive Loss;		
foreign currency translation adjustment	—	(330)
Comprehensive Loss	$ (7,616)	$ (33,284)

See notes to consolidated financial statements.

TRANSGENOMIC, INC. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' DEFICIT
Years Ended December 31, 2016 and 2015
(Dollars in thousands)

	Preferred Stock		Common Stock					
	Outstanding Shares	Par Value	Outstanding Shares	Par Value	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total
Balance, January 1, 2015	4,029,502	$ 40	8,084,471	$ 81	$ 189,680	$ (183,588)	$ 340	$ 6,553
Net loss	—	—	—	—	—	(32,954)		(32,954)
Foreign currency translation adjustment	—	—	—	—	—	—	(330)	(330)
Non-cash stock-based compensation	—	—	—	—	644	—	—	644
Private Placement, net	—	—	5,047,411	50	8,920	—	—	8,970
Conversion of convertible promissory notes	—	—	783,809	8	1,159	—	—	1,167
Reversal of dividends on preferred stock	—	—	—	—	—	3,130	—	3,130
Balance, December 31, 2015	4,029,502	$ 40	13,915,691	$ 139	$ 200,403	$ (213,412)	$ 10	$ (12,820)
Net loss	—	—	—	—	—	(7,616)		(7,616)
Foreign currency translation adjustment	—	—	—	—	—	10	(10)	—
Non-cash stock-based compensation	—	—	—	—	82	—	—	82
Issuance of common shares	—	—	1,320,002	13	493	—	—	506
Private Placement, net	2,365,243	24	—	—	129			153
Conversion of warrants	—	—	2,280,517	22	323	—	—	345
Conversion of preferred stock and preferred stock dividends	(6,180,040)	(62)	8,930,717	90	4,447	—	—	4,475
Dividends on preferred stock			—	—	—	(4,475)		(4,475)
Balance, December 31, 2016	214,705	$ 2	26,446,927	$ 264	$ 205,877	$ (225,493)	$ —	$ (19,350)

See notes to consolidated financial statements.

TRANSGENOMIC, INC. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF CASH FLOWS
Years Ended December 31, 2016 and 2015
(Dollars in thousands)

	2016	2015
CASH FLOWS USED IN OPERATING ACTIVITIES:		
Net loss	$ (7,616)	$ (32,954)
Less income (loss) from discontinued operations, net of tax	653	(23,092)
Loss from continuing operations	(8,269)	(9,862)
Adjustments to reconcile net loss to net cash flows used in operating activities:		
Depreciation and amortization	262	489
Stock based compensation and change in liability of stock appreciation rights	52	611
Impairment of patents	304	—
Provision for losses on doubtful accounts	72	67
Provision for losses on inventory obsolescence	—	63
Capitalized interest and other costs	467	—
Warrant revaluation	(788)	205
Loss on sale/disposal of assets	199	14
Deferred interest	47	70
Changes in operating assets and liabilities:		
Accounts receivable	(33)	133
Inventories	26	(113)
Other assets	432	(663)
Accounts payable	3,085	(365)
Accrued expenses and other liabilities	(811)	1,773
Net cash used in continuing operations	(4,955)	(7,578)
Net cash provided by (used in) discontinued operations	1,405	(4,800)
Net cash used in operating activities	(3,550)	(12,378)
CASH FLOWS PROVIDED BY (USED IN) INVESTING ACTIVITIES:		
Purchase of property and equipment	(19)	(204)
Proceeds from sale of assets	5	—
Change in other assets	(27)	(219)
Net cash used in investing activities, continuing operations	(41)	(423)
Net cash provided by investing activities, discontinued operations	1,047	2,210
Net cash provided by investing activities	1,006	1,787
CASH FLOWS PROVIDED BY FINANCING ACTIVITIES:		
Proceeds from debt	500	923
Principal payments on capital lease obligations	(3)	(35)
Issuance of preferred stock and warrants, net of costs of $219	1,781	—
Proceeds from exercise of warrants	7	—
Issuance of common stock and related warrants, net	475	8,977
Principal payments on debt	(550)	(874)
Net cash flows provided by financing activities	2,210	8,991
EFFECT OF FOREIGN CURRENCY EXCHANGE RATE CHANGES ON CASH, discontinued operations	—	435
NET CHANGE IN CASH AND CASH EQUIVALENTS	(334)	(1,165)
CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD	444	1,609

CASH AND CASH EQUIVALENTS AT END OF PERIOD	$ 110	$ 444

SUPPLEMENTAL CASH FLOW INFORMATION		
Cash paid for interest	$ —	$ 493
SUPPLEMENTAL DISCLOSURE OF NON-CASH INFORMATION		
Initial valuation of warrant issued in conjunction with Private Placement	$ 1,827	$ —
Warrants and note payable converted to equity	807	1,012
Debt settled with issuance of preferred stock and warrants	199	—
Issuance of common stock to vendors for services performed	89	—
Accrued fees associated with issuance of common stock	58	—
Other liability payable for settlement of warrant conversions	462	—

See notes to consolidated financial statements.

1. BUSINESS DESCRIPTION

Business Description.

Transgenomic, Inc., and Subsidiary, ("we", "us", "our", the "Company" or "Transgenomic") is a biotechnology company advancing personalized medicine for the detection and treatment of cancer and integrated diseases through our proprietary molecular technologies and clinical and research services. A key goal is to bring our Multiplexed ICE COLD-PCR ("MX-ICP") product to the clinical market through strategic partnerships and licensing agreements, enabling the use of blood and other bodily fluids for more effective and patient-friendly diagnosis, monitoring and treatment of cancer.

MX-ICP is technology proprietary to Transgenomic. It is a reagent that improves the ability to detect genetic mutations. This technology has been validated internally on all currently available sequencing platforms, including Sanger, Next Gen Sequencing and Digital PCR. By enhancing the level of detection of genetic mutations and suppressing the normal or wild-type DNA, several benefits are provided.

Historically, our operations were organized and reviewed by management along our major product lines and presented in two business segments: Laboratory Services and Genetic Assays and Platforms. Beginning with the quarter ended September 30, 2015, our operations are now organized as one business segment, our Laboratory Services segment, and during the fourth quarter of 2015, we began including a portion of our Laboratory Services segment as discontinued operations, this continued during 2016.

Our current Laboratory Services business consists of our laboratory in Omaha, Nebraska, which is focused on providing genetic analytical services related to Oncology and pharmacogenomics research services supporting Phase II and Phase III clinical trials conducted by pharmaceutical and biotechnology companies. Our laboratory employs a variety of genomic testing service technologies, including our proprietary MX-ICP technology. Our laboratory in Omaha is certified under the Clinical Laboratory Improvement Amendments ("CLIA") as a high complexity laboratory and is accredited by the College of American Pathologists.

Our consolidated balance sheets, statements of operations and statements of cash flows for all periods presented reflect our former Genetic Assays and Platforms activities and Patient Testing business as discontinued operations (See Note 3 - "Discontinued Operations").

Going Concern

The consolidated financial statements have been prepared using accounting principles generally accepted in the United States of America applicable for a going concern which assumes that the Company will realize its assets and discharge its liabilities in the ordinary course of business. The Company has incurred substantial operating losses and has used cash in its operating activities for the past few years. As of December 31, 2016, the Company had negative working capital of approximately $19.3 million. The Company's ability to continue as a going concern is dependent upon a combination of completing its planned merger with Precipio Diagnostics, LLC ("Precipio"), generating additional revenue, improving cash collections, potentially selling underutilized assets and/or product lines related to discontinued operations and, if needed, raising necessary financing to meet its obligations and pay its liabilities arising from normal business operations when they come due. As noted in subsequent events, the Company is suspended from NASDAQ listing. As discussed below as a condition of the merger, the New Precipio common Stock must be approved by the NASDAQ. As a result of the merger, the equity of New Precipio is expected to be in compliance. In addition, at the time of the merger the Company will execute a reverse stock split. The outcome of these matters cannot be predicted with any certainty at this time and raises substantial doubt that the Company will be able to continue as a going concern for the next twelve months from the date of issuance of these financial statements. These consolidated financial statements do not include any adjustments to the amounts and classification of assets and liabilities that may be necessary should the Company be unable to continue as a going concern. There is no assurance that the Company will complete the merger in a timely manner or at all. The merger agreement is subject to many closing conditions and termination rights. The Company also cannot be certain that additional financing, if needed, will be available on acceptable terms, or at all, and its failure to raise capital when needed could limit its ability to continue its operations.

Merger Agreement

On October 12, 2016, Transgenomic, New Haven Labs Inc., a wholly owned subsidiary of Transgenomic ("Merger Sub" and, together with Transgenomic, the "Transgenomic Parties"), and Precipio entered into an Agreement and Plan of Merger (as

amended by the Merger Agreement Amendment (as defined below) the "Merger Agreement") pursuant to which Precipio will become a wholly owned subsidiary of Transgenomic (the "Merger"), on the terms and subject to the conditions set forth in the Merger Agreement. On February 2, 2017, Transgenomic, Merger Sub and Precipio entered into a First Amendment to Agreement and Plan of Merger (the "Merger Agreement Amendment") which provided for, among other things, the revision of the exchange ratio set forth in the Merger Agreement, the waiver and removal of certain closing conditions and the authorization of certain actions taken by each of Transgenomic and Precipio since the date the Merger Agreement. The parties expect the Merger to close in the second quarter of 2017. following the Merger, Transgenomic will change its name to Precipio, Inc. ("New Precipio").

Upon the effectiveness of the Merger (the "Effective Time"), (i) the outstanding common units of Precipio will be converted into the right to receive approximately 160.6 million shares of common stock of New Precipio ("New Precipio common stock"), together with cash in lieu of fractional units, which will result in Precipio common unit holders owning approximately 52% of the issued and outstanding shares of New Precipio common stock on a fully diluted basis, taking into account the issuance of shares of convertible preferred stock of New Precipio ("New Precipio preferred stock") in the Merger and the private placement as discussed below (the "fully diluted New Precipio common stock") and (ii) the outstanding preferred units of Precipio will be converted into the right to receive approximately 24.1 million shares of New Precipio preferred stock with an aggregate face amount equal to $3.0 million (based upon the purchase price of the new preferred stock of New Precipio in the new preferred stock financing), which will result in the Precipio preferred unit holders owning approximately 8% of the fully diluted New Precipio common stock.

The board of managers of Precipio and the boards of directors of Transgenomic and Merger Sub, and Transgenomic, in its capacity as the sole stockholder of Merger Sub, have each approved the Merger Agreement and the board of managers of Precipio and the board of directors of Transgenomic have each recommended that their respective equity holders approve the transactions contemplated by the Merger Agreement. Transgenomic will hold a special meeting of its stockholders to approve the issuance of shares of Transgenomic common stock pursuant to the Merger, as required by Nasdaq Listing Rules, as well as certain other matters (the "Special Meeting").

The Merger Agreement contains various representations, warranties and covenants of the Transgenomic Parties and Precipio, including, among others, covenants (i) by each of Precipio and Transgenomic to operate its business in the ordinary course, (ii) by each of Precipio and Transgenomic not to engage in certain kinds of transactions during the period between the execution of the Merger Agreement and the completion of the Merger, (iii) by Precipio to have its members approve the Merger and (iv) by Transgenomic to hold the Special Meeting.

Under the Merger Agreement, Precipio and Transgenomic are subject to customary "no shop" provisions that limit their respective abilities to solicit alternative acquisition proposals from third parties or to provide confidential information to third parties, subject to a "fiduciary out" provision that allows Precipio and Transgenomic to provide information and participate in discussions with respect to certain unsolicited written proposals and to terminate the Merger Agreement and enter into an acquisition agreement with respect to a superior proposal in compliance with the terms of the Merger Agreement (a "Superior Proposal").

Completion of the Merger is subject to various conditions, including, among others: (i) approval of the holders of a majority of Transgenomic's shares of outstanding common stock, (ii) approval of the requisite amount of the members of Precipio, (iii) approval of an amendment to the Certificate of Incorporation of Transgenomic contemplating the New Preferred Stock Financing (described below) and changing the name of Transgenomic to Precipio, Inc. or such other name as determined by Precipio, (iv) obtaining certain third party consents, (v) the absence of any judgment, injunction, order or decree prohibiting or enjoining the completion of the Merger, (vi) consummation of the New Preferred Stock Financing, (vii) approval of listing of New Precipio common stock on Nasdaq, (viii) the conversion of all outstanding membership interests of Precipio into common units or preferred units which will be converted into New Precipio common stock or New Precipio preferred stock as Merger consideration, as applicable, (ix) increase in the size of the Transgenomic board by two members and the appointment of designees in accordance with the Merger Agreement and (x) the lock-up of certain Transgenomic stockholders and Precipio members.

Upon completion of the merger, New Precipio will be required to meet the initial listing requirements to maintain the listing and continued trading of its shares on Nasdaq. These initial listing requirements are more difficult to achieve than the continued listing requirements. Pursuant to the Merger Agreement, Transgenomic agreed to use its commercially reasonable efforts to cause the shares of Transgenomic common stock being issued in the merger to be approved for listing on Nasdaq at or prior to the effective time of the merger. Based on information currently available to Transgenomic, Transgenomic anticipates that its stock will be unable to meet the $4.00 (or, to the extent applicable, $3.00) minimum bid price initial listing requirement at the closing of the merger unless it effects a reverse stock split. On October 31, 2016, the stockholders of Transgenomic authorized the Transgenomic Board to effect a reverse stock split of the shares of Transgenomic common stock at a ratio of between one-for-ten

to one-for-thirty. In addition, often times a reverse stock split will not result in a trading price for the affected common stock that is proportional to the ratio of the split.

In addition, the obligation of the parties to complete the Merger is subject to certain other conditions, including (i) subject to the standards set forth in the Merger Agreement, the accuracy of the representations and warranties of the other party, (ii) compliance of each party with its covenants in all material respects and (iii) no material adverse effect of either party.

The Merger Agreement contains certain termination rights for both the Transgenomic Parties and Precipio. Either may terminate the Merger Agreement if the Merger is not completed on or before the date that is six months following the date of the Merger Agreement, April 12, 2017. In the Merger Agreement Amendment, this date was extended to June 30, 2017. Moreover, either party may terminate the Merger Agreement if the other party changes its recommendation to its security holders to approve the Merger and the related transactions or enter into an agreement with a third party regarding a Superior Proposal.

