TRANSGENOMIC INC
Form 10-K
March 27, 2014

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

FORM 10-K
(Mark One)

ý ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2013
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 000-30975

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
None	N/A

Securities registered pursuant to Section 12(g) of the Act:
Common Stock, par value $0.01 per share
(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

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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 ý

(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 OTCQB on the last business day of the registrant’s most recently completed second quarter was approximately $35.3 million.

At March 24, 2014, the registrant had 7,353,695 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, WAVE, WAVEMAKER, MutationDiscovery.com, OPTIMASE, DNASEP, OLIGOSEP, RNASEP, WAVE OPTIMIZED, SURVEYOR, FAMILION and ScoliScore™. The following trademarks are the property of Transgenomic, Inc.: Advancing Personalized Medicine, the helix logo, ProtocolWriter and Navigator. All other trademarks or trade names referred to in this Annual Report on Form 10-K are the property of their respective owners.

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. 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, Medicare/Medicaid/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 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," "shou 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.

Reverse Stock Split

On January 15, 2014, our Board of Directors approved a reverse split of our common stock, par value $0.01, at a ratio of one-for-twelve. This reverse stock split became effective on January 27, 2014 and, unless otherwise indicated, all share amounts, per share data, share prices, exercise prices and conversion rates set forth in this Annual Report have, where applicable, been adjusted retroactively to reflect this reverse stock split.

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, 2013 are not necessarily indicative of results that may be attained in the future.

Item 1. Our Business

Transgenomic, Inc.("we", "us", "our Company" or "Transgenomic") is a global biotechnology company advancing personalized medicine in the detection and treatment of cancer and inherited diseases through its proprietary molecular technologies and world-class clinical and research services. Our operations are organized and reviewed by management along its product lines and presented in the following two complementary business segments;

- Laboratory Services. Our laboratories specialize in genetic testing for cardiology, neurology, mitochondrial disorders and oncology. Our Patient Testing laboratories located in New Haven, Connecticut and Omaha, Nebraska are certified under the Clinical Laboratory Improvement Amendment ("CLIA") as high complexity laboratories and our Omaha facility is also accredited by the College of American Pathologists ("CAP"). Our Biomarker Identification laboratory located in Omaha, Nebraska also provides pharmacogenomics research services supporting Phase II and Phase III

clinical trials conducted by pharmaceutical companies. Our laboratories employ a variety of genomic testing service technologies, including ICE COLD-PCR technology. ICE COLD-PCR is a proprietary platform technology that can be run in any laboratory with standard PCR technology and that enables detection of multiple unknown mutations

from virtually any sample type including tissue biopsies, blood, cell-free DNA (“cfDNA”) and circulating tumor cells (“CTCs”) at levels greater than 1,000-fold higher than standard DNA sequencing techniques.

- Genetic Assays and Platforms. Our proprietary product is the WAVE® System, which has broad applicability to genetic variation detection in both molecular genetic research and molecular diagnostics. We also distribute bioinstruments produced by other manufacturers (“OEM Equipment”) through our sales and distribution network. Service contracts to maintain installed systems are sold and supported by our technical support personnel. The installed WAVE base and some OEM Equipment platforms generate a demand for consumables that are required for the continued operation of the bioinstruments. We develop, manufacture and sell these consumable products. In addition, we manufacture and sell consumable products that can be used on multiple, independent platforms. These products include SURVEYOR® Nuclease and a range of chromatography columns.

Segment information related to revenues, a performance measure of profit, capital expenditures, and total assets is contained in Footnote 14- “Operating Segment and Geographic Information” to our accompanying consolidated financial statements.

Business Strategy

Our primary goal is to provide products and services to biomedical researchers, physicians, medical institutions and diagnostic and pharmaceutical companies that are tied to advancements in the field of genomics and, increasingly, personalized medicine. Advances in genomics have fueled our efforts to understand individual differences in disease susceptibility, disease progression and response to therapy.

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 technological solutions that it desires to offer within 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:

- Developing new technologies and products internally;
- Acquiring all or parts of other companies;
- Entering into joint-development efforts with other companies; and
- Reselling other 'companies' products.

Our strategy is to leverage the synergies of our segments, capitalizing on discoveries in our Research and Development (“R&D”) and Biomarker Identification laboratories to create “kits” or assays to distribute through our Genetic Assays and Platforms segment, as well as tests to conduct in our Patient Testing laboratories.

We will continue to develop new technologies, such as our ICE COLD-PCR, and capitalize on our expertise and intellectual properties to develop new unique tests, such as our CardioPredict Panel. We continue to cultivate new and expanded relationships with industry leaders across the globe, such as Perkin Elmer in our Genetic Assays and Platforms business, PDI in our Patient Testing laboratories and several medical research facilities working with our Laboratory Services segment.

We continue to evaluate a range of acquisition targets, including smaller single-test laboratories, larger private and public entities and divisions of entities. We acquired the FAMILION business in December 2010 and the ScoliScore™ assay technology in September 2012, and we have integrated both into our existing business.

Products

Our highly specialized genetics service and expertise are delivered by our Biomarker Identification laboratory in Omaha, Nebraska and in our CLIA-certified Patient Testing laboratories in Omaha and New Haven, Connecticut. Our Biomarker Identification laboratory supports pharmaceutical companies in their clinical trials, primarily Phase II and Phase III trials. Our Patient Testing laboratories support medical professionals in the diagnosis and treatment of patients, primarily in the specialties of Cardiology and Neurology with a range of tests within each medical specialty. In cardiology, our FAMILION® family of tests focuses on detecting mutations that can cause cardiac channelopathies, cardiomyopathies and other rare, potentially lethal heart conditions. The specific diseases include Long QT Syndrome (LQTS), Familial Atrial Fibrillation (FAF), Hypertrophic Cardiomyopathy (HCM) and Dilated Cardiomyopathy (DCM). By reducing uncertainty and finding the specific genetic causes of cardiac channelopathies and cardiomyopathies, the FAMILION tests can:

- Help diagnose a patient's disease;
- Guide treatment options; and
- Determine whether family members are at risk.

Also in cardiology, our CardioPredict Panel seeks to identify the best treatment options for patients with heart disease. Certain genes in the panel identify the approximately 50% of patients with a genetic deficiency that prevents them from receiving the expected pharmacological benefit from clopidogrel (Plavix®). Information from the CardioPredict Panel can be used by the health care provider to ensure the most appropriate therapies are being used in an effort to reduce adverse cardiac events.

In Neurology, we have a focus on mitochondrial disorders and epilepsy and epilepsy-like diseases. We employ a wide variety of technologies, including industry standards such as Sanger sequencing and next generation sequencing. In 2013, we introduced whole exome sequencing, which is based on next-generation sequencing, and which specialists use to diagnose and treat exceptionally difficult to identify neurological disorders in patients.

ScoliScore™ is the first clinically validated and commercially available saliva-based multi-gene test that provides a highly accurate assessment of the likelihood of spinal curve progression for individuals diagnosed with Adolescent Idiopathic Scoliosis ("AIS"), or an abnormal lateral curve of the spine. The ScoliScore™ Test identifies patients that will not progress to a severe curvature of the spine and reduces those patients' need for repeated doctor visits, physical examinations and, most importantly, years of exposure to radiation from frequent X-Rays.

Our oncology tests are focused heavily on genetic mutations commonly associated with the major cancer types - Lung, Colorectal, Breast and Prostate. We primarily test for mutations in the KRAS, NRAS, BRAF and PIK3CA genes, all associated with the most common cancers. We also offer tests for hereditary cancer-predisposing syndromes.

Our laboratory expertise is leveraged into our Genetic Assays and Platforms segment, which focuses on assembly and delivery of highly sensitive mutation detection equipment, primarily our WAVE platform. We also sell WAVE MCE and Hanabi instruments, as well as the bioconsumables, including test kits, used in these instruments for molecular testing and cytogenetics. Our equipment systems offer discovery and detection of genetic variations at close to 100% sensitivity, making them among the most sensitive and accurate technologies for detection of known and unknown mutations and single nucleotide polymorphisms (SNPs). These equipment systems are used throughout the world to screen for a large variety of diseases. More than 350 human genes have been screened entirely or partly by Direct High Pressure Liquid Chromatography (DHPLC), the underlying technology used by our equipment systems. A multitude of other applications are being used with WAVE Systems in such diverse areas as plant genomics, microbial analysis and drug sensitivity.

We continue to leverage the synergies of the two segments, capitalizing on discoveries in our R&D and Biomarker Identification laboratories to create "kits" or test assays to distribute through our Genetic Assays and Platforms segment, as well as tests to conduct in our Patient Testing laboratories.

Sales and Marketing

Our Sales and Support team consists of regionally based sales people, service engineers and applications scientists to support our sales and marketing activities worldwide. We have sold our products to customers in over 50 countries. We use a direct sales and support staff for sales in the U.S. and Europe. For the rest of the world, we sell our products through dealers and distributors within local markets. We have over 35 dealers and distributors.

Customers

Physicians requesting genetic tests for their patients are our primary source of revenues for laboratory services. Fees for laboratory testing services rendered for these physicians are billed either to the physician, the patient or the patient's third-party payer such as an insurance company or Medicare. Billings are typically on a fee-for-service basis. The patient or third-party payer is billed at our patient fee schedule. Commercial insurance providers are billed at contracted rates or other generally accepted market reimbursement rates. Revenues received from Medicare billings are based on government established fee schedules and reimbursement rules.

Our customers include a number of large, established pharmaceutical, biotech and commercial companies as well as leading academic and medical institutions both in the U.S. and abroad. No customer accounted for more than 10% of our consolidated net sales for the years ended December 31, 2013, 2012 or 2011. Information regarding the revenues attributable to U.S. and international markets is set forth in Footnote 14 - "Operating Segment and Geographic Information" to our accompanying consolidated financial statements.

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 application for ultra high sensitivity mutation detection in any tissue samples (fresh, frozen, FNA, FFPE, etc.) or body fluids (plasma, serum, ascites); (ii) development of a new strategy for mutation detection and sequence confirmation using microcapillary electrophoresis; (iii) development of SURVEYOR® Nuclease based oncology mutation detection kits utilizing multiple instrument platforms for aid in therapeutic treatment decisions for cancers such as colorectal, melanoma and non-small cell lung; (iv) use of commercially available assays and the development of custom assays for detection of somatic mutations in cancer samples using Next Generation Sequencing; and (v) development of a biomarker for FC Gamma receptor to aid in the selection of therapeutic options for monoclonal antibody cancer drugs. For the years ended December 31, 2013, 2012 and 2011, our research and development expenses were $3.2 million, $2.5 million and $2.2 million, respectively.

Manufacturing

We manufacture bioconsumable products including our test kits, separation columns, liquid reagents and enzymes. The major components of our WAVE Systems are manufactured for us by a third party. We integrate our hardware and software with these third party manufactured components. Our manufacturing facilities for WAVE Systems and bioconsumables are located in Omaha, Nebraska and San Jose, California.

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 provisions and confidentiality agreements. Our WAVE Systems and related consumables are protected by patents and in-licensed technologies that expire in various periods beginning in and continuing through 2030. 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. As we expand our product offerings, we also extend 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. 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.

In addition to our own products, we distribute or act as a sales agent for OEM Equipment developed by third parties. Our rights to those third-party products and the associated intellectual property rights are limited by the terms of the contractual agreement between us and the respective third-party.

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, result in costly litigation, cause product delivery delays, require us to enter into royalty or licensing agreements or pay amounts in settlement, or require us to develop alternative non-infringing technology. We could also be required to defend or indemnify our customers against such claims. A successful claim by a third-party of intellectual property infringement by us or one of our customers could compel us to enter into costly royalty or license agreements, pay significant damages or even stop selling certain products and incur additional costs to develop alternative non-infringing technology.

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. 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 expected to be a significant factor in the manufacturing, labeling, distribution and marketing of our products and systems. Please see the section entitled "Risk Factors" for other risks associated with the United States government.

Competition

The markets in which we operate are highly competitive and characterized by rapidly changing technological advances. A number 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.

Our Laboratory Services segment faces competition from a number of companies offering contract DNA sequencing and other genomic analysis services, including SeqWright and others. In addition, several clinical diagnostics service providers, such as Labcorp, Quest, GeneDx and Baylor College of Medicine, also offer related laboratory services. Finally, additional competition arises from academic core laboratory facilities. Competition for our WAVE System arises primarily from DNA sequencing and genotyping technologies. Competitors in these areas, among others, include Applied Biosystems, Qiagen, Roche, Sequenom and Illumina. Competition for some of our non-WAVE consumable products comes from numerous well-diversified life sciences reagents providers, including, among others, Invitrogen, Qiagen, Roche, Stratagene and Promega.

Employees

As of December 31, 2013 and 2012, we had employees focused in the following areas of operation:

	December 31,	
	2013	2012
Manufacturing and Laboratory	76	86
Sales, Marketing and Administration	86	105
Research and Development	9	11
	171	202

Of our 171 total employees as of December 31, 2013, a total of 165 were full-time employees.

Our employees were employed in the following geographical locations:

	December 31,	
	2013	2012
United States	151	181
Europe (other than the United Kingdom)	10	10
United Kingdom	10	11
	171	202

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. We maintain manufacturing facilities in Omaha, Nebraska and San Jose, California. We maintain research and development offices in Omaha, Nebraska. We maintain laboratories in Omaha, Nebraska and New Haven, Connecticut that have been certified under the CLIA. Our New Haven facility also houses certain administrative operations.

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 report 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 United States Securities and Exchange Commission ("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, NE, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the Securities and Exchange Commission 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 50, has served as our President and Chief Executive Officer and a Director since September 2013. 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.

Mark P Colonnese. Mr. Colonnese, age 58, was appointed as our Executive Vice President and Chief Financial Officer by the Board in September 2012. Mr. Colonnese has nearly 30 years of experience in leading business growth and financial strategies for life sciences companies. He most recently served as Executive Vice President, Commercial Operations and Chief Financial Officer at Salutria Pharmaceuticals, LLC, a privately-held, development-stage pharmaceutical company from April 2009 to August 2012. Prior to that, Mr. Colonnese served as an executive in a number of capacities at AtheroGenics, Inc., a development-stage pharmaceutical company, from January 1999 to April 2009, including Executive Vice President, Commercial Operations and Chief Financial Officer from May 2006 to April 2009, as Senior Vice President of Finance and Administration and Chief Financial Officer since 2002, and as Vice President of Finance and Administration and Chief Financial Officer since 1999. Prior to joining AtheroGenics, Mr. Colonnese served as Senior Vice President and Chief Financial Officer at Medaphis Corporation and has also held executive positions at Applied Analytical Industries, Inc. and Schering-Plough Corporation. Mr. Colonnese is a Certified Public Accountant.

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 for the years ended December 31, 2013, 2012 and 2011 was $15.8 million, $9.5 million and $3.0 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.

Our future capital needs are uncertain and we may need to raise additional funds in the future.

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 acquisitions and other strategic transactions; or
- working capital requirements related to growing new acquisitions or existing business.

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 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 law or regulations, may have a material adverse impact on our business.

We might enter into new acquisitions that are difficult to integrate, disrupt our business, dilute stockholder value or divert management attention.

Our success will depend in part on our ability to continually enhance and broaden our product offerings in response to changing technologies, customer demands and competitive pressures. We expect to seek to acquire businesses, technologies or products that will complement or expand our existing business, including acquisitions that could be material in size and scope. Any acquisition we might make in the future might not provide us with the benefits we anticipated upon entering into the transaction. Any future acquisitions involve various risks, including:

- Difficulties in integrating the operations, technologies, products and personnel of the acquired entities;
- The risk of diverting management's attention from normal daily operations of the business;
- Potential difficulties in completing projects associated with in-process research and development;
- Risks of entering markets in which we have no or limited direct prior experience and where competitors in such markets have stronger market positions;
- Initial dependence on unfamiliar supply chains or relatively small supply partners;
- Unexpected expenses resulting from the acquisition;
- Potential unknown liabilities associated with acquired businesses;
- Insufficient revenues to offset increased expenses associated with the acquisition; and
- The potential loss of key employees of the acquired entities.

An acquisition could result in the incurrence of debt, restructuring charges or significant one-time write-offs. Acquisitions also could result in goodwill and other intangible assets that are subject to impairment tests, which might result in future impairment charges. Furthermore, if we finance acquisitions by issuing convertible debt or equity securities, our existing stockholders may be diluted.

From time to time, we might enter into negotiations for acquisitions that are not ultimately consummated. Those negotiations could result in diversion of management time and potentially significant out-of-pocket costs. If we fail to evaluate and execute acquisitions accurately, we could fail to achieve our anticipated level of growth and our business and operating results could be adversely affected.

