NANOGEN INC
Form 10-K
March 31, 2008
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

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 000-23541

NANOGEN, INC.

(Exact name of Registrant as specified in its charter)

Delaware	**33-0489621**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
10398 Pacific Center Court, San Diego, CA	**92121**
(Address of principal executive offices)	(Zip code)

Registrant s telephone number, including area code: (858) 410-4600

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

Title of Class	Name of Exchange on Which Registered
Common Stock $0.001 par value	NASDAQ Global Market, Inc.
Preferred Stock Purchase Rights	

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

NONE

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. 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 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 (§ 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. x

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ¨ Accelerated filer x Non-accelerated filer ¨

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

YES ¨ NO x

The aggregate market value of the voting stock held by non-affiliates of the registrant based upon the closing sale price of the common stock on June 30, 2007 (the last day of the registrant s most recently completed second fiscal quarter), as reported on the Nasdaq Global Market was approximately $92,888,653. For purposes hereof, directors, executive officers and 10% or greater shareholders have been deemed affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

The number of shares outstanding of the registrant s common stock was 73,280,465 as of March 24, 2008.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant s definitive proxy statement for its annual meeting of stockholders to be held in 2008 are incorporated by reference in Part III of this Form 10-K.

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PART I

Forward Looking Statement

This Annual Report on Form 10-K and the information incorporated herein by reference contain forward-looking statements that involve a number of risks and uncertainties, as well as assumptions that, if they never materialize or prove incorrect, could cause our results to differ materially from those expressed or implied by such forward-looking statements. Although our forward-looking statements reflect the good faith judgment of our management, these statements are based on facts and factors currently known by us. Consequently, forward-looking statements are inherently subject to risks and uncertainties, and actual results and outcomes may differ materially from results and outcomes discussed in the forward-looking statements. We assume no obligation to update any forward-looking statement.

Forward-looking statements can be identified by the use of forward-looking words such as believes, expects, hopes, may, will, plan, intends, estimates, could, should, would, continue, seeks, pro forma or anticipates, or other similar words (including their use in the negative), or by discussions of future matters such as the development of new product, integration of acquisitions, possible changes in legislation and other statements that are not historical. In addition, to the extent statements in this report involve, without limitation, our expectations for growth, estimates of future revenue, expenses, profit, cash flows, balance sheet items or any other guidance for future periods, these statements are forward looking statements. These statements include but are not limited to statements under the captions Business, Risk Factors, and Management s Discussion and Analysis of Financial Condition and Results of Operations as well as other sections in this report. You should be aware that the occurrence of any of the events discussed under the heading Item 1A. Risk Factors and elsewhere in this Annual Report could substantially harm our business, results of operations and financial condition. If any of these events occurs, the trading price of our common stock could decline and you could lose all or a part of the value of your shares of our common stock.

The cautionary statements made in this Annual Report are intended to be applicable to all related forward-looking statements wherever they may appear in this Annual Report. We urge you not to place undue reliance on these forward-looking statements, which speak only as of the date of this Annual Report.

Item 1. ***Business***

Overview

We are a diagnostics company with the mission to make the detection, the diagnosis, and the treatment and monitoring of an individual s health easier and faster. We were founded on innovative research and technology development and have been in business since 1993. We have been publicly traded on NASDAQ (symbol: NGEN) since 1998.

During 2007, we significantly restructured our operations. In the fourth quarter of 2007, we decided to close one of our three product lines, the micro array platform, and focus on products and technologies we acquired in the past four years. Although the micro array platform was technologically a success, the market for highly complex molecular testing remains small and we can no longer support this product line as we wait for the market to grow.

While our consolidated revenue has been growing, we recognize the need to reduce our expenses in order to dramatically accelerate our path to profitability. By making the difficult decision to discontinue the micro array platform, we will be able to enhance financial performance and predictability. We expect that this restructuring will improve operational performance by at least $15 million in annual cash flow with less than a 10% impact on revenue performance. Despite the loss of micro array revenue, we expect our 2008 revenues to significantly exceed our 2007 revenues.

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In 2008 and beyond, we will continue to participate in two large and growing markets. The first is the molecular diagnostics market where we offer assays for real-time polymerase chain reaction (PCR) applications. The second is the point-of-care (POC) market where we offer rapid immunoassay tests for cardiac emergency care. Both are ready markets that our customers understand and participate in today, as opposed to the micro array market which was a new market that required significant education and training of potential customers. Products in the molecular diagnostics and POC markets were developed by us and incorporate proprietary technologies that improve product performance and competitiveness, and are supported by a strong patent portfolio.

We operate in the United States, Canada and Europe and have grown rapidly in the past four years through both internal development and acquisition.

Markets

We participate in two major *in vitro* diagnostic markets: the molecular diagnostic market and the point-of-care market. Molecular diagnostics is the analysis of DNA, RNA and proteins at the molecular level and is typically performed in clinical laboratories. This differs from the point-of-care market, where the diagnostic may be performed in near patient settings such as an emergency room or doctor s office. Within these two markets, we focus primarily on infectious disease and cardiac testing.