If the Merger Agreement is terminated by Precipio or Transgenomic pursuant to (i) the Transgenomic board failing to recommend that Transgenomic's stockholders vote to approve the issuance of New Precipio common stock in connection with the merger; (ii) Transgenomic failing to include in this proxy statement a recommendation by the Transgenomic board to vote in favor of the each of the proposals in this proxy statement; (iii) the Transgenomic board failing to make, withholding, withdrawing, amending, changing, qualifying or publicly proposing to withhold, withdraw, amend, change or qualify in a manner adverse to Precipio, its recommendation that the stockholders of Transgenomic vote in favor and adopt each of the proposals in this proxy statement, knowingly making any public statement inconsistent with such recommendation, failing to recommend against acceptance of any alternate acquisition proposal within ten business days after the public announcement of any such alternate acquisition proposal, approving, adopting, recommending or proposing publicly to approve, adopt or recommend any alternate acquisition proposal, or making any public statement inconsistent with its recommendation; (iv) Transgenomic entering into any letter of intent or similar document or any contract relating to any alternate acquisition proposal or (v) Transgenomic entering into a definitive agreement to effect an alternate acquisition proposal, then Transgenomic shall pay to Precipio, by wire transfer of immediately available funds within three business days after termination of the Merger Agreement, a nonrefundable fee in an amount equal to $256,500.

If the Merger Agreement is terminated by Transgenomic or Precipio pursuant to (i) Precipio's board of managers failing to recommend that its members vote or act by written consent to approve the merger; (ii) Precipio's board of managers failing to make, withholding, withdrawing, amending, changing, qualifying or publicly proposing to withhold, withdraw, amend, change or qualify in a manner adverse to Transgenomic, its recommendation that the members of Precipio vote in favor of each of the merger, the execution of the Merger Agreement and the consummation of the transaction contemplated therein, knowingly making any public statement inconsistent with such recommendation, failing to recommend against acceptance of any alternate acquisition proposal within ten business days after the public announcement of any such alternate acquisition proposal, approving, adopting, recommending or proposing publicly to approve, adopt or recommend any alternate acquisition proposal, or making any public statement inconsistent with its recommendation; (iii) Precipio entering into any letter of intent or similar document or any contract relating to any alternate acquisition proposal; or (iv) Precipio entering into a definitive agreement to effect an alternate acquisition proposal, Precipio shall pay to Transgenomic, by wire transfer of immediately available funds within three business days after termination of the Merger Agreement, a nonrefundable fee in an amount equal to $256,500.

In connection with entering into the Merger Agreement, Transgenomic and members and warrant holders of Precipio (collectively, the "Supporting Members"), entered into a voting agreement (the "Precipio Voting Agreement") pursuant to which the Supporting Members agreed to, among other things, (i) authorize and approve the Merger Agreement and the transactions contemplated thereby and (ii) vote against any Acquisition Proposal (as defined in the Merger Agreement). Collectively, the shares held by the Supporting Members represent approximately 71% of Precipio's issued and outstanding membership interests.

Precipio and certain Transgenomic stockholders (the "Supporting Stockholders") also entered into a voting agreement (the "Transgenomic Voting Agreement") pursuant to which the Supporting Stockholders agreed to, among other things, (i) authorize and approve the Merger Agreement and the transactions contemplated thereby and (ii) vote against any Acquisition Proposal (as defined in the Merger Agreement). Collectively, the shares held by the Supporting Stockholders represent approximately 31.84% of Transgenomic's voting stock.

The Merger Agreement also provides that the combined company will enter into employment agreements with certain employees of Precipio at the Effective Time and that the officers of the combined company will be agreed to by the parties prior to the Effective Time.

Special Meeting of Stockholders

At our 2016 Special Meeting of Stockholders (the "Special Meeting") held on October 31, 2016, our stockholders approved the proposal to authorize our Board of Directors to, in its discretion, amend our Third Amended and Restated Certificate of Incorporation to effect a reverse stock split of our common stock at a ratio of between one-for-ten to one-for-thirty, such ratio to be determined by our Board of Directors (the "Reverse Split Proposal"). The Reverse Split Proposal was described in detail in our definitive proxy statement filed with the Securities and Exchange Commission on September 22, 2016, as supplemented on October 13, 2016.

The approval of the Reverse Split Proposal by our stockholders provides our Board of Directors with the authority to carry out the reverse stock split, but our Board of Directors is not obligated to do so. If our Board of Directors determines to effect the reverse stock split, it intends to select a reverse stock split ratio that it believes would be most likely to achieve the anticipated benefits of the reverse stock split. Notwithstanding approval of the Reverse Split Proposal by our stockholders, our Board of Directors may, in its sole discretion, abandon the Reverse Split Proposal and determine, prior to the effectiveness of any filing with the Secretary of State of the State of Delaware, not to effect the reverse stock split. If our Board of Directors fails to implement the reverse stock split on or prior to the first anniversary date of the Special Meeting, stockholder approval again would be required prior to implementing any reverse stock split.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation.

The consolidated financial statements include the accounts of Transgenomic, Inc. and its wholly owned subsidiary. All inter-company balances and transactions have been eliminated in consolidation.

Risks and Uncertainties.

Certain risks and uncertainties are inherent in the Company's day-to-day operations and to the process of preparing our financial statements. The more significant of those risks are presented below and throughout the notes to the financial statements.

Use of Estimates.

The preparation of consolidated financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of net sales and expenses during the reporting period. In addition, estimates and assumptions associated with the determination of the fair value of certain assets and related impairments require considerable judgment by management. The key estimates included in the consolidated financial statements include stock option valuations, goodwill and intangible valuations, accounts receivable and inventory valuations, warrant valuations and contractual allowances. Actual results could differ from the estimates and assumptions used in preparing these consolidated financial statements.

Basis of Presentation.

The accompanying consolidated financial statements are presented in conformity with U.S. generally accepted accounting principles ("GAAP"). All amounts are presented in U.S. Dollars ("$"). Supplemental cash flows from discontinued operations are presented in Note 3 to the consolidated financial statements "Discontinued Operations." The Company has evaluated events occurring subsequent to December 31, 2016 for potential recognition or disclosure in the consolidated financial statements and concluded there were no subsequent events that required recognition or disclosure other than those provided in Note 14 "Subsequent Events".

Fair Value.

Unless otherwise specified, book value approximates fair value. The Company's Level 1 financial instruments include cash and cash equivalents. The Company's Level 3 financial instruments include the common stock warrant liability, preferred stock warrant liability and conversion feature, and debt. Due to its variable interest component, debt approximates fair value. The common stock warrant liability and Series A Convertible Preferred Stock ("Series A Preferred Stock") warrant liability and conversion feature are recorded at fair value. See Note 12 "Fair Value".

Cash and Cash Equivalents and Other Current Assets.

Cash and cash equivalents include cash and investments with original maturities at the date of acquisition of three months or less. Such investments presently consist of temporary overnight investments.

Other current assets of $0.1 million as of December 31, 2016 consists of prepaid assets. Other current assets as of December 31, 2015 of $0.5 million includes prepaid assets of $0.2 million, unbilled receivables of $0.1 million and other receivables of $0.2 million.

Concentrations of Cash.

From time to time, we may maintain a cash position with financial institutions in amounts that exceed federally insured limits. We have not experienced any losses on such accounts for the years ended December 31, 2016 and 2015.

Accounts Receivable.

The following is a summary of activity for the allowance for doubtful accounts from continuing operations during the years ended December 31, 2016 and 2015:

	Dollars in Thousands			
	Beginning Balance	Provision	Write Offs	Ending Balance
Twelve months ended December 31, 2016	$ 87	$ 72	$ (19)	$ 140
Twelve months ended December 31, 2015	$ 20	$ 67	$ —	$ 87

While payment terms are generally 30 days, we have also provided extended payment terms in certain cases. Accounts receivable are carried at original invoice amount and shown net of allowance for doubtful accounts and contractual allowances. The estimate made for doubtful accounts is based on a review of all outstanding amounts on a quarterly basis. The estimate for contractual allowances is based on contractual terms or historical reimbursement rates and is recorded when revenue is recorded. We determine the allowance for doubtful accounts and contractual allowances by regularly evaluating individual payor receivables and considering a payor's financial condition, credit history, reimbursement rates and current economic conditions. Accounts receivable are written off when deemed uncollectible and after all collection efforts have been exhausted. Recoveries of accounts receivable previously written off are recorded as a reduction in bad debt expense when received.

Inventories.

Inventories are stated at the lower of cost or market. Cost is computed using standard costs for finished goods and average or latest actual cost for raw materials and work in process, which approximates the first-in, first-out (FIFO) method. We write down slow-moving and obsolete inventory by the difference between the value of the inventory and our estimate of the reduced value based on potential future uses, the likelihood that overstocked inventory will be sold and the expected selling prices of the inventory. If our ability to realize value on slow-moving or obsolete inventory is less favorable than assumed, additional write-downs of the inventory may be required. At December 31, 2016 and 2015, our inventories were less than $0.1 million and were comprised predominantly of raw materials.

Property and Equipment.

Property and equipment are carried at cost. Depreciation is computed by the straight-line method over the estimated useful lives of the related assets as follows:

Leasehold improvements	1 to 10 years
Furniture and fixtures	3 to 7 years
Production equipment	3 to 7 years
Computer equipment	3 to 7 years
Research and development equipment	2 to 7 years

Depreciation expense related to property and equipment during the years ended December 31, 2016 and 2015 was $0.1 million and $0.2 million, respectively. Included in depreciation for each of the years ended December 31, 2016 and 2015 was $0.1 million related to equipment acquired under capital leases.

We test our property and equipment for impairment when factors are present that indicate the carrying value of an asset (group) may not be recoverable. There was no impairment for the year ended December 31, 2016. During 2015, as part of our review for impairment of long-lived assets, we recorded an impairment charge of approximately $0.8 million related to property and equipment during the three months ended September 30, 2015. See Note 4 - “Intangible Assets and Other Assets” for further discussion regarding the impairment of our long-lived assets.

Goodwill and Intangible Assets.

Intangible assets include intellectual property and patents.

1. Intellectual Property. Initial costs paid to license intellectual property from independent third parties are capitalized and amortized using the straight-line method over the license period. Ongoing royalties related to such licenses are expensed as incurred.

2. Patents. We capitalize legal costs, filing fees and other expenses associated with obtaining patents on new discoveries and amortize these costs using the straight-line method over the shorter of the legal life of the patent or its economic life beginning on the date the patent is issued.

We test our intangible assets for impairment when factors are present that indicate the carrying value of an intangible asset (group) may not be recoverable. Impairment occurs when the carrying value is determined to be not recoverable, thereby causing the carrying value of the intangible asset (group) to exceed its fair value. If impaired, the asset’s carrying value is reduced to its fair value. During the year ended December 31, 2016 we had impairment charges of $0.3 million related to our patents.

During 2015, we performed an interim testing of impairment of goodwill and long-lived assets as of September 30, 2015, due to the significant decline in the market price of our stock. As a result of this testing, we recorded impairment charges of $6.2 million related to our long-lived assets during the three months ended September 30, 2015 but determined that no impairment of goodwill was needed to be recorded. See Note 4 - “Intangible Assets and Other Assets” for further discussion regarding the impairment of our intangible assets. During the fourth quarter of 2015, it was concluded that our Patient Testing business, which met the criteria to be classified as held for sale and reported as discontinued operations as of December 31, 2015, was impaired due to continued declines in financial performance and due to the fact that the likelihood of recoverability of the Patient Testing goodwill through sale of the Patient Testing business was remote. As a result we determined that the goodwill related to the Patient Testing business was impaired as of December 31, 2015. Goodwill impairment charges of $6.9 million were recorded during 2015. The goodwill and impairment charges are included in the results of our discontinued operations. See Note 3 - “Discontinued Operations” for further discussion regarding the results of discontinued operations.

Common Stock Warrants.

Certain of our issued and outstanding warrants to purchase common stock do not qualify to be treated as equity and accordingly, are recorded as a liability (“Common Stock Warrant Liability”). We are required to present these instruments at fair value at each reporting date and any changes in fair values are recorded as an adjustment to earnings. The Common Stock Warrant Liability is considered a Level 3 financial instrument. See Note 12 - “Fair Value”.

Stock Based Compensation.

All stock-based awards to date have exercise prices equal to the market price of our common stock on the date of grant and have ten-year contractual terms. Unvested options as of December 31, 2016 had vesting periods of one or three years from the date of grant. None of the stock options outstanding at December 31, 2016 are subject to performance or market-based vesting conditions.

We measure and recognize compensation expense for all stock-based awards made to employees and directors, including stock options. Compensation expense, net of estimated forfeitures, is based on the calculated fair value of the awards as measured at the grant date and is expensed over the service period of the awards.

Income Taxes.

Deferred tax assets and liabilities are determined based on the differences between the financial reporting and tax basis of assets and liabilities at each balance sheet date using tax rates expected to be in effect in the year the differences are expected to reverse. Deferred tax assets are reduced by a valuation allowance to the extent that it is more likely than not that they will not be realized. Our policy is to record interest and penalties directly related to income taxes as income tax expense in the Consolidated Statements of Operations.

Net Sales Recognition.

Revenue is realized and earned when all of the following criteria are met:

- Persuasive evidence of an arrangement exists;
- Delivery has occurred or services have been rendered;
- The seller's price to the buyer is fixed or determinable; and
- Collectability is reasonably assured.

In our Biomarker Identification laboratory, we perform services on a project by project basis. When we receive payment in advance, we recognize revenue when we deliver the service. These projects typically do not extend beyond one year. At December 31, 2016 and 2015, deferred net sales associated with pharmacogenomics research projects, included in the balance sheet in deferred revenue, was $0.2 million.

Net sales from Patient Testing laboratories are recognized on an individual test basis and, since collectability is not reasonably assured, are recognized when cash is received. There are no deferred net sales associated with our Patient Testing services. Historically, adjustments to the allowances, based on actual receipts from third party payers, are reflected in the estimated contractual allowance applied prospectively. In the fourth quarter of 2015, we adjusted our contractual allowance rates to better reflect the reimbursement level we expect to achieve on Patient Testing billings. Our Patient Testing revenues are reported as part of discontinued operations (See Note 3 - "Discontinued Operations").