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.

Sales have been variable.

Testing volumes in our Patient Testing laboratories are dependent on patient visits to doctors' offices and other providers of health care and tend to fluctuate. Testing volume generally declines during the year-end holiday periods, other major holidays and the summer. Also, our laboratories perform 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.

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

Testing services are billed to physicians, patients, government payors 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. In early 2012, our laboratory information management system ("LIMS") installed in our New Haven, Connecticut laboratory testing facility experienced a software failure that resulted in reduced sample processing capacity. Although we have reviewed and improved our internal procedures to secure proper function of the LIMS and we believe that the full sample processing capacity has been restored, there are no assurances that we will not experience future temporary delays or disruptions in processing samples at our New Haven, Connecticut facility or at our other facilities. 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.

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. 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 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 the President 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 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 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.

Market demand is outside of our control.

There are many factors that affect the market demand for our products and services that we cannot control. Demand for our WAVE System is affected by the needs and budgetary resources of research institutions, universities, hospitals and others who use the WAVE System for genetic-variation research. The WAVE System represents a significant expenditure by these types of customers and often requires a long sales cycle. Similarly, the sales cycle for the OEM

Equipment that we sell can be lengthy.

The sale of our products and business operations in international markets subjects us to additional risks.

During the past several years, international sales have represented a significant portion of our total net sales. As a result, a major portion of our net sales are subject to risks associated with international sales and operations. These risks include:

- payment cycles in foreign markets are typically longer than in the U.S., and capital spending budgets for research agencies can vary over time with foreign governments;
- changes in foreign currency exchange rates can make our products more costly in local currencies since our foreign sales are typically paid for in British Pounds or the Euro;
- the potential for changes in U.S. and foreign laws or regulations that result in additional import or export restrictions, higher tariffs or other taxes, more burdensome licensing requirements or similar impediments to our ability to sell products and services profitably in these markets; and
- the fluctuation of foreign currency to the U.S. Dollar and the Euro to the British Pound can cause our net sales and expenses to increase or decrease, which adds risk to our financial statements.

Our WAVE System includes hardware components and instrumentation manufactured by a single supplier and if we are no longer able to obtain these components and instrumentation our ability to manufacture our products could be impaired.

We rely on a single supplier, Hitachi High Technologies America, to provide the basic instrument modules used in our WAVE Systems. While other suppliers of instrumentation are available, we believe that our arrangement with Hitachi offers strategic advantages. We have successfully converted the latest model of WAVE Systems to utilize Hitachi's newest instrument line. If we were required to seek alternative sources of supply, it could be time consuming and may require significant and costly modification of our WAVE System. Also, if we were unable to obtain instruments from Hitachi in sufficient quantities or in a timely manner, our ability to manufacture our products could be impaired, which could limit our future net sales.

Our dependence on our suppliers exposes us to certain risks.

We rely on various suppliers for products and materials needed to produce our products. In the event that they would be unable to deliver those items due to product shortage or business closure, we may be unable to deliver our products to our customers timely or may need to increase our prices. The current economy poses additional risk of our suppliers' ability 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 provisions for some of our confidential and proprietary information that is not subject matter for which patent protection is being sought. 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 technology, 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 efforts. Finally, some of our patent protection in the U.S. is 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, any application or exploitation of our technology by us could infringe patents or proprietary rights of others and any licenses that we might need as a result of such infringement might not be available to us on commercially reasonable terms, if at all. 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.

Our failure to comply with any applicable government 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 assure you 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 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 currently anticipate that existing cash and cash equivalents and cash flow from operations will be sufficient to meet our anticipated needs for working capital, operating expenses and capital expenditures for at least the next twelve months. However, 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 fund our expansion, promote our brands, take advantage of acquisition opportunities, develop or enhance services or respond to competitive pressures.

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, 2013, we had obligations to issue 3,785,709 shares of common stock upon exercise of outstanding stock options, warrants or conversion rights. In March 2014, we completed a private placement, pursuant to which we issued 1,443,297 shares of Series B convertible preferred stock, which is initially convertible into shares of our common stock at a rate of 1-for-1, subject to certain adjustments. The issuance of these underlying shares of common stock 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, 2013, we had 7,353,695 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 stock in the market. In addition, the large concentration of our shares held by a small group of stockholders could result in increased volatility in our stock price due to the limited number of shares available in the market.

Failure to comply with covenants in our loan agreement with affiliates of Third Security, LLC could adversely affect us.

Our revolving line of credit and term loan with affiliates of Third Security, LLC (the “Lenders”) are governed by a Loan and Security Agreement, which contains affirmative and negative covenants. Under the term loan, 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. 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. Failure to comply with the covenants under the loan agreement would be an event of default under the loan agreement that, if not cured or waived, would give the Lenders 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, which would have a material adverse effect on our financial condition and results of operations.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

We currently lease facilities throughout the world under non-cancelable leases with various terms. 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	2014 Scheduled Rent	Lease Term Expires
Omaha, Nebraska	WAVE and Consumable Manufacturing	25,000	$145	July 2016
San Jose, California	Consumable Manufacturing	9,110	$60	February 2016
Glasgow, Scotland	Multi Functional (1)	5,059	$37	May 2017
Omaha, Nebraska	Multi Functional (1)	18,265	$213	July 2022
Omaha, Nebraska	Multi Functional (1)	4,410	$39	May 2017
New Haven, Connecticut	Multi Functional (1)	22,459	$441	June 2018

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

We believe that these facilities are 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.

Item 3. Legal Proceedings.

We are subject to a number of claims of various amounts which arise out of the normal course of our business. In our opinion, the disposition of pending claims will not have a material adverse effect on our financial position, results of operations or cash flows.

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. Share price information for our common stock is available on the OTCQB under the symbol "TBIO". The following table sets forth the high and low closing prices for our common stock during each of the quarters of 2013 and 2012. These prices 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, 2013		
First Quarter	$8.64	$4.68
Second Quarter	$5.88	$3.72
Third Quarter	$5.64	$4.20
Fourth Quarter	$7.32	$4.68
Year Ended December 31, 2012		
First Quarter	$16.20	$13.80
Second Quarter	$13.56	$9.36
Third Quarter	$12.84	$9.00
Fourth Quarter	$11.64	$6.48

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 December 31, 2013, there were 7,353,695 shares of our common stock outstanding and approximately 210 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. Additionally, pursuant to each of the Certificate of Designation of Series A Convertible Preferred Stock, as amended, and the Certificate of Designation of Series B Convertible Preferred Stock, we are prohibited from declaring dividends on our common stock without the prior written consent of the holders of at least two-thirds of the outstanding shares of preferred stock; provided that the Board may declare dividends payable solely in common stock without the prior written consent of the preferred holders. Pursuant to the terms of the Loan Agreement, 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. The holders of our Series A Convertible Preferred Stock (the "Series A Preferred Stock") and our Series B Convertible Preferred Stock (the "Series B Preferred Stock") are entitled to receive quarterly dividends, which accrue at the rate of 10% of the original price per share per annum for the Series A Preferred Stock and at the rate of 6% of the original price per share per annum for the Series B Preferred Stock, whether or not declared, and which compound annually and are cumulative.

Sale of Unregistered Securities.

2013 Private Placement: 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 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 common stock with an

exercise price of $9.00 per share. 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 warrants also impose penalties on us for failure to deliver the shares of common stock issuable upon exercise. The common stock and warrants were offered and sold in transactions exempt from registration under the Securities Act, in reliance on Section 4(2) thereof and Rule 506 of Regulation D thereunder. Each investor represented that it was

an “accredited investor,” as defined in Regulation D, and acquired the common stock, warrants and shares issuable upon exercise of the warrants for investment only and not with a view towards, or for resale in connection with, the public sale or distribution thereof.

We used the net proceeds from the offering for general corporate and working capital purposes, primarily to accelerate development of several of our key initiatives.

The above common stock transaction required the repricing and issuance of additional common stock warrants to the holders of warrants issued in our February 2012 common stock and warrant financing. The exercise price 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.

In connection with the January 2013 financing, we also entered into a Registration Rights Agreement with the investors (the “2013 Registration Rights Agreement”). The 2013 Registration Rights Agreement required us to file a registration statement with the SEC within 45 days of the closing date of the offering for the resale by the investors of all of the common shares, the shares of common stock issuable upon exercise of the warrants, and all shares of common stock issuable upon any stock split, dividend or other distribution, recapitalization or similar event with respect thereto. The registration statement was declared effective by the SEC on March 29, 2013.

Lazard Capital Markets LLC served as the lead placement agent for the offering, and Craig-Hallum Capital Group LLC acted as co-placement agent. In consideration for services rendered as the placement agents in the offering, we agreed to (i) pay to the placement agents cash commissions equal 7% of the gross proceeds received in the offering, and (ii) reimburse the placement agent for reasonable out-of-pocket expenses, including fees paid to the placement agents' legal counsel, incurred in connection with the offering, which reimbursable expenses shall not exceed $25,000.

2014 Private Placement: On March 5, 2014, Transgenomic entered into a Series B Convertible Preferred Stock Purchase Agreement (the “Series B Purchase Agreement”) with certain accredited investors and/or their affiliates (collectively, the “2014 Investors”), pursuant to which Transgenomic, in a private placement, sold and issued to the 2014 Investors an aggregate of 1,443,297 shares of the Company’s Series B Convertible 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 $7,000,000. Each share of Series B Preferred Stock issued pursuant to the Series B Purchase Agreement is initially convertible into shares of the Company’s 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, as filed with the Secretary of State of the State of Delaware on March 5, 2014. The Series B Preferred Stock was offered and sold in transactions exempt from registration under the Securities Act, in reliance on Section 4(2) thereof and Rule 506 of Regulation D thereunder. Each investor represented that it was an “accredited investor,” as defined in Regulation D, and acquired the Series B Preferred Stock for investment only and not with a view towards, or for resale in connection with, the public sale or distribution thereof.

We currently intend to use the net proceeds from the offering for general corporate and working capital purposes, primarily to accelerate development of several of our key initiatives.

In connection with the Series B financing, the Company also entered into a Registration Rights Agreement, dated March 5, 2014, with the 2014 Investors, pursuant to which the Company granted the 2014 Investors 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 2014 Series B Preferred Stock financing required the repricing and issuance of additional common stock warrants to the holders of warrants issued in connection with our February 2012 private placement. The exercise price of these 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 2,540,897.

Information with respect to the securities as described above sold by us during the period covered by this Annual Report and thereafter through the date of the filing of this Annual Report with the SEC that were not registered under

the Securities Act has previously been provided in our Current Reports on Form 8-K filed with the SEC on January 25, 2013, January 30, 2013 and March 6, 2014.

Issuer Purchases of Equity Securities. We made no purchases of our common stock during the year ended December 31, 2013. Therefore, tabular disclosure is not presented.

Item 6. Selected Consolidated Financial Data.

The selected consolidated balance sheet data as of December 31, 2013 and 2012 and the selected consolidated statements of operations data for each year ended December 31, 2013, 2012 and 2011 have been derived from our audited consolidated financial statements that are included elsewhere in this Annual Report. The selected consolidated balance sheet data as of December 31, 2011, 2010 and 2009 and the selected consolidated statements of operations data for each year ended December 31, 2010 and 2009 have been derived from our audited consolidated financial statements that are not included in this Annual Report. Dollar amounts, except per share data, are presented in thousands.

This data should be read together with Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations", and the consolidated financial statements and related notes included elsewhere in this Annual Report. The financial information below is not necessarily indicative of the results of future operations. Future results could differ materially from historical results due to many factors, including those discussed in Item 1A in the section entitled "Risk Factors."

	Year Ended December 31,				
	2013	2012	2011	2010	2009
Statement of Operations Data:					
Net sales:					
Laboratory Services	$15,391	$19,329	$18,318	$4,979	$4,566
Genetic Assays and Platforms	12,153	12,151	13,653	15,069	17,457
	27,544	31,480	31,971	20,048	22,023
Cost of goods sold	15,048	16,470	13,534	10,284	10,418
Gross profit	12,496	15,010	18,437	9,764	11,605
Selling, general and administrative	25,043	22,023	19,150	10,933	10,319
Research and development	3,212	2,491	2,218	2,305	3,182
Restructuring charges [1]	—	—	41	138	—
Operating expenses	28,255	24,514	21,409	13,376	13,501
Other income (expense) [2]	(282)	1,323	(6,765)	628	18
Loss before income taxes	(16,041)	(8,181)	(9,737)	(2,984)	(1,878)
Income tax expense	(54)	146	45	150	42
Net Loss	$(15,987)	$(8,327)	$(9,782)	$(3,134)	$(1,920)
Preferred stock dividends and accretion [3]	(726)	(660)	(1,010)	—	—
Net loss available to common stockholders	$(16,713)	$(8,987)	$(10,792)	$(3,134)	$(1,920)
Basic and diluted loss per share	$(2.30)	$(1.55)	$(2.62)	$(0.76)	$(0.47)
Basic and diluted weighted average shares outstanding	7,267	5,785	4,113	4,104	4,099
	As of December 31,				
	2013	2012	2011	2010	2009
Balance Sheet Data:					
Working capital	$3,210	$3,449	$870	$6,781	$10,351
Total assets	30,278	38,791	33,562	32,027	16,004
Total liabilities and mezzanine equity	18,832	18,517	22,514	23,527	4,342
Total stockholders' equity	11,446	20,274	11,048	8,500	11,662

(1) Restructuring plans were implemented in 2011 and 2010 to reduce and align our expenses with current business prospects. The plans included employee terminations, office closures, termination of collaborations and write-offs of abandoned intellectual property. As a result, restructuring charges were recorded and are included in operating expenses.

(2)

Other income in 2012 includes $2.2 million associated with the change in fair value of the common stock warrants. The income related to the change in fair value of the common stock warrants is a non-cash item. Other expense for 2011 includes expense associated with the Series A Preferred Stock and warrants to purchase shares of Series A Preferred Stock (the "Series A Warrants") of $6.1 million, which is due to the change in fair value of the preferred stock conversion feature. The expense associated with the change in value of the preferred stock conversion feature is a non-cash item. Other

income in 2011 and 2010 includes $0.2 million and $0.6 million net of consulting fees, respectively, awarded in a federal grant under the Qualifying Therapeutic Discovery Project Program related to 2009 projects.

(3) 2013 and 2012 includes accrued dividends on Series A Preferred Stock of $0.7 million. 2011 includes accrued dividends on Series A Preferred Stock of $0.6 million and Series A Preferred Stock accretion of $0.4 million.

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

This Management 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 Company" or "Transgenomic") is a global biotechnology company advancing personalized medicine in the detection and treatment of cancer and inherited diseases through its proprietary molecular technologies and world-class clinical and research services. Our operations are presented in the following two complementary business segments.

- Laboratory Services. Our laboratories specialize in genetic testing for cardiology, neurology, mitochondrial disorders and oncology. Our Patient Testing laboratories located in New Haven, Connecticut and Omaha, Nebraska are certified under the Clinical Laboratory Improvement Amendment (“CLIA”) as high complexity labs and our Omaha facility is also accredited by the College of American Pathologists (“CAP”). Our Biomarker Identification laboratory located in Omaha, Nebraska also provides pharmacogenomics research services supporting Phase II and Phase III clinical trials conducted by pharmaceutical companies. Our laboratories employ a variety of genomic testing service technologies, including ICE COLD-PCR technology. ICE COLD-PCR is a proprietary platform technology that can be run in any laboratory with standard PCR technology and that enables detection of multiple unknown mutations from virtually any sample type including tissue biopsies, blood, cell-free DNA ("cfDNA") and circulating tumor cells (“CTCs”) at levels greater than 1,000-fold higher than standard DNA sequencing techniques.
- Genetic Assays and Platforms. Our proprietary product is the WAVE® System, which has broad applicability to genetic variation detection in both molecular genetic research and molecular diagnostics. We also distribute bioinstruments produced by other manufacturers (“OEM Equipment”) through our sales and distribution network. Service contracts to maintain installed systems are sold and supported by our technical support personnel. The installed WAVE base and some OEM Equipment platforms generate a demand for consumables that are required for the continued operation of the bioinstruments. We develop, manufacture and sell these consumable products. In addition, we manufacture and sell consumable products that can be used on multiple, independent platforms. These products include SURVEYOR® Nuclease and a range of chromatography columns.

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, 2013 are not necessarily indicative of results that may be attained in the future.