Products

Our products, broken out by market, are summarized as follows:

Molecular Diagnostic Market

We sell diagnostic test kits and reagents based on PCR technology in the molecular diagnostic market. These products accounted for approximately 75% of our total 2007 product revenues. We offer two real-time PCR molecular product lines:

Q-PCR Alert we offer a comprehensive menu of real-time products that are under PCD license and coupled with our proprietary MGB technology. MGB is an abbreviation for minor groove binder which is a small crescent-shaped molecule that fits into the minor groove of duplex DNA. These products are CE marked for in-vitro diagnostic use and are sold in Italy via a contract sales force and in other European countries through a network of distributors. In Italy, sales are mostly made through government tenders, which are contracts that last for two to five years and cover multiple products.

MGB Alert the majority of real-time molecular products we sell in the U.S. are registered with the FDA as Analyte Specific Reagents (ASRs) and are based on our proprietary MGB probe technology. Today, the products are sold either direct to an end user or through a distribution relationship with Thermo Fisher Scientific, Inc. The MGB Alert products are proprietary and provide significant performance and economic advantages. These products are platform independent and are currently used by customers on multiple instrument platforms.

Both of the real-time molecular product line menus consist mostly of infectious disease tests with the largest medical application being for use in monitoring transplantate and immunocompromised patients. There are additional tests for genetic conditions and oncology. Examples of the diseases tested for include: the herpetic family of viruses (CMV, EBV, HSV) as well as seasonal infectious diseases such as enterovirus and influenza.

Our proprietary real-time probe technology includes components that offer distinct competitive advantages as well as reduced cost. These components include the MGB molecule that increases binding and specificity of designs, modified bases that provide design alternatives for improved sequence detection and discrimination, and proprietary dyes and quenchers that improve overall system performance and reduce costs and royalty burdens. In total, the use of our probe technology permits the development of assays that can reduce the royalties normally paid by customers compared to other technology providers.

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The majority of our PCR product line revenue is described as real time to distinguish it from traditional end point technology. The key feature of real-time PCR is that DNA is quantified in real time as it accumulates after each amplification cycle in the chain reaction. As a result, real-time PCR provides fast, precise, and accurate results as the chain reaction is proceeding versus traditional PCR where data is available only at the end of the chain reaction.

Point of Care Diagnostics

POC products account for approximately 15% of Nanogen s product revenues in 2007. The percentage of revenue from POC products is expected to increase in future years. Our point-of-care products include cardiac and drugs of abuse rapid tests and will be extended in the future to include infectious disease assays.

Qualitative cardiac tests these products are rapid test (less than 15 minutes) assays that are used in emergency care settings for the diagnosis of myocardial infarction. The products identify elevated concentration of Troponin I, Myoglobin and CKMB versus predetermined cutoff levels and are visually read by the attending physician or nurse. There is also a handheld instrument that can be used to read and record the test results. The market for qualitative (yes/no) cardiac tests is flat or moderately declining.

Quantitative cardiac tests our newest product is a rapid, quantitative test measuring the concentration of the peptide NT-proBNP for the diagnosis of congestive heart failure (CHF). The product is FDA cleared and CF marked for use in plasma samples and the whole blood version is expected to come on to the market in 2008. This product addresses a large and growing market opportunity. The product target is licensed from Roche, produced by Princeton Biomeditech (PBM), and is FDA cleared. In the future, the cardiac menu will be extended to include quantitative tests for Troponin I and other cardiac markers. These quantitative tests are performed on a small, desktop reader that measures and reports the quantitative amounts of target proteins present in the patient sample.

Infectious Disease as part of a competitive contract awarded by the Center for Disease Control and Prevention (the CDC), we are developing in partnership with HX diagnostics a pandemic influenza test that detects and differentiates the various strains of influenza including potential pandemic strains. This product utilizes proprietary technology that provides significant improvements in sensitivity as well as the capability of detecting multiple protein markers in a single test system. The system provides a rapid qualitative test measurement using a small, desktop reader.

The Point of Care cardiac products are sold throughout the world via distribution channels in the US, Canada and Europe using a small sales force to sell to and manage the distributors. The US distribution rights to the CHF product are shared with our manufacturing partner, PBM. The pandemic influenza test will be marketed and distributed through HX Diagnostics.

We believe that the point of care platform being developed under the CDC contract offers an opportunity to develop point of care assays not possible using existing technologies. The POC area is dominated by lateral flow solutions that have limited sensitivity and tests generally do not correlate with results from tests performed in the hospital laboratory. Our new platform utilizes a synthetic DNA and a rare earth metal (for detection) to produce a diagnostic platform that can be used at the point of patient care with results that show increased sensitivity and an ability to meet the correlation requirements of the central laboratory. This increased sensitivity, the ability to detect multiple simultaneous protein markers on the same test strip and the potential to meet CLIA waiver requirements presents an opportunity to develop new and far reaching point of care diagnostics. We expect to continue development of tests for this proprietary platform that will include additional infectious disease diagnostics as well as future cardiac tests. This technology platform is compatible with low cost manufacturing approaches and has the further economic advantage of a non-lateral flow design that reduces licensing and royalty costs.

