TRANSGENOMIC INC
Form 10-K
March 28, 2008
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

(Mark One)

x **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2007

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)	(IRS Employer Identification Number)

12325 Emmet Street

Omaha, NE 68164 **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 $.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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K _____

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer or a smaller reporting company. See definition of accelerated filer , large 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 x

(Do not check if a smaller reporting company)

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

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 OTC Bulletin Board on the last business day of the registrant s most recently completed second quarter was approximately $27.9 million.

At March 30, 2008, the registrant had 49,189,672 shares of Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant Proxy Statement relating to its 2008 Annual Meeting of Stockholders (the Proxy Statement) have been incorporated into Part III of this Report on Form 10-K.

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TRANSGENOMIC, INC.

Index to Form 10-K for the Fiscal Year Ended December 31, 2007

This Annual Report on Form 10-K references the following registered trademarks which are the property of Transgenomic: DNASEP® Columns, WAVE® System, WAVEMAKER® Software, TRANSFORMING THE WORLD® for Laboratory Equipment, TRANSGENOMIC® and the Globe Logo®; MutationDiscovery.com® Website, OLIGOSEP® for Systems and Reagents, OPTIMASE® Polymerase, RNASEP® Columns, SURVEYOR® WAVE OPTIMIZED® reagents, and WAVE® MD Systems. Additionally, this Annual Report on Form 10-K references the following trademarks which are the property of Transgenomic: MitoScreen Kits, ProtocolWriter Software, Navigator Software, THE POWER OF DISCOVERY for Lab Reagents and Educational Programs, and Surveyor Nuclease. All other trademarks or trade names referred to in this Annual Report on Form 10-K are the property of their respective owners.

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PART I

FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains or incorporates by reference certain forward-looking statements. Many of these forward-looking statements refer to our plans, objectives, expectations and intentions, as well as our future financial results and are subject to risk and uncertainty. You can identify these forward-looking statements by words such as expects, anticipates, intends, plans, may, will, believ estimates and similar expressions. Because these forward-looking statements involve risks and uncertainties, there are many factors that could cause our actual results to differ materially from those expressed or implied by these forward-looking statements, including those discussed under Item 1A Risk Factors and other factors identified by cautionary language used elsewhere in the Annual Report on Form 10-K.

Item 1. Our Business

We provide innovative products for the synthesis, purification and analysis of nucleic acids used in the life sciences industry for research focused on molecular genetics and diagnostics. We also provide genetic variation analytical services to the medical research, clinical and pharmaceutical markets. Net sales are categorized as bioinstruments, bioconsumables and discovery services.

- Bioinstruments. Our flagship product is the WAVE System which has broad applicability to genetic variation detection in both molecular genetic research and molecular diagnostics. There is a world-wide installed base of over 1,400 WAVE Systems as of December 31, 2007. 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 technical support personnel.

- Bioconsumables. The installed WAVE base and some third party installed platforms generate a demand for consumables that are required for the systems continued operation. We develop, manufacture and sell these 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 high pressure liquid chromatography (HPLC) separation columns.

- Discovery Services. Our Pharmacogenomics Research Service group is a contract research lab in Gaithersburg, Maryland that primarily provides genomic biomarker analysis services to pharmaceutical and biopharmaceutical companies to support preclinical and clinical development of targeted therapeutics. Our Molecular Clinical Reference Laboratory, in Omaha, Nebraska provides molecular-based testing for hematology, oncology and certain inherited diseases for physicians and third-party laboratories. The Molecular Clinical Reference Laboratory operates in a Good Laboratory Practices (GLP) compliant environment and is certified under the Clinical Laboratory Improvement Amendment.

Historically, we operated a segment (the Nucleic Acids operating segment) that developed, manufactured and marketed chemical building blocks for nucleic acid synthesis. In the fourth quarter of 2005, we implemented a plan to exit the Nucleic Acids operating segment and have recently completed the sale of the remaining assets associated with this segment. Accordingly, the assets and results of the Nucleic Acids operating segment are reflected as discontinued operations for all periods presented in this filing.

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Business Strategy

Since inception, our business strategy has been to provide products and services to biomedical researchers, medical institutions, diagnostic and pharmaceutical companies that are tied to advancements in the field of genomics. Advances in genomics have fueled efforts to understand individual differences in disease susceptibility, disease progression, and response to therapy. Accordingly, a principal component of our strategy has and continues to be to establish our WAVE System as an industry standard in the biomedical research market and to develop additional markets for the WAVE System such as clinical research and diagnostics. Through an expanding base of installed systems, we expect to increase the sales of consumable products used with the WAVE System and create opportunities to market additional products to this customer base.

Over the last year our strategy has shifted somewhat to include another area of strategic focus that we believe can provide significant opportunity. Through our Discovery Services offerings, we have gained exposure to the translational and clinical research markets, laying the foundation for increasing our participation in the full value chain associated with activities ranging from basic biomedical research to development of diagnostic and therapeutic products. During the fourth quarter of 2005, our laboratory in Omaha, Nebraska was certified under the Clinical Laboratory Improvement Amendments and we received our first patient samples for molecular-based testing for hematology, oncology and certain inherited diseases for physicians and third-party laboratories. We believe there is a significant opportunity for us to capitalize on the increasing demand for molecular-based personalized medicine by leveraging on our technologies and experience gained from the genomic biomarker analysis that our Discovery Services Group has and will continue to provide to pharmaceutical and biopharmaceutical companies.

Significant Recent Events

We have continued to work to reduce operating costs

On February 20, 2007, we announced a cost reduction plan designed to align our cost structure with anticipated revenues. The closing of the Company s Cramlington, England production facility was the principal component of this plan. All production is now being done in the United States at our Omaha, NE and San Jose, CA facilities. All administrative functions that were previously performed in France are now being performed in either the United States or in our one remaining international site, Glasgow, Scotland. Restructure charges were $1.5 million for the year ended December 31, 2007, relating primarily to severance, benefits and facility closure costs.

Our stock has been delisted from the Nasdaq Capital Market and is now trading on the OTC Bulletin Board (OTCBB)

On February 1, 2007, we received a staff determination letter from Nasdaq s Listing Qualifications Department indicating that we no longer met the minimum bid price requirement for continued listing on the Nasdaq Capital Market. As a result, our common stock on the Nasdaq Capital Market was ended on February 22, 2007. Trading information about our common stock became available on the OTC Bulletin Board beginning on February 26, 2007.

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Sales and Marketing

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., U.K. and most countries in Western Europe. For the rest of the world, we sell our products through dealers and distributors located in those local markets. We have over 35 dealers and distributors. We also maintain regionally-based technical support staffs and applications scientists to support our sales and marketing activities throughout the U.S. and Europe. The nature of our instruments and bioconsumables business does not generally lend itself to tracking and reporting sales backlog.

Customers

Customers include numerous leading academic and medical institutions in the U.S. and abroad. In addition, our customers also include a number of large, established U.S. and foreign pharmaceutical, biotech and commercial companies. No customer accounts for more than 10% of consolidated net sales.

Research and Development

We will need to continue to invest in research and development activities in order to remain competitive and to take advantage of new business opportunities as they arise. Accordingly, we maintain an active program of research and development with respect to bioinstruments, consumables and discovery services. Areas of focus include the improvement of the DNA separation media used in our WAVE System, the refinement of the hardware and software components of the WAVE System, the creation of unique enzymes and WAVE-Optimized enzymes, and the development of assays on the WAVE System. We have also focused on further refinements and process manufacturing improvements for our Surveyor DNA mismatch cutting enzyme. A significant area of research in discovery services is the area of cancer detection screening and mitochondrial disease diagnosis.

For the years ended December 31, 2007, 2006 and 2005, our research and development expenses were $3.0 million, $2.4 million and $2.2 million, respectively.

Manufacturing

We manufacture bioconsumable products including our separation columns, liquid reagents, and enzymes. The major components of our WAVE Systems are manufactured for us by a third party. We integrate our own hardware and software with these third party manufactured components. Our manufacturing facilities for our 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, as well as confidentiality provisions in our contracts. We presently own rights to 68 issued patents and 14 pending applications in both the U.S. and abroad. Our WAVE System and related consumables are protected by patents and in-licensed technologies that expire in various periods beginning in 2013 through 2022. We will continue to file patent applications and seek new licenses as warranted to protect and develop new technologies of interest to our customer base in the coming years.

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Competition

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

Competition for our WAVE Systems arises primarily from DNA sequencing and genotyping technologies. Competitors in these areas include Applied Biosystems, Idaho Technologies, Roche, Sequenom, and others. 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. Our discovery services face competition from a number of companies offering contract DNA sequencing and other genomic analysis services, including Genizon, Clinical Data, SeqWright and others. In addition, several clinical diagnostics service providers, such as Labcorp, Quest, Athena and Specialty Laboratories, also offer related laboratory services in support of clinical trials. Finally, additional competition arises from academic core laboratory facilities.

Employees

As of December 31, 2007, 2006 and 2005, we had employees focused in the following areas of our operation:

	December 31,		
	2007	**2006**	**2005**
Manufacturing	30	47	56
Sales, Marketing and Administration	76	65	73
Research and Development	10	16	10
	116	128	139
Personnel associated with discontinued operations			17
	116	128	156

Our employees were employed in the following geographical locations:

	December 31,		
	2007	**2006**	**2005**
United States	89	84	94
Europe (other than the United Kingdom)	13	23	23
United Kingdom	14	21	39
	116	128	156

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). We maintain manufacturing facilities in Omaha, Nebraska and San Jose, California. We maintain research and development offices in Gaithersburg, Maryland and Omaha, Nebraska.

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We make reports filed by us with the SEC available free of charge on our website as soon as reasonably practicable after these reports are filed. The address of our website is www.transgenomic.com. Information on our website, including any SEC report, is not part of this Annual Report on Form 10-K.

Item 1A. Risk Factors

We may not have adequate financial resources to execute our business plan.

We have historically operated at a loss and have not consistently generated sufficient cash from operating activities to cover our operating and other cash expenses. While we have been able to historically finance our operating losses through borrowings or from the issuance of additional equity, we currently have no plans to borrow additional funds or to issue additional equity securities for this purpose. At December 31, 2007, we had cash and cash equivalents of $5.7 million. While we believe that existing sources of liquidity are sufficient to meet expected cash needs through 2008, we will need to increase our revenues or further reduce our operating expenses in order to be assured of meeting our liquidity needs on a long-term basis. However, we cannot assure you that we will be able to increase our revenues or further reduce our expenses and, accordingly, we may not have sufficient sources of liquidity to continue the operations of the Company indefinitely.

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 losses from continuing operations for the years ended December 31, 2007, 2006 and 2005 were $2.2 million, $3.0 million, and $5.0 million, respectively. These losses have been due principally to the high levels of research and development expenses and sales and marketing expenses that we have incurred in order to develop and market our products, the fixed nature of our manufacturing costs, restructuring charges and impairment charges. In addition, markets for our products and services have developed more slowly than expected in many cases and may continue to do so. As a result, we may incur operating losses in the future.

Markets for our products and services may continue to develop slowly.

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. If revenues from the sales of our products and services continue at current levels, we may need to take steps to further reduce operating expenses or raise additional working capital. We cannot assure you that sales will increase or that we will be able to reduce operating expenses or raise additional working capital. Similarly, the sales cycle for the OEM equipment that we sell can also be a lengthy

Sales of our Discovery Services have been variable.

Discovery services includes services performed by both our Molecular Clinical Reference Laboratory and our Pharmacogenomics Research Services. Testing volumes at the Molecular Clinical Reference Laboratory is dependent on patient visits to doctor s offices and other providers of health

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care and tends to fluctuate on a seasonal basis. Volume of testing generally declines during the year end holiday periods, other major holidays and the summer. The Pharmocogenomics Laboratory depends on project based work which will change from quarter to quarter. Therefore, comparison of the results of successive quarters may not accurately reflect trends or results for the full year.

Compliance with HIPPA is time consuming and costly.

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

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 more than half of our total net sales. As a result, a major portion of our revenues 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; and
- 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.

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 or expensive or 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 revenues.

We may not have adequate personnel to execute our business plan.

In order to reduce our operating costs, we have reduced the number of employees in all areas of the business. In addition, we may lose other key management, scientific, technical, sales and

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manufacturing personnel from time to time. It may be very difficult to replace personnel if they are needed in the future, and the loss of key personnel could harm our business and operating results. We cannot assure you that our employee reductions will not impair our ability to continue to develop new products and refine existing products in order to remain competitive. In addition, these reductions could prevent us from successfully marketing our products and developing our customer base.

Our markets are very competitive.

Many of our competitors have greater resources than we do and/or 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 that 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 substantial 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 secret protection, 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 our 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.

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The protection of intellectual property in foreign countries is uncertain.

A significant percentage of our sales are to customers located outside the U.S. The 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 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.

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.

The price for our common stock is volatile and may drop.

The trading price for our common stock has fluctuated significantly over recent years. The volatility in the price of our stock is attributable to a number of factors, not all of which relate to our operating results and financial position. The delisting of our stock from the NASDAQ may negatively affect the volume of shares traded and the price for our stock. Continued volatility in the market price for our stock should be expected and we cannot assure you that the price of our stock will not decrease in the future. Fluctuations or further declines in the price of our stock may affect our ability to sell shares of our stock and to raise capital through future equity financing.

Our common stock is deemed to be penny stock , which may make it more difficult for investors to sell their shares due to suitability requirements.

Our common stock is classified as a penny stock under the rules of the SEC. The Securities and Exchange Commission has adopted Rule 3a51-1 which establishes the definition of a penny stock , for the purposes relevant to us, as any equity security that has a market price of less than $5.00 per share or with an exercise price of less than $5.00 per share, subject to certain exceptions. For any transaction involving a penny stock, unless exempt, Rule 15g-9 requires:

- that a broker or dealer approve a person s account for transactions in penny stocks; and

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- that the broker or dealer receives from the investor a written agreement to the transaction, setting forth the identity and quantity of the penny stock to be purchased.