Net sales of Genetic Assays and Platforms products, reported as discontinued operations (See Note 3 - "Discontinued Operations") are recognized in accordance with the terms of the sales arrangement. Such recognition is based on receipt of an unconditional customer order and transfer of title and risk of ownership to the customer, typically upon shipment of the product under a purchase order. Our sales terms do not provide for the right of return unless the product is damaged or defective. Net sales from certain services associated with the analytical instruments, to be performed subsequent to shipment of the products, is deferred and recognized when the services are provided. Such services, mainly limited to installation and training services that are not essential to the functionality of the instruments, typically are performed in a timely manner subsequent to shipment of the instrument. We also enter into various service contracts that cover installed instruments. These contracts cover specific time periods and net sales associated with these contracts are deferred and recognized ratably over the service period.

Taxes collected from customers and remitted to government agencies for specific net sales producing transactions are recorded net with no effect on the income statement.

Research and Development.

Research and development and various collaboration costs are charged to expense when incurred.

Loss Per Share.

Basic loss per share is calculated based on the weighted-average number of shares of common stock outstanding during each period. Diluted loss per share includes shares issuable upon exercise of outstanding stock options, warrants or conversion rights that have exercise or conversion prices below the market value of our common stock, as long as the effect is not anti-dilutive. Options, warrants and conversion rights pertaining to 8,265,584 and 9,963,886 shares of our common stock have been excluded from the computation of diluted earnings per share at December 31, 2016 and 2015, respectively. The options, warrants and conversion rights that were exercisable in 2016 and 2015 were not included because the effect would be anti-dilutive due to the net loss.

A beneficial conversion dividend was incurred in Q1 2016 but not accounted for until Q4 2016. Since the recording of the dividend has no impact on our earnings, we do not believe the omission is material but below are the effects of the dividend on each of our quarterly results.

	Three Months Ended March 31, 2016		
(dollars in thousands except per share data)	As Reported	Beneficial Conversion Dividend	Adjusted
NET LOSS	$ (3,264)		$ (3,264)
PREFERRED STOCK DIVIDENDS	(21)	(372)	(393)
NET LOSS FROM CONTINUING OPERATIONS AVAILABLE TO COMMON STOCKHOLDERS	(2,112)	(372)	(2,484)
NET INCOME (LOSS) FROM DISCONTINUED OPERATIONS AVAILABLE TO COMMON STOCKHOLDERS	(1,173)		(1,173)
NET LOSS AVAILABLE TO COMMON STOCKHOLDERS	$ (3,285)	(372)	$ (3,657)
BASIC AND DILUTED LOSS PER COMMON SHARE FROM CONTINUING OPERATIONS	$ (0.10)		$ (0.12)
BASIC AND DILUTED INCOME (LOSS) PER COMMON SHARE FROM DISCONTINUED OPERATIONS	$ (0.06)		$ (0.06)
BASIC AND DILUTED LOSS PER COMMON SHARE	$ (0.16)		$ (0.18)
BASIC AND DILUTED WEIGHTED AVERAGE SHARES OF COMMON STOCK OUTSTANDING	20,323,333		20,323,333

	Six Months Ended June 30, 2016		
(dollars in thousands except per share data)	As Reported	Beneficial Conversion Dividend	Adjusted
NET LOSS	$ (4,261)		$ (4,261)
PREFERRED STOCK DIVIDENDS	(21)	(372)	(393)
NET LOSS FROM CONTINUING OPERATIONS AVAILABLE TO COMMON STOCKHOLDERS	(4,291)	(372)	(4,663)
NET INCOME (LOSS) FROM DISCONTINUED OPERATIONS AVAILABLE TO COMMON STOCKHOLDERS	9		9
NET LOSS AVAILABLE TO COMMON STOCKHOLDERS	$ (4,282)	(372)	$ (4,654)
BASIC AND DILUTED LOSS PER COMMON SHARE FROM CONTINUING OPERATIONS	$ (0.20)		$ (0.22)
BASIC AND DILUTED INCOME (LOSS) PER COMMON SHARE FROM DISCONTINUED OPERATIONS	$ —		$ —
BASIC AND DILUTED LOSS PER COMMON SHARE	$ (0.20)		$ (0.22)
BASIC AND DILUTED WEIGHTED AVERAGE SHARES OF COMMON STOCK OUTSTANDING	21,060,387		21,060,387

	Nine Months Ended September 30, 2016		
(dollars in thousands except per share data)	As Reported	Beneficial Conversion Dividend	Adjusted
NET LOSS	$ (6,187)		$ (6,187)
PREFERRED STOCK DIVIDENDS	(21)	(372)	(393)
NET LOSS FROM CONTINUING OPERATIONS AVAILABLE TO COMMON STOCKHOLDERS	(6,183)	(372)	(6,555)
NET INCOME (LOSS) FROM DISCONTINUED OPERATIONS AVAILABLE TO COMMON STOCKHOLDERS	(25)		(25)
NET LOSS AVAILABLE TO COMMON STOCKHOLDERS	$ (6,208)	(372)	$ (6,580)
BASIC AND DILUTED LOSS PER COMMON SHARE FROM CONTINUING OPERATIONS	$ (0.28)		$ (0.30)
BASIC AND DILUTED INCOME (LOSS) PER COMMON SHARE FROM DISCONTINUED OPERATIONS	$ —		$ —
BASIC AND DILUTED LOSS PER COMMON SHARE	$ (0.28)		$ (0.30)
BASIC AND DILUTED WEIGHTED AVERAGE SHARES OF COMMON STOCK OUTSTANDING	21,896,943		21,896,943

Recently Issued Accounting Pronouncements.

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2014-09, Revenue from Contracts with Customers. This guidance requires an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to a customer. ASU No. 2014-09 will replace most existing revenue recognition guidance in generally accepted accounting principles in the U.S. when it becomes effective. In July 2015, the FASB decided to defer the effective date of this new accounting guidance by one year. As a result, ASU No. 2014-09 will be effective for us for all annual and interim reporting periods beginning after December 15, 2017 and early adoption would be permitted as of the original effective date. The new standard permits the use of either the retrospective or cumulative effect transition method. We do not expect to early adopt this guidance and we have not selected a transition method. We are currently evaluating the impact this guidance will have on our financial condition, results of operations and cash flows.

In August 2014, the FASB issued ASU No. 2014-15, Presentation of Financial Statements - Going Concern (Subtopic 205-40). The new guidance addresses management's responsibility to evaluate whether there is substantial doubt about an entity's ability to continue as a going concern and to provide related footnote disclosures. This standard is effective for annual periods ending after December 15, 2016, and for annual and interim periods thereafter. Early adoption is permitted. The adoption of ASU 2014-15 did not have a material effect on our consolidated financial statements, however it may affect future disclosures.

In February 2016, the FASB issued ASU No. 2016-02, Leases. The new standard amends the recognition of lease assets and lease liabilities by lessees for those leases currently classified as operating leases and amends disclosure requirements associated with leasing arrangements. The new standard is effective for fiscal years and interim periods within those fiscal years beginning after December 15, 2018. Early adoption is permitted. The new standard must be adopted using a modified retrospective transition, and provides for certain practical expedients. Transition will require application of the new guidance at the beginning of the earliest

comparative period presented. We are currently assessing the impact that the adoption of this ASU will have on our consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-09, Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting. The new standard simplifies several aspects related to the accounting for share-based payment transactions, including the accounting for income taxes, statutory tax withholding requirements, forfeitures and classification on the statement of cash flows. This guidance is effective for fiscal years and interim periods within those fiscal years beginning after December 15, 2016; however, early adoption is permitted. We do not expect to early adopt this guidance and are currently evaluating the impact this guidance will have on our financial condition, results of operations and cash flows.

In August 2016, FASB issued ASU No. 2016-15, Classification of Certain Cash Receipts and Cash Payments. ASU No. 2016-15 eliminates the diversity in practice related to the classification of certain cash receipts and payments in the statement of cash flows by adding or clarifying guidance on eight specific cash flow issues. ASU No. 2016-15 is effective for fiscal years beginning after December 15, 2017, and for interim periods within that fiscal year. We do not believe ASU No. 2016-15 will have a material effect on our financial position and results of operations.

3. DISCONTINUED OPERATIONS

On September 8, 2015, we entered into an Asset Purchase Agreement (the "Asset Purchase Agreement") with Edge BioSystems, Inc. ("Edge Bio"), pursuant to which we sold our manufacturing, marketing and selling of high quality polymer and silica based beads and resin and chromatography columns business (collectively, the "Columns Business"). The Columns Business was part of our former segment, Genetic Assays and Platforms. Pursuant to the Asset Purchase Agreement, Edge Bio acquired substantially all of the assets used solely in connection with the Columns Business and assumed certain liabilities of the Columns Business for a total cash purchase price of approximately $2.1 million (the "Asset Sale"), which was paid on September 8, 2015 upon the closing of the Asset Sale. During the year ended December 31, 2015, we recorded a gain on the sale of the Columns Business of $1.5 million.

On November 25, 2015, we entered into an Asset Purchase Agreement (the "Purchase Agreement") with ADSTEC Corporation ("ADSTEC") and ADS Biotec Inc., a wholly-owned subsidiary of ADSTEC ("Buyer"), pursuant to which we sold (1) to ADSTEC our facilities located in Glasgow, Scotland and on Irvington Road in Omaha, Nebraska (together, the "Facilities") and all of our stock, inventory and raw materials located at the Facilities (collectively, the "Inventory"), and (2) to Buyer (a) all of the remaining assets relating to our Genetic Assays and Platforms business segment (the "Business"), other than the Inventory

(the "Purchased Assets"), and (b) all of the ordinary shares of Transgenomic Limited, a wholly-owned subsidiary of ours (the "Shares").

Pursuant to the Purchase Agreement, ADSTEC and Buyer acquired the Facilities, the Inventory, the Purchased Assets and the Shares for an aggregate purchase price of approximately $300,000, and Buyer assumed our financial and human resources commitments related to the Business (the "Transaction"). During the year ended December 31, 2015, we recorded a loss on the Transaction of $1.7 million.

Together, the Asset Sale and the Transaction represent the divestiture of our Genetic Assays and Platforms business resulting in a strategic shift that had a major effect on our operations and financial results. Therefore, the divested operations of our Genetic Assays and Platforms business meet the criteria to be reported as discontinued operations.

During the fourth quarter of 2015, our Board of Directors took actions to begin the process of divesting our Patient Testing business in New Haven, Connecticut. In March of 2016, we announced that we had suspended testing services in our Patient Testing laboratory as we reviewed and evaluated various strategic alternatives for that business. As a result of these actions, as of December 31, 2015, our Patient Testing business met the criteria to be reported as discontinued operations.

The related assets, liabilities, results of operations and cash flows for both the Genetic Assays and Platforms business and Patient Testing business are classified as assets held for sale, liabilities held for sale and discontinued operations for all periods presented.

Results of the discontinued operations consisted of the following:

	Years ended December 31,	
(dollars in thousands)	2016	2015
Net sales	$ 2,163	$ 18,308
Cost of goods sold	574	12,287
Gross profit	1,589	6,021
Selling, general and administrative expense	1,710	15,187
Research and development expense	167	408
Impairment of long-lived assets	—	13,942
Operating income (loss) from discontinued operations	(288)	(23,516)
Gain on settlement of accounts payable	325	—
Gain (loss) on sale of assets/business	1,047	(224)
Income (loss) from discontinued operations before income taxes	1,084	(23,740)
Income tax expense (benefit)	431	(648)
Income (loss) from discontinued operations	$ 653	$ (23,092)

The income from discontinued operations for the year ended December 31, 2016, includes approximately $1.0 million in proceeds received from the sale of assets of our discontinued Patient Testing business and approximately $0.3 million of a gain resulting from a settlement of accounts payable with a vendor.

In addition during the 2016 the Company determined it was going to continue providing services related to its oncology testing. As such, revenues previously reported in discontinued operations for the year ended December 31, 2015 were reclassified to continuing operations. The result was, revenue from continuing operations increased and loss from discontinued operations increased by $0.3 million for the year ended December 31, 2015. There was no effect on net loss or stockholders' deficit for 2015.

Assets and liabilities of the discontinued operations are classified as assets held for sale and liabilities held for sale in the consolidated balance sheets and consisted of the following:

	Dollars in Thousands	
	December 31, 2016	December 31, 2015
ASSETS		
Accounts receivable, net	$ —	$ 1,905
Other current assets	31	82
Total Assets	$ 31	$ 1,987
LIABILITIES		
Accrued compensation	$ —	$ 264
Total Liabilities	$ —	$ 264

The following is a summary of activity for the allowance for doubtful accounts from discontinued operations during the years ended December 31, 2016 and 2015. The allowance for doubtful accounts from discontinued operations are included in the assets held for sale in the consolidated balance sheets.

	Dollars in Thousands			
	Beginning Balance	Provision	Write Offs	Ending Balance
Twelve months ended December 31, 2016	$ 14,664	$ —	$ (14,664)	$ —
Twelve months ended December 31, 2015	$ 7,927	$ 9,447	$ (2,710)	$ 14,664

4. INTANGIBLE ASSETS AND OTHER ASSETS

During the year ended December 31, 2016, we recorded impairment charges of $0.3 million related to our patents.

In 2015, we performed an impairment test as of September 30, 2015 due to the significant decline in the market price of our stock. As a result of this testing, we recorded impairment charges related to our long-lived assets of approximately $7.0 million during the three months ended September 30, 2015. The impairment charges included $0.8 million related to property and equipment and $6.2 million related to amortizable intangibles.

Long-lived intangible assets and other assets consisted of the following:

	Dollars in Thousands		
	December 31, 2016		
	Cost	Accumulated Amortization	Net Book Value
Patents	$ 233	$ 26	$ 207
Intellectual property	672	317	355
	$ 905	$ 343	$ 562

	Dollars in Thousands		
	December 31, 2015		
	Cost	Accumulated Amortization	Net Book Value
Patents	$ 773	$ 67	$ 706
Intellectual property	671	207	464
	$ 1,444	$ 274	$ 1,170

	Estimated Useful Life
Patents	13.5 years
Intellectual property	7 years

During the year ended December 31, 2016, we impaired patents having a carrying value of $0.3 million. This cost is included in our research and development expense in our accompanying consolidated statements of operations. Also during 2016, we assigned and sold certain patents having a carrying value of $0.2 million. This cost is included in our loss on sale/disposal of assets in our accompanying consolidated statements of operations.