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Sources of Revenue

Our revenue comes from product sales, contract development, grants and licenses. As outlined above, the product revenues are derived from sales and distribution arrangements for the real-time molecular and the point- of-care products. Product revenue accounted for 60% of total 2007 revenues. The remaining 40% of revenues came from contract development, grants and licenses. Contract development is generally limited to areas that are complementary to our overall technology and product strategy and that provide for future product revenue opportunities. Contract revenues include development done for the CDC, as well as development done under several smaller contracts and grants. License fees are related to the licensing of intellectual property. The single largest licensee is ABI, who has a license to the MGB/Eclipse real-time technology for the research market. Nanogen expects to earn significant revenues in the future from all of these sources although, the proportion of product revenue is expected to increase over the next several years as product revenue growth rates will be higher than growth rate of other revenue sources.

Geographical Coverage

We have operating locations in San Diego (headquarters and real-time PCR manufacturing), Seattle (real-time product and technology development), Toronto (POC manufacturing), Milan, Italy (European sales and management) and Turin, Italy (PCR development and manufacturing). Sales efforts are concentrated in the US and Italy with a network of distributors that cover other countries and geographies.

Total revenue is approximately 52% in North America and 44% in Europe. European revenue is concentrated in Italy as a result of a recent acquisition. There is significant ongoing effort to capture the growth opportunity outside of Italy by taking the success we are seeing in Italy to other European countries.

Micro Array Closure

During the fourth quarter of 2007 a decision was made to close the micro array business in order to help us create a restructured business that can reach profitability faster and with greater predictability. The restructured business will continue to focus on the *in vitro* diagnostic market with emphasis on real-time molecular and rapid point-of-care products. During the fourth quarter we began implementing a phased reduction in workforce related to this decision. In early 2008, we will complete a final build of certain consumables associated with the micro array to support our existing customers to allow them time to seek alternatives for replacing the micro array technology. Our 2007 results included several large charges as a result of the decision to close this business, including: $5.8 million in inventory impairment charges, $1.9 million in severance and other costs; and $2.1 million in other asset impairments. Due to the decision being made in the fourth quarter, and the associated costs related to reducing our workforce, the fourth quarter of 2007 results do not reflect the lower expense structure that we will experience going forward. Savings from this decision will be realized in 2008.

Acquisitions and Investment

Within the past three years, we have acquired or invested in the following companies:

On February 6, 2006, we acquired the rapid cardiac immunoassay point-of-care test business of Spectral Diagnostics Inc. (Spectral). This acquisition expanded our menu of products available for point-of-care customers. The acquired products include rapid tests for levels of CKMB, Myoglobin and Troponin, all of which are frequently used in cardiac care. In addition, we acquired an ability to manufacture these and other point-of-care products. The total purchase price of approximately $8.9 million was comprised of $4.8 million in cash and 975,193 shares of our common stock. The results of these acquired business operations were consolidated within our financial statements beginning February 6, 2006.

On May 1, 2006 we completed the acquisition of the diagnostics division of Amplimedical S.P.A. (Amplimedical), which is a manufacturer and distributor of molecular diagnostic products. Based in

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Italy, Amplimedical has been active in the European and other markets since the early 1990s with its molecular diagnostic reagents. We believe this acquisition will allow our molecular diagnostics business to further expand in Europe by providing additional resources and scale. Amplimedical s portfolio of real-time molecular diagnostic test kits are CE marked for *in vitro* diagnostics. Amplimedical s diagnostic test kits also include multiplexed reagent kits, sold in Europe, such as the CE/IVD-marked set of reagents used to detect mutations in the GJB2 gene for the diagnosis of hereditary deafness and a research-use-only set of reagents to test for genetic causes of beta thalassemia, a type of inherited blood disorder that can cause anemia. The purchase price was approximately $9.9 million that was comprised of a $2.1 cash payment, a $6.9 million promissory note convertible into our common stock, and $0.9 million in transaction costs. On June 30, 2006 we paid the promissory note in full by issuing Amplimedical 2,886,935 shares of our common stock at a $2.63 per share conversion price and incurred no interest charges.

In a series of investments from July 2005 through June 2006, we invested approximately $3.0 million to purchase 29.7% of the outstanding stock of Jurilab LTD (Jurilab). By investing in Jurilab, a development stage research and development company, we gained access to technologies related to certain gene markers.

We are incorporated under the laws of the state of Delaware and our stock is listed on the Nasdaq Global Market under the symbol NGEN. As discussed in Item1A Risk Factors, we have received a notice from NASDAQ that we were not in compliance with certain continued listing requirements. The lack of compliance relates to our per share stock price being below $1.00 for 30 consecutive days. If not addressed in a manner acceptable to NASDAQ, we may be delisted from this exchange. Our corporate offices are located at 10398 Pacific Center Court, San Diego, California 92121. Our main telephone number is 858-410-4600.

We make available through our internet website our code of business conduct and ethics, annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to these reports as soon as reasonably practicable after such material is electronically filed with or furnished to the Securities and Exchange Commission. Our internet address is www.nanogen.com. The information contained in, or that can be accessed through, our website is not part of this Annual Report.