In order to approve a person s account for transactions in penny stocks, the broker or dealer must:

- obtain financial information and investment experience objectives of the person; and

- make a reasonable determination that the transactions in penny stocks are suitable for that person and the person has sufficient knowledge and experience in financial matters to be capable of evaluating the risks of transactions in penny stocks.

The broker or dealer must also deliver, prior to any transaction in a penny stock, a disclosure schedule prescribed by the SEC relating to the penny stock market, which, in highlight form:

- sets forth the basis on which the broker or dealer made the suitability determination; and

- that the broker or dealer received a signed, written agreement from the investor prior to the transaction.

Generally, brokers may be less willing to execute transactions in securities subject to the penny stock rules. This may make it more difficult for investors to dispose of our common stock and cause a decline in the market value of our stock.

Disclosure also has to be made about the risks of investing in penny stocks in both public offerings and in secondary trading and about the commissions payable to both the broker-dealer and the registered representative, current quotations for the securities and the rights and remedies available to an investor in cases of fraud in penny stock transactions. Finally, monthly statements have to be sent disclosing recent price information for the penny stock held in the account and information on the limited market in penny stocks.

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, 2007, we had obligations to issue 12,583,879 shares of common stock including outstanding stock options representing 4,535,064 shares and warrants representing 8,048,815 shares. The issuance of these additional shares of common stock may be dilutive to our current shareholders 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, 2007, we had 49,189,672 shares of common stock outstanding. Fewer than ten unrelated, institutional holders own more than 50% of these shares The sale of significant shares into the public market has 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. Such an event could place further downward pressure on the price of our common 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

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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.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

We currently lease and occupy a total of six facilities throughout the world under non-cancelable leases with various terms. The following table summarizes certain information regarding the leased facilities. Annual rent amounts presented in the table are reflected in thousands.

Location	Function	Square Footage	2008 Scheduled Rent	Lease Term Expires
Omaha, Nebraska	WAVE and Consumable Manufacturing	25,000	$130	June 2009
San Jose, California	Consumable Manufacturing	14,360	$165	October 2010
Cramlington, England	Consumable Manufacturing	10,818	$19	March 2008
Glasgow, Scotland	Multi Functional [(1)]	5,059	$31	March 2012
Omaha, Nebraska	Multi Functional [(1)]	18,265	$188	July 2012
Paris, France	Multi Functional [(1)]	4,753	$104	January 2014
Gaithersburg, Maryland	Multi Functional [(1)]	8,404	$145	May 2012

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

The leases on the Cramlington, England facility will expire in March 2008, and we will be vacating the property at that time. We have vacated the Paris, France facility and are in the process of finding a tenant to sublease this facility.

Item 3. Legal Proceedings

The Company is not a party to any pending legal proceedings which, if decided adversely to the Company, will have a material adverse effect on our financial position, results of operations or cash flows.

Item 4. Submission of Matters to a Vote of Security Holders.

We did not submit any matters to our stockholders for a vote or other approval during the fourth quarter of the fiscal year covered by this report.

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PART II

Item 5. Market for the Registrant s Common Stock, Related Stockholder Matters and Issuer Repurchases of Equity Securities

Market Information. Share price information for our common stock is available on the OTC Bulletin Board under the symbol TBIO.OB. Prior to February 22, 2007, our common stock was listed for trading on the Nasdaq Capital Market 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 2006 and 2007.

	High	Low
Year Ended December 31, 2006		
First Quarter	$ 1.03	$ 0.62
Second Quarter	$ 0.84	$ 0.39
Third Quarter	$ .77	$ 0.31
Fourth Quarter	$ .89	$ 0.40
Year Ended December 31, 2007		
First Quarter	$ .80	$ .42
Second Quarter	$ .88	$ .61
Third Quarter	$ .75	$ .49
Fourth Quarter	$ .72	$ .41

Holders. At December 31, 2007, there are 49,189,672 shares of our common stock outstanding and approximately 3,310 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. We expect to retain all earnings, if any, for investment in our business. Dividends on our common stock will be paid only if and when declared by our Board of Directors. The Board s ability to declare a dividend is subject to limits imposed by Delaware corporate law. 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.

Sale of Unregistered Securities. The Company made no sales of its common stock during the years ended December 31, 2007 and 2006 that were not registered under the Securities Act of 1933 (the Securities Act). Information regarding sales of equity securities by the Company during the years ended December 31, 2005 that were not registered under the Securities Act of 1933 have been previously reported by the Company on Form 8-Ks filed on March 18, 2005, March 30, 2005 and October 31, 2005.

Issuer Purchase of Equity Securities. The Company made no purchases of its common stock during the quarter ended December 31, 2007. Therefore, tabular disclosure is not presented.

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Item 6. Selected Consolidated Financial Data

The selected consolidated balance sheet data as of December 31, 2007 and 2006 and the selected consolidated statements of operations data for each year ended December 31, 2007, 2006 and 2005 have been derived from our audited consolidated financial statements that are included elsewhere in this Annual Report on Form 10-K. The selected consolidated balance sheet data as of December 31, 2005, 2004 and 2003 and the selected consolidated statements of operations data for each year ended December 31, 2004 and 2003 have been derived from our audited consolidated financial statements that are not included in this Annual Report on Form 10-K. Dollar amounts, except per share data, are presented in thousands.

	Year Ended December 31,				
	2007	2006	2005	2004	2003
Statement of Operations Data:					
Net sales	$ 23,176	$ 23,415	$ 25,828	$ 25,243	$ 26,044
Cost of good sold	10,483	12,046	13,497	11,997	11,374
Gross profit	12,693	11,369	12,331	13,246	14,670
Selling, general and administrative	11,466	12,138	12,218	15,961	16,586
Research and development	3,033	2,362	2,199	4,501	6,834
Restructuring charges [1]	1,516			1,267	516
Impairment charges [2]			425		
Operating expenses	16,015	14,500	14,842	21,729	23,936
Other income (expense) [3]	1,391	198	(2,447)	(5,263)	(181)
Loss before income taxes	(1,931)	(2,933)	(4,958)	(13,746)	(9,447)
Income tax expense	243	30	26	4	65
Loss from continuing operations	(2,174)	(2,963)	(4,984)	(13,750)	(9,512)
(Loss) income from discontinued operations, net of tax [4]	67	(468)	(10,009)	(20,622)	(13,446)
Net loss	$ (2,107)	$ (3,431)	$ (14,993)	$ (34,372)	$ (22,958)
Basic and diluted (loss) income per share: [4]					
From continuing operations	$ (0.04)	$ (0.06)	$ (0.14)	$ (0.47)	$ (0.39)
From discontinued operations [4]	(0.00)	(0.01)	(0.28)	(0.72)	(0.55)
	$ (0.04)	$ (0.07)	$ (0.42)	$ (1.19)	$ (0.94)
Basic and diluted weighted average shares outstanding	49,190	49,188	35,688	29,006	24,484

	As of December 31,				
	2007	2006	2005	2004	2003
Balance Sheet Data:					
Total assets	$ 19,090	$ 21,367	$ 25,340	$ 37,458	$ 57,306
Borrowings under credit line [5]				6,514	2,142
Current portion of long-term debt [5]				825	1,693
Long-term debt, less current portion [5]				2,199	
Total stockholders equity	14,102	16,038	17,906	16,535	45,058

(1) Restructuring plans were implemented in 2007 and 2004 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. Refer to Note D to the accompanying consolidated financial

statements.

(2) Impairment charges in 2005 relate to the impairment of patent pursuits and write-down of inventory to net realizable value. Refer to Notes to the accompanying consolidated financial statements.

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(3) Other income (expense) for all years presented primarily includes interest expense and interest income. Other income in 2007 includes $.9 million from the sale of an investment security and $.2 million in insurance proceeds related to equipment destroyed in fire at our Cramlington, England facility. The loss on debt extinguishment of $0.5 million in 2005 related to the repayment of long-term debt and $2.9 million resulting from certain modifications to long-term borrowing agreements that were treated as extinguishments for financial reporting purposes.

(4) During 2005, we decided to exit our Nucleic Acids operating segment and, as a result, we recorded impairment and exit charges of $8.8 million consisting of valuation adjustments to reflect the carrying value of related net assets at estimated fair market value. The results of this business segment are shown as discontinued operations for all periods presented. Refer to Note C to the accompanying consolidated financial statements.

(5) The Laurus Loans were repaid during 2005 resulting in a loss on debt extinguishment of $.5 million.

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

The following discussion should be read in conjunction with the Consolidated Financial Statements and applicable Notes to Consolidated Financial Statements and other information in this report, including Risk Factors set forth in Item 1A and Critical Accounting Policies at the end of this Item 7.

Our continuing operations consist of the manufacture and sale of our WAVE System and related consumable products and discovery services which make use of the Company s WAVE System to perform genomic research on a contract basis and disease testing services. These functions are categorized as one reportable operating segment. Although revenue is analyzed by type, the Company s net financial results are analyzed as a single segment due to the integrated nature of the products and services that we sell. The Consolidated Financial Statements also reflect the assets and results of our former Nucleic Acids operating segment, which are shown as discontinued operations in all periods as a result of the implementation of a plan to exit this operating segment in the fourth quarter of 2005.

Executive Summary

2007 Results

Full year revenue for 2007 of $23.2 million was consistent with total revenue for 2006 of $23.4 million. Our instrument business declined in 2007 due to fewer WAVE system sales. The bioconsumable business had a slight increase of 2% from 2006 to 2007. The growth in our discovery services was 149% over the prior year. These revenues, coupled with our recently completed cost reduction efforts enabled us to achieve a profit in the fourth quarter of 2007 of $.2 million. The pharmacogenomics business increased from the third quarter of 2007 to the fourth quarter of 2007 by $.4 million. We believe this is due to our increased focus on pharmaceutical companies that we initiated at the beginning of 2007.

Although we have taken significant steps to reduce our operating expenses, we continued to operate at a loss and to generate a negative cash flow during the year. However, our loss and use of cash were reduced over each of the last three years. Our losses from continuing operations have gone from $5.0 million and $3.0 million in 2005 and 2006, respectively, to $2.2 million in 2007. We were able to maintain our cash level of $5.7 million, avoid new debt and improve our gross margins.

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2008 Outlook

We are forecasting revenue growth of 10-15% over 2007 and to be profitable in 2008. To accomplish these goals we must generate sequential growth in net sales and continue to better control operating expenses. We are investing in all parts of our business to drive improved sales in 2008 and have added experienced sales staff. We have worked hard to develop a significant number of exciting collaboration opportunities. In addition, we have strengthened our Board of Directors, added key senior management and formed a Scientific Advisory Board to advise us on the latest developments and scientific opportunities in cancer detection screening and mitochondrial disease diagnosis.

Develop sequential growth in net sales.

We will work to continue to leverage on and strengthen our core instrument business. Challenges exist for WAVE System and consumable growth in traditional markets. We continue to look for emerging markets and novel applications to provide us with new opportunities for our WAVE System. We intend to continue to diversify into new markets, including the personalized medicine market (particularly in oncology), where the sensitivities of our technologies are essential. In the short-term, we believe that the introduction of the newest generation of our flagship product, the WAVE System 4500 will provide upgrade opportunities to our current installed base. In addition, we are also selling refurbished WAVE Systems in order to allow an opportunity for customers that may not be able to afford the cost of a new system. In the intermediate to longer-term, we believe that newly developed targeted consumable products will increase usability of our installed base and enhance net sales of consumables. Additionally, we have developed credibility and momentum with third-party platforms that will allow us to leverage on our direct sales force and distribution network.

On the discovery services front, we have hired two new business development directors to develop pharmaceutical and clinical research organization customers. We have entered into agreements with two major pharmaceutical companies for three Phase II trials representing more than $.5 million of revenues in the first half of 2008 and are focused on maintaining this momentum in our pharmacogenomics business. To compliment our mutation detection expertise, we also have strong capabilities in biomarker development and mutation detection in cancer pathway genes which will aid in the development of true personalized medicine for our pharmaceutical partners. We have also focused increased efforts to expand our Molecular Clinical Reference Laboratory sales by hiring three experienced sales representatives.

Continue to control operating expenses.

Operating expenses include selling, general and administrative expenses and research and development expenses. We will need to continue to invest in research and development activities in order to remain competitive and to take advantage of new business opportunities as they arise. During 2008, we expect operating expenses, including research and development expense, to be approximately equal to 2007 levels.

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Results of Continuing Operations

Years Ended December 31, 2007 and 2006

Net Sales. Net sales for the years ended December 31, 2007 and 2006 consisted of the following (dollars in thousands):

			Change	
	2007	2006	$	%
Bioinstruments	$ 11,551	$ 13,604	$ (2,053)	(15)%
Bioconsumables	8,901	8,719	182	2%
Discovery Services	2,724	1,092	1,632	149%
Net sales	$ 23,176	$ 23,415	$ 239	(1)%

Bioinstrument sales consist of sales of our WAVE System and associated equipment that we manufacture or assemble, revenues from service contracts that we enter into with purchasers of our instruments, as well as sales of instruments we distribute for other manufacturers (OEM equipment). We also sell refurbished WAVE Systems in order to access customers that may not be able to afford new systems. We sold 56 WAVE Systems during the year ended December 31, 2007 compared to 68 systems during the same period of 2006. This decrease resulted from lower demand in all major geographic markets and among both research and diagnostic users particularly in our largest markets throughout Western Europe. Demand for WAVE systems has been affected by significant competitive challenges from traditional (i.e. sequencing) and evolving technologies. In addition, there were decreased net sales from product upgrades.