Amortization expense for intangible assets was $0.2 million and $0.1 million during the years ended December 31, 2016 and 2015, respectively. Amortization expense for intangible assets for each of the five succeeding fiscal years is expected to be $0.1 million, $0.1 million, $0.1 million, less than $0.1 million and less than $0.1 million for the years ended December 31, 2017, 2018, 2019, 2020 and 2021, respectively.

Other assets include security deposits.

5. DEBT

	Dollars in Thousands	
	Year Ended December 31,	
	2016	2015
Revolving Line [1]	$ 3,243	$ 3,025
Term Loan [2]	4,000	4,000
Convertible Promissory Note [3]	571	571
Total debt	7,814	7,596
Current portion of long term debt	(7,814)	(7,596)
Long term debt, net of current maturities	$ —	$ —

(1) ***Revolving Line of Credit.*** Amounts advanced under the Revolving Line initially bore interest at an annual rate equal to the greater of (a) 4.25% or (b) the *Wall Street Journal* prime rate plus 1%. Interest is payable on a monthly basis, with the balance payable at the maturity of the Revolving Line. Under the Amendment to the Loan Agreement, which we entered into on August 2, 2013, amounts advanced under the Revolving Line bear interest at an annual rate equal to the greater of (x) 6.25% or (y) the *Wall Street Journal* prime rate plus 3%. The current interest rate is 6.75%. As discussed below under *Additional Terms*, the interest rate is subject to increase if there is a default under the Loan Agreement. Under the Loan Agreement, we paid the Lenders an upfront fee of $20,000, and will pay the Lenders an additional commitment fee of $20,000 on each one year anniversary of March 13, 2013, the Effective Date, during the term of the Revolving Line. In addition, a fee of 0.5% per annum is payable quarterly on the unused portion of the Revolving Line. The Revolving Line matures on November 1, 2017.

(2) ***Term Loan.*** We received $4.0 million under the Term Loan on the Effective Date. Pursuant to the terms of the Loan Agreement, as amended by the Sixth Amendment (as defined in "-Revolving Line and Term Loan" below), we made a principal payment of approximately $148,000 on April 1, 2015 and were not be obligated to make monthly payments of principal to the Lenders until April 1, 2016. Pursuant to the Eighth Amendment of the Loan Agreement, the maturity date of the Loan Agreement was extended until November 1, 2017 and no principal payments on the Term Loan are due until such date. The current interest rate is 9.1%. As discussed below, the interest rate is subject to increase if there is a default under the Loan Agreement.

We paid the Lenders an upfront fee of $40,000 for the Term Loan, and will pay the Lenders an additional final payment of $120,000 at maturity or prepayment of the Term Loan. In addition, if we repay the Term Loan prior to maturity, we will pay the Lenders a prepayment penalty of 1% of the total outstanding balance under the Term Loan.

Additional Terms

The Loan Agreement contains affirmative and negative covenants. Under the Loan Agreement, we are required to maintain a minimum liquidity ratio and achieve a minimum amount of revenue, and we also agreed not to (i) pledge or otherwise encumber our assets other than to the Lenders, (ii) enter into additional borrowings or guarantees, (iii) repurchase our capital stock, or (iv) enter into certain mergers or acquisitions without the Lenders' consent. Additionally, the Loan Agreement contains a subjective acceleration clause at the discretion of the Lenders. As of December 31, 2016, we were not in compliance with the Loan Agreement, as amended by the Ninth Amendment, due to the fact that events of default existed, including our failure to make the required monthly interest payments during the second half of 2016.

To secure the repayment of any amounts borrowed under the Revolving Line and the Term Loan, we granted the Lenders a security interest in all of our assets. The occurrence of an event of default under the Loan Agreement could result in the acceleration of our obligations under the Loan Agreement and would increase the applicable interest rate under the Revolving Line or Term Loan (or both) by 5%, and permit the Lenders to exercise remedies with respect to the collateral under the Loan Agreement. At December 31, 2016, our applicable interest rates have been increased by 5%.

(3) ***Convertible Promissory Notes.*** The Notes accrue interest at a rate of 6% per year and matured on December 31, 2016.

Revolving Line and Term Loan.

On March 13, 2013 (the "Effective Date"), we entered into a Loan and Security Agreement with affiliates of Third Security, LLC, a related party, (the "Lenders") for (a) a revolving line of credit (the "Revolving Line") with borrowing availability of up to $4.0 million, subject to reduction based on our eligible accounts receivable, and (b) a term loan (the "Term Loan" and together with the Revolving Line, the "Loan Agreement") of $4.0 million. Proceeds were used to pay off a three year senior secured promissory note payable to PGxHealth, LLC, which was entered into on December 29, 2010 in conjunction with our acquisition of the FAMILION family of genetic tests, and for general corporate and working capital purposes.

On August 2, 2013, we entered into an amendment to the Loan Agreement (the "Amendment"). The Amendment, which became effective as of June 30, 2013, reduced our future minimum revenue covenants under the Loan Agreement and modified the interest rates applicable to the amounts advanced under the Revolving Line.

On November 14, 2013, we entered into a second amendment to the Loan Agreement (the "Second Amendment"). The Second Amendment, which became effective as of October 31, 2013, reduced our future minimum revenue covenant under the Loan Agreement.

On January 27, 2014, we entered into a third amendment to the Loan Agreement (the "Third Amendment"). Pursuant to the Third Amendment, the Lenders agreed to waive certain events of default under the Loan Agreement, and the parties amended certain provisions of the Loan Agreement, including the minimum liquidity ratio that we must maintain during the term of the Loan Agreement.

On March 3, 2014, we entered into a fourth amendment to the Loan Agreement (the "Fourth Amendment"). Pursuant to the terms of the Fourth Amendment, we were not required to make any principal or interest payments under the Term Loan for the period from March 1, 2014 through March 31, 2015. The interest on the debt that was deferred and not paid was capitalized as part of the Term Loan. The amount of interest that was capitalized from March 1, 2014 to March 31, 2015 was $0.4 million.

On October 22, 2014, we entered into a fifth amendment to the Loan Agreement (the "Fifth Amendment"). Pursuant to the Fifth Amendment, the parties amended certain provisions of the Loan Agreement, including reducing the minimum liquidity and revenue covenants under the Loan Agreement. The Fifth Amendment also reduced the aggregate amount that we may borrow under the Revolving Line from $4.0 million to $3.0 million.

On April 1, 2015, we entered into a sixth amendment to the Loan Agreement (the "Sixth Amendment"). Pursuant to the Sixth Amendment, among other things, (a) the Lenders waived specified events of default under the terms of the Loan Agreement, (b) commencing April 1, 2015, we began making monthly interest payments with respect to the Term Loan to the Lenders, (c) we were not be obligated to make monthly payments of principal under the Term Loan to the Lenders until April 1, 2016, (d) we made an initial prepayment of a portion of the Term Loan balance in the amount of approximately $148,000 on April 1, 2015 and made one or more additional prepayments to the Lenders under the Loan Agreement upon the occurrence of certain events, as defined in the Loan Agreement, and (e) we were not required to comply with the minimum liquidity ratio under the terms of the Loan Agreement until the earliest to occur of a specified event, as defined in the Loan Agreement, or March 31, 2016. The Sixth Amendment also extended the time period in which we had to provide certain reports and statements to the Lenders and amended the circumstances pursuant to which could engage in certain sales or transfers of our business or property without the consent of the Lenders.

As of June 30, 2015, we were in compliance with all financial covenants of the Loan Agreement, but were not in compliance with the restrictions limiting the amount that we may borrow under the Revolving Line. Accordingly, on August 10, 2015, we received a waiver from the Lenders relating to this non-compliance and paid the Lenders an aggregate of $0.7 million, which brought us back into compliance with the terms of the Revolving Line.

On September 4, 2015, we entered into a seventh amendment to the Loan Agreement (the "Seventh Amendment"). The Seventh Amendment, among other things, (a) provided that the Lenders waived specified events of default under the terms of the Loan Agreement, (b) reduced our future minimum revenue covenants under the Loan Agreement, (c) reduced our borrowing availability under the Revolving Line to approximately $2.3 million and (d) limited our borrowing base under the Loan Agreement to the amount of the Revolving Line.

On January 6, 2016, we entered into an eighth amendment to the Loan Amendment (the "Eighth Amendment"). The Eighth Amendment, among other things, (1) provided that the Lenders waived specified events of default under the terms of the Loan Agreement, (2) reduced our future minimum revenue covenants under the Loan Agreement, (3) extended the maturity date of the Loan Agreement until November 1, 2017, and (4) provided for the repayment of an overadvance of $750,000 previously provided by the Lenders to us pursuant to the Loan Agreement.

During the first quarter of 2016, the overadvance that existed at December 31, 2015 was repaid to the Lenders and $0.2 million was received from certain of the Lenders and another lender affiliate in connection with the equity offering made on January 6, 2016.

On June 6, 2016, we entered into a ninth amendment to the Loan Agreement (the "Ninth Amendment"). The Ninth Amendment, among other things, (a) provided that the Lenders waived specified events of default under the terms of the Loan Agreement, (b) amended the prepayment terms of the Loan Agreement, (c) provided for the reduction of amounts available under the Revolving Line upon the prepayment or repayment of certain amounts by us, (d) removed the minimum liquidity ratio and minimum net revenue financial covenants applicable to us under the Loan Agreement, (e) amended the circumstances pursuant to which we may engage in certain sales or transfers of our business or property without the consent of the Lenders, and (f) capitalized certain amounts owed by us to the Lenders and added such overdue amounts to the outstanding principal amount of the Revolving Line.

On February 2, 2017, we entered into a termination and tenth amendment to the Loan Agreement (the "Tenth Amendment"). The Tenth Amendment, among other things, (i) provides that the Lenders will waive specified events of default under the terms of the Loan Agreement until the effective time of the Merger (or the termination of the Merger Agreement in accordance with its terms), (ii) provides for the conversion of all outstanding indebtedness owed to the Lenders under the Loan Agreement (the "Outstanding Indebtedness") into shares of Transgenomic common stock and preferred stock (collectively, the "Conversion Shares") effective as of the closing date of the Merger and (iii) the termination of the Loan Documents (as defined in the Loan Agreement) and the termination and release of all security interests and liens of the Lenders in the Collateral (as defined in the Loan Agreement) in each case immediately following the conversion of the Outstanding Indebtedness into Conversion Shares.

The effectiveness of certain provisions in the Tenth Amendment, including provisions relating to conversion of the Conversion Shares and termination of the Loan Documents, is conditioned on, among other things, the consummation of the Merger, and, in the event that the Merger is not consummated, these provisions in the Loan Agreement Amendment will terminate.

In connection with the Tenth Amendment, the Lenders have agreed to convert the outstanding principal and accrued interest under the Loan Agreement into (i) approximately 10.4 million shares of New Precipio common stock immediately prior to the effectiveness of the Merger at a price equal to $0.50 per share and (ii) 24.1 million shares of New Precipio preferred stock. As of December 31, 2016, the outstanding amount owed under the Loan Agreement was approximately $7.2 million of principal and $0.6 million of accrued interest. The issuance of the Conversion Shares is subject to the approval of the Transgenomic stockholders in accordance with NASDAQ Capital Market listing rules

Convertible Promissory Notes.

On December 31, 2014, we entered into an Unsecured Convertible Promissory Note Purchase Agreement (the "Note Purchase Agreement") with an accredited investor (the "Investor") pursuant to which we agreed to issue and sell to the Investor in a private placement an unsecured convertible promissory note (the "Initial Note"). We issued the Initial Note in the aggregate principal amount of $750,000 to the Investor on December 31, 2014. Pursuant to the terms of the Initial Note, interest accrued at a rate of 6% per year and the Initial note was set to mature on December 31, 2016 (the "Maturity Date"). Under the Note, the outstanding principal and unpaid interest accrued was convertible into shares of our common stock as follows: (i) commencing upon the date of issuance of the Initial Note (but no earlier than January 1, 2015), the Investor was entitled to convert, on a one-time basis, up to 50% of the outstanding principal and unpaid interest accrued under the Initial Note, into shares of our common stock at a conversion price equal to the lesser of (a) the average closing price of the common stock on the principal securities exchange or securities market on which our common stock is then traded (the "Market") for the 20 consecutive trading days immediately preceding the date of conversion, and (b) $2.20 (subject to adjustment for stock splits, stock dividends, other distributions, recapitalizations and the like); and (ii) commencing February 15, 2015, the Investor was entitled to convert, on a one-time basis, any or all of the remaining outstanding principal and unpaid interest accrued under the Initial Note, into shares of our common stock at a conversion price equal to 85% of the average closing price of our common stock on the Market for the 15 consecutive

trading days immediately preceding the date of conversion. The Initial Note has been converted in full into 502,786 shares of our common stock, in accordance with the terms of the Initial Note.

On January 15, 2015, we entered into the Note Purchase Agreement with seven accredited investors (the "Additional Investors") and, on January 20, 2015, issued and sold to the Additional Investors, in a private placement, notes (the "Additional Notes") in an aggregate principal amount of $925,000. We also issued, to our placement agent for the Notes, a convertible promissory note in an aggregate principal amount equal to 5% of the proceeds received by us, or $46,250 (the "Agent Note"). The Additional Notes and Agent Note have the same terms and conditions as the Initial Note. As of December 31, 2016, $400,000 of the aggregate principal amount of the Additional Notes, and accrued interest thereon, has been converted into an aggregate of 281,023 shares of our common stock.

On the Maturity Date, the then outstanding aggregate amount owed on the Additional Notes and Agent Note of approximately $0.6 million, including accrued interest, became due. Pursuant to the terms of the Initial Note, our failure to pay any principal or interest within 10 days of the date such payment is due will constitute an event of default (the "Prospective Event of Default").

On January 10, 2017, the Additional Investors and our placement agent executed a waiver of the Prospective Event of Default, pursuant to which, they agreed to waive the Prospective Event of Default on the condition that the Company and the Additional Investors enter into definitive documentation evidencing the terms for an extended maturity date of the Additional Notes and the Agent Note on or before January 16, 2017 (the "Waiver Deadline").

On January 13, 2017, all but one Additional Investor exercised their conversion rights relating to their respective Additional Notes, including the Agent Note, and converted an aggregate principal amount of $446,250, and accrued interest thereon, into 416,135 shares of our common stock. The Waiver Deadline was extended with respect to the remaining Additional Investor who did not exercise conversion rights (the "Non-Converting Investor") so that the parties could continue to discuss a resolution of the Prospective Event of Default relating to such Non-Converting Investor's Additional Note with an outstanding principal amount due of $125,000.