Executive Summary
2013 Results

Net sales for the year ended December 31, 2013 of $27.5 million decreased $3.9 million or 13% versus the $31.5 million reported for the year ended December 31, 2012. The sales decrease primarily reflects decreased volume in Laboratory Services while Genetic Assays and Platforms performed at a comparable level compared to the prior year. The decrease in Laboratory Services is principally a result of lower test volumes particularly in neurology testing.

Gross profit for the year ended December 31, 2013 decreased to $12.5 million (45% of sales) versus $15.0 million (48% of sales) for the year ended December 31, 2012. Gross margins in 2013 were negatively impacted by the aforementioned lower test volumes and unfavorable change in product mix in Laboratory Services.

Operating expenses of $28.3 million for the year ended December 31, 2013 were $3.8 million higher than the comparable 2012 period and primarily reflects higher bad debt expense in 2013.

Loss from operations of $15.8 million for the year ended December 31, 2013 versus $9.5 million for the comparable 2012 period reflects the lower volumes, resultant lower gross profit and high operating expenses.

The Company reported a net loss of $15.9 million in 2013 versus $8.3 million for the year ended December 31, 2012.

2013 Overview and Recent Highlights
Transgenomic is advancing personalized medicine in cardiology, oncology, neurology and inherited diseases through our proprietary molecular diagnostic technologies and world-class clinical research services. Today, we are a global leader in molecular diagnostic testing with a family of innovative products.

As pioneers in the molecular diagnostic testing field, it is important to us to assemble a strong leadership team to ensure the development of dynamic strategies and effective execution of those strategies. To that end, in September 2013, Paul Kinnon was hired as President, Chief Executive Officer and Director, replacing Craig J. Tuttle. Mr. Kinnon brings over two decades of business and scientific leadership in the life sciences industries to Transgenomic, with a proven track record of developing and launching life science products. With broad experience covering clinical diagnostic, core life science research and applied markets, his appointment strengthens the executive leadership team and adds significant commercial, operational, and scientific expertise.

In November 2013, Transgenomic appointed Stephen R. Miller as Senior Vice President and General Manager of the Patient Testing Business Unit. Mr. Miller brings over 22 years of experience in the diagnostics and biotechnology industries to Transgenomic. With expertise involving the commercialization of molecular diagnostic tests on a global basis, Mr. Miller also brings in-depth experience in developing and implementing strategic commercialization and reimbursement plans.

With a new focus on commercialization of our intellectual property assets, in the fourth quarter of 2013, we announced two strategic commercialization partnerships. In October, we announced the signing of a U.S. collaboration agreement with PDI, Inc. (Nasdaq: PDII) to commercialize CardioPredict™, a new 10-gene assay panel that identifies specific genes that influence the effectiveness and safety of many commonly used cardiovascular drugs including the platelet inhibitor, clopidogrel; several cholesterol-lowering drugs, known as “statins”; the blood thinner, warfarin; and certain blood pressure lowering drugs, known as beta blockers; among others. Developed by Transgenomic, CardioPredict™ is the most comprehensive assay of its kind currently on the market and can assist physicians with drug selection and dosing decisions.

Under the terms of the strategic collaboration agreement, PDI will be responsible for all U.S.-based marketing and promotion of CardioPredict™, while Transgenomic will be responsible for processing CardioPredict™ in its CLIA lab and all customer support. We believe that strategic partnerships such as this one will allow Transgenomic to globally commercialize our novel assays and clinical tests in order to more effectively address the expanding genetics market.

Shortly thereafter, in November, we announced an agreement with PerkinElmer, Inc. (NYSE: PKI) to market and distribute our oncology diagnostic test portfolio of products in territories outside the United States. Under the terms of the agreement, effective January 1, 2014, PerkinElmer has the non-exclusive right to begin sales, marketing, distribution and field service activities

for our line of molecular diagnostic oncology products, including CRC RAScan™ and ACE™ kits, for use on its Caliper LabChip® platform. Europe will be the initial focus of PerkinElmer's launch.

These commercial collaborations highlight our strategy, which aims to optimize, through channel partnerships, the commercial potential of our assets aimed at large genetic testing markets. Doing so allows us to focus resources on our areas of strength, including developing and marketing tests for rare genetic disorders in the U.S., where we are a market leader, marketing and selling our instrument lines focused on genetic and cytogenetic analyses, and most importantly, developing tests and companion diagnostics using proprietary technology that is unequalled in the identification and detection of low-level mutations.

This proprietary technology, which we have named ICE COLD-PCR and developed with the Dana Farber Cancer Institute, is our technological platform with transformative commercial potential for the company. ICE COLD-PCR is a technology we believe has unequalled sensitivity and the potential to revolutionize cancer screening, diagnosis, monitoring, and treatment selection by replacing the need for biopsies. We are aggressively pursuing activities to develop, protect and commercialize this opportunity.

In February 2014, we announced that the U.S. Patent and Trademark Office issued a new patent related to our licensed ICE COLD-PCR technology. This newly issued patent significantly strengthens our intellectual property portfolio and supports the ongoing development of ICE COLD-PCR. We intend to leverage this proprietary asset in both our patient testing business and with our pharmaceutical and biotechnology client companies, especially those looking for low level mutations in blood. The patent will protect the underlying technology until 2031.

In October 2013, we announced the results from an interim analysis of a research collaboration involving ICE COLD-PCR with the MD Anderson Cancer Center. Using Transgenomic's ultrasensitive ICE COLD-PCR technology, investigators analyzed blood plasma samples collected from 60 patients with colorectal cancer, melanoma, non-small cell lung cancer and several other cancers, and compared them to corresponding samples taken from tumor tissue. The results demonstrated that in a high percentage of patients, the same KRAS and BRAF genetic mutations were detected in cell-free (cf) DNA present in the blood as were originally found in primary tumors. These findings demonstrate the clinical relevance and utility of analyzing cfDNA in blood to detect low level mutations as an alternative to the far more invasive and difficult-to-conduct tissue biopsy.

In June 2013, in a joint announcement with ApoCell, Inc., we announced the results of a research collaboration with the University of Texas MD Anderson Cancer Center that coupled ApoCell's ApoStream™ platform for isolating circulating tumor cells (CTCs) with our ICE COLD-PCR technology to detect signature mutations in CTCs isolated from the blood of lung cancer patients. This small pilot study demonstrated that ICE COLD-PCR technology was able to detect a number of the mutations in CTCs that were found in matched tumors from the same patient. The results were presented at the ASCO 2013 Annual Meeting.

These studies, along with other collaborations currently ongoing at leading research institutes, continue to explore concordance rates between tumor tissue, cfDNA and CTCs isolated from patients using ICE COLD-PCR. The broad use of this innovative technology has the potential to revolutionize cancer screening, diagnosis, monitoring, and therapy selection since it has the ability to perform safer, less invasive, and more frequent assessments of a cancer and its mutations, all through a simple blood draw. We are also completing a review of future diagnostic applications and utility of the ICE COLD-PCR technology and products for commercial applications.

In May 2013, we announced our entry into a collaboration with Amgen, Inc. for the development and launch of CRC RAScan™, a CE-IVD test to screen patients with metastatic colorectal cancer (mCRC) for KRAS and NRAS mutations (collectively referred to as "RAS mutations"). In June 2013, Amgen presented results of a predefined-retrospective subset analysis of a global, multicenter, randomized Phase 3 study at the American Society of Clinical Oncology

(ASCO) 2013 Annual Meeting. The RAS mutations outlined in the study, identified using our CE-IVD CRC RAScan™ kits in conjunction with our Surveyor®-Wave® technology, provide physicians with important tumor mutation information that is highly relevant when considering administration of select EGFR inhibitor therapies for metastatic colorectal cancer. The CRC RAScan™ kit provides a single kit solution with superior sensitivity versus any other kit or sequencing method currently available.

CRC RAScan™ utilizes the DNA mismatch-cutting enzyme SURVEYOR Nuclease assay, developed exclusively by us. The SURVEYOR Nuclease assay can detect mutations at higher levels of sensitivity than stand-alone Sanger sequencing. CRC RAScan™ results can also be used to inform marginal or difficult to resolve sequencing results. Additionally, in gene regions where mutations exist at low frequencies, prescreening with CRC RAScan™ affords a cost and time-efficient workflow, as only CRC RAScan™ positive samples are advanced to the more complex and expensive Sanger sequencing analysis. In late 2013, Transgenomic also introduced CRC RASseq™, a CE-IVD mutation detection test kit for RAS mutations using traditional Sanger DNA sequencing systems.

We continue to progress our commercial collaboration with the Medical College of Wisconsin, a world-renowned institution with a robust presence in genomics and genetic testing. As a result of this collaboration, we have recently launched a number of new offerings addressing neurological and mitochondrial disorders, including whole exome testing, using a next generation sequencing platform.

In 2013, we consolidated our Patient Testing Laboratories and our Biomarker Identification Laboratory into a single business segment, which we now refer to as our Laboratory Services segment. We continue to anticipate growth in both our Laboratory Services and Genetic Assays and Platforms segments, as we commercialize new technologies and tests we have developed internally, in-licensed, or acquired, and as we expand into other markets and regions worldwide.

Results of Continuing Operations

Net Sales.

Net sales consisted of the following:

2013 vs. 2012 Dollars in Thousands

	Year Ended December 31,		Change	
	2013	2012	$	%
Laboratory Services	$15,391	$19,329	$(3,938)	(20)%
Genetic Assays and Platforms	12,153	12,151	2	— %
Total net sales	$27,544	$31,480	$(3,936)	(13)%

Laboratory Services net sales decreased $3.9 million during the year ended December 31, 2013, compared to 2012. Revenue decreased in 2013 compared to 2012 primarily due to overall lower test volumes, primarily in Neurology testing. The decline in revenue was partially offset by higher contract work associated with a collaboration agreement.

Genetic Assays and Platforms sales during the year ended December 31, 2013 were even with the level achieved in 2012. The change in sales was the result of modestly lower instruments sales in 2013 offset by an increase in our sales of Bioconsumables.

2012 vs. 2011 Dollars in Thousands

	Year Ended December 31,		Change	
	2012	2011	$	%
Laboratory Services	$19,329	$18,318	$1,011	6 %
Genetic Assays and Platforms	12,151	13,653	(1,502)	(11)%
Total net sales	$31,480	$31,971	$(491)	(2)%

Laboratory Services net sales increased $1.0 million during the year ended December 31, 2012, compared to 2011 due to higher test volumes, and a modest shift towards higher priced tests driven by sales of our recently launched NuclearMitome, C-GAAP and ScoliScore™ tests.

Genetic Assays and Platforms net sales decreased $1.5 million, or 11%, during the year ended December 31, 2012, as compared to 2011. We sold more instruments in 2012 than in 2011, but there was a shift in sales to our distributor at lower distributor prices, which resulted in lower sales. Bioconsumables net sales were down $0.7 million, during the year ended December 31, 2012 compared to 2011 due to lower volume in our European market.

Costs of Goods Sold.

Costs of goods sold include material costs for the products that we sell and substantially all other costs associated with our manufacturing facilities (primarily personnel costs, rent and depreciation) as well as the wholesale price we pay manufacturers of OEM Equipment that we distribute. It also includes direct costs (primarily personnel costs, rent, supplies and depreciation) associated with our Laboratory Services operations.

Gross Profit.

Gross profit and gross margins for each of our business segments were as follows:

2013 vs. 2012	Dollars in Thousands			
	Year Ended December 31,		Margin %	
	2013	2012	2013	2012
Laboratory Services	$6,820	$9,316	44 %	48 %
Genetic Assays and Platforms	5,676	5,694	47 %	47 %
Gross profit	$12,496	$15,010	45 %	48 %

Gross profit was $12.5 million, or 45%, of total net sales during the year ended December 31, 2013, compared to $15.0 million, or 48%, during the same period of 2012. During the year ended December 31, 2013, the gross margin for Laboratory Services was $6.8 million, or 44%, as compared to $9.3 million, or 48%, in the same period of 2012. The gross profit decline primarily reflects the lower test volumes noted above. Lower overall costs were more than offset by the sales decline. Genetic Assays and Platforms gross margin remained consistent in the year ended December 31, 2013 compared to the same period of 2012.

2012 vs. 2011	Dollars in Thousands			
	Year Ended December 31,		Margin %	
	2012	2011	2012	2011
Laboratory Services	$9,316	$10,528	48 %	57 %
Genetic Assays and Platforms	5,694	7,909	47 %	58 %
Gross profit	$15,010	$18,437	48 %	58 %

Gross profit during the year ended December 31, 2012 was $15.0 million, or 48%, of total net sales, compared to $18.4 million, or 58%, during the same period of 2011. During the year ended December 31, 2012, the gross margin for Laboratory Services was $9.3 million, or 49%, as compared to $10.5 million, or 57% in the same period of 2011. The change in the gross margin for the year ended December 31, 2012 is attributable to a change in the mix of tests performed and higher operating supplies, wages and software costs as we increased capacity in our anticipation of higher volume from our newly launched tests. Genetic Assays and Platforms gross margin decreased to 47% in the year ended December 31, 2012 from 58% in the same period of 2011 due to the shift to sales to our distributor at lower prices resulting in lower gross margins.

Operating expenses.

The following table summarizes operating expenses further described below for the years ended December 31, 2013, 2012 and 2011:

	Dollars in Thousands		
	Year Ended December 31,		
	2013	2012	2011
Selling, general and administrative	$25,043	$22,023	$19,150
Research and development	3,212	2,491	2,218
Restructuring charges	—	—	41
Total	$28,255	$24,514	$21,409

Selling, General and Administrative Expenses.

Selling, general and administrative expenses consist primarily of personnel costs, marketing, travel costs, professional fees, bad debt expense and facility costs. In addition, the effect of foreign currency revaluation is included here. Our selling, general and administrative costs increased to $25.0 million during the year ended December 31, 2013 compared to $22.0 million for the same period in 2012. The increase in selling, general and administrative costs primarily relates to a $3.0 million higher bad debt provision in 2013 as compared to 2012. In addition, the increased costs include severance costs in 2013 related to staffing reductions in the second quarter and an executive termination in the third quarter.

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Our selling, general and administrative costs increased to $22.0 million, from $19.2 million, during the year ended December 31, 2012 compared to 2011. The increase in our selling, general and administrative costs included $1.2 million in additional employee related expenses incurred to increase the size of our sales force to support the launch of both C-GAAP and ScoliScore™ and higher marketing materials expenses. In addition, our bad debt provision was $0.7 million higher during the year ended December 31, 2012 compared to 2011.

Research and Development Expenses.

Research and development expenses include primarily personnel costs, intellectual property legal fees, outside services, collaboration expenses, supplies, and facility costs and are expensed in the period in which they are incurred. During the year ended December 31, 2013 and 2012 these costs totaled $3.2 million and $2.5 million, respectively. Research and development expenses totaled 12% and 8% of net sales during the years ended December 31, 2013 and 2012, respectively. The increase is due in part to activities related to converting a number of our tests to a more efficient Next Generation Sequencing instrument platform, activities related to our programs validating the use of ICE COLD-PCR, and expanding our portfolio of tests and kits and the platforms on which they are performed.

During the years ended December 31, 2012 and 2011 research and development costs totaled $2.5 million and $2.2 million, respectively. Research and development expenses totaled 8% and 7% of net sales during the years ended December 31, 2012 and 2011, respectively.

Other Income (Expense).

The following table summarizes other income (expense) for the years ended December 31, 2013, 2012 and 2011:

	Dollars in Thousands		
	Year Ended December 31,		
	2013	2012	2011
Interest expense	$(642)	$(888)	$(958)
Preferred stock and warrants expenses	—	—	(6,066)
Income from change in fair value of warrants	300	2,200	—
Other, net	60	11	259
Total other income (expense), net	$(282)	$1,323	$(6,765)

Other expense, net for the year ended December 31, 2013 totaled $0.3 million. Other expense, net included interest expense, 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 income, net for the year ended December 31, 2012 totaled $1.3 million. Other income, net included the income associated with the change in fair value of the common stock warrants, offset by interest expense.

Other expense, net for the year ended December 31, 2011 totaled $6.8 million. Other expense, net included interest expense as well as the expense associated with the Series A Preferred Stock and Series A Warrants, which is due to the change in fair value of the preferred stock conversion feature and the consideration given to the owners of the Series A Convertible Preferred Stock in exchange for the Series A Preferred Stock Certificate Amendment. The expenses associated with the Series A Preferred Stock are non-cash items.

Income Tax (Benefit) Expense.

Income tax (benefit) expense recorded during the years ended December 31, 2013, 2012 and 2011 related to income taxes in states, foreign countries and other local jurisdictions and totaled $(0.1) million, $0.1 million, and less than $0.1 million, respectively. The effective tax rate for the year ended December 31, 2013 is 0.3%, which is primarily the result of valuation allowances against net operating losses for the United States, partially adjusted by permanent differences related to inter-company foreign currency exchange of our subsidiary outside the United States. The effective tax rate for the years ended December 31, 2012 and 2011 were negative 1.8% and negative 0.5%, respectively.