Bioconsumable net sales increased during the year ended December 31, 2007 compared to 2006. The installed base of WAVE instruments increased from 1,358 units at December 31, 2006 to 1,414 units at December 31, 2007, which is an increase of 4%. However, consumable usage increased by just 2%. We believe that this is reflective of the fact that not all of the installed instruments are being fully utilized. In addition, consumable products are available from other manufacturers which can be used in place of many of our consumable products. Some of these competitive products sell at prices below the prices we charge for our products, which have caused us to have some price compression, principally in Europe

Discovery Services net sales increased during the year ended December 31, 2007 compared to 2006 by approximately $1.6 million. Discovery Services sales includes both the Molecular Clinical Reference Laboratory and the Pharmocogenomics Research Services. The Molecular Clinical Reference Laboratory net sales of $1.7 million increased 300% over the year ended December 31, 2006. The increased revenue is attributable to new customers with one of the new customers representing approximately 50% of the 2007 revenue. The Pharmacogenomics Research Services net sales of $1.1 million increased 47% over the year ended December 31, 2006. Revenue in the fourth quarter of 2007 was $.6 million for the Pharacogenomics Research Services which represents approximately 50% of the annual revenue. This is due to the completion of 13 projects for 5 pharmaceutical partners during the fourth quarter of 2007.

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,

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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 discovery services operations. Cost of goods sold for the years ended December 31, 2007 and 2006 consisted of the following (dollars in thousands):

			Change	
	2007	2006	$	%
Bioinstruments	$ 4,318	$ 5,745	$ (1,427)	(25)%
Bioconsumables	4,054	4,530	(476)	(11)%
Discovery Services	2,111	1,771	340	19%
Cost of goods sold	$ 10,483	$ 12,046	$ (1,563)	(13)%

Gross profit equaled $12.7 million or 55% of total net sales during the year ended December 31, 2007 compared to $11.4 million and 49% during the same period of 2006. The increase in gross profit as a percent of revenue is largely attributable to changes in the composition of products sold. Margins on bioinstruments improved from 58% to 63% from 2006 to 2007 due to the change in the mix of instruments sold. We were also able to improve margins on bioconsumables from 48% in 2006 to 54% in 2007 due our focus on cost containment. The discovery services group improved margins for the year ended December 31, 2007 to 22% as compared to a negative 62% for the year ended December 31, 2006 due primarily to being able to leverage a fixed cost structure with increased sales revenue.

Selling, General and Administrative Expenses. Selling, general and administrative expenses primarily include personnel costs, marketing, travel and entertainment costs, professional fees, and facility costs. These costs decreased in 2007 compared to 2006, and decreased as a percentage of net sales from 52% to 49%. These reductions were primarily due to lower personnel costs and facilities costs resulting from our restructuring plan. In addition, foreign currency transaction adjustments decreased operating expenses by approximately $.1 million for the year ended December 31, 2007 compared to 2006.

Research and Development Expenses. Research and development expenses primarily include personnel costs, legal fees, supplies, and facility costs. These costs totaled $3.0 million during the year ended December 31, 2007 compared to $2.4 million during the same period of 2006, an increase of $0.7 million or 28%. As a percentage of net sales, research and development expenses totaled 13% and 10% of net sales during the year ended December 31, 2007 and 2006 respectively. We expect to continue to invest approximately 10% of our net sales in research and development activities. Research and development costs are expensed in the year in which they are incurred.

Restructuring Charges. We recorded restructuring charges totaling $1.5 million during 2007. The restructuring charges were comprised of severance payments totaling $.9 million, facility closure costs totaling $.5 million and other costs totaling $.1 million. Restructuring charges related to three events: A restructuring plan completed in the second quarter of 2007, which resulted in the termination of four employees in Omaha, Nebraska; the closure of the Cramlington, England bioconsumable production facility and consolidation of this production in the Omaha, Nebraska facility; and the closure of an administrative office outside Paris, France and combining those operations with those functions performed elsewhere in the organization. We substantially completed these restructuring activities as of December 31, 2007. These restructuring charges do not relate to any activities taken by

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us during 2007 or prior periods in connection with the termination of our Nucleic Acids business segment. All costs associated with these activities are included in income (loss) from discontinued operations.

Other Income (Expense). Other income during the year ended December 31, 2007 of $1.4 million represented an increase of $1.2 million from 2006. The increase was attributable to the sale of an investment in equity securities. On May 10, 2007, we sold 250,000 shares of stock in Pinnacle Pharmaceuticals, Inc. which we acquired in connection with a prior business acquisition. Gross proceeds realized from the sale were $.9 million and because our carrying cost in this stock was $0, the sale resulted in a gain of $.9 million. Other income also includes $.2 million in insurance proceeds related to equipment destroyed in the fire at our Cramlington facility. In addition we received $.3 million of interest income from cash and cash equivalents invested in overnight instruments. Other income was offset by a nominal amount of interest expense in both 2007 and 2006.

Income Tax Expense. Income tax expense recorded during the years ended December 31, 2007 and 2006 related to income taxes in states, foreign countries and other local jurisdictions. Due to the our cumulative losses and inability to utilize any additional losses as carrybacks, we did not provide for an income tax benefit during the years ended December 31, 2007 or 2006 based on our determination that it was more likely than not that such benefits would not be realized. We will 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 carryforwards from continuing and discontinued operations of $109.2 million will expire at various dates from 2008 through 2027, if not utilized. We also had state income tax loss carryforwards from continuing and discontinued operations of $40.7 million at December 31, 2007. These carryforwards will also expire at various dates if not utilized.

Years Ended December 31, 2006 and 2005

Net Sales. Net sales for the years ended December 31, 2006 and 2005 consisted of the following (dollars in thousands):

			Change	
	2006	**2005**	**$**	**%**
Bioinstruments	$ 13,604	$ 14,427	$ (823)	(6)%
Bioconsumables	8,719	8,981	(262)	(3)%
Discovery Services	1,092	2,420	(1,328)	(55)%
Net sales	$ 23,415	$ 25,828	$ (2,413)	(9)%

WAVE Systems sold totaled 68 during the year ended December 31, 2006 compared to 97 during the same period of 2005. The increase in the installed base of instruments continued to drive increases in sales of bioconsumables used with these instruments. The decrease in discovery services net sales was primarily attributable to the expiration of certain research contracts with a large pharmaceutical company in 2005.

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Costs of Goods Sold. Cost of goods sold for the years ended December 31, 2006 and 2005 consisted of the following (dollars in thousands):

	2006	2005	Change $	Change %
Bioinstruments	$ 5,745	$ 6,442	$ (697)	(11)%
Bioconsumables	4,530	4,762	(232)	(5)%
Discovery Services	1,771	2,293	(522)	(23)%
Cost of goods sold	$ 12,046	$ 13,497	$ (1,451)	(11)%

Gross profit equaled $11.3 million or 49% of total net sales during the year ended December 31, 2006 compared to $12.3 million and 48% during the same period of 2005. The increase in gross profit as a percent of revenue is largely attributable to changes in the composition of products sold. Sales of OEM instruments provided for higher gross profit in 2006, while gross profit on WAVE sales was down, due to the lower number of instruments sold and the fixed base of cost associated with this area. Gross profit from discovery services was significantly less in 2006 due to the decrease in net sales to a large pharmaceutical customer which produced net sales of $2.1 million in 2005.

Selling, General and Administrative Expenses. Selling, general and administrative expenses primarily include personnel costs, marketing, travel and entertainment costs, professional fees, and facility costs. These costs remained essentially flat in 2006 compared to 2005, but increased as a percentage of net sales from 47% to 52% as a result of reduced sales. Foreign currency transaction adjustments increased operating expenses by approximately $.08 million compared to the year ended December 31, 2005

Research and Development Expenses. Research and development expenses primarily include personnel costs, supplies, and facility costs. These costs totaled $2.4 million during the year ended December 31, 2006 compared to $2.2 million during the same period of 2005, an increase of $0.2 million or 7%. As a percentage of net sales, research and development expenses totaled 10% and 9% of net sales during the years ended December 31, 2006 and 2005 respectively. We expect to continue to invest up to 10% of our net sales in research and development activities. Research and development costs are expensed in the year in which they are incurred.

Impairment Charges. We did not record any charges in 2006 for impairment of goodwill or long lived assets subject to annual evaluations of impairment. However, impairment charges totaled $0.4 million during the year ended December 31, 2005 and consisted of $0.2 million associated with certain international patent pursuits that were no longer consistent with our strategic plan and $0.2 million related to certain inventory associated with third party platforms.

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Other Income (Expense). Other income during the year ended December 31, 2006 of $0.2 million consisted of interest income. Other expense during the year ended December 31, 2005 consisted of interest expense of $2.0 million and a loss on debt extinguishment of $0.5 million which was partially offset by interest income of $0.1 and other income of $0.1 million. Interest expense consisted of the following for the years ended December 31, 2006 and 2005 (dollars in thousands):

	2006	2005
Interest paid or accrued on outstanding debt	$	$ 553
Amortization of debt premiums		(857)
Amortization of debt discounts warrants		28
Amortization of debt discount beneficial conversion feature		725
Fair value of incremental shares received by Laurus		1,365
Other	11	164
	$ 11	$ 1,978

We had previously entered into a $7.5 million line of credit (the Credit Line) and a $2.8 million convertible note (the Term Note, and collectively with the Credit Line the Laurus Loans) from Laurus Master Fund, Ltd. (Laurus). On March 18, 2005, Laurus converted $1.9 million of the outstanding principal balance under the Credit Line into 3,600,000 shares of our common stock at $0.52 per share. In addition, on March 24, 2005, Laurus converted $.7 million of the outstanding principal balance of the Term Note into 1,250,000 shares of our common stock at $0.52 per share. In conjunction with these conversions, we accelerated amortization of $.4 million of related debt premiums and discounts and recorded a charge to interest expense of $1.4 million related to the fair value of incremental shares received by Laurus. Contemporaneously with the closing of a private offering of common stock in November 2005 (the 2005 Private Placement), we repaid all outstanding principal and accrued interest on the Laurus Loans. In conjunction with this prepayment, we recorded a loss on debt extinguishment of $.5 million. This loss consisted of prepayment penalties and fees paid to Laurus to facilitate the 2005 Private Placement of $.8 million offset by the elimination of associated net debt premiums of $.3 million.

Income Tax Expense. Income tax expense recorded during the years ended December 31, 2006 and 2005 related to income taxes in states, foreign countries and other local jurisdictions. Due to our cumulative losses, expected losses in future years and inability to utilize any additional losses as carrybacks, we did not provide for an income tax benefit during the years ended December 31, 2006 or 2005 based on our determination that it was more likely than not that such benefits would not be realized. We will 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.

Results of Discontinued Operations

On December 22, 2005, the Company s Directors voted to either sell or close and liquidate the Nucleic Acids operating segment, which consists primarily of a manufacturing facility in Glasgow, Scotland. This decision was made after an evaluation of, among other things, short and long-term sales projections for products sold by this operating segment, including estimates of 2006 sales to the operating segment s largest customer. In conjunction with the decision to exit this operating segment,

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the Company recorded impairment charges of $.4 million and $8.0 million in 2006 and 2005, respectively, consisting of valuation adjustments to reflect the carrying value of the related net assets at estimated fair market value. Accordingly, the results of this business segment are shown as discontinued operations for all periods presented. Expenses that are not directly identified to this operating segment or are considered corporate overhead have not been allocated to this segment in determining the results from discontinued operations. Summary results of operations of the former Nucleic Acids operating segment were as follows (dollars in thousands):

	Years Ended December 31,		
	2007	2006	2005
NET SALES	$	$ 1,142	$ 3,881
COST OF GOODS SOLD		912	4,004
Gross profit (loss)		230	(123)
OPERATING EXPENSES:			
Selling, general and administrative	(67)	264	1,054
Research and development			
Restructuring charges			
Exit and disposal charges			866
Impairment charges		436	8,022
Gain on sale of facility			
	(67)	700	9,942
INCOME (LOSS) FROM OPERATIONS	67	(470)	(10,065)
OTHER INCOME (EXPENSE)		2	56
INCOME (LOSS) BEFORE INCOME TAXES	67	(468)	(10,009)
INCOME TAX BENEFIT			
INCOME (LOSS) FROM DISCONTINUED OPERATIONS	$ 67	$ (468)	$ (10,009)

Assets associated with the Nucleic Acids segment consisted principally of our facility in Glasgow, Scotland. During 2007 we completed the sale of the Glasgow facility and the associated equipment for $2.9 million, net of selling expenses, which resulted in a gain of $.1 million.

The Company accepted common stock from a customer of the former Nucleic Acids operating segment, Geron Corporation (Geron) as payment for goods and services. These shares were classified as available-for-sale securities. Net realized gains on these securities during 2005 of $.1 million was reflected as other income. Proceeds from the sales of these available for sale securities were reflected within net cash flows from investing activities in 2005. During 2005 product sales to Geron totaled $1.9 million representing 50% of net sales within this business segment.

Liquidity and Capital Resources

Our working capital positions at December 31, 2007 and 2006 were as follows (in thousands):

	December 31,		
	2007	2006	Change
Current assets (including cash and cash equivalents of $5,723 and $5,868, respectively)	$ 16,163	$ 15,605	$ 558
Current liabilities	4,847	5,329	(482)
Working capital	$ 11,316	$ 10,276	$ 1,040

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We have historically operated at a loss and have not consistently generated sufficient cash from operating activities to cover our operating and other cash expenses. While we have been able to historically finance our operating losses through borrowings or from the issuance of additional equity, we currently have no borrowings and have no plans to issue additional equity securities for this purpose. At December 31, 2007 and December 31, 2006, we had cash and cash equivalents of $5.7 and $5.9 million, respectively. While we believe that existing sources of liquidity are sufficient to meet expected cash needs during 2008, we will need to increase our revenues or further reduce our operating expenses in order to be assured of meeting our liquidity needs on a long-term basis. However, we cannot assure you that we will be able to increase our revenues or further reduce our expenses and, accordingly, we may not have sufficient sources of liquidity to continue the operations of the Company indefinitely.