Research and Development

As of December 31, 2007, we had 69 full-time employees in research and development. Our research and development expenses were $20 million in 2007, $26 million in 2006 and $22 million in 2005. These research and development expenses include costs associated with earning the contract and grant related revenue. In addition, we incur unfunded research and development costs in areas where there is a significant opportunity for a future return on investment. Most of our research and development has been conducted at our facilities in San Diego, California; Bothell, Washington; Toronto, Canada; or Turin, Italy or in collaboration with various partners.

Center for Disease Control Contract

On December 4, 2006, we were one of four companies awarded a contract from the U.S. Centers for Disease Control and Prevention (CDC) to develop a unique multi-analyte point-of-care diagnostic assay for influenza in support of the U.S. Government s efforts to strengthen its readiness for a potential influenza pandemic. The goal of the project is to employ technology in a low cost, high sensitivity immunoassay that simultaneously detects Influenza Type A, Type B, seasonal flu and avian flu in a simple to use test format. This development program is related to our partnership with HX Diagnostics, Inc. who will have the right to commercialize the product. The initial contract award of $4.5 million funded the initial two phases of a five-phase development project. Nanogen completed the deliverables for the first two phases in 2007 and authorized funding was exhausted. The CDC is currently reviewing the prototype and related development data as part of a decision on project continuation. If all five phases are funded by the CDC, the total funding is expected to be approximately

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$12.5 million. We expect to receive a decision from the CDC on the remaining phases in the first half of 2008. Our commercialization partner, HX Diagnostics, has the right to fund continued product development in conjunction with or instead of funding from the CDC.

Collaborations and Strategic Arrangements

We intend to continue entering into collaborations to expand applications of our technology platforms and to accelerate the commercialization of products. We will pursue additional collaborations in various forms, including research and development agreements, licensing agreements and joint ventures. These collaborations permit integration of the technologies and resources of our partners with our technologies, while allowing us to pursue diagnostics and other opportunities outside the scope of these collaborations. We are currently involved in the following corporate collaborations:

Princeton BioMeditech (PBM)

Through our SynX acquisition, we were a party to a 2001 development and manufacturing agreement between SynX and PBM to jointly develop and market various point-of-care tests for certain biomarkers and protein targets. As of January 2006, we terminated all of our previous agreements with PBM and replaced them with renegotiated contracts. These new agreements include a manufacturing and distribution agreement and a development agreement. There were no payments between us and PBM associated with entering into these agreements and there were no minimum purchase requirements between the parties.

We agreed to continue the joint development of a point-of-care product for diagnosis of CHF that incorporates PBM s proprietary technology, our proprietary reagents and an exclusive license between us and Roche Diagnostics GmbH. PBM is responsible for the development of a reasonably priced instrument and for manufacturing of a CHF test that uses our reagents to determine the amount of target NT-proBNP present in a patient. We will fund a certain percentage of the development cost of the instrument, up to an agreed upon maximum amount. In addition, we are required to develop and manufacture the reagents used in the instrument and supply them to PBM. We are also responsible to conduct the testing of our reagents required to obtain regulatory approval to market them. PBM will also act as our distributor for the CHF product in certain markets including the U.S. The parties will share revenues associated with this point-of-care instrument and test with the majority of revenues being allocated to the party responsible for selling, marketing and distributing the instrument and test within a specific geographic territory. Each party will be responsible for its own manufacturing, sales and marketing expenses and both parties are required to provide each other a forecast of expected demand for each others product (reagents or instruments).

We provided PBM with an option to purchase or to receive a nonexclusive license for certain biological markers for the incorporation into a future point-of-care instrument related to congestive heart failure, stroke or traumatic brain injury. We have agreed to negotiate in good faith commercially reasonable terms for such a license or supply arrangement. However, if we are unable to agree upon such terms PBM will pay Nanogen a certain royalty for the use of these markers.

Thermo Fisher Scientific, Inc.

In February 2008, we entered into a distribution and license agreement with Thermo Fisher Scientific, Inc. (Fisher) under which we provided certain distribution and technology access rights to Fisher. As part of the agreement, Fisher has agreed to fund a development program related to the development, manufacture and marketing of new molecular diagnostic products on a cost incurred based. Upon commercial launch of the new products, Fisher has agreed to certain minimum purchases over a six year period.

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HX Diagnostics

We have been working with HX Diagnostics (HX) under an agreement signed in August 2006 to develop a point-of-care test for the detection of pandemic influenza or other viruses. Under the terms of the agreement, HX will have exclusive commercialization rights for a completed product to detect a pandemic flu while we will retain the distribution rights to detect other viruses. Our collaboration on this program formed the basis for the contract awarded to Nanogen by the CDC in December 2006. HX Diagnostics has also agreed to limited interim funding of our development efforts during the CDC evaluation of the initial two phases of work. We expect to extend our relationship with HX Diagnostics in the future to include other infectious disease products.