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 $121.7 million will

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expire at various dates from 2018 through 2033, if not utilized. We also had state income tax loss carry-forwards of $33.0 million at December 31, 2013. These carry-forwards will also expire at various dates from 2018 to 2033 if not utilized.

Liquidity and Capital Resources

Our working capital positions at December 31, 2013 and 2012 were as follows (in thousands):

	December 31, 2013	2012	Change
Current assets (including cash and cash equivalents of $1,626 and $4,497 respectively)	$11,835	$18,717	$(6,882)
Current liabilities	8,625	15,268	6,643
Working capital	$3,210	$3,449	$(239)

On March 5, 2014, Transgenomic entered into a Series B Convertible Preferred Stock Purchase Agreement (the "Purchase Agreement") with certain accredited investors and/or their affiliates (collectively, the "Investors"), pursuant to which Transgenomic, in a private placement, sold and issued to the Investors an aggregate of 1,443,297 shares of the Company's Series B Convertible Preferred Stock, par value $0.01 per share (the "Series B Preferred Stock"), at a price per share of $4.85 (the "Shares") for an aggregate purchase price of approximately $7,000,000 (the "Private Placement"). Each share of Series B Preferred Stock issuable pursuant to the Purchase Agreement is initially convertible into shares of the Company's common stock, par value $0.01 per share (the "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.

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

At December 31, 2013, we had cash and cash equivalents of $1.6 million and in March 2014 we received approximately $7.0 million in gross proceeds in connection with the Series B Convertible Preferred Stock Purchase Agreement. We believe that existing sources of liquidity as of December 31, 2013 along with the net proceeds of the March 2014 sale of Preferred Stock, are sufficient to meet expected cash needs. Accordingly, we believe we have sufficient liquidity to continue our operations for at least the next 12 months.

Analysis of Cash Flows

The following table presents a summary of our cash flows:

	(amounts in thousands)		
	2013	2012	2011
Net cash provided by (used in):			
Operating activities	$(8,473)	$(10,204)	$220
Investing activities	(1,766)	(4,878)	(508)
Financing activities	7,370	14,604	1,726
Effect of exchange rates on cash	(2)	29	54
Net increase (decrease) in cash and cash equivalents	$(2,871)	$(449)	$1,492

Net Change in Cash and Cash Equivalents. Cash and cash equivalents decreased by $2.9 million, decreased by $0.4 million and increased by $1.5 million for the periods ending December 31, 2013, 2012 and 2011, respectively.

Cash Flows Provided By (Used In) Operating Activities. We used cash for operating activities of $8.5 million and $10.2 million during 2013 and 2012, respectively. We provided cash from operating activities of $0.2 million during 2011. In 2013, cash flows used in operating activities of $8.5 million reflects the Company's cash loss from operations and an increase in accounts receivable of $2.8 million as a result of a slow-down in collections in Laboratory Services and high fourth quarter shipments in Genetic Assays and Platforms. A decrease in inventory of $1.1 million related to higher instrument sales and better inventory management partially offset the operating use. During 2012, the cash flows used in operating activities of $10.2 million includes an increase in accounts receivable of $2.9 million related to higher levels of past due receivables and an increase in inventories of $1.4 million to purchase additional OEM

instruments in anticipation of future sales, coupled with the cash loss from operations. In 2011, the cash provided of $0.2 million reflects cash income from operations offset by an increase in accounts receivable and inventory.

Cash Flows Used In Investing Activities. During 2013, the Company utilized $1.8 million of cash for investing activities, primarily related to additions to property, plant and equipment and patents of $0.9 million and final payment related to the 2012 acquisition of $0.9 million. During 2012, we acquired the intangible assets of ScoliScore™ for $4.4 million, $3.6 million of which we paid in 2012. We recorded purchases of property and equipment totaling $0.9 million and $0.2 million during 2012 and 2011, respectively.
Cash Flows Provided By Financing Activities. During 2013, we recorded net proceeds from a private placement with institutional and accredited investors of $7.6 million, received proceeds from borrowings of $6.6 million and recorded principal payments of $6.2 million to settle the PGxHealth note payable. During 2012, we recorded net proceeds from a private placement with institutional and accredited investors of $17.5 million. We recorded principal payments on notes payable totaling $2.6 million during 2012. During 2011, we recorded proceeds from short term notes payable totaling $3.0 million. In 2011, cash provided by financing activities reflects the excess of borrowings over payments.

Contractual Obligations and Other Commitments
At December 31, 2013, our contractual obligations and other commitments were as follows:

	(Amounts in thousands)						
	2014	2015	2016	2017	2018	After 2018	Total
Long term debt[1]	$242	$1,879	$4,439	$—	$—	$—	$6,560
Interest[1]	180	493	325	—	—	—	998
Capital lease obligations[2]	160	37	3	1	—	—	201
Operating lease obligations[3]	1,097	1,013	880	763	485	862	5,100
Purchase obligations[4]	887	—	—	—	—	—	887
	$2,566	$3,422	$5,647	$764	$485	$862	$13,746

(1) See Footnote 5 - "Debt" to our accompanying consolidated financial statements.
(2) See Footnote 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

At December 31, 2013 , we had unrecognized tax benefits of $0.3 million. A reasonable estimate of the timing related to the $0.3 million is not possible.

Off Balance Sheet Arrangements
At December 31, 2013 and 2012, 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 they 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 judgment or estimates may vary under different assumptions or circumstances. The following are certain critical accounting policies that may involve the use of judgment or estimates.

Allowance for Doubtful Accounts and Contractual Allowances.
While payment terms are generally 30 days, we have also provided extended payment terms of up to 90 days in certain cases. We operate globally and some of the international payment terms can be greater than 90 days. 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.
Goodwill is tested for impairment annually utilizing a combination of income and market approaches. The income approach applies a discounted cash flow methodology to the Company's future period projections and the market approach uses market available information on the Company. We perform this impairment analysis during the fourth quarter of each year or when a significant event occurs that may impact goodwill. Impairment may occur when the carrying value of the reporting unit exceeds its fair value. If the carrying value of the reporting unit exceeds its fair value, the fair value of all identifiable tangible and intangible assets and liabilities is determined as part of a hypothetical purchase price allocation to determine the amount of goodwill impairment. No impairment of goodwill has occurred to date.

Intangible Assets.
Intangible assets include intellectual property, patents and acquired products. At December 31, 2013, the Company revised its estimate of useful lives on certain intangible assets which will cause amortization expense in 2014 to be $0.4 million lower.
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.
3. Acquired Products. As a part of the FAMILION acquisition and acquisition of certain intangible assets from Axial, we acquired technology, in process technology, trademarks/tradenames, customer relationships, covenants not to compete and third party relationships. These costs will be amortized pursuant to the straight-line method over their

estimated economic life of seven to eight years. See Footnote 4 "Intangibles and Other Assets" to our accompanying consolidated financial statements.

We review our amortizable long lived assets for impairment whenever events indicate that the carrying amount of the asset (group) may not be recoverable. An impairment loss may be needed if the sum of the future undiscounted cash flows is less than the carrying amount of the asset (group). The amount of the loss would be determined by comparing the fair market value of the asset to the carrying amount of the asset (group). No loss has been recorded during the years ended December 31, 2013, 2012 or 2011.

Common Stock Warrants.

Our issued and outstanding 2012 warrants to purchase common stock do not qualify to be treated as equity, and accordingly, are recorded as a liability ("Common Stock Warrant Liability"). The Common Stock Warrant Liability was initially recorded at fair value using a Monte Carlo simulation model. 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.

Preferred Stock.

Prior to the 2011 modification, the Series A Preferred Stock met the definition of mandatorily redeemable stock as it was preferred capital stock which was redeemable at the option of the holder and therefore was reported outside of equity. The Series A Preferred Stock was accreted to its redemption value. Prior to the 2011 modification, the warrants to purchase shares of Series A Preferred Stock issued in December 2010 (the “Series A Warrants”) did not qualify to be treated as equity and, accordingly, were recorded as a liability. A preferred stock conversion feature was embedded within the Series A Preferred Stock that met the definition of a derivative. The Series A Preferred Stock, Series A Warrant liability and Series A Preferred Stock conversion feature were all recorded separately and were initially recorded at fair value using the Black-Scholes model. We were required to record these instruments at fair value at each reporting date and changes were recorded as an adjustment to earnings. The Series A Warrant liability and Series A Preferred Stock conversion feature were considered Level 3 financial instruments.

We entered into a transaction with the holders of the Series A Preferred Stock (the “Series A Holders”), pursuant to an Agreement Regarding Preferred Stock (the “Amendment Agreement”), in which the Series A Holders 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 stockholder meeting, vote to amend the Certificate of Designation for the Series A Preferred Stock to remove the anti-dilution and redemption features of the Series A Preferred Stock. In exchange, we issued shares of common stock to the Series A Holders having an aggregate market value of $0.3 million. Our stockholders approved the amendments to the Certificate of Designation for the Series A Preferred Stock at the 2012 Annual Meeting of Stockholders held on May 23, 2012, and we filed the Certificate of Designation for the Series A Preferred Stock with the Delaware Secretary of State on May 25, 2012.

As a result of the Amendment Agreement, the value 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.

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, 2013 had vesting periods of one or three years from date of grant. None of the stock options outstanding at December 31, 2013 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. Our liability for uncertain tax positions was $0.3 million and $0.3 million as of December 31, 2013 and 2012, respectively. We recorded less than $0.1 million of additional uncertain tax positions during the current year. We had no material interest or penalties during fiscal 2013 or fiscal 2012, 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.

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 Laboratory Services, net sales from Patient Testing labs are recognized on an individual test basis and take place when the test report is completed, reviewed and sent to the client less the reserve for insurance, Medicare and Medicaid contractual adjustments. There are no deferred net sales associated with our Patient Testing services. Adjustments to the allowances, based on actual receipts from third party payers, are reflected in the estimated contractual allowance applied prospectively. In our Biomarker Identification labs, 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 of Genetic Assays and Platforms products 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.

Translation of Foreign Currency.
Our foreign subsidiary uses the local currency of the country in which it is located as its functional currency. Its assets and liabilities are translated into U.S. dollars at the exchange rates in effect at the balance sheet date. Revenues and expenses are translated at the average rates during the period.

Comprehensive Income.
Accumulated other comprehensive income at December 31, 2013, 2012 and 2011 consisted of foreign currency translation adjustments, net of applicable tax. During 2011, we reclassified $1.3 million from accumulated other comprehensive income (loss) to accumulated deficit with no effect on total stockholders' equity or net loss.

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.

Recent Accounting Pronouncements
In February 2013, the Financial Accounting Standards Board (the “FASB”) issued Accounting Standards Update (“ASU”)No. 2013-02, Comprehensive Income (Topic 220): Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income, to improve the transparency of reporting reclassifications out of accumulated other comprehensive income. The amendments in the Update do not change the current requirements for reporting net income or other comprehensive income in financial statements. The new amendments will require an organization to present (either on the face of the statement where net income is presented or in the notes) the effects on the line items of net income of significant amounts reclassified out of accumulated other comprehensive income if the item reclassified is required under generally accepted accounting principles in the U.S. (“U.S. GAAP”) to be reclassified to net income in its entirety in the same reporting period. Additionally, for other amounts that are not required under U.S. GAAP to be reclassified in their entirety to net income in the same reporting period, an entity is required to cross-reference other disclosures required under U.S. GAAP to provide additional detail about those amounts. For public companies, the amendments were effective for reporting periods beginning after December 15, 2012. Our adoption of this guidance did not have a material impact on our consolidated financial statements.

In February 2013 FASB issued ASU No. 2013-04, Obligations Resulting from Joint and Several Liability Arrangements for Which the Total Amount of the Obligation Is Fixed at the Reporting Date (“ASU 2013-04”). ASU 2013-04 requires reporting and disclosure of obligations resulting from joint and several liability arrangements within

the scope of Subtopic 405-40 for which the total amount of the obligation is fixed at the reporting date. For public companies, ASU 2013-04 is effective for fiscal years and interim periods within those years beginning after December 15, 2013. The guidance in ASU 2013-04 is to be applied retrospectively for those obligations resulting from joint and several liability arrangements within the scope of Subtopic 405-40 that exist at the beginning of an entity's fiscal year of adoption. Earlier application is permitted. When adopted, ASU 2013-04 is not expected to materially impact our consolidated financial statements.

In March 2013, the FASB released ASU No. 2013-05, Foreign Currency Matters (Topic 830): Parent's Accounting for the Cumulative Translation Adjustment upon Derecognition of Certain Subsidiaries or Groups of Assets within a Foreign Entity or of an Investment in a Foreign Entity (a consensus of the FASB Emerging Issues Task Force)("ASU 2013-05"). ASU 2013-05 provides that, when a reporting entity (parent) ceases to have a controlling financial interest in a subsidiary or group of assets that is a nonprofit activity or a business within a foreign entity, the parent is required to release any related cumulative translation adjustment into net income. The provisions of ASU 2013-05 are effective for fiscal years, and interim periods within those years, beginning after December 15, 2013. When adopted, ASU 2013-05 is not expected to materially impact our consolidated financial statements.
In July 2013, the FASB issued ASU No. 2013-11, Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists. ASU 2013-11 provides explicit guidance on the financial statement presentation of an unrecognized tax benefit when a net operating loss carryforward, a similar tax loss, or a tax credit carryforward exists. The guidance is effective prospectively for fiscal years, and interim periods within those years, beginning after December 15, 2013, with an option for early adoption. We intend to adopt this guidance at the beginning of our first quarter of fiscal year 2014, and do not expect the adoption of this standard will have a material impact on our financial statements.

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 Board of Directors and Stockholders
Transgenomic, Inc.

We have audited the accompanying consolidated balance sheet of Transgenomic, Inc. and Subsidiary (the Company) as of December 31, 2013 and the related consolidated statements of operations, comprehensive loss, shareholders' equity, and cash flow for the year then ended December 31, 2013. 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 audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Transgenomic, Inc. and Subsidiary at December 31, 2013, and the consolidated results of their operations and their cash flows for the year then ended December 31, 2013, in conformity with U.S. generally accepted accounting principles.

/s/ Ernst & Young LLP
Hartford, CT
March 27, 2014

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders
Transgenomic, Inc.

We have audited the accompanying consolidated balance sheet of Transgenomic, Inc. and Subsidiary as of December 31, 2012, and the related consolidated statements of operations, comprehensive income, stockholders' equity, and cash flows for the years ended December 31, 2012 and 2011. 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 audits.

We conducted our audits 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. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes 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 opinions.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Transgenomic, Inc. and Subsidiary as of December 31, 2012, and the results of their operations and their cash flows for the years ended December 31, 2012 and 2011, in conformity with U.S. generally accepted accounting principles.

/s/ McGladrey LLP
Omaha, Nebraska
March 14, 2013

TRANSGENOMIC, INC. AND SUBSIDIARY
CONSOLIDATED BALANCE SHEETS
December 31, 2013 and 2012
(Dollars in thousands except per share data)

	2013	2012
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$1,626	$4,497
Accounts receivable (net of allowances for doubtful accounts of $3,838 and $2,171, respectively)	5,314	8,081
Inventories (net of allowances of $799 and $616, respectively)	3,957	5,092
Other current assets	938	1,047
Total current assets	11,835	18,717
PROPERTY AND EQUIPMENT:		
Equipment	11,255	10,682
Furniture, fixtures & leasehold improvements	3,874	3,848
	15,129	14,530
Less: accumulated depreciation	(13,126)	(12,340)
	2,003	2,190
OTHER ASSETS:		
Goodwill	6,918	6,918
Intangibles (net of accumulated amortization of $4,598 and $2,805, respectively)	9,195	10,764
Other assets	327	202
	$30,278	$38,791
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable	$2,860	$2,052
Accrued compensation	1,330	1,121
Current maturities of long term debt	242	6,171
Accrued expenses	2,037	3,686
Deferred revenue	1,088	1,171
Other current liabilities	1,068	1,067
Total current liabilities	8,625	15,268
LONG TERM LIABILITIES:		
Long term debt less current maturities	6,318	—
Common stock warrant liability	600	900
Other long-term liabilities	1,303	1,089
Accrued preferred stock dividend	1,986	1,260
Total liabilities	18,832	18,517
STOCKHOLDERS' EQUITY:		
Series A preferred stock, $.01 par value, 15,000,000 shares authorized, 2,586,205 shares issued and outstanding, respectively	26	26
Common stock, $.01 par value, 150,000,000 shares authorized, 7,353,695 and 5,970,477 shares issued and outstanding, respectively (1)	73	64
Additional paid-in capital (1)	179,459	171,538
Accumulated other comprehensive income	390	435
Accumulated deficit	(168,502)	(151,789)
Total stockholders' equity	11,446	20,274

	$30,278	$38,791

(1) The common stock shares and additional paid-in capital for all periods presented reflect the one-for-twelve reverse stock split which took effect on January 27, 2014.