Analysis of Cash Flows

Years Ended December 31, 2007 and 2006

Net Change in Cash and Cash Equivalents. Cash and cash equivalents decreased $0.1 million during the year ended December 31, 2007 as a result of net cash of $2.9 million being used by operating activities and changes in foreign currency exchanges of $.3 million which was offset by net cash provided by investing activities of $3.1 million.

Cash Flows Used In Operating Activities. Cash flows used in operating activities totaled $2.9 million during the year ended December 31, 2007 compared to $1.2 million during the same period of 2006. The use in 2007 resulted from our net loss of $2.1 million and higher inventory levels of $1.4 million related primarily to the acquisition of an inventory of OEM instruments. This was offset by accounts receivable collections of $1.5 million, gain on sale of an investment in equity securties of $.9 million and non-cash charges of $1.1 million. The use in 2006 resulted primarily from our net loss of $3.43 million offset by non-cash charges of $2.55 million. Non-cash charges consisted primarily of depreciation and amortization, impairment charges and non-cash stock based compensation. Working capital and other adjustments decreased cash flows from operating activities by $0.34 million during 2006.

Cash Flows Used In Investing Activities. Cash flows provided by investing activities totaled $3.1 million during the year ended December 31, 2007 compared to $.2 million of cash flow used in investing activities during the same period of 2006. Cash flows provided by investing activities in 2007 consisted primarily of sales proceeds from our Glasgow facility and equipment of $2.9 and proceeds from the sale of an investment in equity securities of $.9 million. This was offset by purchases of $0.7 million of property and equipment. The cash used in 2006 was for purchases, offset by sales, of property and equipment.

Cash Flows from Financing Activities. Cash flows from financing activities were minimal during the years ended December 31, 2007 and 2006.

Off Balance Sheet Arrangements

At December 31, 2007 and 2006, we did not have any relationships with unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which would have been established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

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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. 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 Account. Accounts receivable are shown net of an allowance for doubtful accounts. In determining an allowance for doubtful accounts, we consider the following:

The age of the accounts receivable,

Customer credit history,

Customer financial information,

Reasons for non-payment, and

Our knowledge of the customer.

If our customers financial condition were to deteriorate, resulting in a change in their ability to make payment, additional allowances may be required.

Inventories. Inventories are stated at the lower of cost or market. Cost is computed using standard costs for finished goods and average or latest actual cost for raw materials and work in process. 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.

Depreciation and Amortization of Long-Lived Assets. Our long-lived assets consist primarily of equipment, patents, intellectual property and capitalized software development costs. We believe the useful lives we assigned to these assets are reasonable. If our assumptions about these assets change as a result of events or circumstances and we believe the assets may have declined in value we may record impairment charges resulting in an increase to operating expenses. Property and equipment are carried at cost. Depreciation and amortization are computed using the straight-line method over the estimated useful lives of the related assets ranging from 3 to 15 years. We capitalize legal costs and filing fees associated with obtaining patents on our 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, generally 17 years, beginning on the date the patent is issued. Intellectual property, which is purchased technology, is recorded at cost and is amortized over its estimated useful life.

Impairment of Long-Lived Assets. We evaluate goodwill for impairment on an annual basis. We assess the recoverability of long-lived assets whenever events or changes in circumstances indicate

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that the carrying amount of an asset may not be recoverable. These computations utilize judgments and assumptions inherent in our estimate of future undiscounted and discounted cash flows to determine recoverability of these assets. If our assumptions about these assets were to change as a result of events or circumstances, we may be required to record an impairment loss.

Revenue Recognition. Revenue on the sales of our instrument and bioconsumable products is 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. Our normal sales terms do not provide for the right of return unless the product is damaged or defective. Revenues from certain services associated with our 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. Revenue recognition for our Molecular Clinical Reference Laboratory is on an individual test basis and takes place when the test report is compete, all sign offs have been completed and the report is sent to the client. In our Pharmacogenomics research group we recognize revenue based on a percent of completion method for each project. Taxes collected from customers and remitted to government agencies for specific revenue producing transactions are recorded net with no effect on the income statement

Recently Issued Accounting Pronouncements

Effective January 1,2007, we began to measure and record tax contingency accruals in accordance with Financial Accounting Standards Board (FASB) Interpretation No. 48, *Accounting for Uncertainty in Income Taxes, an Interpretation of FASB Statement No. 109* (FIN 48). Under FIN 48, tax benefits are recognized only for tax positions that are more likely than not to be sustained upon examination by tax authorities. The amount recognized is measured as the largest amount of benefit that is more likely than not to be realized upon ultimate settlement. Unrecognized tax benefits are tax benefits claimed in our tax returns that do not meet these recognition and measurement standards. For additional information on the adoption of FIN 48, see Note H of this report.

In September 2006, the SEC issued Staff Accounting Bulletin. 108, *Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements* (SAB 108). SAB 108 provides interpretive guidance on how the effects of prior-year uncorrected misstatements should be considered when quantifying misstatements in current year financial statements. SAB 108 requires registrants to quantify misstatements using both an income statement and balance sheet approach and then evaluate whether either approach results in a misstatement that, when all relevant quantitative and qualitative factors are considered, is material. If prior year errors that had been previously considered immaterial are now considered material based on either approach, no restatement is required so long as management properly applied its previous approach and all relevant facts and circumstances were considered. If prior year s financial statements are not restated, the cumulative effect adjustment is recorded in opening accumulated earnings (deficit) as of the beginning of the fiscal year of adoption. SAB 108 became effective for us at the end of 2006. There was no material impact to our Consolidated Financial Statements as a result of adoption of this pronouncement.

In September 2006, the FASB issued SFAS No. 157 Fair Value Measurements (SFAS 157). SFAS 157 provides a new single authoritative definition of fair value and provides enhanced

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guidance for measuring the fair value of assets and liabilities and requires additional disclosures related to the extent to which companies measure assets and liabilities at fair value, the information used to measure fair value, and the effect of fair value measurements on earnings. SFAS 157 is effective as of January 1, 2008 for financial assets and financial liabilities within its scope and it is not expected to have a material impact on our consolidated financial statements. In February 2008, the FASB issued FASB Staff Position No. FAS 157-2 Effective Date of FASB Statement No. 157 (FSP FAS 157-2), which defers the effective date of SFAS 157 for all non-financial assets and non-financial liabilities, except those that are recognized or disclosed at fair value in the financial statements on a recurring basis (at least annually), for fiscal years beginning after November 15, 2008 and interim periods within those fiscal years for items within the scope of FSP FAS 157-2. We are currently assessing the impact, if any, of SFAS 157 and FSP FAS 157-2 on our consolidated financial statements.

In February 2007, the FASB issued SFAS No. 159 The Fair Value Option for Financial Assets and Financial Liabilities (SFAS 159). SFAS 159 provides companies with an option to irrevocably elect to measure certain financial assets and financial liabilities at fair value on an instrument-by-instrument basis with the resulting changes in fair value recorded in earnings. The objective of SFAS 159 is to reduce both the complexity in accounting for financial instruments and the volatility in earnings caused by using different measurement attributes for financial assets and financial liabilities. SFAS 159 is effective as of January 1, 2008. We currently have no financial assets or financial liabilities for which SFAS 159 would be applicable.

In December 2007, the FASB issued SFAS No. 141(R) Business Combinations (SFAS 141(R)). SFAS 141(R) changes several underlying principles in applying the purchase method of accounting. Among the significant changes, SFAS 141(R) requires a redefining of the measurement date of a business combination, expensing direct transaction costs as incurred, capitalizing in-process research and development costs as an intangible asset and recording a liability for contingent consideration at the measurement date with subsequent re-measurements recorded in the results of operations. SFAS 141(R) also requires that costs for business restructuring and exit activities related to the acquired company will be included in the post-combination financial results of operations and also provides new guidance for the recognition and measurement of contingent assets and liabilities in a business combination. In addition, SFAS 141(R) requires several new disclosures, including the reasons for the business combination, the factors that contribute to the recognition of goodwill, the amount of acquisition related third-party expenses incurred, the nature and amount of contingent consideration, and a discussion of pre-existing relationships between the parties. SFAS 141(R) is effective as of January 1, 2009. We currently do not have any plans for a business combination, therefore SFAS No.141 (R) is not expected to have an impact on our financial statements.

In December 2007, the FASB issued SFAS No. 160 Noncontrolling Interests in Consolidated Financial Statements, an Amendment of ARB No. 51 (SFAS 160). SFAS 160 establishes accounting and reporting standards for the noncontrolling interest in a subsidiary and for the deconsolidation of a subsidiary. SFAS 160 requires noncontrolling interests in subsidiaries initially to be measured at fair value and classified as a separate component of equity. SFAS 160 also requires a new presentation on the face of the consolidated financial statements to separately report the amounts attributable to controlling and non-controlling interests. SFAS 160 is effective as of January 1, 2009. We do not expect SFAS No. 160 to have an impact on our consolidated financial statements.

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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 reported period. In addition, estimates and assumptions associated with the determination of the fair value of certain assets and related impairments and the determination of goodwill impairments require considerable judgment by management. Actual results could differ from the estimates and assumptions used in preparing these financial statements.

Impact of Inflation

We do not believe that price inflation had a material adverse effect on our financial condition or results of operations during the periods presented.

Item 7A. Quantitative and Qualitative Disclosure about Market Risk

Foreign Currency Translation Risk. During the last three fiscal years, our international sales have represented more than 50% of our net sales. These sales of products in foreign countries are mainly completed in either British Pounds Sterling or the Euro. Additionally, we have two wholly owned subsidiaries, Transgenomic Limited, and Cruachem Limited, whose operating currency is British Pounds Sterling and the Euro. Results of operations for the Company s foreign subsidiaries are translated using the average exchange rate during the period. Assets and liabilities are translated at the exchange rate in effect at the balance sheet date. As a result we are subject to exchange rate risk. The operational expenses of our foreign subsidiaries help to reduce the currency exposure we have based on our sales denominated in foreign currencies by converting foreign currencies directly into goods and services. As such, we feel we do not have a material exposure to foreign currency rate fluctuations at this time.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Stockholders

Transgenomic, Inc.

We have audited the accompanying consolidated balance sheet of Transgenomic, Inc. and subsidiaries as of December 31, 2007 and the related consolidated statements of operations, stockholders equity and cash flows for the year ended December 31, 2007. 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 examine management s assertion about the effectiveness of Transgenomic, Inc s internal control over financial reporting as of December 31, 2007 included in the accompanying Management s Report on Internal Control Over Financial Reporting and, accordingly, we do not express an opinion thereon. 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 audit provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Transgenomic, Inc. and subsidiaries as of December 31, 2007, and the results of their operations and their cash flows for year ended December 31, 2007 in conformity with U.S. generally accepted accounting principles.

/s/ McGladrey & Pullen, LLP

Omaha, Nebraska
March 26, 2008

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders

of Transgenomic, Inc.

Omaha, Nebraska

We have audited the accompanying consolidated balance sheets of Transgenomic, Inc. and subsidiaries (the Company) as of December 31, 2006 and 2005, and the related consolidated statements of operations, stockholders equity, and cash flows for each of the three years in the period ended December 31, 2006. 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. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company s internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of Transgenomic, Inc. and subsidiaries at December 31, 2006 and 2005, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2006, in conformity with accounting principles generally accepted in the United States of America.

As discussed in Note B to the consolidated financial statements, in 2006 the Company adopted Statement of Financial Accounting Standards No. 123(R), *Share-Based Payment*.

/s/ Deloitte & Touche LLP

Omaha, Nebraska
March 30, 2007

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TRANSGENOMIC, INC. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

As of December 31, 2007 and 2006

(Dollars in thousands except per share data)

	2007	2006
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 5,723	$ 5,868
Accounts receivable (net of allowances for bad debts of $703 and $444, respectively)	5,095	6,525
Inventories	4,586	2,672
Prepaid expenses and other current assets	759	540
Total current assets	16,163	15,605
PROPERTY AND EQUIPMENT:		
Equipment	10,857	10,345
Furniture and fixtures	4,056	3,820
	14,913	14,165
Less: accumulated depreciation	13,334	12,667
	1,579	1,498
OTHER ASSETS:		
Goodwill	638	638
Other assets (net of accumulated depreciation of $1,117 and $1,293, respectively)	710	853
Non-current assets of discontinued operations		2,773
	$ 19,090	$ 21,367
LIABILITIES AND STOCKHOLDERS EQUITY		
CURRENT LIABILITIES:		
Accounts payable	$ 1,245	$ 1,558
Other accrued expenses	3,152	2,898
Accrued compensation	450	689
Current liabilities of discontinued operations		184
Total current liabilities	4,847	5,329
Other long term liabilities	141	
Total liabilities	4,988	5,329
STOCKHOLDERS EQUITY:		
Preferred stock, $.01 par value, 15,000,000 shares authorized, none outstanding		
Common stock, $.01 par value, 100,000,000 and 60,000,000 shares authorized, respectively, 49,189,672 and 49,189,672 shares outstanding, respectively	497	497
Additional paid-in capital	139,099	138,966
Accumulated other comprehensive income	2,274	2,100
Accumulated deficit	(127,768)	(125,525)
Total stockholders equity	14,102	16,038

	$ 19,090	$ 21,367

See notes to consolidated financial statements.