Patents and Proprietary Technology Rights

We consider the protection of our proprietary technologies and products to be an important element in the success of our business strategy. In addition, we regularly evaluate ways to monetize the portions of our patent portfolio that will not impact our proprietary position on products we offer. In 2007, we were granted 20 U.S. patents bringing our current total to 191 issued U.S. patents and numerous foreign patents expiring at varying dates. In addition, we have a number of pending patent applications filed in the U.S. and abroad.

Patent applications may not be issued. Issued patents may not be found valid if challenged. In addition, intellectual property rights licensed by us may not be successfully integrated into commercial products. Others may independently develop similar technologies or duplicate any technology developed by us. Because of the extensive time required for development, testing, and regulatory review of a potential product, it is possible that, before new products can be commercialized, our related patents may expire or remain in existence for only a short period following commercialization, thus reducing any advantage of the patent, which could adversely affect our ability to protect future product development and, consequently, our business, financial condition and results of operations.

We seek to protect our inventions through filing U.S. patents and foreign counterpart applications in selected other countries. Because patent applications in the U.S. are maintained in secrecy for at least eighteen months after the applications are filed and since publication of discoveries in the scientific or patent literature often lags behind actual discoveries, we cannot be certain that we were the first to make the inventions covered by each of our issued or pending patent applications or that we were the first to file for protection of inventions set forth in such patent applications. Our planned or potential products may be covered by third-party patents or other intellectual property rights, in which case continued development and marketing of the products would require a license. Required licenses may not be available to us on commercially acceptable terms, if at all. If we do not obtain these licenses, we could encounter delays in product introductions while we attempt to design around the patents, or could find that the development, manufacture or sale of products requiring these licenses is foreclosed.

We may rely on trade secrets to protect our technology. Trade secrets are difficult to protect. We seek to protect our proprietary technology and processes by confidentiality agreements with our employees and certain consultants and contractors. These agreements may be breached, we may not have adequate remedies for any breach and our trade secrets may otherwise become known or be independently discovered by competitors. To the extent that our employees or our consultants or contractors use intellectual property owned by others in their work for us, disputes may also arise as to the rights in related or resulting know-how and inventions.

Competition

The *in vitro* diagnostic market is subject to intense competition. Our competitors in the United States and abroad are numerous and include, among others, diagnostic, health care, pharmaceutical and biotechnology companies.

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Many of our competitors have substantially greater financial, technical, research and other resources and larger, more established marketing, sales, distribution and service organizations than we do. Moreover, many of our competitors offer broader product lines and have greater brand recognition than we do, and offer price discounts as a competitive tactic. In addition, there can be no assurance that competitors, many of which have made substantial investments in competing technologies, will not prevent, limit or interfere with our ability to make, use or sell our products either in the United States or in international markets.

In the markets for clinical molecular diagnostic products, a number of companies including Roche, Abbott, Cepheid, Qiagen and Third Wave compete with us for product sales, primarily on the basis of technology, quality, reputation, accuracy, ease of use, price, reliability, the timing of new product introductions and product line offerings. In the point of care market, there are numerous competitors that offer rapid cardiac tests. In particular, Biosite currently has FDA-cleared tests and a large installed base of customers for cardiac rapid tests including CHF. In markets outside of the United States, other factors, including local distribution systems, complex regulatory environments and differing medical philosophies and product preferences, influence competition as well.

Government Regulation

Our ASR products are to be used only for research purposes or by CLIA-certified laboratories when developing and validating their own diagnostic tests. When we began distributing and manufacturing products for non-CLIA laboratories and point-of-care customers in 2006, we became subject to additional FDA requirements such as pre-market applications.

In March 2006, we received FDA clearance to begin marketing our NT-proBNP congestive heart failure product for use with human plasma. We are currently in clinical trials to add a whole blood indication for this product.

On July 17, 2007, our Point-of-Care Division received a warning letter from the FDA following an earlier inspection of the division s facility in Toronto, Canada in February 2007. The letter cited violation of the FDA s Current Good Manufacturing Practice requirements of the Quality System Regulations with respect to the manufacture, packing and installation of products in our cardiac business: Cardiac STATus, Decision Point and i-Lynx. Since the inspection in February 2007, we have undertaken steps to address these concerns, and will continue to take appropriate corrective and preventive actions in response to the warning letter. There is no guarantee that we will correct all of the violations cited in the letter to the satisfaction of the FDA. Failure to do so may result in further regulatory actions, including suspension of sales of our Point-of-Care products in the United States and delay in the granting of pre-market approval applications, which could have a material adverse effect on our business, financial position and results of operations. In addition, we may need to expend substantial funds and efforts implementing corrective measures and maintaining our Toronto facility in full compliance with the FDA s regulatory requirements.

There can be no assurance that new legislation will not impose additional costs or lengthen review times for our products.

Quality Systems

We have implemented modern quality systems and concepts throughout the organization. Our regulatory department supervises our quality systems and is responsible for assuring compliance with all applicable regulations, standards and internal policies. Our senior management team is actively involved in setting quality policies and managing internal regulatory and monitoring external quality performance.

Manufacturing and Raw Materials

We manufacture the majority of our products internally. Molecular diagnostic products sold in North America are primarily manufactured in our San Diego facility and molecular diagnostics sold outside North

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America are primarily manufactured in our Italian facility. Point-of-care products are manufactured at our Toronto location. Research products are manufactured at our Bothell location.