See notes to consolidated financial statements.

TRANSGENOMIC, INC. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF OPERATIONS
Years Ended December 31, 2013, 2012 and 2011
(Dollars in thousands except per share data)

	2013	2012	2011
NET SALES	$27,544	$31,480	$31,971
COST OF GOODS SOLD	15,048	16,470	13,534
Gross profit	12,496	15,010	18,437
OPERATING EXPENSES:			
Selling, general and administrative	25,043	22,023	19,150
Research and development	3,212	2,491	2,218
Restructuring charges	—	—	41
	28,255	24,514	21,409
LOSS FROM OPERATIONS	(15,759)	(9,504)	(2,972)
OTHER INCOME (EXPENSE):			
Interest expense, net	(642)	(888)	(958)
Expense on preferred stock	—	—	(6,066)
Warrant revaluation	300	2,200	—
Other, net	60	11	259
	(282)	1,323	(6,765)
LOSS BEFORE INCOME TAXES	(16,041)	(8,181)	(9,737)
INCOME TAX (BENEFIT)EXPENSE	(54)	146	45
NET LOSS	$(15,987)	$(8,327)	$(9,782)
PREFERRED STOCK DIVIDENDS AND ACCRETION	(726)	(660)	(1,010)
NET LOSS AVAILABLE TO COMMON STOCKHOLDERS	$(16,713)	$(8,987)	$(10,792)
BASIC AND DILUTED LOSS PER COMMON SHARE (1)	$(2.30)	$(1.55)	$(2.62)
BASIC AND DILUTED WEIGHTED AVERAGE SHARES OF COMMON STOCK OUTSTANDING (1)	7,266,642	5,784,785	4,113,469

(1) Net loss per share and the number of shares used in the per share calculations for all periods presented reflect the one-for-twelve reverse stock split which took effect on January 27, 2014.

See notes to consolidated financial statements.

TRANSGENOMIC, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
Years Ended December 31, 2013, 2012 and 2011
(Dollars in thousands)

	2013	2012	2011
Net Loss	$(15,987)	$(8,327)	$(9,782)
Other Comprehensive Loss; foreign currency translation adjustment, net of tax	(45)	99	54
Comprehensive Loss	$(16,032)	$(8,228)	$(9,728)

See notes to consolidated financial statements.

TRANSGENOMIC, INC. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
Years Ended December 31, 2013, 2012 and 2011
(Dollars in thousands except share data)

	Preferred Stock		Common Stock					
	Outstanding Shares	Par Value	Outstanding Shares (1)	Par Value (1)	Additional Paid-in Capital (1)	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total
Balance, December 31, 2010	—	$—	4,107,473	$46	$140,182	$ (133,317)	$ 1,589	$8,500
Net loss	—	—	—	—	—	(9,782)		(9,782)
Foreign currency translation adjustment, net of tax	—	—	—	—	—	—	54	54
Non-cash stock-based compensation	—	—	—	—	1,010	—	—	1,010
Issuance of shares of stock	—	—	7,513	—	24	—	—	24
Preferred stock accretion	—	—	—	—	—	(410)	—	(410)
Amendment of preferred stock agreement	2,586,205	26	20,492	—	12,226	—	—	12,252
Dividends on preferred stock	—	—	—	—	—	(600)	—	(600)
Reclassification of other comprehensive income (loss)	—	—	—	—	—	1,307	(1,307)	—
Balance, December 31, 2011	2,586,205	$26	4,135,478	$46	$153,442	$ (142,802)	$ 336	$11,048
Net loss	—	—	—	—	—	(8,327)		(8,327)
Foreign currency translation adjustment, net of tax	—	—	—	—	—	—	99	99
Non-cash stock-based compensation	—	—	—	—	731	—	—	731
Issuance of shares of common stock	—	—	1,667	—	10	—	—	10
Private Placement, net	—	—	1,833,333	18	17,355			17,373
Dividends on preferred stock	—	—	—	—	—	(660)	—	(660)
Balance, December 31, 2012	2,586,205	$26	5,970,478	$64	$171,538	$ (151,789)	$ 435	$20,274
Net loss	—	—	—	—	—	(15,987)		(15,987)

Foreign currency translation adjustment, net of tax	—	—	—	—	—	—	(45)	(45)
Non-cash stock-based compensation	—	—	—	—	360	—	—	360
Private Placement, net	—		1,383,217	14	7,556	—		7,570
Dividends on preferred stock	—	—	—	—	—	(726)	—	(726)
Other	—	—	—	(5)	5	—	—	—
Balance, December 31, 2013	2,586,205	$26	7,353,695	$73	$179,459	$ (168,502)	$ 390	$11,446

(1) The common stock shares and additional paid-in capital for all periods presented reflect the one-for-twelve reverse stock split which took effect on January 27, 2014.

See notes to consolidated financial statements.

TRANSGENOMIC, INC. AND SUBSIDIARY
CONSOLIDATED STATEMENTS OF CASH FLOWS
Years Ended December 31, 2013, 2012 and 2011
(Dollars in thousands)

	2013	2012	2011
CASH FLOWS PROVIDED BY (USED IN) OPERATING ACTIVITIES:			
Net loss	$(15,987)	$(8,327)	$(9,782)
Adjustments to reconcile net loss to net cash flows provided by (used in) operating activities:			
Depreciation and amortization	2,748	2,278	2,101
Non-cash, stock based compensation	462	731	1,010
Provision for losses on doubtful accounts	5,548	2,468	1,738
Provision for losses on inventory obsolescence	217	129	48
Preferred stock revaluation	—	—	6,066
Warrant revaluation	(300)	(2,200)	—
Loss on disposal of fixed assets	9	23	—
Deferred income taxes	62	(25)	(133)
Other	(62)	—	—
Changes in operating assets and liabilities, net of acquisitions:			
Accounts receivable	(2,757)	(2,913)	(2,212)
Inventories	908	(1,373)	(620)
Prepaid expenses and other current assets	122	(209)	243
Accounts payable	801	(576)	1,028
Accrued liabilities	(371)	96	332
Other long term liabilities	127	(306)	401
Net cash flows provided by (used in) operating activities	(8,473)	(10,204)	220
CASH FLOWS USED IN INVESTING ACTIVITIES:			
Acquisitions	(849)	(3,551)	—
Purchase of property and equipment	(605)	(882)	(231)
Purchase of short term investments	—	(8,994)	—
Proceeds from the sale of short term investments	—	8,994	—
Change in other assets	(312)	(445)	(277)
Net cash flows used in investing activities	(1,766)	(4,878)	(508)
CASH FLOWS PROVIDED BY FINANCING ACTIVITIES:			
Proceeds from note payable	6,560	—	3,000
Principal payments on capital lease obligations	(348)	(328)	(391)
Payment of deferred financing costs	(241)	—	—
Issuance of common stock and related warrants, net	7,570	17,483	24
Principal payments on note payable	(6,171)	(2,551)	(907)
Net cash flows provided by financing activities	7,370	14,604	1,726
EFFECT OF FOREIGN CURRENCY EXCHANGE RATE CHANGES ON CASH	(2)	29	54
NET CHANGE IN CASH AND CASH EQUIVALENTS	(2,871)	(449)	1,492
CASH AND CASH EQUIVALENTS AT BEGINNING OF PERIOD	4,497	4,946	3,454
CASH AND CASH EQUIVALENTS AT END OF PERIOD	$1,626	$4,497	$4,946

SUPPLEMENTAL CASH FLOW INFORMATION			
Cash paid during the period for:			
Interest	$724	$964	$732
Income taxes, net	9	123	108
SUPPLEMENTAL DISCLOSURE OF NON-CASH INFORMATION			
Acquisition of equipment through capital leases	$—	$175	$756
Dividends accrued on preferred stock	726	660	600
Note payable converted to Equity	—	3,000	—
Acquisition of intangibles	—	849	—
Common stock issued for elimination of derivatives on preferred stock	—	—	300
Goodwill purchase price adjustment	—	—	165

See notes to consolidated financial statements.

TRANSGENOMIC, INC. AND SUBSIDIARY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
Years Ended December 31, 2013, 2012 and 2011

1. BUSINESS DESCRIPTION

Business Description.

Transgenomic, Inc.("we", "us","our Company" or "Transgenomic") is a global biotechnology company advancing personalized medicine in the detection and treatment of cancer and inherited diseases through its proprietary molecular technologies and world-class clinical and research services. Our operations are organized and reviewed by management along its product lines and presented in the following two complementary business segments.

- Laboratory Services. Our laboratories specialize in genetic testing for cardiology, neurology, mitochondrial disorders and oncology. Our Patient Testing laboratories located in New Haven, Connecticut and Omaha, Nebraska are certified under the Clinical Laboratory Improvement Amendment (“CLIA”) as high complexity labs and our Omaha facility is also accredited by the College of American Pathologists (“CAP”). Our Biomarker Identification laboratory located in Omaha, Nebraska also provides pharmacogenomics research services supporting Phase II and Phase III clinical trials conducted by pharmaceutical companies. Our laboratories employ a variety of genomic testing service technologies, including ICE COLD-PCR technology. ICE COLD-PCR is a proprietary platform technology that can be run in any laboratory with standard PCR technology and that enables detection of multiple unknown mutations from virtually any sample type including tissue biopsies, blood, cell-free DNA ("cfDNA") and circulating tumor cells (“CTCs”) at levels greater than 1,000-fold higher than standard DNA sequencing techniques.
- Genetic Assays and Platforms. Our proprietary product is the WAVE® System, which has broad applicability to genetic variation detection in both molecular genetic research and molecular diagnostics. We also distribute bioinstruments produced by other manufacturers (“OEM Equipment”) through our sales and distribution network. Service contracts to maintain installed systems are sold and supported by our technical support personnel. The installed WAVE base and some OEM Equipment platforms generate a demand for consumables that are required for the continued operation of the bioinstruments. We develop, manufacture and sell these consumable products. In addition, we manufacture and sell consumable products that can be used on multiple, independent platforms. These products include SURVEYOR® Nuclease and a range of chromatography columns.

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 our 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.

On January 15, 2014, the Board of Directors of the Company approved a reverse split of the Company's common stock, par value $0.01, at a ratio of one-for twelve. This reverse stock split became effective on January 27, 2014 and, unless otherwise indicated, all share amounts, per share data, share prices, exercise prices and conversion rates set forth in these notes and the accompanying consolidated financial statements have, where applicable, been adjusted retroactively to reflect this reverse stock split. Additionally, accrued preferred stock dividends have been re-classed to conform to the current year presentation.

TRANSGENOMIC, INC. AND SUBSIDIARY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
Years Ended December 31, 2013, 2012 and 2011

Fair Value.
Unless otherwise specified, book value approximates fair market 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 Footnote 12 Fair Value.
Cash and Cash Equivalents.
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

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 as of December 31, 2013.
Accounts Receivable.
The following is a summary of activity for the allowance for doubtful accounts during the years ended December 31, 2013, 2012 and 2011:

	Dollars in Thousands			
	Beginning Balance	Provision	Write Offs	Ending Balance
Year ended December 31, 2013	$2,171	$5,548	$(3,881)	$3,838
Year ended December 31, 2012	$1,088	$2,468	$(1,385)	$2,171
Year ended December 31, 2011	$334	$1,738	$(984)	$1,088

While payment terms are generally 30 days, we have also provided extended payment terms of up to 90 days in certain cases. We operate globally and some of the international payment terms can be greater than 90 days. 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.

The following is a summary of activity for the allowance for obsolete inventory during the year ended December 31, 2013, 2012 and 2011:

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TRANSGENOMIC, INC. AND SUBSIDIARY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
Years Ended December 31, 2013, 2012 and 2011

	Dollars in Thousands			
	Beginning Balance	Provision	Write Offs	Ending Balance
Year ended December 31, 2013	$616	$217	$(34)	$799
Year ended December 31, 2012	$511	$129	$(24)	$616
Year ended December 31, 2011	$518	$48	$(55)	$511

We determine the allowance for obsolescence by evaluating inventory quarterly for items deemed to be slow moving or obsolete.

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, 2013, 2012 and 2011 was $0.6 million, $0.8 million and $0.6 million, respectively. Included in depreciation for the years ended December 31, 2013, 2012 and 2011 was $0.3 million, $0.3 million and $0.2 million, respectively, related to equipment acquired under capital leases.

Goodwill.

Goodwill is tested for impairment annually utilizing a combination of income and market approaches. The income approach applies a discounted cash flow methodology to the Company's future period projections and the market approach uses market available information on the Company. We perform this impairment analysis during the fourth quarter of each year or when a significant event occurs that may impact goodwill. Impairment may occur when the carrying value of the reporting unit exceeds its fair value. If the carrying value of the reporting unit exceeds its fair value, the fair value of all identifiable tangible and intangible assets and liabilities is determined as part of a hypothetical purchase price allocation to determine the amount of goodwill impairment. No impairment of goodwill has occurred to date.

Intangibles.

Intangible assets include intellectual property, patents and acquired products. At December 31, 2013, the Company revised its estimate of useful lives on certain intangible assets which will cause amortization expense in 2014 to be $0.4 million lower.

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.

3. Acquired Products. As a part of the FAMILION acquisition and acquisition of certain intangible assets from Axial, we acquired technology, in process technology, trademarks/tradenames, customer relationships, covenants not to compete and third party relationships. These costs will be amortized pursuant to the straight-line method over their estimated economic life of seven to eight years. See Footnote 4 "Intangibles and Other Assets" to our accompanying consolidated financial statements.

We review our amortizable long lived assets for impairment whenever events indicate that the carrying amount of the asset (group) may not be recoverable. An impairment loss may be needed if the sum of the future undiscounted cash flows is less than the carrying amount of the asset (group). The amount of the loss would be determined by comparing the fair market value of the asset to the carrying amount of the asset (group). No loss has been recorded during the years ended December 31, 2013, 2012 or 2011.

TRANSGENOMIC, INC. AND SUBSIDIARY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
Years Ended December 31, 2013, 2012 and 2011

Common Stock Warrants.

Our issued and outstanding 2012 warrants to purchase common stock do not qualify to be treated as equity and accordingly, are recorded as a liability ("Common Stock Warrant Liability"). The Common Stock Warrant Liability was initially recorded at fair value using a Monte Carlo simulation model. 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 Footnote 12 - Fair Value.

Preferred Stock.

Prior to the 2011 modification, the Series A Preferred Stock met the definition of mandatorily redeemable stock as it was preferred capital stock which was redeemable at the option of the holder and therefore was reported outside of equity. The Series A Preferred Stock was accreted to its redemption value. Prior to the 2011 modification, the warrants to purchase shares of series A Preferred Stock ("Series A Warrants") did not qualify to be treated as equity and accordingly, were recorded as a liability. A preferred stock conversion feature was embedded within the Series A Preferred Stock that met the definition of a derivative. The Series A Preferred Stock, Series A Warrant liability and Series A Preferred Stock conversion feature were all recorded separately and were initially recorded at fair value using the Black-Scholes model. We were required to record these instruments at fair value at each reporting date and changes were recorded as an adjustment to earnings. The Series A Warrant liability and Series A Preferred Stock conversion feature were considered Level 3 financial instruments.

In November 2011, we entered into a transaction with the holders of the Series A Preferred Stock (the "Series A Holders"), pursuant to an Agreement Regarding Preferred Stock (the "Amendment Agreement"), in which the Series A Holders 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 stockholder meeting, vote to amend the Certificate of Designation for the Series A Preferred Stock to remove the anti-dilution and redemption features of the Series A Preferred Stock. In exchange, we issued shares of common stock to the Series A Holders having an aggregate market value of $0.3 million. Our stockholders approved the amendments to the Certificate of Designation for the Series A Preferred Stock at the 2012 Annual Meeting of Stockholders held on May 23, 2012, and we filed the Certificate of Designation for the Series A Preferred Stock with the Delaware Secretary of State on May 25, 2012.

As a result of the Amendment Agreement, the value 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.

Expense on Preferred Stock.