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TRANSGENOMIC, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS

Years Ended December 31, 2007, 2006 and 2005

(Dollars in thousands except per share data)

	2007	2006	2005
NET SALES	$ 23,176	$ 23,415	$ 25,828
COST OF GOODS SOLD	10,483	12,046	13,497
Gross profit	12,693	11,369	12,331
OPERATING EXPENSES:			
Selling, general and administrative	11,466	12,138	12,218
Research and development	3,033	2,362	2,199
Restructuring charges	1,516		
Impairment charges			425
	16,015	14,500	14,842
LOSS FROM OPERATIONS	(3,322)	(3,131)	(2,511)
OTHER INCOME (EXPENSE):			
Interest income (expense)	270	205	(1,951)
Loss on debt extinguishment			(541)
Other, net	1,121	(7)	45
	1,391	198	(2,447)
LOSS BEFORE INCOME TAXES	(1,931)	(2,933)	(4,958)
INCOME TAX EXPENSE	243	30	26
LOSS FROM CONTINUING OPERATIONS	(2,174)	(2,963)	(4,984)
DISCONTINUED OPERATIONS:			
Income (Loss) from discontinued operations before income tax	67	(468)	(10,009)
Income tax benefit of discontinued operations			
INCOME (LOSS) FROM DISCONTINUED OPERATIONS	67	(468)	(10,009)
NET LOSS	$ (2,107)	$ (3,431)	$ (14,993)
COMPREHENSIVE LOSS	$ (1,933)	$ (2,034)	$ (16,829)
BASIC AND DILUTED LOSS PER SHARE:			
From continuing operations	$ (0.04)	$ (0.06)	$ (0.14)
From discontinued operations	(0.00)	(0.01)	(0.28)
	$ (0.04)	$ (0.07)	$ (0.42)
BASIC AND DILUTED WEIGHTED AVERAGE SHARES OUTSTANDING	49,189,672	49,188,451	35,687,580

See notes to consolidated financial statements.

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TRANSGENOMIC, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF STOCKHOLDERS EQUITY

Years Ended December 31, 2007, 2006 and 2005

(Dollars in thousands except share data)

	Common Stock					
	Outstanding Shares	Par Value	Additional Paid in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Total
Balance, January 1, 2005	29,330,874	299	120,798	(107,101)	2,539	16,535
Net loss				(14,993)	(14,993)	(14,993)
Other comprehensive income (loss):						
Foreign currency translation adjustment					(1,836)	(1,836)
Comprehensive loss					(16,829)	
Beneficial conversion premium			399			399
Conversion of Laurus Loans	4,900,000	49	2,507			2,556
Fair value of incremental shares issued			1,365			1,365
Issuance of shares in private placement, net of expenses of $1,213	14,925,743	149	13,713			13,862
Issuance of shares for employee stock purchase plan	25,504		18			18
Balance, December 31, 2005	49,182,121	497	138,800	(122,094)	703	17,906
Net loss				(3,431)	(3,431)	(3,431)
Other comprehensive income (loss):						
Foreign currency translation adjustment					1,397	1,397
Comprehensive loss					(2,034)	
Non-cash stock based compensation			161			161
Issuance of shares for employee stock purchase plan	7,551		5			5
Balance, December 31, 2006	49,189,672	497	138,966	(125,525)	2,100	16,308
Net loss				(2,107)	(2,107)	(2,107)
FIN 48 Adjustment				(129)		(129)
Other, net				(7)	7	
Other comprehensive income (loss):						
Foreign currency translation adjustment					167	167
Comprehensive loss					(1,933)	
Non-cash stock based compensation			133			133
Balance, December 31, 2007	49,189,672	$ 497	$ 139,099	$(127,768)	$ 2,274	$ 14,102

See notes to consolidated financial statements.

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TRANSGENOMIC, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

Years Ended December 31, 2007, 2006 and 2005

(Dollars in thousands)

	2007	2006	2005
CASH FLOWS PROVIDED BY (USED IN) OPERATING ACTIVITIES:			
Net loss	$ (2,107)	$ (3,431)	$ (14,993)
Adjustments to reconcile net loss to net cash flows from operating activities:			
Depreciation and amortization	950	1,949	4,283
Impairment charges		437	8,447
Non-cash financing costs			1,281
Non-cash debt extinguishment charges			(303)
Non-cash stock based compensation	133	161	
(Gain)/loss on sale of investment and assets	(1,034)		(50)
Other	13	18	
Changes in operating assets and liabilities:			
Accounts receivable	1,479	1,634	139
Inventories	(1,436)	397	514
Prepaid expenses and other current assets	(217)	200	574
Accounts payable	(576)	(731)	(1,129)
Accrued expenses	(144)	(1,846)	(2,390)
Net cash flows provided by (used in) operating activities	(2,939)	(1,212)	(3,627)
CASH FLOWS PROVIDED BY (USED IN) INVESTING ACTIVITIES:			
Proceeds from the maturities and sale of available for sale securities			2,151
Purchase of property and equipment	(720)	(250)	(641)
Change in other assets	(132)	(64)	(3)
Proceeds from asset sales	3,935	119	139
Net cash flows provided by (used in) investing activities	3,083	(195)	1,646
CASH FLOWS PROVIDED BY (USED IN) FINANCING ACTIVITIES:			
Net change in line of credit			(4,069)
Payments on long-term debt			(1,850)
Issuance of common stock, net of expenses		5	13,836
Net cash flows provided by (used in) financing activities		5	7,917
EFFECT OF FOREIGN CURRENCY EXCHANGE RATE CHANGES ON CASH	(289)	534	(202)
NET CHANGE IN CASH AND CASH EQUIVALENTS	(145)	(868)	5,734
CASH AND CASH EQUIVALENTS AT BEGINNING OF YEAR	5,868	6,736	1,002
CASH AND CASH EQUIVALENTS AT END OF YEAR	$ 5,723	$ 5,868	$ 6,736
SUPPLEMENTAL CASH FLOW INFORMATION			
Cash paid during the year for:			
Interest	$ 5	$ 11	$ 553
Income taxes, net	178	30	12
Non-cash transactions:			

Available for sale securities acquired for goods and services	2,099
Conversions of debt to equity	2,536

See notes to consolidated financial statements.

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TRANSGENOMIC, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Years Ended December 31, 2007, 2006 and 2005

A. BUSINESS DESCRIPTION

Business Description.

Transgenomic, Inc. provides innovative products for the synthesis, purification and analysis of nucleic acids used in the life sciences industry for research focused on molecular genetics and diagnostics. We also provide genetic variation analytical services to the medical research, clinical and pharmaceutical markets. Net sales are categorized as bioinstruments, bioconsumables and discovery services.

- Bioinstruments. Our flagship product is the WAVE® System which has broad applicability to genetic variation detection in both molecular genetic research and molecular diagnostics. There is a worldwide installed base of over 1,400 WAVE Systems as of December 31, 2007. 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 technical support personnel.

- Bioconsumables. The installed WAVE base and some third-party installed platforms generate a demand for consumables that are required for the system s continued operation. We develop, manufacture and sell these 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 HPLC separation columns.

- Discovery Services. Our Pharmacogenomics Research Service is a contract research lab in Gaithersburg, Maryland that primarily provides genomic biomarker analysis services to pharmaceutical and biopharmaceutical companies to support preclinical and clinical development of targeted therapeutics. Our Molecular Clinical Reference Laboratory, in Omaha, Nebraska provides molecular-based testing for hematology, oncology and certain inherited diseases for physicians and third-party laboratories. The Molecular Clinical Reference Laboratory operates in a Good Laboratory Practices (GLP) compliant environment and is certified under the Clinical Laboratory Improvement Amendment.

Historically, we operated a segment (the Nucleic Acids operating segment) that developed, manufactured and marketed chemical building blocks for nucleic acid synthesis. In the fourth quarter of 2005, we implemented a plan to exit the Nucleic Acids operating segment and during the three months ended March 31, 2007, we completed the sale of the remaining assets associated with this segment. Accordingly, the assets and results of the Nucleic Acids operating segment are reflected as discontinued operations for all periods presented in the accompanying financial statements.

Although we have experienced declining sales and recurring net losses (resulting in an accumulated deficit of $128 million at December 31, 2007), management believes existing sources of liquidity, including cash and cash equivalents of $5.7 million, are sufficient to meet expected cash needs during 2008. Our business consolidation efforts have helped control our operating costs, however we will need to increase net sales in order to meet our liquidity needs on a long-term basis. In future periods, there is no assurance that we will be able to increase net sales or further reduce expenses and, accordingly, we may not have sufficient sources of liquidity to continue operations indefinitely.

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TRANSGENOMIC, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

Years Ended December 31, 2007, 2006 and 2005

B. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of Consolidation.

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

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 and the determination of goodwill impairments require considerable judgment by management. Actual results could differ from the estimates and assumptions used in preparing these financial statements.

Cash and Cash Equivalents.

Cash and cash equivalents include cash and all investments with original maturities at acquisition of three months or less, such investments presently consisting of only 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.

Accounts Receivable.

Accounts receivable are shown net of allowance for doubtful accounts. The following is a summary of activity for the allowance for doubtful accounts during the years ended December 31, 2007, 2006 and 2005:

	Dollars in Thousands			
	Beginning Balance	Additional Charges to Income	Deductions from Reserve	Ending Balance
Year Ended December 31, 2007	$ 444	$ 753	$ 494	$ 703
Year Ended December 31, 2006	$ 615	$ 92	$ 263	$ 444
Year Ended December 31, 2005	$ 701	$	$ 86	$ 615

While payment terms are generally 30 days, we have also provided extended payment terms of up to 90 days in certain cases. We review accounts receivable on a quarterly basis and adjust our bad debt reserve accordingly.

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TRANSGENOMIC, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

Years Ended December 31, 2007, 2006 and 2005

Inventories.

Inventories are stated at the lower of cost or market. Cost is computed using standard costs for finished goods and average or latest actual cost for raw materials and work in process.

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	2 to 10 years
Furniture and fixtures	5 to 7 years
Production equipment	5 to 7 years
Computer equipment	3 to 5 years
Research and development equipment	3 to 5 years
Demonstration equipment	3 to 5 years

Depreciation of property and equipment totaled $.8 million, $1.3 million and $1.8 million in 2007, 2006, and 2005 respectively.

Goodwill.

Statement of Financial Accounting Standards (SFAS) No. 142, *Goodwill and Other Intangible Assets,* provides that goodwill will not be amortized, but will be tested for impairment annually. We perform this impairment analysis during the fourth quarter of each year. Impairment occurs when the carrying value is determined to be not recoverable thereby causing the fair value of the goodwill to exceed the carrying value. If impaired, the asset s carrying value is reduced to its fair value. No impairment existed at December 31, 2007 or 2006.

Other Assets.

Other assets include intellectual property, patents, other intangible assets, and other long-term assets.

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.

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, generally 17 years, beginning on the date the patent is issued.

Other Intangible Assets. Identifiable intangible assets with definite lives are amortized over their estimated useful lives and tested for impairment as events or changes in circumstances indicate the carrying amount of the asset may be impaired.

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TRANSGENOMIC, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

Years Ended December 31, 2007, 2006 and 2005

Each of these assets are treated as long-lived assets for purposes of SFAS No. 144, which provides that long-lived assets will be tested for impairment on an annual basis. We periodically review the carrying value of our long-lived assets to assess recoverability and impairment. We recorded no impairments during 2007 or 2006.

Stock Based Compensation.

All stock options awarded 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, 2007 had vesting periods of three years from date of grant. None of the stock options outstanding at December 31, 2007 are subject to performance or market-based vesting conditions.

We adopted FASB123(R), on January 1, 2006. FASB 123(R) requires us to 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 ratably over the service period of the awards (generally the vesting period).

On December 28, 2005, our Directors approved a plan to accelerate the vesting of all outstanding stock options. Aside from the acceleration of the vesting date, the terms and the conditions of the stock option award agreements governing the underlying stock option grants remained unchanged. As a result of this plan, options to purchase approximately 1,081,845 shares became immediately exercisable. All such options were out-of-the-money and, accordingly, the accelerated vesting resulted in no compensation expense since there was no intrinsic value associated with these fixed awards at the date of modification. Accelerating the vesting of these options allowed us to avoid recognition of compensation expense associated with these options in future periods.

For the year ended December 31, 2007, we recorded compensation expense of $.1 million within selling, general and administrative expense as a result of the vesting of 1.4 million options during the year. No options vested during the year ended December 31 2006, however we recorded compensation expense of $.2 million during the year as result of the extension of the post-termination exercise period for .5 million options from 90 days after termination to the remaining contractual term of the original option grants. As of December 31, 2007, there was $.4 million of unrecognized compensation expense related to unvested stock options, which is expected to be recognized over a weighted average period of nearly three years.

The fair value of the options granted during 2007 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 3.34% to 5.08%, based on the U.S. Treasury yield in effect at the time of grant; dividend yields of zero percent; expected lives of 2 to 10 years, based on historical exercise activity behavior; and volatility of 89.14% and 67.58% for grants made during the year ended December 31, 2007 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 and are expected to hold the options until they are vested therefore no forfeitures have been assumed.

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TRANSGENOMIC, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

Years Ended December 31, 2007, 2006 and 2005

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.

Revenue Recognition.

Revenue (referred to as net sales) on the sales of products is 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 over the service period. At December 31, 2007 and December 31, 2006, deferred revenue mainly associated with our service contracts, included in the balance sheet in other accrued expenses, was approximately $1.6 million and $1.6 million, respectively.

Revenue recognition for our Molecular Clinical Reference Laboratory is on an individual test basis and takes place when the test report is compete, all sign offs have been completed and the report is sent to the client. In our Pharmacogenomics research group we recognize revenue based on a percentage of completion method for each project.

Taxes collected from customers and remitted to government agencies for specific revenue 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.