Our NT-proBNP product for CHF and the contemplated product for use with whole-blood will be manufactured by our partner PBM in New Jersey.

We purchase raw materials essential to our business in the ordinary course of business from numerous suppliers. Substantially all the raw materials used for our commercial manufacturing of products are available from multiple sources; however, other raw materials for supply contract and OEM manufacturing are proprietary products of other companies. Raw materials may be rejected if they do not meet manufacturing specifications, are contaminated and/or have other failures. A material shortage, contamination, or failure could adversely impact the commercial manufacturing of our products and related revenues.

Geographic Area Financial Information

For financial information concerning the geographic areas in which we operate, see the footnote Geographic Sales and Significant Customers to the consolidated Financial Statements.

Employees

As of December 31, 2007, we had 248 employees of whom 21 hold Ph.D. degrees and 22 hold other advanced degrees. Approximately 69 are involved in research and development, 92 in operations, manufacturing and quality assurance, 47 in sales and marketing, and 40 in finance, legal and other administrative functions. Our success will depend in large part upon our ability to attract and retain employees. We face competition in this regard from other companies, research and academic institutions, government entities and other organizations. None of our employees are covered by a collective bargaining agreement except for our Italian employees that operate through government mandated workers councils.

Item 1A. ***Risk Factors***

We will need additional capital in the future. If additional capital is not available, we may have to curtail or cease operations.

We will need to raise more money (in addition to the $10 million raised in March 2008 through the sale of a royalty stream as more fully described in footnote 18) to continue our planned operations. Our independent registered public accounting firm has included a going concern assumption in its audit report included in the Form 10-K. We may seek additional funds through public and private securities offerings, arrangements with corporate partners, borrowings under lease lines of credit or other sources, sale of assets or licensing of technology or intellectual property. If we can not raise more money, we will have to reduce our capital expenditures, scale back our development of new products, significantly reduce our workforce and seek to license to others products or technologies that we otherwise would seek to commercialize ourselves. The amount of money we will need will depend on many factors, including among others:

- the amount of revenue we are able to generate;
- the progress of our research and development programs;
- the commercial arrangements we may establish;
- the time and costs involved in:
  - scaling up our manufacturing capabilities;

meeting regulatory requirements, including meeting necessary Quality System Regulations (QSRs) and obtaining necessary domestic and international regulatory clearances or approvals;

acquisition(s) or investment(s) into other businesses;

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filing, prosecuting, defending and enforcing patent claims and litigation; and

the scope and results of our future clinical trials, if any.

Additional capital may not be available on terms acceptable to us, or at all. In addition, the terms of our 9.75% senior secured convertible notes issued in March 2008 (the 9.75% Notes) and 6.25% senior convertible notes issued in August 2007 (the 6.25% Notes , together with the 9.75% Notes, the Notes) contain restrictive covenants that limit our ability to raise capital through additional financing unless we obtain consent from holders of the Notes, and there is no guarantee that we will be able to obtain such consents on terms acceptable to us, or at all. Under the terms of the 9.75% Notes, we are required to use a portion of the proceeds of certain financings to redeem the 9.75% Notes. Any additional equity financing will be dilutive to stockholders, and debt financing, if available, may include restrictive covenants and require significant collateral.

We have a history of net losses. We expect to continue to incur net losses and we may not achieve or maintain profitability.

Since our inception, we have incurred cumulative net losses which, as of December 31, 2007, total approximately $400.6 million. Moreover, our negative cash flow and losses from operations will continue for the foreseeable future. We may never generate sufficient product revenue to become profitable. We also expect to have quarter-to-quarter fluctuations in revenues, expenses and losses, which could be significant. We believe our future operating results may be subject to quarterly fluctuations due to a variety of factors, including, but not limited to, acquisition, goodwill or other impairment charges, non-cash stock option expenses, market acceptance of our existing product offerings, and potential other products under development, including the whole-blood CHF product and diagnostics related to infectious disease, whether and when new products are successfully developed and introduced by us or our competitors, and the achievement of milestones under our collaborative agreements with various government and private agencies. The recognition of revenue under contracts, grants and sponsored research agreements will be subject to significant fluctuations in both timing and amount and therefore our results of operations for any period may not be comparable to the results of operations for any other period.

To develop and sell our products successfully, we may need to increase our spending levels in research and development, as well as in selling, marketing and administration. We may have to incur these increased expenses before knowing whether our products can be sold successfully.

If our products are not successfully developed or commercialized, we could be forced to curtail or cease operations.

We are at an early stage of development. As of December 31, 2007, we had only a limited product offering that includes real-time PCR products and point-of-care diagnostic tests for cardiac disease. Our congestive whole-blood heart failure point-of-care test remains in development. If we are unable, for technological or other reasons, to complete the development, introduction or scale-up of manufacturing of our new products, or if our products do not achieve a significant level of market acceptance, we would be forced to curtail or cease operations.

Lack of market acceptance of our products and technology would harm us.