For 2011, we recorded expense associated with the Series A Preferred Stock and Series A Warrants of $6.1 million, which is due to the change in fair value of the Series A Preferred Stock conversion feature and Series A Warrant liability of $5.8 million and the issuance of $0.3 million in common stock to the investors of Series A Preferred Stock. The expense associated with the change in value of the Series A Preferred Stock conversion feature is a non-cash item. There was no expense on preferred stock in 2013 or 2012.

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, 2013 had vesting periods of one or three years from date of grant. None of the stock options outstanding at December 31, 2013 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 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

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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 Laboratory Services, net sales from Patient Testing labs are recognized on an individual test basis and take place when the test report is completed, reviewed and sent to the client less the reserve for insurance, Medicare and Medicaid contractual adjustments. There are no deferred net sales associated with our Patient Testing services. Adjustments to the allowances, based on actual receipts from third party payers, are reflected in the estimated contractual allowance applied prospectively. In our Biomarker Identification labs, 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. 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, 2013 and 2012, deferred net sales associated with pharmacogenomics research projects, included in the balance sheet in deferred revenue, was $0.2 million and $0.2 million, respectively.

Net sales of Genetic Assays and Platforms products 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. At December 31, 2013 and 2012, deferred net sales, mainly associated with our service contracts, included in the balance sheet in deferred revenue was approximately $0.9 million and $1.0 million, respectively.

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.

Translation of Foreign Currency.

Our foreign subsidiary uses the local currency of the country in which it is located as its functional currency. Its assets and liabilities are translated into U.S. dollars at the exchange rates in effect at the balance sheet date. A translation loss of 0.1 million is reported in other comprehensive income on the accompanying consolidated balance sheet as of December 31, 2013. A translation gain of $0.1 million was reported in other comprehensive income on the accompanying consolidated balance sheet as of December 31, 2012. Revenues and expenses are translated at the average rates during the period. For transactions that are not denominated in the functional currency, we recognized foreign currency translation income of less than $0.1 million for the year ended December 31, 2013 and foreign currency translation loss of less than $0.1 million for each of the years ended December 31, 2012 and 2011.

Other Income.

Other income in the year ended December 31, 2011 includes an award of a federal grant under the Qualifying Therapeutic Discovery Project related to COLD-PCR, Surveyor Scan kit development for detecting key cancer

pathway gene mutations and mtDNA damage assays. Income related to this federal grant net of consulting fees was $0.2 million. There was no such other income in the years ended December 31, 2013 and 2012.

Comprehensive Income.

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Accumulated other comprehensive income at December 31, 2013, 2012 and 2011 consisted of foreign currency translation adjustments, net of applicable tax of zero. During 2011, we reclassified $1.3 million from accumulated other comprehensive income (loss) to accumulated deficit with no effect on total stockholders' equity or net loss.

Earnings Per Share.

Basic earnings per share is calculated based on the weighted-average number of shares of common stock 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, as long as the effect is not anti-dilutive. Options, warrants and conversion rights pertaining to 3,785,709, 2,471,670 and 1,470,689 shares of our common stock have been excluded from the computation of diluted earnings per share at December 31, 2013, 2012 and 2011, respectively. The options, warrants and conversion rights that were exercisable in 2013, 2012 and 2011 were not included because the effect would be anti-dilutive due to the net loss.

Recently Issued Accounting Pronouncements.

In February 2013, the Financial Accounting Standards Board (the “FASB”) issued Accounting Standards Update (“ASU”)No. 2013-02, Comprehensive Income (Topic 220): Reporting of Amounts Reclassified Out of Accumulated Other Comprehensive Income, to improve the transparency of reporting reclassifications out of accumulated other comprehensive income. The amendments in the Update do not change the current requirements for reporting net income or other comprehensive income in financial statements. The new amendments will require an organization to present (either on the face of the statement where net income is presented or in the notes) the effects on the line items of net income of significant amounts reclassified out of accumulated other comprehensive income if the item reclassified is required under generally accepted accounting principles in the U.S. (“U.S. GAAP”) to be reclassified to net income in its entirety in the same reporting period. Additionally, for other amounts that are not required under U.S. GAAP to be reclassified in their entirety to net income in the same reporting period, an entity is required to cross-reference other disclosures required under U.S. GAAP to provide additional detail about those amounts. For public companies, the amendments were effective for reporting periods beginning after December 15, 2012. Our adoption of this guidance did not have a material impact on our consolidated financial statements.

In February 2013 FASB issued ASU No. 2013-04, Obligations Resulting from Joint and Several Liability Arrangements for Which the Total Amount of the Obligation Is Fixed at the Reporting Date (“ASU 2013-04”). ASU 2013-04 requires reporting and disclosure of obligations resulting from joint and several liability arrangements within the scope of Subtopic 405-40 for which the total amount of the obligation is fixed at the reporting date. For public companies, ASU 2013-04 is effective for fiscal years and interim periods within those years beginning after December 15, 2013. The guidance in ASU 2013-04 is to be applied retrospectively for those obligations resulting from joint and several liability arrangements within the scope of Subtopic 405-40 that exist at the beginning of an entity’s fiscal year of adoption. Earlier application is permitted. When adopted, ASU 2013-04 is not expected to materially impact our consolidated financial statements.

In March 2013, the FASB released ASU No. 2013-05, Foreign Currency Matters (Topic 830): Parent's Accounting for the Cumulative Translation Adjustment upon Derecognition of Certain Subsidiaries or Groups of Assets within a Foreign Entity or of an Investment in a Foreign Entity (a consensus of the FASB Emerging Issues Task Force)(“ASU 2013-05”). ASU 2013-05 provides that, when a reporting entity (parent) ceases to have a controlling financial interest in a subsidiary or group of assets that is a nonprofit activity or a business within a foreign entity, the parent is required to release any related cumulative translation adjustment into net income. The provisions of ASU 2013-05 are effective for fiscal years, and interim periods within those years, beginning after December 15, 2013. When adopted, ASU 2013-05 is not expected to materially impact our consolidated financial statements.

In July 2013, the FASB issued Accounting Standards Update, or ASU, No. 2013-11, Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists. ASU 2013-11 provides explicit guidance on the financial statement presentation of an unrecognized tax benefit when a net

operating loss carryforward, a similar tax loss, or a tax credit carryforward exists. The guidance is effective prospectively for fiscal years, and interim periods within those years, beginning after December 15, 2013, with an option for early adoption. The Company intends to adopt this guidance at the beginning of our first quarter of fiscal year 2014, and does not expect the adoption of this standard will have a material impact on its financial statements.

3. INVENTORIES

Inventories (net of allowance for slow moving and obsolescence) consisted of the following:

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	Dollars in Thousands	
	December 31, 2013	December 31, 2012
Finished goods	$2,978	$4,057
Raw materials and work in process	1,567	1,547
Demonstration inventory	211	104
	$4,756	$5,708
Less allowances	(799)	(616)
Total	$3,957	$5,092

4. INTANGIBLE ASSETS AND OTHER ASSETS

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

	Dollars in Thousands					
	December 31, 2013			December 31, 2012		
	Cost	Accumulated Amortization	Net Book Value	Cost	Accumulated Amortization	Net Book Value
Acquired technology	$9,009	$3,175	$5,834	$9,009	$1,910	$7,099
Assay royalties	1,434	614	820	1,434	410	1,024
Third party payor relationships	367	73	294	367	49	318
Tradenames and trademarks	824	233	591	824	115	709
Customer relationships	652	54	598	652	11	641
Covenants not to compete	184	77	107	184	15	169
Patents	1,153	336	817	929	280	649
Intellectual property	170	36	134	170	15	155
	$13,793	$4,598	$9,195	$13,569	$2,805	$10,764

	Estimated Useful Life
Acquired technology	7 – 10 years
Assay royalties	7 years
Third party payor relationships	15 years
Tradenames and trademarks	7 years
Customer relationships	15 years
Covenants not to compete	3 years
Patents	Life of the patent
Intellectual property	7 years

Amortization expense for intangible assets was $1.9 million, $1.4 million and less than $1.3 million during the years ended December 31, 2013, 2012 and 2011. At December 31, 2013, the Company revised its estimate of useful lives on certain intangible assets which will cause amortization expense in 2014 to be $0.4 million lower. Amortization expense for intangible assets for each of the five succeeding fiscal years is expected to be $1.4 million, $1.3 million, $1.3 million, $1.3 million and 1.0 million for the years ended December 31, 2014, 2015, 2016, 2017 and 2018, respectively.

Other assets include U.S. security deposits and deferred tax assets, net of applicable valuation allowances.

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5. DEBT

	Dollars in Thousands Year Ended December 31,	
	2013	2012
Revolving Line [1]	$2,560	$—
Term Loan [2]	4,000	—
PGxHealth note payable (the "First Note") [3]	—	6,171
Total debt	6,560	6,171
Current portion of long term debt	(242)	(6,171)
Long term debt, net of current maturities	$6,318	$—

On March 13, 2013 (the "Effective Date"), we entered into a Loan and Security Agreement with affiliates of Third Security, LLC (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") of $4.0 million (the "Loan Agreement"). Proceeds were used to pay off the First Note 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, reduces our future minimum revenue covenants under the Loan Agreement and modifies 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 is effective as of October 31, 2013, reduces 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"). The Fourth Amendment provides that we will not be required to make any principal or interest payments under the Term Loan for the period from March 1, 2014 through March 31, 2015. Accordingly, pursuant to the Loan Agreement as amended by the Fourth Amendment, the next principal and interest payment under the Term Loan will be due on April 1, 2015.

(1) Revolving Line of Credit. Amounts advanced under the Revolving Line bear 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, 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 6.25%. 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 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 September 1, 2016.

(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 Fourth Amendment, we are required to make monthly payments of interest to the Lenders commencing on April 1, 2015. The current interest rate is 9.1%.

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 5% of the total outstanding balance under the Term Loan if the prepayment occurs within one year after the Effective Date, 2.5% of the total outstanding balance under the Term Loan if the prepayment occurs between one and two years after the Effective Date, and 1% of the total outstanding balance under the Term Loan if the prepayment occurs thereafter.

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Additional Terms
The Loan Agreement contains affirmative and negative covenants. Under the Term Loan, 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, 2013, the Company was in compliance with the minimum revenue covenant. The Company was not in compliance with the minimum liquidity ratio. Pursuant to the Third Amendment, the Lenders agreed to waive the event of default.

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.

(3) First Note. The First Note was 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. Interest was payable at 10% per year with quarterly interest payments through March 29, 2012. Thereafter, quarterly installments included both principal and interest through December 30, 2013. The First Note was paid in full on March 13, 2013.

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

2014	$242
2015	1,879
2016	4,439
	$6,560

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, 2013	December 31, 2012
Equipment	$1,514	$1,323
Less: Accumulated amortization	(721)	(420)
Total	$793	$903

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, 2013.
Year ending December 31:

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	Dollars in Thousands
2014	$ 160
2015	37
2016	3
2017	1
Total minimum lease payments	$ 201
Less: Amount representing interest	(17)
Present value of net minimum lease payments	$ 184

The short term portion of our capital leases is included in accrued expenses and the long term portion is included in other long-term liabilities on the Balance Sheet. Included in depreciation for the years ended December 31, 2013, 2012 and 2011 was $0.3 million, $0.3 million and less than $0.2 million, respectively, related to equipment acquired under capital leases.

7. COMMITMENTS AND CONTINGENCIES

We are subject to a number of claims of various amounts, which arise out of the normal course of business. In the opinion of management, the disposition of pending claims will not have a material adverse effect on our financial position, results of operations or cash flows.

Rent expense under all operating leases, was $1.0 million, $1.0 million and $0.9 million in 2013, 2012 and 2011, respectively. 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. Future minimum lease payments under non-cancellable operating leases are as follows (in thousands):

2014	$1,097
2015	1,013
2016	880
2017	763
2018	485
thereafter	862
	$5,100

At December 31, 2013, firm commitments to vendors totaled $0.9 million.

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8. INCOME TAXES

The Company's provision for income taxes for the years ended December 31, 2013, 2012 and 2011 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		
	2013	2012	2011
Benefit at federal rate	$(5,454)	$(2,781)	$(3,311)
Increase (decrease) resulting from:			
State income taxes—net of federal benefit	(518)	2	2
Foreign subsidiary tax rate difference	(3)	(27)	(94)
Tax contingency	23	22	28
Expiring net operating loss carryforwards	—	1,472	988
Earnings repatriation	—	582	—
Miscellaneous permanent differences	155	284	332
Liability warrants	(102)	(748)	2,062
Tax credits	—	215	—
State, net operating loss expiration/true-up	1,179	—	—
Other—net	(80)	15	(53)
Valuation allowance	4,746	1,110	91
Total income tax (benefit) expense	$(54)	$146	$45

	Dollars in Thousands		
	2013	2012	2011
Federal:			
Current	$—	$—	$16
Deferred	—	—	—
Total Federal	$—	$—	$16
State:			
Current	$—	$3	$3
Deferred	—	—	—
Total State	$—	$3	$3
Foreign:			
Current	$20	$46	$159
Deferred	(74)	97	(133)
Total Foreign	$(54)	$143	$26
Total Tax Provision	$(54)	$146	$45

The Company's deferred income tax asset at December 31, 2013 and 2012 is comprised of the following temporary differences:

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	Dollars in Thousands	
	2013	2012
Deferred Tax Asset:		
Net operating loss carryforward	$42,950	$39,481
Research and development credit carryforwards	951	1,017
Deferred revenue	174	188
Inventory	275	224
Other	1,997	1,111
	46,347	42,021
Less valuation allowance	(46,088)	(41,342)
Deferred Tax Asset	$259	$679
Deferred Tax Liability:		
Foreign earnings	$25	$398
Property and equipment	186	300
Deferred Tax Liability	$211	$698
Net Deferred Asset (Liability)	$48	$(19)

At December 31, 2013, we had total unused federal tax net operating loss carryforwards of $121.7 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	12,137
	$121,659

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. At December 31, 2013, we had unused state tax net operating loss carryforwards of approximately $33.0 million that expire at various times beginning in 2014. At December 31, 2013, we had unused research and development credit carry-forwards of $1.0 million that expire at various times between 2014 and 2024. A valuation allowance has been provided for the remaining deferred tax assets, due to the cumulative losses in recent years and an inability to utilize any additional losses as carrybacks. 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.

Our liability for uncertain certain tax positions, which was included in other long term liabilities, was $0.3 million as of December 31, 2013 and 2012. We recorded less than $0.1 million of additional uncertain tax positions during each of the years

ended 2013 and 2012. We had no material interest or penalties during fiscal 2013 or fiscal 2012, 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 2010 through 2013. We have state income tax returns subject to examination primarily for tax years 2010 through 2013. 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 2010 through 2013.

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. Effective October 1, 2010, Transgenomic discontinued matching employee 401(k) contributions. Beginning January 1, 2012, we reinstated matching employee 401(k) contributions. We currently 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 $0.4 million, $0.3 million and zero for the years ended December 31, 2013, 2012 and 2011, respectively.

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 shall not 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 are using the net proceeds from the Offering for general corporate and working capital purposes, primarily to accelerate development of several of our key initiatives.

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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 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 above 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.

Common Stock Warrants.

There were 840,939 common stock warrants issued during the 12 months ended December 31, 2013 and none of the issued warrants were exercised. Included in the warrants issued in 2013 were 149,272 warrants issued due to re-pricing requirements of the Private Placement. Common stock warrants issued during the 12 months ended December 31, 2012 were 948,333 and none of the issued warrants were exercised. Warrants to purchase an aggregate of 2,220,281 shares of common stock were outstanding at December 31, 2013.

Warrant Holder	Issue Year	Expiration	Underlying Shares	Exercise Price
Third Security Investors[1]	2010	December 2015	431,025	$6.96
Various Institutional Holders[2]	2012	February 2017	952,925	$12.96
Third Security Investors[2]	2012	February 2017	144,675	$12.96
Various Institutional Holders[3]	2013	January 2018	441,656	$9.00
Third Security Investors[3]	2013	January 2018	250,000	$9.00
			2,220,281	

(1) This Warrant was issued in connection with the issuance of warrants to purchase shares of our Series A Preferred Stock to the Third Security Investors in December 2010. The number of underlying shares shown reflects the number of shares of common stock issuable upon conversion of the shares of Series A Preferred Stock for which this Warrant is currently exercisable.

(2) 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.

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

Preferred Stock.

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 Series A Convertible Preferred Stock Purchase Agreement (the “Series A Purchase Agreement”), in which we: (i) sold an aggregate of

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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. During the years ended December 31, 2013 and 2012, we recorded $0.7 million and $0.6 million in accrued dividends, respectively.
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.

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. As of December 31, 2013, the Company was authorized to issue 833,333 shares under the Plan; provided, that no more than

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416,667 of such shares may be used for grants of restricted stock, restricted stock units, performance units, performance shares and other awards.