Financial statements of subsidiaries outside the U.S. are measured using the local currencies as the functional currency. The adjustments to translate those amounts into U.S. dollars are accumulated in a separate account in stockholders equity and are included in accumulated other comprehensive income. Foreign currency transaction gains or losses resulting from changes in currency exchange rates are included in the determination of net income. Foreign currency transaction adjustments decreased net loss by $.1 million during the year ended December 31, 2007 and increased net loss by $.1 million and $.3 million during the years ended December 31, 2006 and 2005, respectively.

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TRANSGENOMIC, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

Years Ended December 31, 2007, 2006 and 2005

Comprehensive Income.

Accumulated other comprehensive income at December 31, 2007 and 2006 consisted of foreign currency translation adjustments, net of applicable tax of zero. We deem our foreign investments to be permanent in nature and do not provide for taxes on currency translation adjustments arising from converting investments in a foreign currency to U.S. dollars.

Earnings 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. Options, warrants and conversion rights pertaining to 12,583,879, 13,530,241 and 13,625,675 shares of our common stock have been excluded from the computation of diluted earnings per share at December 31, 2007, 2006 and 2005, respectively, because the effect would be anti-dilutive due to the net loss from continuing operations in those periods. As a result, none of our outstanding options, warrants or conversion rights affect the calculation of diluted earnings per share.

Recently Issued Accounting Pronouncements.

In July 2006, the FASB issued Interpretation No. 48, *Accounting for Uncertainty in Income Taxes* (FIN 48). FIN 48 applies to all tax positions within the scope of Statement 109 and clarifies when and how to recognize tax benefits in the financial statements with a two-step approach of recognition and measurement. We adopted FIN 48 on January 1, 2007. Under FIN 48, tax benefits are recognized only for tax positions that are more likely than not to be sustained upon examination by tax authorities. The amount recognized is measured as the largest amount of benefit that is more likely than not to be realized upon ultimate settlement. Unrecognized tax benefits are tax benefits claimed in our tax returns that do not meet these recognition and measurement standards.

In September 2006, the FASB issued Statement No. 157, *Fair Value Measurement* (FAS 157). While this Statement does not require new fair value measurements, it provides guidance on applying fair value and expands required disclosures. We are currently assessing the impact, if any, of SFAS 157 and FSP FAS 157-2 on our consolidated financial statements.

In February 2007, the FASB issued Statement No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities* (FAS 159). This Statement, which is expected to expand fair value measurement, permits entities to choose to measure many financial instruments and certain other items at fair value. FAS 159 will become effective for us beginning with the first quarter of 2008. We are currently have no financial assets or financial liabilities for which SFAS 159 would be applicable.

In December 2007, the FASB issued SFAS No. 141(R) Business Combinations (SFAS 141(R)). SFAS 141(R) changes several underlying principles in applying the purchase method of accounting. Among the significant changes, SFAS 141(R) requires a redefining of the measurement

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TRANSGENOMIC, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

Years Ended December 31, 2007, 2006 and 2005

date of a business combination, expensing direct transaction costs as incurred, capitalizing in-process research and development costs as an intangible asset and recording a liability for contingent consideration at the measurement date with subsequent re-measurements recorded in the results of operations. SFAS 141(R) also requires that costs for business restructuring and exit activities related to the acquired company will be included in the post-combination financial results of operations and also provides new guidance for the recognition and measurement of contingent assets and liabilities in a business combination. In addition, SFAS 141(R) requires several new disclosures, including the reasons for the business combination, the factors that contribute to the recognition of goodwill, the amount of acquisition related third-party expenses incurred, the nature and amount of contingent consideration, and a discussion of pre-existing relationships between the parties. SFAS 141(R) is effective as of January 1, 2009. We currently do not have any plans for a business combination, therefore SFAS No.141 (R) is expected to have no impact on our Consolidated Financial Statements.

In December 2007, the FASB issued SFAS No. 160 Noncontrolling Interests in Consolidated Financial Statements, an Amendment of ARB No. 51 , (SFAS 160). SFAS 160 establishes accounting and reporting standards for the noncontrolling interest in a subsidiary and for the deconsolidation of a subsidiary. SFAS 160 requires noncontrolling interests in subsidiaries initially to be measured at fair value and classified as a separate component of equity. SFAS 160 also requires a new presentation on the face of the consolidated financial statements to separately report the amounts attributable to controlling and non-controlling interests. SFAS 160 is effective as of January 1, 2009. We do not expect SFAS No. 160 to have an impact on our Consolidated Financial Statements.

C. DISCONTINUED OPERATIONS

In the fourth quarter of 2005, we implemented a plan to exit the Nucleic Acids operating segment. Accordingly, the results of this business segment are shown as discontinued operations for all periods presented. Expenses that are not directly identified to the Nucleic Acids operating segment or that are considered corporate overhead have not been allocated in arriving at the loss from discontinued operations. Summary results of operations of the former Nucleic Acids operating segment were as follows:

	Years Ended December 31, (dollars in thousands)		
	2007	**2006**	**2005**
NET SALES	$	$ 1,142	$ 3,881
COST OF GOODS SOLD		912	4,004
Gross profit (loss)		230	(123)
OPERATING EXPENSES	(67)	700	9,942
INCOME (LOSS) FROM OPERATIONS	67	(470)	(10,065)
OTHER INCOME (EXPENSE)		2	56
INCOME (LOSS) BEFORE INCOME TAXES	67	(468)	(10,009)
INCOME TAX			
INCOME (LOSS) FROM DISCONTINUED OPERATIONS	$ 67	$ (468)	$ (10,009)

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Assets associated with the Nucleic Acids segment consisted principally of our facility in Glasgow, Scotland. During the quarter ended March 31, 2007, we completed the sale of the Glasgow facility and the associated equipment for $2.9 million, net of selling expenses, which resulted in a gain of $.1 million.

The assets and liabilities of the former Nucleic Acids operating segment were as follows:

	Dollars in Thousands	
	December 31, 2007	December 31, 2006
Accounts receivable (net of allowances for doubtful accounts of $177 and $169, respectively)	$	$
Current assets of discontinued operations	$	$
Property and equipment, net	$	$ 2,773
Non-current assets of discontinued operations	$	$ 2,773
Accounts payable	$	$ 45
Other accrued expenses		139
Current liabilities of discontinued operations	$	$ 184

Liabilities at December 31, 2006 related to expenses to be paid during 2007 for final closing costs of the Glasgow facility. These liabilities were settled through cash payments during 2007.

D. RESTRUCTURING CHARGES

We recorded restructuring charges totaling $1.5 million during 2007. The restructuring charges were comprised of severance totaling $.9 million, facility closure costs totaling $.5 million and other costs totaling $.1 million. Restructuring charges related to three events: A restructuring plan completed in the second quarter of 2007, which charges resulted from the termination of four employees in Omaha, Nebraska; the closure of the Cramlington, England bioconsumable production facility and consolidation of this production in the Omaha, Nebraska facility; and the closure of an administrative office outside Paris, France, and combining those operations with those performed elsewhere in the organization. We substantially completed these restructuring activities as of December 31, 2007. These restructuring charges do not relate to any activities taken by us during 2007 or prior periods in connection with the termination of our Nucleic Acids business segment. All costs associated with these activities are included in income(loss) from discontinued operations. There were no restructuring charges in 2006 or 2005.

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TRANSGENOMIC, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

Years Ended December 31, 2007, 2006 and 2005

E. INVENTORIES

Inventories consisted of the following:

	Dollars in Thousands	
	December 31, 2007	December 31, 2006
Finished goods	$ 3,123	$ 2,146
Raw materials and work in process	1,370	443
Demonstration inventory	93	83
	$ 4,586	$ 2,672

F. OTHER ASSETS

Finite lived intangible assets and other assets consisted of the following:

	Dollars in Thousands					
	December 31, 2007			December 31, 2006		
	Cost	Accumulated Amortization	Net Book Value	Cost	Accumulated Amortization	Net Book Value
Intellectual property	$ 865	$ 715	$ 150	$ 765	$ 677	$ 88
Patents	659	185	474	676	155	521
Other	303	217	86	705	461	244
Total	$ 1,827	$ 1,117	$ 710	$ 2,146	$ 1,293	$ 853

Amortization expense for intangible assets was $.1 million, $.2 million, and $1.2 million during the years ended December 31, 2007, 2006 and 2005, respectively. Amortization expense for intangible assets is expected to be approximately $.1 million in each of years 2008 through 2013.

G. 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.

We lease certain equipment, vehicles and operating facilities under non-cancellable operating leases that expire on various dates through 2014. The future minimum lease payments required under these leases are approximately $.9 million in 2008, $.8 million in 2009, $.7 million in 2010, $.5 million in 2011, $.3 million in 2012, and $.1 million thereafter. Rent expense for continuing operations related to operating leases for the years ended December 31, 2007, 2006, and 2005 was $1.1 million, $1.0 million and $1.3 million, respectively.

At December 31, 2007, firm commitments to vendors to purchase components used in WAVE Systems and instruments manufactured by others totaled $0.1 million.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

Years Ended December 31, 2007, 2006 and 2005

H. INCOME TAXES

The Company s provision for income taxes for the years ended December 31, 2007, 2006 and 2005 relates to income taxes in states, foreign countries and other local jurisdictions, is all current 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		
	2007	**2006**	**2005**
Benefit at federal rate	$ (648)	$ (997)	$ (1,687)
Increase (decrease) resulting from:			
State income taxes net of federal benefit	(101)	(210)	(192)
Foreign subsidiary tax rate difference	(29)	(135)	(81)
Research and development tax credit			
Other net	231	62	191
Valuation allowance	790	1,310	1,795
Current income tax expense	$ 243	$ 30	$ 26

The Company s deferred income tax asset from continuing and discontinued operations at December 31, 2007 and 2006 is comprised of the following temporary differences:

	Dollars in Thousands	
	2007	**2006**
Net operating loss carryforward	$ 39,597	$ 40,377
Research and development credit carryforwards	1,340	1,328
Deferred revenue	256	249
Accrued vacation	59	69
Other	993	2,175
	42,245	44,198
Less valuation allowance	(42,245)	(44,198)
	$	$

At December 31, 2007, we had total unused federal tax net operating loss carryforwards from continuing and discontinued operations of $106.2 million of which $1.8 million expire in 2008, $3.7 million expire in 2009, $3.0 million expire in 2010, $.9 million expire in 2011, $3.4 million expire in 2012, $1.8 million expire in 2018, $8.2 million expire in 2019, $9.7 million expire in 2020, $8.2 million expire in 2021, $16.9 million expire in 2022, $16.2 million expire in 2023, $17.4 million expire in 2024, $8.2 million expire in 2025, and $6.9 million expire in 2026. Of these federal net operating loss carryforwards, $11.8 million were obtained in the acquisition of Annovis, Inc. and may be subject to certain restrictions. At December 31, 2007, we had unused state tax net operating loss carryforwards from continuing and discontinued operations of approximately $39.6 million that expire at various times between 2008 and 2025. At December 31, 2007, we had unused research and development credit

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Years Ended December 31, 2007, 2006 and 2005

carryforwards from continuing and discontinued operations of $1.3 million that expire at various times between 2008 and 2024. A valuation allowance has been provided for the remaining deferred tax assets, due to the our 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.

In July 2006, the FASB issued Interpretation No. 48, *Accounting for Uncertainty in Income Taxes* (FIN 48). FIN 48 applies to all tax positions within the scope of Statement 109 and clarifies when and how to recognize tax benefits in the financial statements with a two-step approach of recognition and measurement. The Company adopted FIN 48 on January 1, 2007. Under FIN 48, tax benefits are recognized only for tax positions that are more likely than not to be sustained upon examination by tax authorities. The amount recognized is measured as the largest amount of benefit that is more than likely not to be realized upon ultimate settlement. Unrecognized tax benefits are tax benefits claimed in the Company s tax returns that do not meet these recognition and measurement standards.

Upon adoption of FIN 48 on January 1, 2007, the Company recognized a $.1 million increase in the liability for unrecognized tax benefits. This increase in the liability was offset by an increase to the January 1, 2007 balance in the accumulated deficit. The gross amount of unrecognized tax benefits as of the date of adoption was $.1 million, all of which would affect the effective tax rate if recognized. Included in this amount is an aggregate of $.1 of interest and penalties. The Company s policy is to recognize interest and penalties directly related to income taxes as part of income tax expense.

The Company files income tax returns in the U.S. federal jurisdiction, various U.S. state jurisdictions and various foreign jurisdictions. The Company has statutes of limitation open for Federal income tax returns related to tax years 2004 through 2006. The Company has state income tax returns subject to examination primarily for tax years 2003 through 2006. Open tax years related to foreign jurisdictions remain subject to examination. The Company s primary foreign jurisdiction is the United Kingdom which has open tax years for 2005 through 2006. The Company is currently under examination by the Internal Revenue Service for the tax year ending December 31, 2006.

During the year ended December 31, 2007, there were no material changes to the liability for uncertain tax positions.

I. EMPLOYEE BENEFIT PLAN

We maintain an employee 401(k) retirement savings plan that allows for voluntary contributions into designated investment funds by eligible employees. We match the employees contributions at the rate of 50% on the first 6% 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 $.2 million, $.2 million, and $.2 million for the years ended December 31, 2007, 2006 and 2005 respectively.

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TRANSGENOMIC, INC. AND SUBSIDIARIES

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Years Ended December 31, 2007, 2006 and 2005

J. STOCKHOLDERS EQUITY

Common Stock.

On October 31, 2005, the Company completed the 2005 Private Placement. The securities issued consisted of: (i) 14,925,743 shares of the Company s common stock, plus (ii) five-year, non-callable warrants to purchase another 5,970,297 shares of common stock with an exercise price of $1.20 per share. The aggregate purchase price for the securities sold in the 2005 Private Placement was $1.01 per share of common stock initially being sold (the Purchase Price) or $15,075,000. In conjunction with the 2005 Private Placement, the Company issued a warrant to Oppenheimer & Co., Inc. to purchase 932,859 shares at $1.20 per share as part of their placement fee.