On January 17, 2017, the Non-Converting Investor agreed to extend the Maturity Date of its Additional Note pursuant to an amendment to the Additional Note (the "Amendment"). The Amendment provides that two-thirds of the outstanding principal amount of the Additional Note must be paid upon the earlier to occur of the close of the Company's merger with Precipio Diagnostics, LLC or June 16, 2017 (such applicable date, the "Deferred Maturity Date"). The remaining one-third of the principal amount outstanding on the Additional Note must be paid on the six month anniversary of the Deferred Maturity Date (the "Extended Maturity Date").

The aggregate minimum principal maturities of the debt for the following fiscal years are as follows (dollars in thousands):

2017	$ 7,814
Total	$ 7,814

6. CAPITAL LEASES

The following is an analysis of the property acquired under capital leases.

	Dollars in Thousands	
	Asset Balances at	
Classes of Property	December 31, 2016	December 31, 2015
Equipment	$ 828	$ 828
Less: Accumulated amortization	(796)	(725)
Total	$ 32	$ 103

The following is a schedule by years of future minimum lease payments under capital leases together with the present value of the net minimum lease payments as of December 31, 2016.

Year ending December 31:

	Dollars in Thousands
2017	$ 1
Total minimum lease payments	$ 1
Less: Amount representing interest	—
Present value of net minimum lease payments	$ 1

The short term portion of our capital leases is included in accrued expenses on the Balance Sheet. Included in depreciation for both of the years ended December 31, 2016 and 2015 was $0.1 million related to equipment acquired under capital leases.

7. COMMITMENTS AND CONTINGENCIES

Transgenomic is subject to a number of claims of various amounts, which arise out of the normal course of business. In addition to the claims described in this Note 7, Transgenomic is delinquent on the payment of outstanding accounts payable amounting to approximately $0.6 million with certain of Transgenomic's vendors and suppliers who have taken or have threatened to take legal action to collect such outstanding amounts.

On February 25, 2016, UNMC filed a lawsuit against Transgenomic in the District Court of Douglas County, Nebraska, for breach of contract and seeking recovery of $0.7 million owed by Transgenomic to UNMC. A $0.4 million and $0.7 million liability has been recorded and is reflected in accrued expenses at December 31, 2016 and December 31, 2015. Transgenomic and UNMC entered into a settlement agreement dated February 6, 2017, which included, among other things, a mutual general release of claims, and Transgenomic's agreement to pay $0.4 million to UNMC in installments over a period of time. As of March 15, 2017, Transgenomic's initial payment due to UNMC under the settlement agreement is delinquent. Transgenomic and UNMC are currently in discussions to extend the date of Transgenomic's initial payment due to UNMC.

In addition, on April 13, 2016, Fox Chase filed a lawsuit against Transgenomic in the Court of Common Pleas, alleging, among other things, breach of contract, tortious interference with present and prospective contractual relations, unjust enrichment, fraudulent conversion and conspiracy and seeking punitive damages in addition to damages and other relief. This lawsuit relates to a license agreement between Transgenomic and Fox Chase (the "License Agreement") as well as the assignment of certain of Transgenomic's rights under the License Agreement to IDT pursuant to the IDT Agreement. Pursuant to the terms of the IDT Agreement, Transgenomic agreed to indemnify IDT with respect to certain of the claims asserted in the Fox Chase proceeding. On July 8, 2016, the Court of Common Pleas sustained Transgenomic's preliminary objections to several of Fox Chase's claims and dismissed the claims for tortious interference, fraudulent conversion, conspiracy, punitive damages and attorney's fees. Accordingly, the case has been narrowed so that only certain contract claims and an unjust enrichment claim remain pending against Transgenomic. Transgenomic believes that it has good and substantial defenses to the claims asserted by Fox Chase. Transgenomic is unable to determine whether any loss will occur or to estimate the range of such potential loss; therefore, no amount of loss has been accrued by Transgenomic as of the date of filing of this Annual Report on Form 10-K. Furthermore, there is no guarantee that Transgenomic will prevail in this suit or receive any damages or other relief if it does prevail.

On June 23, 2016, Mount Sinai filed a lawsuit against Transgenomic in the Supreme Court of the State of New York, County of New York, alleging, among other things, breach of contract and, alternatively, unjust enrichment and quantum merit, and seeking recovery of $0.7 million owed by Transgenomic to Mount Sinai for services rendered. Transgenomic and Mount Sinai entered into a settlement agreement dated October 27, 2016, which included, among other things, a mutual general release of claims, and Transgenomic's agreement to pay approximately $0.7 million to Mount Sinai in installments over a period of time. A $0.7 million liability has been recorded and is reflected in accrued expenses at December 31, 2016. Effective as of February 1, 2017, Transgenomic and Mount Sinai agreed to amend the terms of their settlement agreement to extend the date of Transgenomic's initial payment due to Mount Sinai.

On December 19, 2016, Todd Smith ("Smith") filed a lawsuit against Transgenomic in the District Court of Douglas County Nebraska, alleging breach of contract and seeking recovery of $2.2 million owed by Transgenomic to Smith for costs and damages arising from a breach of Transgenomic's obligations pursuant to lease agreement between the parties. Transgenomic and Smith are currently in discussions to determine a mutually agreeable means by which to settle the outstanding liability.

On February 21, 2017, XIFIN, Inc. ("XIFIN") filed a lawsuit against us in the District Court for the Southern District of California alleging breach of written contract and seeking recovery of approximately $0.27 million owed by us to XIFIN for damages arising from a breach of our obligations pursuant to a Systems Services Agreement between us and XIFIN, dated as of February 22, 2013, as amended and restated on September 1, 2014. On April 4, 2017, XIFIN filed an application for an entry of default by the clerk of the court against us. A $0.21 million liability has been recorded and is reflected in accrued expenses at December 31, 2016.

We and Science Park Development Corporation ("SPDC") entered into that certain Lease dated as of December 31, 2011, as modified by the First Amendment to Lease dated as of June 18, 2013, as further modified by a letter agreement dated as of February 2, 2015, as modified by the Second Amendment to Lease dated as of June 26, 2015 (the " SPDC Lease"). In November 2016, SPDC alleged that we defaulted on our obligations under the SPDC Lease. Specifically, SPDC alleges that we failed to pay approximately $0.4 million in rental payments due under the SPDC Lease and that we vacated a portion of the leased premises in violation of the terms of the SPDC Lease. SPDC has not filed a claim against us in connection with these allegations. Transgenomic and SPDC entered into a settlement agreement dated March 6, 2017, which included, among other things, a mutual general release of claims, and Transgenomic's agreement to pay approximately $0.4 million to SPDC in installments over a period of time.

CPA Global provides us with certain patent management services. On February 6, 2017, CPA Global claimed that we owe CPA Global approximately $0.2 million for certain patent maintenance services rendered. CPA Global has not filed claims against us in connection with this allegation. A liability of approximately $0.2 million has been recorded and is reflected in accrued expenses at December 31, 2016.

On March 9, 2016, counsel for Edge BioSystems, Inc. ("EdgeBio") sent a demand letter on behalf of EdgeBio to us in connection with the terms of that certain Asset Purchase Agreement dated September 8, 2015 (the "EdgeBio Agreement"). EdgeBio alleges, among other things, that certain customers of EdgeBio erroneously remitted payments to us, that such payments should have been paid to EdgeBio and that we failed to remit these funds to EdgeBio in violation of the terms of the EdgeBio Agreement. On September 13, 2016, we received a demand for payment letter from EdgeBio's counsel alleging that the balance due to EdgeBio is approximately $0.1 million. A liability of approximately $0.1 million has been recorded and is reflected in accrued expenses at December 31, 2016.

On February 17, 2017, Jesse Campbell ("Campbell") filed a lawsuit individually and on behalf of others similarly situated against us in the District Court for the District of Nebraska alleging we have a materially incomplete and misleading proxy relating to a potential merger and that the merger agreement's deal protection provisions deter superior offers. As a result, he alleges that we have violated Sections 14(a) and 20(a) of the Exchange Act and Rule 14a-9 promulgated thereafter. Although we intend to defend the lawsuit, there can be no assurance regarding the ultimate outcome of this case. Given the uncertainty of litigation, the legal standards that must be met for, among other things, class certification and success on the merits, we are unable to estimate the amount of loss, or range of possible loss, at this time that may result from this action. In the event that a settlement is reached related to these matters, the amount of such settlement may be material to our results of operations and financial condition and may have a material adverse impact on our liquidity.

Rent expense under all operating leases was $0.2 million in each of 2016 and 2015. We lease certain equipment, vehicles and operating facilities under non-cancellable operating leases, some of which have escalation clauses that expire on various dates through 2022, for which, we have recorded a straight-line liability of $0.2 million in accrued liabilities on the consolidated balance sheets at December 31, 2016. Future minimum lease payments under non-cancellable operating leases, including non-cancellable lease associated with discontinued operations, are as follows (dollars in thousands):

2017	$	226
2018		230
2019		235
2020		239
2021		244
thereafter		144
Total	$	1,318

At December 31, 2016, firm commitments to vendors totaled less than $0.1 million.

8. INCOME TAXES

The Company's provision for income taxes from continuing operations for the years ended December 31, 2016 and 2015 relates to income taxes in states, foreign countries and other local jurisdictions and differs from the amounts determined by applying the statutory Federal income tax rate to loss before income taxes for the following reasons:

	Dollars in Thousands	
	2016	2015
Benefit at federal rate	$ (2,812)	$ (3,449)
Increase (decrease) resulting from:		
State income taxes—net of federal benefit	(301)	(320)
Miscellaneous permanent differences	6	163
Liability warrants	(268)	70
Capitalized transaction cost	244	—
State, net operating loss expiration/true-up	25	(187)
Other—net	—	(119)
Valuation allowance	3,106	3,842
Total income tax expense (benefit)	$ —	$ —

	Dollars in Thousands	
	2016	2015
Federal:		
Current	$ —	$ —
Deferred	—	—
Total Federal	$ —	$ —
State:		
Current	$ —	$ —
Deferred	—	—
Total State	$ —	$ —
Foreign:		
Current	$ —	$ —
Deferred	—	—
Total Foreign	$ —	$ —
Total Tax Provision	$ —	$ —

The Company's deferred income tax asset from continuing operations at December 31, 2016 and 2015 is comprised of the following temporary differences:

	Dollars in Thousands	
	2016	**2015**
Deferred Tax Asset:		
Net operating loss carryforward	$ 60,276	$ 51,449
Research and development credit carryforwards	918	918
Other	116	585
	61,310	52,952
Less valuation allowance	(61,310)	(52,902)
Deferred Tax Asset	$ —	$ 50
Deferred Tax Liability:		
Property and equipment	—	50
Deferred Tax Liability	$ —	$ 50
Net Deferred Asset (Liability)	$ —	$ —

At December 31, 2016, we had total unused federal tax net operating loss carryforwards of $167.9 million. The expiration dates are as follows (amounts in thousands):

2018	$ 1,838
2019	8,181
2020	9,662
2021	8,228
2022	16,862
2023	16,173
2024	17,390
2025	8,153
2026	6,792
2027	3,238
2028	1,272
2029	591
2031	2,784
2032	8,358
2033	12,097
2034	7,591
2035	15,147
2036	23,499
Total	$ 167,856

Of these federal net operating loss carryforwards, $1.2 million were obtained in the acquisition of Annovis, Inc. and may be subject to certain restrictions. Remaining net operating loss carryforwards could be subject to limitations under section 382 of the Internal Revenue Code of 1986, as amended. At December 31, 2016, we had unused state tax net operating loss carryforwards of approximately $62.0 million that expire at various times beginning in 2018. At December 31, 2016, we had unused research and development credit carryforwards of $0.9 million that expire at various times between 2018 and 2028. As a result of the asset purchase agreement in November of 2015 which included the stock of our subsidiary Transgenomic Limited, the Company no longer has foreign operating loss carryforwards. We will continue to assess the recoverability of deferred tax assets and the related valuation allowance.

To the extent we begin to generate income in future years and it is determined that such valuation allowance is no longer required, the tax benefit of the remaining deferred tax assets will be recognized at such time. It is likely that the proposed Merger will be a change in control that will limit the use of the net operating loss carryforwards.

We had no material interest or penalties during fiscal 2016 or fiscal 2015, and we do not anticipate any such items during the next twelve months. Our policy is to record interest and penalties directly related to income taxes as income tax expense in the Consolidated Statements of Operations. We file income tax returns in the U.S. federal jurisdiction, various U.S. state jurisdictions and various foreign jurisdictions. We have statutes of limitation open for Federal income tax returns related to tax years 2012 through 2016. We have state income tax returns subject to examination primarily for tax years 2012 through 2016. To the extent the Company has tax attribute carryforwards, the tax years in which the attribute was generated may still be adjusted upon examination by the Internal Revenue Service, state or foreign tax authorities to the extent utilized in a future period. Open tax years related to foreign jurisdictions remain subject to examination. Our primary foreign jurisdiction is the United Kingdom, which has open tax years for 2011 through 2015.

During November 2015, the FASB issued ASU 2015-17, "Balance Sheet Classification of Deferred Taxes", which simplifies the presentation of deferred income taxes. This ASU requires that deferred tax assets and liabilities be classified as non-current in a statement of financial position.

9. EMPLOYEE BENEFIT PLAN

We maintain an employee 401(k) retirement savings plan that allows for voluntary contributions into designated investment funds by eligible employees. We match the employee's contributions at the rate of 100% on the first 3% of contributions and 50% on the next 2% of contributions. We may, at the discretion of our Board of Directors, make additional contributions on behalf of the Plan's participants. Contributions to the 401(k) plan were $0.1 million and $0.4 million for the years ended December 31, 2016 and 2015, respectively. Effective January 1, 2017, we discontinued matching employee 401(k) contributions.

10. STOCKHOLDERS' EQUITY

Common Stock.

Pursuant to our Third Amended and Restated Certificate of Incorporation, as amended, we currently have 150,000,000 shares of common stock authorized for issuance.