Our success will depend upon our ability to continue to overcome significant technological challenges and successfully introduce our products into the marketplace. A number of applications envisioned by us may require significant enhancements to our basic technology platform. There can be no assurance that we can successfully develop such enhancements.

Although we have developed a number of products as discussed above, we may not be able to further develop these products or to develop other commercially viable products. Even if we develop a product, it may not be accepted in the marketplace. If we are unable to achieve market acceptance, we will not be able to

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generate sufficient product revenue to become profitable. We may also be forced to carry greater inventories of our products for longer periods than we may have anticipated. If we are unable to sell the inventory of our products in a timely fashion and at anticipated price levels, we may not become profitable. In addition, we may have to take accounting charges and reduce the value of our product inventory to its net realizable value. If actual future demand or market conditions are less favorable than those currently projected by us, additional inventory write-downs may be required.

Market acceptance will depend on many factors, including our ability to:

- convince prospective strategic partners and customers that our technology is an attractive alternative to other technologies;
- manufacture products in sufficient quantities with acceptable quality and at an acceptable cost; and
- sell, place and service sufficient quantities of our products.

In addition, our technology platform could be harmed by limited funding available for product and technology acquisitions by our customers, internal obstacles to customer approvals of purchases of our products and market conditions in general.

Performance issues with our products may also harm market acceptance of our products and reduce our revenues.

Commercialization of some of our potential products depends on collaborations with others. If our collaborators are not successful or if we are unable to find collaborators in the future, we may not be able to develop these products.

Our strategy for the research, development and commercialization of some of our products requires us to enter into contractual arrangements with corporate collaborators, licensors, licensees and others. Our success depends in part upon the performance by these collaboration partners and potential collaboration partners of their responsibilities under these arrangements. Some collaborators may not perform their obligations as we expect, and we may not derive any revenue or other benefits from these arrangements. We do not know whether our collaborations will successfully develop and market any products under our respective agreements. Moreover, some of our collaborators are also researching competing technologies targeted by our collaborative programs.

Through SynX we were a party to a 2001 development and manufacturing agreement between SynX and Princeton BioMeditech Corporation (PBM) to jointly develop and market various point-of-care tests for certain biomarkers and protein targets. As of January 2006, we terminated all of our previous agreements with PBM and superseded them with renegotiated contracts. These contracts include a manufacturing and distribution agreement and a development agreement. We agreed to continue the joint development of a point-of-care test system that incorporates PBM s proprietary technology, our proprietary reagents and an exclusive license between us and Roche Diagnostics GmbH. PBM is responsible for the development of an instrument that uses our reagents to determine the amount of target NT-proBNP present in a patient. We are required to develop and manufacture the reagents used in the instrument and supply them to PBM who manufacture the test device. We also have to conduct the testing of our reagents required to obtain regulatory approval to market and sell them. Further, PBM has the rights to distribute the products in certain markets including the US. As a result, our success in the point-of-care market is dependent in part upon PBM s ability to perform under these agreements.

We may be unsuccessful in entering into other collaborative arrangements to develop and commercialize our products. In addition, disputes may arise over ownership rights to intellectual property, know-how or technologies developed with our collaborators.

Our indebtedness obligations may adversely affect our cash flow.

In March 2008, we completed a restructuring transaction for our 6.25% senior convertible Notes, or the unsecured notes, in which we exchanged an aggregate $12.9 million in principal amount of unsecured Notes with

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our secured 9.75% Notes, with an aggregate principal amount of $15.5 million. As a result of this transaction, we increased the total amount of convertible debt outstanding, as well as the amount of interest payments under the Notes. Furthermore, we have agreed to make the following redemption payments on the 9.75% Notes:

- beginning on April 1, 2008, we will pay monthly installment payment of $80,000 per month, which will increase to $160,000 per month after January 1, 2009;
- following quarterly announcement of our earnings, we will redeem an amount of the 9.75% Notes equal to the greater of (i) $10,000 for each quarter prior to January 1, 2009 or $20,000 for each fiscal quarter after January 1, 2009 and (ii) the product of 5% (for each quarter prior to January 1, 2009) or 10% (for each quarter after January 1, 2009) multiplied by the consolidated product revenue of the Company for such prior fiscal quarter minus the aggregate monthly installment payment made for such quarter;
- if we sell, transfers or dispose all or any part of its business, property or assets, we may be required to use 50% of the net cash proceeds over $3.5 million from such asset disposition to redeem the 9.75% Notes; and
- if we offer or sell any of debt, equity, or equity equivalent securities, we may be required to use 20% of the aggregate net cash proceeds in excess of $10 million to redeem the 9.75% Notes.

The increased amount of indebtedness and additional payments required to service our indebtedness impose a significant burden on our liquidity and cash flow. Should we be unable to satisfy our payment obligations under the 9.75% Notes, we may have to restructure or limit our operations. Our indebtedness could have significant additional negative consequences, including, but not limited to:

- increasing our vulnerability to general adverse economic and industry conditions;
- limiting our ability to obtain additional financing;
- placing us at a possible competitive disadvantage to competitors with less debt obligations and competitors that have better access to capital; and
- restricting the availability of strategic alternative.