During 2005 and 2004, the Company issued 4,900,000 and 1,134,850 shares, respectively, of common stock in conjunction with conversions under the Laurus Loans as follows.

Date	Price	Shares Issued	Net Proceeds (Dollars in Thousands)	Facility	Applied To
January 2005	$ 1.00	50,000	$ 50	Term Note	Principal
March 2005	$ 0.52	3,600,000	1,835	Credit Note	Principal
March 2005	$ 0.52	1,250,000	650	Term Note	Principal
Total 2005		4,900,000	$ 2,535		
January 2004	$ 2.20	650,000	$ 1,422	Credit Line	Principal
February 2004	$ 2.20	259,091	570	Credit Line	Principal
December 2004	$ 1.00	150,000	146	Term Note	Principal
December 2004	$ 1.00	75,759	72	Term Note	Interest
Total 2004		1,134,850	$ 2,210		

Each of the foregoing stock sales was exempt from registration under the Securities Act of 1933, as amended (the Securities Act) as a sale not involving a public offering.

In May 2001, Company shareholders approved the adoption of the Transgenomic, Inc. 2001 Employee Stock Purchase Plan that was subsequently implemented in November 2001 and terminated in December 2005. Substantially all of the Company s U.S. employees were eligible to participate in the Plan. Eligible employees authorized payroll deductions to be made for the purchase of shares. Such deductions were accumulated during a defined participation period at the end of which each participant was deemed to have been granted an option to purchase shares of stock from the Company at 85% of the fair market value of the Company stock as measured by the closing price of the stock on either the first or last business day of the participation period, whichever was lower. The number of shares purchased under the option was based upon the participant s elected withholding amount. At the end of the participation period such option was automatically exercised. This plan was structured to qualify as an employee stock purchase plan under Section 423 of the Internal Revenue Code of 1986, as amended. The Company issued 0, 25,504, and 76,902 shares under this plan, during the years ended December 31, 2007, 2006 and 2005, respectively.

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Common Stock Warrants.

No common stock warrants were issued during 2007 or 2006. Warrants covering 6,903,156 shares of common stock were issued during 2005. At December 31, 2007, we had 8,048,815 common stock warrants outstanding.

Warrant Holder	Issue Year	Expiration Year	Underlying Shares	Exercise Price
Various Institution Holders [1]	2005	2010	6,903,156	$ 1.20
Laurus Master Fund, Ltd. [2]	2003	2010	200,000	$ 1.92
Laurus Master Fund, Ltd. [2]	2003	2010	200,000	$ 2.07
Laurus Master Fund, Ltd. [2]	2003	2010	150,000	$ 2.35
Laurus Master Fund, Ltd. [2]	2004	2011	125,000	$ 2.57
Laurus Master Fund, Ltd. [2]	2004	2011	400,000	$ 1.18
TN Capital Equities, Ltd. [2]	2003	2008	45,918	$ 2.94
TN Capital Equities, Ltd. [2]	2004	2009	15,566	$ 3.18
GE Capital [3]	2003	2008	9,175	$ 3.27
Total			8,048,815	

(1) These warrants were issued in conjunction with the 2005 Private Placement described earlier in this Note.

(2) These warrants were issued in conjunction with the Laurus Loans and subsequent modifications. In conjunction with the 2005 Private Placement, the exercise prices of these warrants were adjusted according to repricing provisions contained in the original warrant agreements.

(3) These warrants were issued in conjunction with operating leases with GE Capital. While the leases have since been terminated, the warrants are still outstanding.

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. The Company has no current plans to issue any series of 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 preferred stock issued by the Company could have an adverse effect on the rights of the holders of the common stock.

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K. EQUITY INCENTIVE PLAN

The Company s 2006 Equity Incentive Plan (the Plan) allows the Company to make awards of various types of equity-based compensation, including stock options, dividend equivalent rights (DERs), stock appreciation rights (SARs), restricted stock, restricted stock units, performance units, performance shares and other awards, to employees and directors of the Company. The Plan was adopted in 2006 as a modification of the Company s 1997 Stock Option Plan (the Prior Plan). In addition to providing for additional types of equity-based awards, the Plan increased the total number of shares of common stock that the Company may issue from 7,000,000 under the Prior Plan to 10,000,000 shares under the Plan; provided, that no more than 5,000,000 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 nonqualified stock options may be granted to nonemployee 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 Compensation Committee and expire 10 years after the date the option was granted. If the option holder ceases to be employed by the Company, the Company will have the right to terminate any outstanding but unexercised options. To date, the only awards made under the Plan (and the Prior Plan) have been non-incentive stock options.

For the year ended December 31, 2007, we recorded compensation expense of $.1 million within the general administrative expense related to the vesting of 1.4 million options. For the year ended December 31, 2006, we recorded compensation expenses of $0 related to 340,000 new option grants and $.2 million related to an extension of the post-termination exercise period for 450,000 options from 90 days after termination to the remaining contractual term of the original option grants. The fair value of the options 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 3.34% to 5.08%, based on the U.S. Treasury yield in effect at the time of grant; dividend yields of zero percent; expected lives of 2 to 10 years, based on historical exercise activity behavior; and volatility of 89.14% and 67.58% for grants made during the year ended December 31, 2007 based on the historical volatility of our stock over a time that is consistent with the expected life of the option. As of December 31, 2007, there was $.4 million of unrecognized compensation expense related to unvested stock options, which is expected to be recognized over a weighted average period of nearly three years.

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The following table summarizes activity under the Plan (and the Prior Plan) during the year ended December 31, 2006:

	Number of Options	Weighted Average Exercise Price
Balance at January 1, 2006:	5,570,432	4.31
Granted	340,000	.62
Exercised		
Forfeited/Expired	(442,768)	4.45
Balance at December 31, 2006:	5,467,664	$ 4.08
Exercisable at December 31, 2006	5,127,664	$ 4.30

The following table summarizes activity under the Plan (and the Prior Plan) during the year ended December 31, 2007:

	Number of Options	Weighted Average Exercise Price
Balance at January 1, 2007:	5,467,664	4.07
Granted	1,030,000	.66
Exercised		
Forfeited/Expired	(1,962,600)	4.17
Balance at December 31, 2007:	4,535,064	$ 3.26
Exercisable at December 31, 2007	3,243,231	$ 4.29

During the year ended December 31, 2007 we issued 200,000 options at exercise prices of $0.75 on January 17, 2007; 45,000 options at exercise prices of $0.70 on May 23, 2007; 100,000 options at exercises prices of $0.71 on June 1, 2007; 200,000 options at exercise prices of $0.66 on July 12, 2007; 25,000 options at exercise prices of $0.57 on August 16, 2007; 250,000 options at exercise prices of $0.67 on October 4, 2007; 110,000 options at exercise prices of $0.53 on December 7, 2007 and 100,000 options at exercise prices of $0.53 on December 31, 2007. The weighted average grant date fair value per share of options granted during the years ended December 31, 2007, 2006, and 2005 was $0.53, $0.31 and $0.63, respectively.

Options issued and outstanding to employees and outside directors are summarized below:

Exercise Price Range	Number of Options Outstanding	Number of Options Exercisable	Aggregate Intrinsic Value December 31, 2007
$ 0.00 $ 1.30	2,215,500	923,667	$ 0.00
$ 1.31 $ 2.60	564,833	564,833	$ 0.00

$ 2.61	$ 3.90	10,000	10,000	$	0.00
$ 3.91	$ 5.20	830,000	830,000	$	0.00
$ 5.21	$ 6.50	512,000	512,000	$	0.00
$ 7.81	$ 9.10	10,000	10,000	$	0.00
$ 9.11	$10.40	208,000	208,000	$	0.00
$11.71	$13.00	184,731	184,731	$	0.00
		4,535,064	3,243,231	$	0.00

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The following summarizes all stock options outstanding at December 31, 2007.

Exercise Price Range	Number of Options Outstanding	Remaining Weighted-Average Contractual Life	Weighted-Average Exercise Price	Number of Options Exercisable	Aggregate Intrinsic Value December 31, 2007
$ 0.00 $ 1.30	2,215,500	8.2 years	$ .82	923,667	$ 0.00
$ 1.31 $ 2.60	564,833	4.9 years	$ 1.92	564,833	$ 0.00
$ 2.61 $ 3.90	10,000	4.8 years	$ 2.90	10,000	$ 0.00
$ 3.91 $ 5.20	830,000	.7 years	$ 5.00	830,000	$ 0.00
$ 5.21 $ 6.50	512,000	3.1 years	$ 6.15	512,000	$ 0.00
$ 7.81 $ 9.10	10,000	3.4 years	$ 9.00	10,000	$ 0.00
$ 9.11 $10.40	208,000	3.0 years	$ 9.87	208,000	$ 0.00
$11.71 $13.00	184,731	2.1 years	$ 12.81	184,731	$ 0.00
	4,535,064			3,243,231	

L. OPERATING SEGMENT AND GEOGRAPHIC INFORMATION

We have one reportable operating segment. Although revenue is analyzed by type, net financial results are analyzed as one segment due to the integrated nature of the products. Net sales by product were as follows:

	Dollars in Thousands Years Ended December 31,		
	2007	2006	2005
Bioinstruments	$ 11,551	$ 13,604	$ 14,427
Bioconsumables	8,901	8,719	8,981
Discovery Services	2,724	1,092	2,420
	$ 23,176	$ 23,415	$ 25,828

Net sales by geographic region were as follows:

	Dollars in Thousands Years Ended December 31,		
	2007	2006	2005
United States	$ 7,807	$ 6,780	$ 7,069
Europe	12,511	14,262	14,979
Pacific Rim	1,531	1,390	2,297
Other	1,327	983	1,483

Total	$ 23,176	$ 23,415	$ 25,828

No customer accounted for more than 10% of consolidated net sales for any period presented.

Substantially all long-lived assets are within the United States.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued

Years Ended December 31, 2007, 2006 and 2005

M. QUARTERLY RESULTS (UNAUDITED)

Unaudited quarterly consolidated statements of operations data was as follows:

	Year Ended December 31, 2007 Dollars in Thousands				
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
Net Sales	$ 5,222	$ 6,272	$ 5,151	$ 6,531	$ 23,176
Gross Profit	$ 2,708	$ 3,413	$ 2,651	$ 3,921	$ 12,693
Income (Loss) from continuing operations	$ (1,270)	$ 233	$ (1,349)	$ 212	$ (2,174)
Income (Loss) from discontinued operations	74	(7)			67
Net Income (Loss)	$ (1,196)	$ 226	$ (1,349)	$ 212	$ (2,107)
Basic and diluted loss per share:					
From continuing operations	$ (0.02)	$ (0.00)	$ (0.03)	$ (0.00)	$ (0.04)
From discontinued operations					
	$ (0.02)	$ (0.00)	$ (0.03)	$ (0.00)	$ (0.04)
Basic and Diluted Weighted Average Shares Outstanding (in thousands)	49,190	49,190	49,190	49,190	49,190

	Year Ended December 31, 2006 Dollars in Thousands				
	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total
Net Sales	$ 6,497	$ 6,189	$ 4,919	$ 5,810	$ 23,415
Gross Profit	$ 2,982	$ 3,049	$ 2,312	$ 3,026	$ 11,369
Loss from continuing operations	$ (304)	$ (258)	$ (1,525)	$ (876)	$ (2,963)
Income(Loss) from discontinued operations	(14)	(125)	(164)	(165)	(468)
Net Loss	$ (318)	$ (383)	$ (1,689)	$ (1,041)	$ (3,431)
Basic and diluted loss per share:					
From continuing operations	$ (0.01)	$ (0.01)	$ (0.03)	$ (0.02)	$ (0.06)
From discontinued operations					(0.01)
	$ (0.01)	$ (0.01)	$ (0.03)	$ (0.02)	$ (0.07)
Basic and Diluted Weighted Average Shares Outstanding (in thousands)	49,185	49,190	49,190	49,190	49,188

Earnings per share are computed independently for each of the quarters presented. Therefore, the sum of the quarterly per share losses may not equal the annual loss per share.

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

On May 16, 2007, the Audit Committee, acting on behalf of our Board of Directors, dismissed Deloitte & Touche (the Former Accountant) as our principal independent accountant. May 16, 2007 is also the date that our relationship with Deloitte & Touche ended for purposes of performing audit services. The Former Accountant s reports for the past two fiscal years did not contain any adverse opinion or disclaimer of opinion, and such reports were not qualified or modified as to uncertainty, audit scope or accounting principals.

During the two most recent fiscal years and any subsequent interim period through May 16, 2007, there have been no disagreements between us and the Former Accountant on any matter of accounting principles or practices, financial statement disclosure or auditing scope of procedures, which disagreements, if not resolved to the satisfaction of the Former Accountant, would have caused the Former Accountant to make reference to the subject matter thereof in its report. No reportable events (as defined by Item 304(a)(1)(v) of Regulation S-K) occurred during the two most recent fiscal years and through May 16, 2007.

On May 16, 2007, the Audit Committee, acting on behalf of our Board of Directors, engaged McGladrey & Pullen, LLP (the New Accountant) as our principal independent accountant subject to the completion of the New Accountant s normal client acceptance procedures. We did not, nor did anyone on our behalf, consult the New Accountant during our two most recent fiscal years and during the subsequent interim period prior to our engagement of the New Accountant regarding the application of accounting principles to a specified transaction (completed or proposed), the type of audit opinion that might be rendered on our financial statements, any matter being the subject of a disagreement or reportable event or any other matter described in Item 304(a)(2) of Regulation S-K.