On February 2, 2012, we entered into definitive agreements with institutional and other accredited investors and raised approximately $22.0 million in a private placement financing (the "Private Placement"), which includes an aggregate of $3.0 million in convertible notes (the "Convertible Notes") issued in December 2011 to entities affiliated with Third Security, LLC (the "Third Security Investors"), a related party, that automatically convert into shares of our common stock and warrants to purchase such common stock on the same terms as all investors in the Private Placement. Pursuant to the applicable purchase agreement, we issued an aggregate of 1,583,333 shares of our common stock at a price per share of $12.00, as well as five-year warrants to purchase up to an aggregate of 823,333 shares of common stock with an exercise price of $15.00 per share. In connection with the conversion of the Convertible Notes, the Third Security Investors received an aggregate of 250,000 shares of common stock and 125,000 warrants on the same terms as all investors in the Private Placement. Craig-Hallum Capital Group LLC served as the sole placement agent for the offering. In consideration for services rendered as the placement agent in the offering, we agreed to (i) pay to the placement agent cash commissions equal to $1,330,000, or 7.0% of the gross proceeds received in the offering, (ii) issue to the placement agent a five-year warrant to purchase up to 31,666 shares of our common stock (representing 2% of the shares sold in the Private Placement) with an exercise price of $15.00 per share and other terms that are the same as the terms of the warrants issued in the Private Placement; and (iii) reimburse the placement agent for reasonable out-of-pocket expenses, including fees paid to the placement agent's legal counsel, incurred in connection with the offering, which reimbursable expenses were not to exceed $125,000. The costs incurred to complete the Private Placement were recorded as a reduction in equity in the amount of $1.5 million. Net proceeds from this offering have been used for general corporate and working capital purposes, primarily to accelerate development of several of our key initiatives.

On January 24, 2013, we entered into a Securities Purchase Agreement with certain institutional and other accredited investors pursuant to which we: (i) sold to the investors an aggregate of 1,383,333 shares of our common stock at a price per share of $6.00 for aggregate gross proceeds of approximately $8.3 million; and (ii) issued to the investors warrants to purchase up to an aggregate of 691,656 shares of our common stock with an exercise price of $9.00 per share (the "Offering"). The warrants may be exercised, in whole or in part, at any time from January 30, 2013 until January 30, 2018 and contain both cash and "cashless exercise" features. The Third Security Investors purchased an aggregate of 500,000 shares of common stock and warrants to purchase an aggregate of 250,000 shares of common stock in the Offering on the same terms as the other investors. We used the net proceeds from the Offering for general corporate and working capital purposes.

In connection with the Offering, we entered into a registration rights agreement with the investors (the "Registration Rights Agreement"). The Registration Rights Agreement required that we file with the Securities and Exchange Commission (the "SEC") a registration statement to register for resale the shares of common stock sold and the shares of common stock issuable upon exercise of the warrants by March 16, 2013. The registration statement was filed with the SEC on March 15, 2013 and was declared effective by the SEC on March 29, 2013.

The January 2013 common stock transaction required the repricing and issuance of additional common stock warrants to the holders of warrants issued in the February 2012 common stock and warrant sale. The exercise price of the warrants decreased from $15.00 per share to $12.96 per share and the number of shares issuable upon exercise of the warrants increased from 948,333 to 1,097,600.

On October 22, 2014, we entered into a Securities Purchase Agreement with certain accredited investors (the "October 2014 Investors"), pursuant to which we, in a private placement, issued and sold to the October 2014 Investors (the "2014 Private Placement") an aggregate of 730,776 shares of our common stock at a price per share of $3.25 for an aggregate purchase price of approximately $2.375 million, and warrants to purchase up to an aggregate of 365,388 shares of our common stock with an initial exercise price of $4.00 per share that are exercisable for the period from April 22, 2015 through April 22, 2020. In connection with the 2014 Private Placement, we also issued a warrant to purchase up to an aggregate of 9,230 shares of our common stock to one advisor. The warrants issued in the 2014 Private Placement include both cash and "cashless exercise" features.

The 2014 Private Placement required the repricing and issuance of additional common stock warrants to the holders of warrants issued in the February 2012 common stock and warrant sale. The exercise price of the warrants decreased from $11.73 per share to $10.86 per share and the number of shares issuable upon exercise of the warrants increased from 1,212,665 to 1,309,785.

On December 31, 2014, we entered into the Note Purchase Agreement with the Investor pursuant to which we agreed to issue and sell the Initial note to the Investor (the "Note Private Placement"). See Note 6 "Debt-*Convertible Promissory Notes*" for additional information regarding the terms of the Initial note.

Pursuant to the terms of the Note Purchase Agreement, we are subject to certain registration obligations and we may be required to effect one or more other registrations to register for resale the shares of our common stock issued or issuable under the Initial Note in connection with certain "piggy-back" registration rights granted to the Investor.

The Note Private Placement required the repricing and issuance of additional common stock warrants to the holders of warrants issued in the February 2012 common stock and warrant sale. The exercise price of the 2012 warrants decreased from $10.86 per share to $10.25 per share and the number of shares issuable upon exercise of the warrants increased from 1,309,785 to 1,387,685.

On January 15, 2015, we entered into the Note Purchase Agreement with the Additional Investors and, on January 20, 2015, issued and sold to the Additional Investors, in a private placement, the Additional Notes in an aggregate principal amount of $925,000 (the "Additional Note Private Placement"). The Additional Notes have the same terms and conditions as the Initial Note.

Craig-Hallum acted as the sole placement agent for the sale and issuance of the Additional Notes. In connection with the sale and issuance of the Additional Notes, we issued to Craig-Hallum an unsecured convertible promissory note, upon the same terms and conditions as the Notes, in an aggregate principal amount equal to 5% of the proceeds received by us pursuant to the sale and issuance of the Additional Notes, or $46,250. As of the date of filing of this Annual Report, the Placement Agent Note remains outstanding.

The Additional Note Private Placement required the repricing and issuance of additional common stock warrants to the investors in our February 2012 common stock and warrant financing. The exercise price of these warrants decreased from $10.25 per share to $9.59 per share and the number of shares issuable upon exercise of the warrants increased from 1,387,685 to 1,483,161.

On February 27, 2015, we entered into a purchase agreement with Craig-Hallum Capital Group LLC (the "Underwriter") relating to our sale and issuance of 3,573,899 shares of our common stock and corresponding warrants to purchase up to 714,780 shares of our common stock (the "2015 Offering"). Each share of common stock was sold in combination with a warrant to purchase 0.20 of a share of common stock. The purchase price to the public for each share of common stock and accompanying warrant was $1.95.

The purchase price paid by the Underwriter to us for the common stock and accompanying warrants was $1.8135. The net proceeds from the 2015 Offering, after deducting the Underwriter's discount and other estimated 2015 Offering expenses, were approximately $6.2 million.

The accompanying warrants are exercisable immediately upon their initial issuance date at an exercise price of $2.24 per share and will expire five years from the date of issuance. The exercise price will also be subject to adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, reclassifications or similar events affecting our common stock.

The 2015 Offering required the repricing and issuance of additional common stock warrants to the investors in our February 2012 common stock and warrant financing. The exercise price of these warrants decreased from $9.59 per share to $7.56 per share and the number of shares issuable upon exercise of the warrants increased from 1,483,161 to 1,881,396.

On June 30, 2015, we entered into a Securities Purchase Agreement with certain accredited investors (the "July 2015 Investors") pursuant to which, on July 7, 2015, we sold to the July 2015 Investors, and the July 2015 Investors purchased from us, (a) an aggregate of approximately 1.5 million shares of our common stock at a price per share of $1.42, (b) warrants (the "Series B Warrants") to purchase up to an aggregate of 0.7 million shares of our common stock with an exercise price of $0.01 per share, and (c) warrants (the "Series A Warrants" and, together with the Series B Warrants, the "July 2015 Warrants") to purchase up to an aggregate of 1.2 million shares of our common stock, with an exercise price of $1.66 per share (collectively, the "July 2015 Offering"). The purchase price for the Series B Warrants was $1.42 per share of our common stock subject to the Series B Warrants. Each of the July 2015 Warrants has a term of 5 and 1/2 years. The Series B Warrants were immediately exercisable, all of which were exercised in December 2016. The Series A Warrants will be exercisable beginning on January 7, 2016, six months from the date of issuance. The aggregate gross proceeds to us from the July 2015 Offering were approximately $3.0 million.

Craig-Hallum Capital Group LLC (the "2015 Placement Agent") served as the sole placement agent for the Offering. In consideration for services rendered as the placement agent in the July 2015 Offering, we (a) paid to the 2015 Placement Agent cash commissions equal to approximately $212,783, or 7.0% of the gross proceeds received in the July 2015 Offering; (b) issued to the 2015 Placement Agent a five-year warrant to purchase up to 107,033 shares of our common stock with an exercise price of $1.66 per share and which is subject to other terms that are the same as the terms of the Series A Warrants; and (c) reimbursed the 2015 Placement Agent for reasonable out-of-pocket expenses, including fees paid to the 2015 Placement Agent's legal counsel, incurred in connection with the July 2015 Offering, which reimbursable expenses did not exceed $50,000.

The July 2015 Offering required the repricing and issuance of additional common stock warrants to the investors in our February 2012 common stock and warrant financing. The exercise price of these warrants decreased from $7.56 per share to $6.50 per share and the number of shares issuable upon exercise of the warrants increased from 1,881,396 to 2,188,177.

On January 6, 2016, we entered into a Securities Purchase Agreement (the "SPA") with certain accredited investors (the "2016 Investors"), pursuant to which, on January 8, 2016, we sold to the 2016 Investors, and the 2016 Investors purchased from us (the "January 2016 Offering"), an aggregate gross amount of approximately $2.2 million of units (the "Units") consisting of (a) an aggregate of 2,365,243 shares (the "A-1 Preferred Shares") of our Series A-1 Convertible Preferred Stock (the "A-1 Preferred"), and (b) warrants (the "2016 Warrants") to purchase up to an aggregate of 1,773,929 shares of our common stock, with an initial value of $1.8 million. The gross amount of $2.2 million included $2.0 million of cash proceeds and $0.2 million of debt settled with the issuance of preferred stock and warrants. Each Unit was sold to the 2016 Investors at a purchase price of $0.93 per Unit. The A-1 Preferred Shares are convertible into shares of our common stock at an initial rate of 1-for-1, which conversion rate is subject to further adjustment as set forth in our Certificate of Designation of Series A-1 Convertible Preferred Stock, which was filed with the Secretary of State of the State of Delaware on January 8, 2016 (the "Series A-1 Certificate of Designation"). We determined there was a beneficial conversion feature ("BCF") in connection with this issuance and valued the BCF at $0.4 million. The holders of the A-1 Preferred were able to convert at any time following the issuance. Accordingly, we recorded a dividend totaling $0.4 million during 2016 related to this beneficial conversion, which was recorded against additional paid in capital. Pursuant to the terms of the Series A-1 Certificate of Designation, the holders of the A-1 Preferred Shares will generally be entitled to that number of votes as is equal to the product obtained by multiplying: (i) the number of whole shares of our common stock into which the A-1 Preferred may be converted as of the record date of such vote or consent, by (ii) 0.93, rounded down to the nearest whole number. Therefore, every 1.075269 shares of A-1 Preferred will generally initially be entitled to one vote. In May 2016, 2,150,538 of the A-1 Preferred Shares were converted into 2,150,538 shares of our common stock. At December 31, 2016, there were 214,705 A-1 Preferred Shares outstanding.

The 2016 Warrants were immediately exercisable upon issuance, have a term of five years and have an exercise price of $1.21 per share of our common stock. Each 2016 Warrant includes both cash and "cashless exercise" features and an exchange feature whereby the holder of the 2016 Warrant may exchange (the "Exchange Right") all or any portion of the 2016 Warrant for a number of shares of our common stock equal to the quotient obtained by dividing the "Exchange Amount" by the closing bid price of our common stock on the second trading day prior to the date the 2016 Warrant is exchanged (the "Exchange Price"). Under the 2016 Warrants, the "Exchange Amount" is based upon a Black Scholes option pricing model, and the aggregate Exchange

Amount under all of the 2016 Warrants will be $1.4 million, subject to adjustment to the extent that the risk-free U.S. Treasury rate fluctuates between the date of issuance of the 2016 Warrants and the date the 2016 Warrants are exchanged. Each 2016 Warrant provides that the number of shares that may be issued upon exercise of the Exchange Right is limited to the number of shares that may be purchased pursuant to the terms of the 2016 Warrant, unless we have previously obtained stockholder approval or approval from The Nasdaq Stock Market LLC to issue any additional shares of our common stock (the "Additional Shares") pursuant to the Exchange Right (the "Required Approvals"). For any Exchange Right exercised more than 90 days following the issuance of the 2016 Warrants, if we have not obtained either of the Required Approvals, we will be required to pay the 2016 Warrant holder an amount in cash for any Additional Shares that we cannot issue without the Required Approvals based on the Exchange Amount.

The 2016 Warrants further provide that, to the extent the closing bid price of our common stock on the second trading day prior to the date the 2016 Warrant is exchanged is less than $0.50, the Exchange Price will be deemed to be equal to $0.50, and, in addition to issuing shares of our common stock based on this Exchange Price, we will be required to pay to the 2016 Warrant holder an amount in cash equal to the product obtained by multiplying (a) $0.50 minus the closing bid price of our common stock on the second trading day prior to the date the 2016 Warrant is exchanged, by (b) the aggregate number of shares of our common stock issued to the 2016 Warrant holder by the Company in such exchange at an Exchange Price equal to $0.50. Therefore, if the Required Approvals are obtained, based on the Exchange Amount of $1,436,882 (which, as noted above, is subject to adjustment to the extent that the risk-free U.S. Treasury rate fluctuates between the date of the issuance of the 2016 Warrants and the date the 2016 Warrants are exchanged), the maximum number of shares of our common stock issuable pursuant to the Exchange Right in the 2016 Warrants will be 2,873,765. In addition, if, for example, assuming an Exchange Amount of $1,436,882, the closing bid price of our common stock on the second trading day prior to the date the 2016 Warrants are exchanged is $0.25, we would be required to pay to the 2016 Warrant holders cash in an aggregate amount of $718,441 in addition to issuing the 2016 Warrant holders 2,873,765 shares. During the year ended December 31, 2016, 1,006,419 of the 2016 Warrants were exchanged for 1,613,353 shares of our common stock and cash due of $0.5 million. As of December 31, 2016, the $0.5 million due to a 2016 Investor is included in other current liabilities on our consolidated balance sheet.