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. To date, the only awards made under the Plan have been non-incentive stock options.

For the year ended December 31, 2013, 2012 and 2011, we recorded compensation expense of $0.5 million, $0.7 million and $1.0 million, respectively within selling, general and administrative expense. As of December 31, 2013, there was $1.4 million of unrecognized compensation expense related to unvested stock options, which is expected to be recognized over a weighted average period of approximately three years.

The fair value of the options and SARs granted during 2013 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 0.73% to 1.75%, based on the U.S. Treasury yield in effect at the time of grant; dividend yields of zero percent; expected lives of four to five years, based on historical exercise activity; and volatility of 105% to 106% for grants made during the year ended December 31, 2013 based on the historical volatility of our stock over a time that is consistent with the expected life of the option. A small group of senior executives hold the majority of the stock options granted in 2013 and are expected to hold the options until they are vested. Forfeitures of 2% to 4% have been assumed in the calculation.

The fair value of the options granted during 2012 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 0.62% to 1.03%, based on the U.S. Treasury yield in effect at the time of grant; dividend yields of zero percent; expected lives of five to eight years, based on historical exercise activity; and volatility of 101% to 114% for grants made during the year ended December 31, 2012 based on the historical volatility of our stock over a time that is consistent with the expected life of the option. Forfeitures of 2% to 4% have been assumed in the calculation.

The fair value of the options granted during 2011 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 0.92% to 2.16%, based on the U.S. Treasury yield in effect at the time of grant; dividend yields of zero percent; expected lives of five years, based on historical exercise activity; and volatility of 105% to 107% for grants made during the year ended December 31, 2011 based on the historical volatility of our stock over a time that is consistent with the expected life of the option. Forfeitures of 1% to 4% have been assumed in the calculation.

The weighted average grant date fair value per share of options granted during the years ended December 31, 2013, 2012 and 2011 was $3.72, $9.72 and $9.96 respectively.

Stock Options.

The following table summarizes stock option activity under the Plan during the year ended December 31, 2013:

	Number of Options	Weighted Average Exercise Price
Balance at January 1, 2013:	362,764	$12.60
Granted	421,667	4.56
Forfeited	(80,889)	(9.48)
Expired	(138,514)	(12.48)
Balance at December 31, 2013:	565,028	$6.60

Exercisable at December 31, 2013	153,793	$12.72

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

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As of December 31, 2013, 565,028 outstanding options were expected to vest. The weighted average exercise price of these options was $6.60 and the aggregate intrinsic value was $0.5 million with a remaining weighted average contractual life of 8.7 years.
As of December 31, 2013, 153,793 options were exercisable with a weighted average exercise price of $12.72 and an aggregate intrinsic value of less than $10 thousand. The weighted average contractual life of these options was 6.2 years.
No options were exercised in 2013. During 2012 and 2011, 1,667 and 2,500 shares were exercised, respectively, with an intrinsic value of less than $10,000.
The total fair value of shares that vested during 2013, 2012 and 2011 was $0.6 million, $0.6 million and $0.3 million, respectively.
Stock Appreciation Rights (“SARs”).
The following table summarizes SARs activity under the Plan during the year ended December 31, 2013:

	Number of Options	Weighted Average Exercise Price
Balance at January 1, 2013:	—	$—
Granted	138,333	4.32
Balance at December 31, 2013:	138,333	$4.32
Exercisable at December 31, 2013	—	$—

All SARs outstanding were issued to officers.
As of December 31, 2013, 138,333 outstanding SARs shares were expected to vest. The weighted average exercise price of these options was $4.32 and the aggregate intrinsic value was $0.4 million with a remaining weighted average contractual life of 4.5 years.
As of December 31, 2013, zero SARs shares were exercisable and no SARs shares were exercised in 2013, 2012 and 2011. At December 31, 2013, a liability of $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 long term debt is considered a Level 3 liability for which book value approximates fair market value due to the variable interest rate it bears.

Common Stock Warrant Liability
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. The Common Stock Warrant Liability represents the fair value of the 0.9 million warrants

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issued in February 2012. 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 Common Stock 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 $5.52 as of December 31, 2013; the amount of the down-round financing, the timing of the down-round financing, the expected exercise period of 3.11 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 45% based on implied and historical rates over the expected term and the risk-free interest rate of 0.78% based on the 3 year U.S. Treasury yield interpolated from the 3 year and 5 year U.S. Treasury bonds.

Simulated Business Inputs include: the probability of down-round financing, which was estimated to be 45% 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 45% 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, 2013, 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, 2013
Balance at December 31, 2012	$900
Total gains or losses:	
Recognized in earnings	(300)
Balance at December 31, 2013	$600

Preferred Stock Warrant Liability and Conversion Feature

Prior to November 2011, we were required to record our 0.4 million of Series A Preferred Stock warrants and the Series A Preferred Stock's conversion feature at their respective fair values at each reporting date and changes were recorded as an adjustment to earnings. The gains or losses included in earnings were reported in other income (expense) in our Statement of Operations.

Due to a change in terms we are no longer required to recognize the Series A Preferred Stock warrant and Series A Preferred Stock conversion feature as liabilities. They were reclassified into stockholders' equity as of the date of the amended agreement.

The Series A Preferred Stock warrant liability and Series A Preferred Stock conversion feature were considered Level 3 financial instruments and were valued using the Black-Scholes call option pricing formula, which approximates a binomial model for the Series A Preferred Stock conversion feature. This method is among the most common and widely used valuation approaches for call options. The model relates an option's value to five variables: the current price of the underlying asset, the strike price of the option, the time to expiration or exercise of the option, a risk free

interest rate, and the volatility of the underlying asset.

The following assumptions were used in the November 8, 2011 valuation of the Series A Preferred Stock conversion feature: the closing share price of our common stock on November 8, 2011 discounted 15% due to the lack of marketability and liquidity, an exercise price of $0.39, expected term of 4.00 years, risk-free interest rate of 0.65% based on a linear interpolation of 3 year and five year U.S. Treasury rates and volatility of 50%.

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The following assumptions were used in the November 8, 2011 valuation of the Series A Preferred Stock warrants: an exercise price of $2.32, expected term of 1.0 years, risk-free interest rate of 0.25% based on a one year U.S. Treasury and volatility of 50%.

During the year ended December 31, 2011, the changes in the fair value of the liabilities measured using significant unobservable inputs (Level 3) were comprised of the following:

	Dollars in Thousands For the year ended December 31, 2011		
	Preferred Stock Conversion Feature	Preferred Stock Warrant Liability	Total
Beginning balance at January 1, 2011	$1,983	$2,351	$4,334
Total gains or losses:			
Recognized in earnings	5,317	449	5,766
Balance at November 8, 2011	7,300	2,800	10,100
Reclassification to stockholders' equity due to Amendment Agreement	(7,300)	(2,800)	(10,100)
Balance as of December 31, 2011	$—	$—	$—

The change in unrealized gains or losses of Level 3 liabilities is included in earnings and is reported in other income (expense) in our Statement of Operations.

13. SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)

	In thousands except per share data			
	March 31	June 30	September 30	December 31
2013				
Net Sales	$7,374	$7,306	$6,646	$6,218
Gross Profit	3,681	3,410	2,851	2,554
Net Loss	(3,586)	(2,867)	(5,552)	(3,982)
Basic and diluted loss per common share	$(0.54)	$(0.41)	$(0.78)	$(0.57)
2012				
Net Sales	$7,206	$9,093	$7,889	$7,292
Gross Profit	3,104	4,562	3,800	3,544
Net Income (Loss)	(2,696)	(563)	(2,754)	(2,314)
Basic and diluted loss per common share	$(0.55)	$(0.12)	$(0.49)	$(0.42)

14. OPERATING SEGMENT AND GEOGRAPHIC INFORMATION

Our company’s chief operating decision-maker is the Chief Executive Officer, who regularly evaluates our performance based on net sales and gross profit. The preparation of this segment analysis requires management to make estimates and assumptions around expenses below the gross profit level. While we believe the segment information to be materially correct, actual results could differ from the estimates and assumptions used in preparing

this information.

We have two reportable operating segments, Laboratory Services and Genetic Assays and Platforms. These lines of business are complementary with the Biomarker Identification labs driving innovation and leading to kit production in our Genetic Assays and Platforms segment and new tests in our Patient Testing labs.

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The accounting policies of the segments are the same as the policies discussed in Footnote 2 – Summary of Significant Accounting Policies.

Segment information for the years ended December 31, 2013, 2012 and 2011 is as follows:

	Dollars in Thousands 2013		
	Laboratory Services	Genetic Assays and Platforms	Total
Net Sales	$15,391	$12,153	$27,544
Gross Profit	6,820	5,676	12,496
Net Loss before Taxes	(12,486)	(3,555)	(16,041)
Income Tax Expense	—	(54)	(54)
Net Loss	$(12,486)	$(3,501)	$(15,987)
Depreciation/Amortization	$2,467	$281	$2,748
Interest Expense	(398)	(244)	(642)
	December 31, 2013		
Total Assets	$21,711	$8,567	$30,278
Goodwill	6,918	—	6,918

	Dollars in Thousands 2012		
	Laboratory Services	Genetic Assays and Platforms	Total
Net Sales	$19,329	$12,151	$31,480
Gross Profit	9,316	5,694	15,010
Net (Loss) before Taxes	(6,874)	(1,307)	(8,181)
Income Tax Expense	—	146	146
Net (Loss)	$(6,874)	$(1,453)	$(8,327)
Depreciation/Amortization	$1,960	$318	$2,278
Interest Expense	(851)	(37)	(888)
	December 31, 2012		
Total Assets	$29,196	$9,595	$38,791
Goodwill	6,918	—	6,918

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	Dollars in Thousands		
	2011		
	Laboratory Services	Genetic Assays and Platforms	Total
Net Sales	$18,318	$13,653	$31,971
Gross Profit	10,528	7,909	18,437
Net Loss before Taxes	(11,370)	1,633	(9,737)
Income Tax Expense	—	45	45
Net Loss	$(11,370)	$1,588	$(9,782)
Depreciation/Amortization	$1,810	$291	$2,101
Restructure	29	12	41
Interest Expense	(958)	—	(958)
	December 31, 2011		
Total Assets	$23,668	$9,894	$33,562
Goodwill	6,440	—	6,440

Net sales for the year ended December 31, 2013, 2012 and 2011 by country were as follows:

	Dollars in Thousands		
	Years Ended December 31,		
	2013	2012	2011
United States	$20,119	$22,727	$22,626
Italy	1,530	2,524	3,152
Germany	1,218	907	750
United Kingdom	748	1,703	778
France	681	679	758
All Other Countries	3,248	2,940	3,907
Total	$27,544	$31,480	$31,971

No other country accounted for more than 5% of total net sales.

More than 99% of our long-lived assets are located within the United States. Substantially all of the remaining long-lived assets are located within Europe.

15. ACQUISITIONS

ScoliScore™
On September 21, 2012, we acquired certain intangible assets from Axial Biotech, Inc. ("Axial") related to the ScoliScore™ assay. In consideration for the purchase of the intangible assets, we made a cash payment of approximately $3.4 million to Axial and certain of its creditors. In addition, following the transfer of all of the assets related to the ScoliScore™ assay and confirmation that the ScoliScore™ assay operates, within our laboratories pursuant to protocol agreed upon by us and Axial, during the years ended December 31, 2012 and 2013 we paid an additional $0.2 million and $0.8 million, respectively, to Axial and certain of its creditors. The total consideration paid was $4.4 million. This acquisition provides us with the ScoliScore™ assay technology and intellectual property, and an established revenue and customer base.
The following intangible assets were each valued separately using valuation approaches most appropriate for each specific asset.

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Acquired technology	Relief from Royalty Method
Tradenames	Relief from Royalty Method
Customer relationships	Multi-Period Excess Earnings Method
Covenants not to compete	With and Without Method
Patents	Relief from Royalty Method

The Income Approach uses valuation techniques to convert future amounts, cash flows or earnings, to a single, discounted amount. The fair value measure is based on the value that is indicated by market expectations about the present value of those future amounts.

The Relief from Royalty Method assumes that if the Company did not have proprietary ownership of the genetic testing processes on which its revenues depend, it might elect to lease the rights or licenses from another company. The fair value is measured as the estimated discounted cash flows of the royalty payments avoided by ownership.

The Multi Period Excess Earnings Method measures the fair value as the estimated discounted cash flows of the existing customer relationships over a period during which revenues from existing customer relationships are assumed to have been substantially replaced by revenues from future customers.

The With and Without Method measures the fair value of the non-competition agreements as the probability adjusted difference between the estimated discounted cash flows with and without the effect of competition. The model that includes competition includes lost revenues as well as increased expenses required to rebuild the lost revenues.

The acquired intangibles have the following useful lives; acquired technology - 10 years; third party payor relationships - 15 years; assay royalties 7 years; tradenames and trademarks - 7 years.

The assets acquired were $3.9 million in identifiable intangible assets and $0.5 million in goodwill. No liabilities were assumed. The acquired assets are reported as a component of our laboratory services segment.

The goodwill arising from the acquisition has been assigned to our Laboratory Services segment and is expected to be deductible for tax purposes.

16. RESTRUCTURING CHARGES

In the third quarter of 2010 we made a decision to consolidate our research and development activities in Omaha, Nebraska. We substantially completed the transition at December 31, 2010. We have recognized expenses for restructuring, including but not limited to, severance, facility costs and costs to move equipment from Gaithersburg, Maryland to Omaha, Nebraska. These restructuring charges are attributable to our Clinical Laboratories (now Laboratory services) and Diagnostic Tools (now Genetic Assays and Platforms) segments.

In the fourth quarter of 2010 we had a reduction in workforce of five employees with severance payments of less than $0.1 million which was attributable to our Diagnostic Tools (now Genetic Assays and Platforms) segment.

Restructuring charges include:

	Dollars in Thousands Costs Incurred in the year ended December 31, 2011	Cumulative Costs Incurred at December 31, 2011	Total Expected Costs
Severance and related costs	$—	$53	$53
Facility closure costs	28	74	74

Other	13	52	52
Restructuring charges	$41	$179	$179

17. SUBSEQUENT EVENTS

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Amended Certificate of Incorporation and Reverse Stock Split

At a special meeting of stockholders of Transgenomic held on January 14, 2014 (the "Special Meeting"), the stockholders of the Company approved the authorization of the Board to, in its discretion, amend the Company's Third Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation") to effect a reverse split of the Company's common stock, par value $0.01 at a ratio of between one-for-four to one-for-twenty-five, with such ratio to be determined by the Board. On January 15, 2014, the Board determined to set the reverse stock split ratio at one-for-twelve (the "Reverse Stock Split") and approved the final form of Certificate of Amendment to the Certificate of Incorporation to effectuate the Reverse Stock Split (the "Certificate of Amendment"). The Certificate of Amendment was filed with the Secretary of State of the State of Delaware on January 24, 2014, and the Reverse Stock Split became effective in accordance with the terms of the Certificate of Amendment at 5:00 p.m. Central Time on January 27, 2014 (the "Effective Time").

At the Effective Time, every 12 shares of common stock issued and outstanding were automatically combined into one share of issued and outstanding common stock, without any change in the par value per share. No fractional shares were issued as a result of the Reverse Stock Split. Stockholders who otherwise would be entitled to receive a fractional share in connection with the Reverse Stock Split received a cash payment in lieu thereof.

After giving effect to the Reverse Stock Split, the common stock and outstanding preferred stock have the same proportional voting rights and rights to dividends and distributions and are identical in all other respects to the rights of the common stock and preferred stock as of immediately prior to the Effective Time (with the conversion rate of the outstanding Series A Convertible Preferred Stock being proportionately reduced), except for immaterial changes and adjustments resulting from the treatment of fractional shares.

Increase in Shares Available for Issuance Pursuant to 2006 Equity Incentive Plan

At the Special Meeting, the stockholders of the Company approved amendments to the Plan to increase the number of shares of common stock that may be issued under the Plan by 833,333 shares and to provide for a corresponding increase in the limits on the number of incentive stock options and awards other than options or stock appreciation rights that may be granted under the Plan. The amendments to the Plan were conditioned upon the approval by the Company's stockholders, and the effectiveness, of the Reverse Stock Split. Therefore, at the Effective Time, the total number of shares that the Company may issue under the Plan was increased to 1,666,667 shares; and the total number of such shares that may be used for grants of restricted stock, restricted stock units, performance units, performance shares and other awards was increased to no more than 1,250,000 shares.