None.

Item 9A(T). Controls and Procedures.

(a) *Evaluation of Disclosure Controls and Procedures*. We evaluated the design and operating effectiveness of our disclosure controls and procedures as of December 31, 2007, pursuant to Rule 13a-15(b) of the Securities Exchange Act of 1934. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, because of the material weakness in our internal control over financial reporting described below, our disclosure controls and procedures as defined in Rule 13a-15(e) were not effective. Notwithstanding the material weakness in our internal control over financial reporting as of December 31, 2007 described below, we believe that the consolidated financial statements contained in this report present fairly our financial condition, results of operations, and cash flows for the fiscal years covered thereby in all material respects. To address the material weakness in our internal control over financial reporting described below, management performed additional manual procedures and analysis and other post-closing procedures in order to prepare the consolidated financial statements included in this Annual Report on Form 10-K.

(b) *Management s Report on Internal Control Over Financial Reporting.* Management is responsible for establishing and maintaining an adequate system of internal control

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over financial reporting, pursuant to Rule 13a-15(c) of the Securities Exchange Act, in order 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 (GAAP). A company s internal control over financial reporting includes policies and procedures that: (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company, (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with accounting principles generally accepted in the United States, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company, and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company s assets that could have a material effect on the financial statements.

In accordance with the internal control reporting requirements of the Securities and Exchange Commission, management completed an assessment of the effectiveness of our internal control over financial reporting as of December 31, 2007. In making this assessment, management used the criteria set forth in the Internal Control Integrated Framework by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The COSO framework summarizes each of the components of a company s internal control system, including the: (i) control environment, (ii) risk assessment, (iii) information and communication, and (iv) monitoring (collectively, the entity-level controls), as well as (v) a company s control activities (process-level controls). Management s evaluation of the design and operating effectiveness of our internal controls over financial reporting identified a material weakness resulting from the combination of more than one significant deficiency. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, because of the material weakness in our internal control over financial reporting, our internal control over financial reporting as defined rule 13a-15(f) was not effective. Policies and procedures that were not formally documented, lack of segregation of duties, access authorization to our computer systems and financial reporting all were areas that were assessed as having a significant deficiency. A material weakness is defined as a significant deficiency or combination of significant deficiencies, that results in more than a remote likelihood that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis. A significant deficiency is a deficiency or a combination of deficiencies, in internal control over financial reporting that is less severe than a material weakness, yet important enough to merit attention by those responsible for oversight of our financial reporting.

We are taking the following steps to remediate the material weakness in 2007:

We hired a replacement corporate controller in December 2007.

We consolidated the international accounting functions from numerous locations to Glasgow, Scotland.

We are taking the following steps to remediate the material weakness in 2008:

We will document formal security and business policies and procedures.

We will review the functions of the employees in the accounting department to determine the cost benefit associated with proper segregation of duties. The accounting staff is small and complete segregation of duties may not be possible.

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We will develop standard procedures for granting user access to our computer system.

We will develop additional procedures to ensure proper financial reporting.

Management s report was not subject to attestation by the Company s registered public accounting firm pursuant to temporary rules of the Securities and Exchange Commission that permit the Company to provide only management s report in this annual report. Accordingly, this annual report does not include an attestation report of the Company s registered public accounting firm regarding internal control over financial reporting.

(c) *Change in Internal Control Over Financial Reporting.* There have been no changes in the Company s internal control over financial reporting during the year that have materially affected, or are reasonably likely to materially affect, the Company s internal control over financial reporting other than those discussed above in Management s Report on Internal Control Over Financial Reporting.

Item 9B. Other Information

None.

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Part III

Item 10. Directors, Executive Officers and Corporate Governance.

Information relating to our Board of Directors, including information regarding Craig Tuttle, our President and Chief Executive Officer who is also a director, required by this item is incorporated by reference to the Proxy Statement for the Company s 2008 Annual Meeting of Stockholders (the Proxy Statement) under the caption Board of Directors and Committees. Information regarding our other executive officer who is not a director is set forth below.

Debra A Schneider. Ms. Schneider, age 49, joined Transgenomic Inc. in December, 2006 and currently serves as Vice President and Chief Financial Officer. She also is its Secretary and Treasurer. Prior to joining Transgenomic, Ms. Schneider spent seventeen years at First Data Corporation in a number of roles, including finance, planning, accounting and Chief Financial Officer roles for various business units. Most recently, she served as Senior Vice President of Finance. Prior to her tenure at First Data Corporation, she worked as Controller at Creative Financing, Inc. and as an accountant with KPMG LLP.

Item 11. Executive Compensation.

Certain information required by this Item is incorporated by reference to the Proxy Statement under the caption Executive Compensation.

Securities authorized for issuance under equity compensation plans.

The following equity compensation plan information summarizes plans and securities approved and not approved by security holders as of December 31, 2007.

PLAN CATEGORY	(a) Number of securities to be issued upon exercise of outstanding options, warrants and rights	(b) Weighted-average exercise price of outstanding options, warrants and rights	(c) Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)
Equity compensation plans approved by security holders(1)	4,535,064	$3.26	2,748,567
Equity compensation plans not approved by security holders			
Total	4,535,064	$3.26	2,748,567

(1) Consists of our 2006 Equity Compensation Plan

Item 12. Security Ownership of Certain Beneficial Owners and Management.

Information required by this Item is incorporated by reference to the Proxy Statement under the caption Voting Securities and Beneficial Ownership by Principal Stockholder and our Directors and Officers.

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Item 13. Certain Relationships and Related Transactions, Director Independence

Information required by this Item is incorporated by reference to the Proxy Statement under the captions Certain Relationships and Related Transactions and Board of Directors and Committees .

Item 14. Principal Accountant Fees and Services

Information required by this Item is incorporated by reference to the Proxy Statement under the caption Accounting Fees and Services.

PART IV

Item 15. Exhibits and 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 Subsidiaries as of December 31, 2007 and 2006.

Consolidated Statements of Operations of the Registrant and Subsidiaries for the years ended December 31, 2007, 2006 and 2005.

Consolidated Statements of Stockholders Equity of the Registrant and Subsidiaries for the years ended December 31, 2007, 2006 and 2005.

Consolidated Statements of Cash Flows of the Registrant and Subsidiaries for the years ended December 31, 2007, 2006 and 2005.

Notes to Consolidated Financial Statements of the Registrant and Subsidiaries.

2. Financial Statement Schedules.

None

3. Exhibits. The following exhibits were 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:

3.1 Third Amended and Restated Certificate of Incorporation of the Registrant (incorporated by reference to Exhibit 3.1 to Registrant s Report on Form 10-Q (Registration No. 000-30975) filed on November 14, 2005.

3.2 Bylaws of the Registrant (incorporated by reference to Exhibit 3.2 to Registration Statement on Form S-1 (Registration No. 333-32174) filed on March 10, 2000)

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

10.1 2006 Equity Incentive Plan of the Registrant (incorporated by reference to Exhibit 4(b) to Registration on Form S-8 (Registration No. 333-139999) filed on January 16, 2007.

10.2 1999 UK Approved Stock Option Sub Plan of the Registrant (incorporated by reference to Exhibit 10.7 to Registration Statement on Form S-1 (Registration No. 333-32174) filed on March 10, 2000)

10.3 Employee Stock Purchase Plan of the Registrant (incorporated by reference to Exhibit 4(b) to Registration Statement on Form S-8 (Registration No. 333-71866) filed on October 19, 2001)

10.4 Employment Agreement between the Company and Craig J. Tuttle, dated July 12, 2006 (incorporated by reference to Exhibit 10.1 to Registrant s Report on Form 8-K (Registration No. 000-30975) filed on July 12, 2006.

10.5 Amendment No. 1 to the Employment Agreement between the Company and Craig J. Tuttle, effective July 12, 2006 (incorporated by reference to Exhibit 10.1 to Registrant s Report on Form 10-Q (Registration No. 000-30975) filed on November 14, 2006.

10.6 Employment Agreement between the Company and Debra A. Schneider, effective December 14, 2006, (incorporated by reference to Exhibit 10.1 to Registrant s Report on Form 8-K (Registration No. 000-30975) filed on November 15, 2006.

10.7 License Agreement, dated September 1, 1994, between Registrant and Professor Dr. Gunther Bonn, et. al. and Amendment thereto, dated March 14, 1997 (incorporated by reference to Exhibit 10.14 to Registration Statement on Form S-1 (Registration No. 333-32174) filed on March 10, 2000)

10.8 License Agreement, dated August 20, 1997, between the Registrant and Leland Stanford Junior University (incorporated by reference to Exhibit 10.15 to Registration Statement on Form S-1 (Registration No. 333-32174) filed on March 10, 2000)

10.9 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 Registrant s Annual Report on Form 10-K filed on March 25, 2002)

10.10 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 Registrant s Annual Report on Form 10-K filed on March 25, 2002)

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10.11 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 Registrant s Quarterly Report on Form 10-Q filed on August 14, 2002)

10.12 License Amendment Agreement, dated June 2, 2003, by and between Geron Corporation and the Registrant (incorporated by reference to Exhibit 10.2 to Registrant s Quarterly Report on Form 10-Q filed on August 12, 2003)

10.13 Supply Agreement, dated January 1, 2000, between the Registrant and Hitachi Instruments (incorporated by reference to Exhibit 10.16 to Registration Statement on Form S-1 (Registration No. 333-32174) filed on March 10, 2000)

10.14 Common Stock Purchase Warrant by and between the Registrant and Laurus Master Fund, Ltd., dated December 3, 2003 (incorporated by reference to Exhibit 10.4 to the Registration Statement on Form S-3 of the Registrant (Registration No. 333-111442) filed on December 22, 2003)

10.15 Registration Rights Agreement by and between the Registrant and Laurus Master Fund, Ltd., dated December 3, 2003 (incorporated by reference to Exhibit 10.5 to the Registration Statement on Form S-3 of the Registrant (Registration No. 333-111442) filed on December 22, 2003)

10.16 Common Stock Purchase Warrant by and between the Registrant and TN Capital Equities, Ltd., dated December 3, 2003 (incorporated by reference to Exhibit 10.6 to the Registration Statement on Form S-3 of the Registrant (Registration No. 333-111442) filed on December 22, 2003)

10.17 Securities Purchase Agreement by and between the Registrant and Laurus Master Fund, Ltd., dated February 19, 2004, as amended on April 15, 2004 (incorporated by reference to Exhibit 10.1 to the Registration Statement on Form S-3 of the Registrant (Registration No. 333-114661) filed on April 21, 2004)

10.18 Amendment to Securities Purchase Agreement and Related Document by and between the Registrant and Laurus Master Fund, Ltd., dated August 31, 2004 (incorporated by reference to Exhibit 10.1 to the Registration Statement on Form S-3 (Registration No. 333-118970) as filed on September 14, 2004)

10.19 Common Stock Purchase Warrant by and between the Registrant and Laurus Master Fund, Ltd., dated February 19, 2004, as amended on April 15, 2004 (incorporated by reference to Exhibit 10.3 to the Registration Statement on Form S-3 of the Registrant (Registration No. 333-114661) filed on April 21, 2004)

10.20 Registration Rights Agreement by and between the Registrant and Laurus Master Fund, Ltd., dated February 19, 2004 (incorporated by reference to Exhibit 10.4 to the Registration Statement on Form S-3 of the Registrant (Registration No. 333-114661) filed on April 21, 2004)

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10.21 Common Stock Purchase Warrants by and between the Registrant and TN Capital Equities, Ltd., dated March 1, 2004 (incorporated by reference to Exhibit 10.2 to the Registration Statement on Form S-3 of the Registrant (Registration No. 333-114661) filed on April 21, 2004)

10.22 Common Stock Purchase Warrant by and between the Registrant and Laurus Master Fund, Ltd., dated August 31, 2004 (incorporated by reference to Exhibit 10.3 to the Registration Statement on Form S-3 (Registration No. 333-118970) as filed on September 14, 2004)

10.23 Form of Securities Purchase Agreement by and between the Registrant and various counterparties dated September 22, 2005 (incorporated by reference to Exhibit 10.1 to the Registrants Quarterly Report on Form 10-Q filed on November 14, 2005)

10.24 Common Stock Purchase Warrant by and between the Registrant and Oppenheimer & Co., Inc. dated October 27, 2005 (incorporated by reference to Exhibit 10.34 to the Registrants Annual Report on Form 10-K filed on March 31, 2006)

10.25 Letter Agreement by and between the Registrant and Laurus Master Fund, Ltd. dated October 31, 2005 (incorporated by reference to Exhibit 10.36 to the Registrants Annual Report on Form 10-K filed on March 31, 2006)

21 Subsidiaries of the Registrant

23 Consent of Independent Registered Public Accounting Firm

24 Powers of Attorney

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

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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 28th day of March 2008.

TRANSGENOMIC, INC.

By: /s/ CRAIG J. TUTTLE
Craig J. Tuttle,

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 indicated on this 28th day of March 2008.

Signature	Title
/s/ CRAIG J. TUTTLE Craig J. Tuttle	Director, President and Chief Executive Officer (Principal Executive Officer)
/s/ DEBRA A. SCHNEIDER Debra A. Schneider	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)
/s/ GREGORY J. DUMAN* Gregory J. Duman	Director
/s/ JEFFREY L. SKLAR* Jeffrey L. Sklar	Director
/s/ RODNEY S. MARKIN* Rodney S. Markin	Director
/s/ GREGORY T. SLOMA* Gregory T. Sloma	Director
/s/ FRANK R. WITNEY* Frank R. Witney	Director
David P. Pauluzzi	Director

*By Craig J. Tuttle, as attorney-in-fact

/s/ CRAIG J. TUTTLE

Craig J. Tuttle

Attorney-in-fact for the individuals as indicated.