In accordance with the terms of the SPA, we amended that certain Series A Warrant to purchase up to an aggregate of 1,161,972 shares of our common stock previously issued by us to an affiliate of one of the 2016 Investors on July 7, 2015 (the "Original Warrant"), as previously reported by us on our Amendment No. 1 to Current Report on Form 8-K/A, filed with the SEC on July 7, 2015 (as so amended, the "Amended Warrant"). The Amended Warrant amends the Original Warrant to provide that the Amended Warrant is subject to the same terms and conditions as the 2016 Warrants and, therefore, includes both cash and "cashless exercise" features and an Exchange Right whereby the number of shares issuable pursuant to the Exchange Right is equal to the "Amended Warrant Exchange Amount", which is based on a Black Scholes option pricing model, and will be $941,197, subject to adjustment to the extent that the risk-free U.S. treasury rate fluctuates between the date of issuance of the Amended Warrant and the date the Amended Warrant is exchanged. The Amended Warrant is exercisable for up to 1,161,972 shares of our common stock in the event we have obtained either of the Required Approvals with respect to the Amended Warrant. In the event the Amended Warrant holder exercises the Amended Warrant more than 90 days following the issuance of the Amended Warrant, if we have not obtained either of the Required Approvals, we will be required to pay the Amended Warrant holder an amount in cash for the shares of our common stock that we cannot issue under the Amended Warrant pursuant to such exercise without the Required Approvals based on the Amended Warrant Exchange Amount.

The Amended Warrant also provides that, to the extent the closing bid price of our common stock on the second trading day prior to the date the Amended Warrant is exchanged is less than $0.50, the Exchange Price will be deemed to be equal to $0.50, and, in addition to issuing shares of our common stock based on this Exchange Price (assuming receipt of the Required Approvals), we will be required to pay to the Amended Warrant holder an amount in cash equal to the product obtained by multiplying (a) $0.50 minus the closing bid price of our common stock on the second trading day prior to the date the Amended Warrant is exchanged, by (b) the aggregate number of shares of our common stock issued to the Amended Warrant holder by us in such exchange at an Exchange Price equal to $0.50. Therefore, if the Required Approvals are obtained, based on the Amended Warrant Exchange Amount of $941,197 (which, as noted above, is subject to adjustment to the extent that the risk-free U.S. Treasury rate fluctuates between the issuance of the Amended Warrant and the date the Amended Warrant is exchanged), the maximum number of shares of our common stock issuable pursuant to the Exchange Right in the Amended Warrant will be 1,882,395. In addition, if, for example, assuming an Amended Warrant Exchange Amount of $941,197, the closing bid price of our common stock on the second trading day prior to the date the Amended Warrant is exchanged is $0.25, we would be required to pay to the Amended Warrant holder cash in an aggregate amount of $470,599 in addition to issuing the Amended Warrant holder 1,882,395 shares.

In connection with entering into the SPA, we also entered into a Registration Rights Agreement, dated January 8, 2016, with the 2016 Investors. Pursuant to the terms of the Registration Rights Agreement, we were required to file with the SEC a registration statement to register for resale the shares of our common stock issuable upon conversion of the A-1 Preferred Shares and the shares

of our common stock issuable upon exercise of the 2016 Warrants and the Amended Warrant by January 25, 2016. We filed the required registration statement with the SEC on January 25, 2016.

Craig-Hallum (the "Placement Agent") served as the sole placement agent for the January 2016 Offering. In consideration for services rendered as the Placement Agent in the January 2016 Offering, we (1) paid to the Placement Agent cash commissions equal to approximately $140,000, or 7.0% of the gross proceeds received in the January 2016 Offering, excluding any proceeds received from Third Security, LLC or any of its affiliates; (2) issued to the Placement Agent, for a price of $50, a five-year warrant to purchase up to 107,527 shares of our common stock at an exercise price of $1.21 per share (the "Agent Warrant"), which is subject to the same terms as the 2016 Warrants except that the Agent Warrant was not exercisable until July 8, 2016 and does not contain the Exchange Right; and (3) reimbursed the Placement Agent for reasonable out-of-pocket expenses, including fees paid to the Placement Agent's legal counsel, incurred in connection with the January 2016 Offering, which reimbursable expenses did not exceed $50,000.

The January 2016 Offering and the payment of all accrued and unpaid dividends on the Series A Preferred Stock and Series B Preferred Stock in the form of shares of our common stock at a rate of $1.00 per share of our common stock discussed under "-Conversion of Preferred Stock" below required the repricing and issuance of additional common stock warrants to the holders of warrants issued in the Private Placement. The exercise price of these warrants decreased to $4.39 per share and the number of shares issuable upon exercise of the warrants increased from 2,188,177 to 3,239,827.

On May 31, 2016, we issued to a vendor an aggregate of 78,000 shares of our common stock and, on June 14, 2016, we issued to a second vendor an aggregate of 64,153 shares of our common stock. Such shares of common stock were issued to the vendors in lieu of an aggregate cash amount of approximately $89,000 owed by us to such vendors for services previously performed by such vendors which was the fair value of the services provided. We issued the shares to the vendors in transactions exempt from registration under the Securities Act of 1933, as amended (the "Securities Act"), in reliance on the exemptions provided by Section 4(a)(2) of the Securities Act and/or Regulation D promulgated thereunder and in reliance on similar exemptions under applicable state laws. The offering of the shares to the vendors did not involve a public offering, and no general solicitation or advertisement was made in connection with the offering of the shares to the vendors.

On June 7, 2016, we entered into an At the Market Offering Agreement (the "ATM Agreement") with Craig-Hallum, as sales agent, pursuant to which we may offer and sell, from time to time, through Craig-Hallum, up to $3,500,000 of shares (the "Shares") of our common stock. Any Shares offered and sold in the offering will be issued pursuant to our effective shelf registration statement on Form S-3 (File No. 333-201907) and the related prospectus previously declared effective by the SEC on February 13, 2015, as supplemented by a prospectus supplement, dated June 7, 2016, that we filed with the SEC pursuant to Rule 424(b)(5) under the Securities Act of 1933, as amended (the "Securities Act"). The number of shares eligible for sale under the ATM Agreement will be subject to the limitations of General Instruction I.B.6 of Form S-3.

Under the terms of the ATM Agreement, we will pay Craig-Hallum a placement fee of 3.25% of the gross sales price of the Shares, unless Craig-Hallum acts as principal, in which case we may sell Shares to Craig-Hallum as principal at a price to be agreed upon by us and Craig-Hallum. We will also reimburse Craig-Hallum for certain expenses incurred in connection with the ATM Agreement, and agreed to provide indemnification and contribution to Craig-Hallum with respect to certain liabilities, including liabilities under the Securities Act and the Securities Exchange Act of 1934, as amended.

During the year ended December 31, 2016, we sold 1,177,849 shares under the ATM Agreement. The average sales price per common share was $0.42 and the aggregate net proceeds from the sales totaled $0.5 million.

During the year ended December 31, 2016, the issuance of shares to our vendors and the sale of shares under the ATM Agreement required the repricing and issuance of additional common stock warrants to the holders of warrants issued in the Private Placement. The exercise price of these warrants decreased to $4.23 per share and the number of shares issuable upon exercise of the warrants increased from 3,239,827 to 3,362,276.

Common Stock Warrants.

During the year ended December 31, 2016, we issued warrants to purchase 3,055,555 shares of common stock and warrants were exercised or exchanged for 2,280,517 shares of common stock. Included in the warrants issued in 2016 were 1,174,099 warrants issued due to repricing requirements of the Private Placement and 1,881,456 warrants issued in connection with the January 2016 Offering. During the year ended December 31, 2015, we issued warrants to purchase 3,466,841 shares of common stock and none of the issued warrants were exercised. Included in the warrants issued in 2015 were 800,492 warrant issued due

to repricing requirements of the Private Placement and 2,666,349 warrants issued in connection with the 2015 Offering and the July 2015 Offering. During the twelve months ended December 31, 2015, warrants to purchase 431,027 shares of common stock expired. Warrants to purchase an aggregate of 6,696,287 shares of common stock were outstanding at December 31, 2016.

Warrant Holder	Issue Year	Expiration	Underlying Shares	Exercise Price
Various Institutional Holders[(1)]	2012	February 2017	2,919,043	$4.23
Affiliates of Third Security, LLC[(1)]	2012	February 2017	443,233	$4.23
Various Institutional Holders[(2)]	2013	January 2018	441,655	$9.00
Affiliates of Third Security, LLC[(2)]	2013	January 2018	250,000	$9.00
Various Institutional Holders[(3)]	2014	April 2020	374,618	$4.00
Various Institutional Holders[(4)]	2015	February 2020	714,780	$2.24
Various Institutional Holders[(5)]	2015	December 2020	122,433	$1.66
Various Institutional Holders[(6)]	2015	January 2021	1,161,972	$1.21
Affiliates of Third Security,LLC[(7)]	2016	January 2021	161,026	$1.21
Various Institutional Holders[(7)]	2016	January 2021	107,527	$1.21
			6,696,287	

(1) These Warrants were issued in connection with the Private Placement completed in February 2012 and are classified as a liability in our financial statements. See Footnote 12 - “Fair Value”. These warrants also contain certain anti-dilution provisions that provide for an adjustment to the exercise price and number of shares issuable upon exercise of the warrant in the event that we engage in certain issuances of shares of our common stock at a price lower than the exercise price of the warrant.

(2) These warrants were issued in connection with the Offering, which was completed in January 2013.

(3) These warrants were issued in connection with the 2014 Private Placement, which was completed in October 2014.

(4) These warrants were issued in connection with the 2015 Offering, which was completed in February 2015.

(5) These warrants were issued in connection with the July 2015 Offering, which was completed in July 2015.

(6) These warrants were originally issued in connection with the July 2015 Offering, which was completed in July 2015, and were amended in connection with the January 2016 Offering, which was completed in January 2016.

(7) These warrants were issued in connection with the January 2016 Offering, which was completed in January 2016.

Preferred Stock Series A.

The Company’s Board of Directors is authorized to issue up to 15,000,000 shares of preferred stock in one or more series, from time to time, with such designations, powers, preferences and rights and such qualifications, limitations and restrictions as may be provided in a resolution or resolutions adopted by the Board of Directors. The authority of the Board of Directors includes, but is not limited to, the determination or fixing of the following with respect to shares of such class or any series thereof: (i) the number of shares; (ii) the dividend rate, whether dividends shall be cumulative and, if so, from which date; (iii) whether shares are to be redeemable and, if so, the terms and amount of any sinking fund providing for the purchase or redemption of such shares; (iv) whether shares shall be convertible and, if so, the terms and provisions thereof; (v) what restrictions are to apply, if any, on the issue or reissue of any additional preferred stock; and (vi) whether shares have voting rights. The preferred stock may be issued with a preference over the common stock as to the payment of dividends. We have no current plans to issue any additional preferred stock. Classes of stock such as the preferred stock may be used, in certain circumstances, to create voting impediments on extraordinary corporate transactions or to frustrate persons seeking to effect a merger or otherwise to gain control of the Company. For the foregoing reasons, any additional preferred stock issued by the Company could have an adverse effect on the rights of the holders of the common stock.

On December 29, 2010, we entered into a transaction with the Third Security Investors, pursuant to the terms of a Series A Convertible Preferred Stock Purchase Agreement (the “Series A Purchase Agreement”), in which we: (i) sold an aggregate of 2,586,205 shares of Series A Preferred Stock at a price of $2.32 per share; and (ii) issued Series A Warrants to purchase up to an

aggregate of 1,293,102 shares of Series A Preferred Stock having an exercise price of $2.32 per share (the sale of Series A Preferred Stock and issuance of the Series A Warrants hereafter referred to together as the “Financing”). The Series A Warrants may be

exercised at any time from December 29, 2010 until December 28, 2015 and contain a "cashless exercise" feature. The gross proceeds from the Series A financing were $6.0 million. The $0.2 million of costs incurred to complete the Series A financing were recorded as a reduction in the value of the Series A Preferred Stock. We used the net proceeds from the financing to acquire the FAMILION family of genetic tests from PGxHealth, a subsidiary of Clinical Data, Inc. Until the November 2011 modifications, the Series A Preferred Stock met the definition of mandatorily redeemable stock as it was preferred capital stock that was redeemable at the option of the holder through December 2015 and was reported outside of equity. The Series A Preferred Stock was to be accreted to its redemption value of $6.0 million. Until the November 2011 modifications, the Series A Warrants did not qualify to be treated as equity and, accordingly, were recorded as a liability. A preferred stock anti-dilution feature is embedded within the Series A Preferred Stock that met the definition of a derivative.

In connection with the Series A financing, we filed a Certificate of Designation of Series A Convertible Preferred Stock (the "Series A Certificate of Designation") with the Secretary of State of the State of Delaware, designating 3,879,307 shares of our preferred stock as Series A Preferred Stock. As of December 31, 2013, the Series A Preferred Stock, including the Series A Preferred Stock issuable upon exercise of the Series A Warrants, was convertible into shares of our common stock at a rate of 4-for-1, which conversion rate is subject to further adjustment as set forth in the Series A Certificate of Designation. Giving effect to the reverse split of our stock in January 2014, the conversion rate was adjusted to 1-for-3. Certain rights of the holders of the Series A Preferred Stock are senior to the rights of the holders of our common stock. The Series A Preferred Stock has a liquidation preference equal to its original price per share, plus any accrued and unpaid dividends thereon. The holders of the Series A Preferred Stock are entitled to receive quarterly dividends, which accrue at the rate of 10% of the original price per share per annum, whether or not declared, and which shall compound annually and shall be cumulative. In any calendar quarter in which we have positive distributable cash flow as defined in the Series A Purchase Agreement, we are required to pay from funds legally available a cash dividend in the amount equal to the lesser of 50% of such distributable cash flow or the aggregate amount of dividends accrued on the Series A Preferred Stock.

Generally, the holders of the Series A Preferred Stock are entitled to vote together with the holders of common stock, as a single group, on an as-converted basis. However, the Series A Certificate of Designation provides that we shall not perform some activities, subject to certain exceptions, without the affirmative vote of a majority of the holders of the outstanding shares of Series A Preferred Stock. The holders of the Series A Preferred Stock, along with the holders of the Series B Preferred Stock, also are entitled to elect or appoint, as a single group, two directors of the Company.