Amended Loan and Security Agreement

On January 27, 2014, we entered into a third amendment to the Loan Agreement. 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 our Loan Agreement with the Lenders, which provides that we will not be required to make any principal or interest payments under the Term Loan for the period from March 1, 2014 through March 31, 2015. Accordingly, pursuant to the amended Loan Agreement, the next principal and interest payment under the Term Loan will be due on April 1, 2015.

Issuance of Series B Preferred Stock

On March 5, 2014, the Company entered into a Series B Convertible Preferred Stock Purchase Agreement (the "Series B Purchase Agreement") with affiliates of Third Security (the "2014 Third Security Investors"), pursuant to which the Company, in a private placement, sold and issued an aggregate of 1,443,297 shares of the Company's Series B Convertible 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 $7,000,000. Each share of Series B Preferred Stock issued pursuant to

the Series B Purchase Agreement is initially convertible into shares of the Company's 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, the Company also entered into a Registration Rights Agreement, dated March 5, 2014, with the 2014 Third Security Investors, pursuant to which the Company 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.

Third Security, LLC and its affiliates (collectively, "Third Security"), which holds more than 10% of the outstanding voting stock of the Company, participated in the Series B financing. Additionally, Doit L. Koppler II and Robert M. Patzig, directors of the Company, are affiliated with Third Security, LLC.

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The 2014 Series B Preferred Stock financing required the repricing and issuance of additional common stock warrants to the investors in the Company's February 2012 common stock and warrant financing. The exercise price of these 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.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosures.

As previously disclosed in the Company's Current Report on Form 8-K filed on July 12, 2013, our Audit Committee, on July 8, 2013 appointed Ernst & Young LLP as our principal independent accountant. There were no disagreements or reportable events related to the change in accountants requiring disclosure under Item 304(b) of Regulation S-K.

Item 9A. Controls and Procedures.

(a) Evaluation of Disclosure Controls and Procedures

As of the end of the period covered by this Annual Report, management performed, with the participation of our Chief Executive Officer and Chief Financial Officer, an evaluation of the effectiveness of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act. Our disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed in the reports we file or submit under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to management including our Chief Executive Officer and our Chief Financial Officer, to allow timely decisions regarding required disclosures. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and no evaluation of controls and procedures can provide absolute assurance that all control issues and instances of fraud, if any, within a company have been detected. Management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation, the Chief Executive Officer and Chief Financial Officer concluded that, as of December 31, 2013, our disclosure controls and procedures were effective.

(b) Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining an adequate system of internal control over financial reporting. Our system of internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America.

Our internal control over financial reporting includes those policies and procedures that:

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

Because of its inherent limitations, a system of internal control over financial reporting can provide only reasonable assurance and may not prevent or detect misstatements. Further, because of changes in conditions, effectiveness of internal controls over financial reporting may vary over time. Our system contains self-monitoring mechanisms, and actions are taken to correct deficiencies as they are identified.

Management has conducted, with the participation of our Chief Executive Officer and our Chief Financial Officer, an assessment, including testing of the effectiveness of our internal control over financial reporting as defined in Rule 13(a)-15(f) under the Exchange Act as of December 31, 2013. Management's assessment of internal control over financial reporting was conducted using the criteria in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). Based on that assessment, management has concluded that our internal control over financial reporting was effective as of December 31, 2013.

This Annual Report does not include an attestation report of Transgenomic's registered public accounting firm regarding internal control over financial reporting. Management's report was not subject to attestation by the Company's registered public accounting firm pursuant to Item 308(b) of Regulation S-K, which permits the Company to provide only management's report in this Annual Report.

(c) Changes in internal control over financial reporting

There have been no changes in internal control over financial reporting that occurred during the quarter ended December 31, 2013 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

None.

Part III

Item 10. Directors, Executive Officers and Corporate Governance.

The information required by this item is incorporated by reference to the information set forth in the sections titled "Board of Directors and Committees", "Section 16(a) Beneficial Ownership Reporting Compliance", "Business Ethics Policy", "Corporate Governance - Committees of our Board of Directors", "Corporate Governance - Audit Committee" and "Corporate Governance - Compensation Committee" in our definitive proxy statement to be filed with the SEC in connection with the annual meeting of stockholders to be held in 2014 (the "2014 Proxy Statement"). The information required by this item related to the executive officers can be found in the section captioned "Executive Officers of the Registrant" under Part I, "Item 1. Business" of this Annual Report on Form 10-K, and is also incorporated herein by reference.

Item 11. Executive Compensation.

The information required by this item is incorporated by reference to the information set forth in the sections titled "2013 Executive Compensation" and "Director Compensation" in the 2014 Proxy Statement.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information required by this item is incorporated by reference to the information set forth in the sections titled "Beneficial Ownership of Common Stock", "Beneficial Ownership of Preferred Stock" and "Equity Compensation Plan Information" in the 2014 Proxy Statement.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information required by this item is incorporated by reference to the information set forth in the sections titled "Review and Approval of Related Person Transactions" and "Director Independence" in the 2014 Proxy Statement.

Item 14. Principal Accountant Fees and Services.

The information required by this item is incorporated by reference to the information set forth in the section titled "Independent Registered Public Accounting Firm" in the 2014 Proxy Statement.

Part IV

Item 15. Exhibits, Financial Statement Schedules.

(a) The following documents are filed as part of this report:

1 Financial Statements. The following financial statements of the Registrant are included in response to Item 8 of this report:

Report of Independent Registered Public Accounting Firm.
Consolidated Balance Sheets of the Registrant and Subsidiary as of December 31, 2013 and 2012.
Consolidated Statements of Operations of the Registrant and Subsidiary for the years ended December 31, 2013, 2012 and 2011.
Consolidated Statements of Comprehensive Loss of the Registrant and Subsidiary for the years ended December 31, 2013, 2012 and 2011.
Consolidated Statements of Stockholders' Equity of the Registrant and Subsidiary for the years ended December 31, 2013, 2012 and 2011.
Consolidated Statements of Cash Flows of the Registrant and Subsidiary for the years ended December 31, 2013, 2012 and 2011.
Notes to Consolidated Financial Statements of the Registrant and Subsidiary.

2 Financial Statement Schedules.

All financial statement schedules are omitted because the information is inapplicable or presented in the notes to the financial statements.

3 Exhibits. The following exhibits are filed as required by Item 15(a)(3) of this report. Exhibit numbers refer to the paragraph numbers under Item 601 of Regulation S-K:

†2.1	Asset Purchase Agreement among the Registrant, Scoli Acquisition Sub, Inc. and Axial Biotech, Inc. dated August 27, 2012 (incorporated by reference to Exhibit 2.1 to the Registrant's Quarterly Report on Form 10-Q filed on November 8, 2012).
3.1	Third Amended and Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Quarterly Report on Form 10-Q filed on November 14, 2005).
3.2	Certificate of Amendment of Third Amended and Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on May 29, 2012).
3.3	Certificate of Amendment of Third Amended and Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on January 28, 2014).
3.4	Certificate of Amendment of Certificate of Designation of Series A Convertible Preferred Stock of the Registrant (incorporated by reference to Exhibit 3.1 to the Registrant's Current Report on Form 8-K filed on March 6, 2014).
3.5	Certificate of Designation of Series B Convertible Preferred Stock of the Registrant (incorporated by reference to Exhibit 3.2 to the Registrant's Current Report on Form 8-K filed on March 6, 2014).
3.6	Amended and Restated Bylaws of the Registrant (incorporated by reference to Exhibit 3(ii) to the Registrant's Current Report on Form 8-K filed on May 25, 2007).

4.1	Form of Certificate of the Registrant's Common Stock (incorporated by reference to Exhibit 4 to the Registrant's Registration Statement on Form S-1 (Registration No. 333-32174) filed on March 10, 2000).

4.2	Form of Series A Convertible Preferred Stock Warrant issued to Third Security Senior Staff 2008 LLC, Third Security Staff 2010 LLC and Third Security Incentive 2010 LLC (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed on January 4, 2011).
4.3	Registration Rights Agreement, dated December 29, 2010, by and among the Registrant, Third Security Senior Staff 2008 LLC, Third Security Staff 2010 LLC and Third Security Incentive 2010 LLC (incorporated by reference to Exhibit 4.3 to the Registrant's Current Report on Form 8-K filed on January 4, 2011).
4.4	First Amendment to Registration Rights Agreement dated November 8, 2011 (incorporated by reference to Exhibit 4.2 to the Registrant's Current Report on Form 8-K filed on November 14, 2011).
4.5	Form of Warrant issued by the Registrant to the Third Security Entities on February 7, 2012 (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed on February 7, 2012).
4.6	Form of Warrant issued by the Registrant to the Investors on February 7, 2012 (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K filed on February 7, 2012).
4.7	Form of Registration Rights Agreement entered into by and among the Registrant, the Third Security Entities and the Investors dated February 2, 2012 (incorporated by reference to Exhibit 10.4 to the Registrant's Current Report on Form 8-K filed on February 7, 2012).
4.8	Registration Rights Agreement, entered into by and among the Registrant and the Investors, dated January 24, 2013 (incorporated by reference to Exhibit 10.3 to the Registrant's Current Report on Form 8-K/A filed on January 31, 2013).
4.9	Form of Warrant issued by the Registrant to the Investors on January 30, 2013 (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K/A filed on January 31, 2013).
4.10	Registration Rights Agreement, dated as of March 5, 2014, by and among the Registrant, Third Security Senior Staff 2008 LLC, Third Security Staff 2014 LLC and Third Security Incentive 2010 LLC (incorporated by reference to Exhibit 4.1 to the Registrant's Current Report on Form 8-K filed on March 6, 2014).
*10.1	The Registrant's 2006 Equity Incentive Plan, as amended (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on January 28, 2014).
*10.2	1999 UK Approved Stock Option Sub Plan of the Registrant (incorporated by reference to Exhibit 10.7 to the Registrant's Registration Statement on Form S-1 (Registration No. 333-32174) filed on March 10, 2000).
10.3	License Agreement, dated August 20, 1997, between the Registrant and Leland Stanford Junior University (incorporated by reference to Exhibit 10.15 to the Registrant's Registration Statement on Form S-1 (Registration No. 333-32174) filed on March 10, 2000).
10.4	License Agreement, dated December 1, 1989, between Cruachem Holdings Limited (a wholly owned subsidiary of the Registrant) and Millipore Corporation (incorporated by reference to Exhibit 10.13 to the Registrant's Annual Report on Form 10-K filed on March 25, 2002).

10.5	Sublicense Agreement, dated October 1, 1991, between Cruachem Holdings Limited (a wholly owned subsidiary of the Registrant) and Applied Biosystems, Inc. (incorporated by reference to Exhibit 10.14 to the Registrant's Annual Report on Form 10-K filed on March 25, 2002).
10.6	Missives, dated May 17, 2002, between Cruachem Limited (a wholly-owned subsidiary of the Registrant) and Robinson Nugent (Scotland) Limited (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on August 14, 2002).
10.7	License Amendment Agreement, dated June 2, 2003, by and between Geron Corporation and the Registrant (incorporated by reference to Exhibit 10.2 to the Registrant's Quarterly Report on Form 10-Q filed on August 12, 2003).
10.8	Supply Agreement, dated January 1, 2000, between the Registrant and Hitachi Instruments (incorporated by reference to Exhibit 10.16 to the Registrant's Registration Statement on Form S-1 (Registration No. 333-32174) filed on March 10, 2000).
10.9	License Agreement between the Registrant and the Dana-Farber Cancer Institute dated October 8, 2009 (incorporated by reference to Exhibit 10.1 to the Registrant's Quarterly Report on Form 10-Q filed on November 5, 2009).

*10.10	Employment Agreement between the Registrant and Mark P. Colonnese (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on September 17, 2012).
10.11	Securities Purchase Agreement, entered into by and among the Registrant and the Investors, dated January 24, 2013 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K/A filed on January 31, 2013).
10.12	Forbearance Agreement, dated February 7, 2013, by and between the Registrant and Dogwood Pharmaceuticals, Inc. (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on February 8, 2013).
10.13	Loan and Security Agreement among the Registrant, Third Security Senior Staff 2008 LLC, as administrative agent and a lender, and the other lenders party thereto, dated March 13, 2013 (incorporated by reference to Exhibit 10.39 to the Registrant's Annual Report on Form 10-K filed on March 14, 2013).
10.14	First Amendment to Loan and Security Agreement among the Registrant, Third Security Senior Staff 2008 LLC, as administrative agent and a lender, and the other lenders party thereto, dated August 2, 2013 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on August 6, 2013).
*10.15	Employment Agreement between the Registrant and Paul Kinnon, effective September 30, 2013 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on September 30, 2013).
*10.16	Form of Incentive Stock Option Agreement between the Registrant and Paul Kinnon, effective September 30, 2013 (incorporated by reference to Exhibit 10.3 to the Registrant's Quarterly Report on Form 10-Q filed on November 14, 2014).
*10.17	Form of Stock Appreciation Rights Agreement between the Registrant and Paul Kinnon, effective September 30, 2013 (incorporated by reference to Exhibit 10.4 to the Registrant's Quarterly Report on Form 10-Q filed on November 14, 2014).
*10.18	Form of Stock Appreciation Rights Agreement between the Registrant and Mark Colonnese, effective September 30, 2013 (incorporated by reference to Exhibit 10.5 to the Registrant's Quarterly Report on Form 10-Q filed on November 14, 2014).
*10.19	Form of Stock Appreciation Rights Agreement under the 2006 Equity Incentive Plan (incorporated by reference to Exhibit 10.5 to the Registrant's Current Report on Form 8-K filed on September 30, 2013).
10.20	Second Amendment to Loan and Security Agreement among the Registrant, Third Security Senior Staff 2008 LLC, as administrative agent and a lender, and the other lenders party thereto, effective October 31, 2013 (incorporated by reference to Exhibit 10.7 to the Registrant's Quarterly Report on Form 10-Q filed on November 14, 2014).
10.21	Limited Waiver and Third Amendment to Loan and Security Agreement among Transgenomic, Inc., Third Security Senior Staff 2008 LLC, as administrative agent and a lender, and the other lenders party thereto, dated January 27, 2014.
10.22	

	Fourth Amendment to Loan and Security Agreement among Transgenomic, Inc., Third Security Senior Staff 2008 LLC, as administrative agent and a lender, and the other lenders party thereto, dated March 3, 2014 (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed on March 6, 2014).
10.23	Series B Convertible Preferred Stock Purchase Agreement, dated as of March 5, 2014, by and among Transgenomic, Inc. and Third Security Senior Staff 2008 LLC, Third Security Staff 2014 LLC and Third Security Incentive 2010 LLC (incorporated by reference to Exhibit 10.2 to the Registrant's Current Report on Form 8-K filed on March 6, 2014).
‡10.24	Collaboration Agreement, dated as of October 9, 2013, by and between the Registrant and PDI, Inc.
21	Subsidiaries of the Registrant.
23.1	Consent of Independent Registered Public Accounting Firm - Ernst & Young LLP
23.2	Consent of Independent Registered Public Accounting Firm - McGladrey LLP
24	Powers of Attorney (included on signature page hereto).
31	Certifications pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.

**32	Certifications pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document

†	Pursuant to Item 601(b)(2) of Regulation S-K, the schedules to this agreement have been omitted. The Registrant agrees to furnish supplementally a copy of any omitted schedule to the Securities and Exchange Commission upon request.
*	Denotes exhibit that constitutes a management contract, or compensatory plan or arrangement.
**	These certifications are not deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section. Such certifications will not be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934, except to the extent that the Registrant specifically incorporates it by reference.
+	Confidential treatment has been granted with respect to certain portions of this exhibit. Omitted portions have been filed separately with the SEC.
‡	The Registrant has requested confidential treatment with respect to certain portions of this exhibit. Omitted portions have been filed separately with the SEC.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on this 27th day of March 2014.

TRANSGENOMIC, INC.

By: /s/ PAUL KINNON
Paul Kinnon,
President and Chief Executive Officer

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ PAUL KINNON Paul Kinnon	Director, President and Chief Executive Officer (Principal Executive Officer)	March 27, 2014
/s/ MARK P. COLONNESE Mark P. Colonnese	Executive Vice President and Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 27, 2014
/s/ RODNEY S. MARKIN Rodney S. Markin	Director	March 27, 2014
/s/ ANTONIUS P. SCHUH Antonius P. Schuh	Director	March 27, 2014
/s/ ROBERT M. PATZIG Robert M. Patzig	Director	March 27, 2014
/s/ DOIT L. KOPPLER II Doit L. Koppler II	Director	March 27, 2014
/s/ MICHAEL A. LUTHER Michael A. Luther	Director	March 27, 2014