In connection with the Series A financing, we also entered into a registration rights agreement with the Third Security Investors (the "Registration Rights Agreement"). Pursuant to the terms of the Registration Rights Agreement, the Company has granted certain demand, "piggyback" and S-3 registration rights covering the resale of the shares of common stock underlying the Series A Preferred Stock issued pursuant to the Series A Purchase Agreement and issuable upon exercise of the Series A Warrants and all shares of common stock issuable upon any dividend or other distribution with respect thereto.

In November 2011, we entered into a transaction with the Third Security Investors, pursuant to an Agreement Regarding Preferred Stock (the "Amendment Agreement"), in which the Third Security Investors agreed to (i) waive their rights to enforce the anti-dilution and redemption features of the Series A Preferred Stock and (ii) at the next annual stockholders' meeting, vote to amend the Series A Certificate of Designation to remove the anti-dilution and redemption features of the Series A Preferred Stock. In exchange, the Company issued shares of common stock to the Third Security Investors having an aggregate market value of $0.3 million.

As a result of the Amendment Agreement, the values of the Series A Preferred Stock and Series A Warrants, including the Series A Preferred Stock conversion feature and Series A Warrant liability, were reclassified into stockholders' equity as of the date of the Amendment Agreement.

Preferred Stock Series B.

On March 5, 2014, we entered into a Series B Convertible Preferred Stock Purchase Agreement (the "Series B Purchase Agreement") with affiliates of Third Security, LLC (the "2014 Third Security Investors"), pursuant to which we, in a private placement, sold and issued an aggregate of 1,443,297 shares of our Series B Preferred Stock, par value $0.01 per share (the "Series B Preferred Stock"), at a price per share of $4.85 for an aggregate purchase price of approximately $7.0 million. Each share of Series B Preferred Stock issued pursuant to the Series B Purchase Agreement is initially convertible into shares of our common stock at a rate of 1-for-1, which conversion rate is subject to further adjustment as set forth in the Certificate of Designation of Series B Convertible Preferred Stock.

In connection with the Series B financing, we also entered into a Registration Rights Agreement, dated March 5, 2014, with the 2014 Third Security Investors, pursuant to which we granted certain demand, "piggy-back" and S-3 registrations rights covering the resale of the shares of common stock underlying the Series B Preferred Stock issued pursuant to the Series B Purchase Agreement and all shares of common stock issuable upon any dividend or other distribution with respect thereto.

The Series B financing required the repricing and issuance of additional common stock warrants to the holders of warrants issued in the Private Placement. The exercise price of the warrants decreased from $12.96 per share to $11.73 per share and the number of shares issuable upon exercise of the warrants increased from 1,097,600 to 1,212,665.

Conversion of Preferred Stock Series A and B.

On January 6, 2016, the Company entered into a Conversion Agreement (the "Conversion Agreement") with the holders (the "Preferred Holders") of all of the Company's outstanding shares of Series A Convertible Preferred Stock, par value $0.01 per share (the "Series A Preferred Stock"), and Series B Preferred Stock, pursuant to which, among other things, the Preferred Holders: (a) elected to convert all of the outstanding shares of Series A Preferred Stock and Series B Preferred Stock into shares of our common stock, in each case in accordance with the terms thereof, and (b) agreed that all accrued and unpaid dividends on the Series A Preferred Stock and Series B Preferred Stock would be paid by the Company in shares of our common stock at a rate of $1.00 per share of our common stock (collectively, the "Conversion").

The outstanding shares of Series A Preferred Stock were convertible into shares of our common stock at a rate of 1-for-3, and the outstanding shares of Series B Preferred Stock were convertible into shares of our common stock at a rate of 1-for-1. Prior to the entry into the Conversion Agreement, there were 2,586,205 shares of Series A Preferred Stock outstanding, which were converted into 862,057 shares of our common stock, and 1,443,297 shares of Series B Preferred Stock outstanding, which were converted into 1,443,297 shares of our common stock, for an aggregate of 2,305,354 shares of our common stock issued upon conversion of the Series A Preferred Stock and Series B Preferred Stock (the "Conversion Shares"). At the time of the entry into the Conversion Agreement, there were $3.7 million in accrued and unpaid dividends on the outstanding shares of Series A Preferred Stock, which were converted, in accordance with the Conversion Agreement, into 3,681,590 shares of our common stock, and $0.8 million in accrued and unpaid dividends on the outstanding shares of Series B Preferred Stock, which were converted, in accordance with the terms of the Conversion Agreement, into 793,235 shares of our common stock, for an aggregate of 4,474,825 shares of our common stock issued pursuant to the accrued and unpaid dividends on the Series A Preferred Stock and Series B Preferred Stock. Therefore, in connection with the full conversion of the Series A Preferred Stock and Series B Preferred Stock, plus the conversion of all accrued and unpaid dividends thereon, we issued an aggregate of 6,780,179 shares of our common stock to the Preferred Holders on January 6, 2016.

Following the conversion of the shares of Series A Preferred Stock and Series B Preferred Stock into common stock, no shares of Series A Preferred Stock or Series B Preferred Stock remain outstanding.

Preferred Stock Dividends.

We had cumulative undeclared dividends on our Series A Preferred Stock and Series B Preferred Stock of zero and $4.4 million at December 31, 2016 and 2015, respectively. Since dividends should generally not be recognized as a liability until declared, we had a recorded liability of zero for these undeclared dividends.

For the year ended December 31, 2016 and 2015, we had undeclared dividends. In accordance with the FASB's Accounting Standards Codification Topic 260-10-45-11, "*Earnings per Share*", these dividends were added to the net loss per share calculation.

11. EQUITY INCENTIVE PLAN

The Company's 2006 Equity Incentive Plan (the "Plan") allows the Company to make awards of various types of equity-based compensation, including stock options, dividend equivalent rights ("DERs"), stock appreciation rights ("SARs"), restricted stock, restricted stock units, performance units, performance shares and other awards, to employees and directors of the Company. The Company was authorized to issue 1,666,666 shares under the Plan; provided, that no more than 1,250,000 of such shares may be used for grants of restricted stock, restricted stock units, performance units, performance shares and other awards. The Plan expired on July 12, 2016 and as of that date the Company can no longer make additional awards under the Plan. During 2017, the Company intends to present a successor plan to the Transgenomic stockholders for approval.

The Plan is administered by the Compensation Committee of the Board of Directors (the "Committee"), which has the authority to set the number, exercise price, term and vesting provisions of the awards granted under the Plan, subject to the terms thereof. Either incentive or non-qualified stock options may be granted to employees of the Company, but only non-qualified stock options may be granted to non-employee directors and advisors. However, in either case, the Plan requires that stock options must be granted at exercise prices not less than the fair market value of the common stock on the date of the grant. Options issued under the plan vest over periods as determined by the Committee and expire 10 years after the date the option was granted.

For the years ended December 31, 2016 and 2015, we recorded compensation expense of $0.1 million and $0.6 million, respectively within selling, general and administrative expense. As of December 31, 2016, there was $0.1 million of unrecognized compensation expense related to unvested stock awards, which is expected to be recognized over a weighted average period of approximately 1.0 years.

The fair value of the options and SARs granted during 2016 was estimated on their respective grant dates using the Black-Scholes option pricing model. The Black-Scholes model was used with the following assumptions: risk-free interest rates of 1.13% to 1.92%, based on the U.S. Treasury yield in effect at the time of grant; dividend yields of zero percent; expected lives of six years, based on historical exercise activity; and volatility of 85% to 86% for grants made during the year ended December 31, 2016 based on the historical volatility of our stock over a time that is consistent with the expected life of the option.

The fair value of the options granted during 2015 was estimated on their respective grant dates using the Black-Scholes option-pricing model. The Black-Scholes model was used with the following assumptions: risk-free interest rates of 1.32% to 1.91%, based on the U.S. Treasury yield in effect at the time of grant; dividend yields of zero percent; expected lives of four to six years, based on historical exercise activity; and volatility of 83% to 86% for grants made during the year ended December 31, 2015 based on the historical volatility of our stock over a time that is consistent with the expected life of the option.

The weighted average grant date fair value per share of options granted during the years ended December 31, 2016 and 2015 was $0.60 and $0.96 respectively.

Stock Options.

The following table summarizes stock option activity under the Plan during the year ended December 31, 2016:

	Number of Options	Weighted Average Exercise Price
Outstanding at January 1, 2016	1,107,794	$ 3.45
Granted	25,250	0.84
Forfeited	(395,018)	2.91
Expired	—	—
Outstanding at December 31, 2016	738,026	$ 3.59
Exercisable at December 31, 2016	537,091	$ 4.26

All stock options outstanding were issued to employees, officers or outside directors.

As of December 31, 2016, 720,128 outstanding options were vested or expected to vest. The weighted average exercise price of these options was $3.55 and the aggregate intrinsic value was zero with a remaining weighted average contractual life of 7.5 years.

As of December 31, 2016, 537,091 options were exercisable with a weighted average exercise price of $4.26 and an aggregate intrinsic value of zero. The weighted average contractual life of these options was 7.2 years.

No options were exercised in 2016 or 2015.

The total fair value of awards that vested during 2016 and 2015 was $0.6 million and $0.8 million, respectively.

Stock Appreciation Rights ("SARs").

The following table summarizes SARs activity under the Plan during the year ended December 31, 2016:

	Number of SARs	Weighted Average Exercise Price
Outstanding at January 1, 2016	98,333	$ 4.14
Granted	—	—
Forfeited	(15,000)	3.15
Expired	—	—
Outstanding at December 31, 2016	83,333	$ 4.32
Exercisable at December 31, 2016	83,333	$ 4.32

All SARs outstanding were issued to officers.

As of December 31, 2016, 83,333 outstanding and exercisable SARs shares were vested or expected to vest. The weighted average exercise price of these options was $4.32 and the aggregate intrinsic value was zero with a remaining weighted average contractual life of 6.7 years. There were no SARs shares exercised in 2016 or 2015. During the year ended December 31, 2016, the SARs liability decreased by less than $0.1 million. At December 31, 2016, a liability of less than $0.1 million was recorded in accrued expenses.

12. FAIR VALUE

FASB guidance on fair value measurements, which defines fair value, establishes a framework for measuring fair value, and expands disclosures about fair value measurements for our financial assets and liabilities, as well as for other assets and liabilities that are carried at fair value on a recurring basis in our consolidated financial statements.

FASB guidance establishes a three-level fair value hierarchy based upon the assumptions (inputs) used to price assets or liabilities. The three levels of inputs used to measure fair value are as follows:

Level 1—Unadjusted quoted prices in active markets for identical assets or liabilities;

Level 2—Observable inputs other than those included in Level 1, such as quoted prices for similar assets and liabilities in active markets or quoted prices for identical assets or liabilities in inactive markets; and

Level 3—Unobservable inputs reflecting our own assumptions and best estimate of what inputs market participants would use in pricing the asset or liability.

Debt

Our debt is considered a Level 3 liability for which book value approximates fair value due to the variable interest rate it bears.

Common Stock Warrant Liabilities.

Certain of our issued and outstanding warrants to purchase common stock do not qualify to be treated as equity and, accordingly, are recorded as a liability.

2012 Warrant Liability

The 2012 Warrant Liability represents the fair value of the 3.4 million warrants issued in February 2012 (as adjusted pursuant to the terms of the 2012 warrants). We are required to record these instruments at fair value at each reporting date and changes are recorded as a non-cash adjustment to earnings. The gains or losses included in earnings are reported in other income (expense) in our Statement of Operations. Management does not believe that this liability will be settled by a use of cash.

The 2012 Warrant Liability is considered a Level 3 financial instrument and is valued using a Monte Carlo simulation. This method is well suited to value options with non-standard features, such as anti-dilution protection. A Monte Carlo simulation model uses repeated random sampling to simulate significant uncertainty in inputs. Assumptions and inputs used in the valuation of the common stock warrants are broken down into four sections: Static Business Inputs; Static Technical Inputs; Simulated Business Inputs; and Simulated Technical Inputs.

Static Business Inputs include: Our equity value, which was estimated using our stock price of $0.28 as of December 31, 2016; the amount of the down-round financing, the timing of the down-round financing, the expected exercise period of 0.10 years from the valuation date and the fact that no other potential fundamental transactions are expected during the term of the common stock warrants.

Static Technical Inputs include: volatility of 67% based on implied and historical rates over the expected term and the risk-free interest rate of 0.44% based on the 1-month U.S. Treasury yield.

Simulated Business Inputs include: the probability of down-round financing, which was estimated to be 25% for simulated equity values below the down-round financing cut-off point.

Simulated Technical Inputs include: our equity value in periods 1-10 follows a geometric Brownian motion and is simulated over 10 independent six-month periods; a down-round financing event was randomly simulated in an iteration based on the 25% discrete probability of a down-round financing for those iterations where our simulated equity value at the expected timing of down-round financing was below the down-round financing cut-off point.

During the year ended December 31, 2016, the changes in the fair value of the liability measured using significant unobservable inputs (Level 3) was comprised of the following:

	Dollars in Thousands For the Year Ended December 31, 2016
Balance at January 1, 2016	$ 350
Total gains or losses:	
Recognized in earnings	(350)
Balance at December 31, 2016	$ —

2016 Warrant Liability

The 2016 Warrant Liability represents the fair value of the 1.8 million warrants issued in January 2016, of which, 0.8 million warrants remain outstanding as of December 31, 2016. We are required to record these instruments at fair value at each reporting date and changes are recorded as a non-cash adjustment to earnings. The gains or losses included in earnings are reported in other income (expense) in our Statement of Operations.

The 2016 Warrant Liability is considered a Level 3 financial instrument and is valued using a binomial lattice simulation model. This method is well suited to valuing options with non-standard features. Assumptions and inputs used in the valuation of the common stock warrants include; our equity value, which was estimated using our stock price of $0.28 as of December 31, 2016; volatility of 91%; and a risk-free interest rate of 1.70%.

During the year ended December 31, 2016, the changes in the fair value of the liability measured using significant unobservable inputs (Level 3) were comprised of the following:

	Dollars in Thousands For the Year Ended December 31, 2016
Balance at January 1, 2016	$ —
Additions	1,827
Deductions from warrant conversions	(807)
Total gains or losses:	
Recognized in earnings	(438)
Balance at December 31, 2016	