We may not have sufficient funds to make required payments on the Notes.

Our liquidity position is constrained by the operating losses from our business. In addition, we are not be able to pay interest on the Notes with shares of our common stock if the valuation of our stock is below $1.14 per share, in which case we will be required to pay interest in cash. Under the terms of the 9.75% Notes, we are also required to make certain monthly installment payments and quarterly catch-up payments to redeem the Notes. We are also required to apply a portion of net proceeds received from certain sales of assets and equity or debt financing to redeem the 9.75% Notes. As a result, we may not have sufficient funds to make the required interest, redemption and principal payments on the Notes when due, either at maturity, applicable installment payment dates, or upon the occurrence of various events of default or specified change of control transactions. If we do not have sufficient funds to make these payments, we will have to obtain an alternative source of funds, including sales of our assets or assets of our subsidiaries or sales of our equity securities or capital. We cannot assure you that we will be able to obtain sufficient funds to meet our payment obligations under the Notes through any of these alternatives or that we will be permitted by our senior lenders to obtain funds through any of these alternatives. In the event that we are not able to make the required payments at maturity or otherwise, we will be forced to seek alternatives, including seeking additional debt financing or equity financing or a potential reorganization under Chapter 11 of the United States Bankruptcy Code.

We have granted a first priority security interest in substantially all of our assets, including certain intellectual property.

To secure our obligations under the Notes, we have granted holders of the Notes a first priority security interest in substantially all of our assets and stock, including certain intellectual property assets. Upon an event of

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default under the Notes, the holders could elect to declare all amounts outstanding, together with accrued and unpaid interest and penalty, to be immediately due and payable. If we are unable to repay those amounts, the holders will have a first claim on our assets, including such intellectual property. If holders should attempt to foreclose on the collateral, it is unlikely that there would be any assets remaining after repayment in full of such secured indebtedness. Any such default and resulting foreclosure would have a material adverse effect on our financial condition and our ability to continue our operations.

The Notes provide that upon the occurrence of various events of default and change of control transactions, the holders would be entitled to require us to repay the Notes for cash, which could leave us with little or no working capital for operations or capital expenditures, or force us to sell the collateral subject to the security interest granted under the Notes.

The Notes allow the holders to require us to repay the Notes upon the occurrence of various events of default, such as the termination of trading of our common stock on a qualified stock market or quotation system or a breach by us of the covenants set forth in the Note, as well as specified change of control transactions. In such a situation, we may be required to repay all or part of the Notes, including any accrued interest, applicable premiums and penalties. Some of the events of default include matters over which we may have little or no control. If an event of default or a change of control occurs, we may be unable to repay the full price in cash. Even if we were able to prepay the full amount in cash, any such repayment could leave us with little or no working capital for our business. We have not established a sinking fund for payment of our obligations under our Notes, nor do we anticipate doing so.

In addition, we have granted holders of the Notes a first priority security interest in substantially all of our assets and stock of our subsidiaries to secure our obligations under the Notes. Upon the occurrence of an event of default, the holders would have the right to foreclose upon and sell, or otherwise transfer, the collateral subject to their security interest. Accordingly, our secured creditors would be entitled to have the debt owed to them satisfied from our assets before we could make any distribution to other stockholders.

If we are not able to access the funds in the cash collateral account, it will adversely affect our cash flow, financial results and our ability to meet payment obligations.

We have deposited $7.3 million of the total $20 million purchase price of the Notes in a cash collateral account for the purpose of securing the letter of credit issued in favor of the holders of the Notes. The funds in the cash collateral account, including interests earned, will be released to us only if we meet certain conditions to terminate the letter of credit. These conditions include, but are not limited to, all of the following: (i) the closing sales price of our common stock on the NASDAQ Global Market equal to or exceeds $1.524 per share for 20 out of 30 consecutive trading days; (ii) there is no event of default under the Indenture; and (iii) our common stock has not been suspended from trading on NASDAQ Global Market. There is no guarantee that we will meet all of the conditions for the termination of the letter of credit. In addition, there is no guarantee that the price of our common stock will reach the target level described above, and even if it does, there is no assurance that the price will maintain at such level for the required period of time. The price of our stock as of March 24, 2008 was $0.39 per share. If the price of our common stock does not meet this requirement or if we cannot meet any of the conditions, we will not have access to the funds in the cash collateral account, which will adversely affect our cash flow, financial results and our ability to meet payment obligations under the Notes.

If our convertible notes do not convert to equity within its three year term, we will be forced to replace them with additional financing that may not be available on favorable terms.

Our Notes have a three year term expiring in August 2010 and will need to be refinanced if not converted to stock before that time. There can be no assurance that financing will be available at that time, which would force the company to curtail or cease operations. The Notes contain features giving the company access to additional capital over the next several years dependent on the achievement of pre-determined stock prices. There is no

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assurance that those conditions will be met. The Notes further restrict us from additional borrowing without permission of the note holders whose consent cannot be assured.

We may continue to incur significant non-operating, non-cash charges resulting from changes in the fair value of our warrants and derivatives.

In August 2007, we entered into a definitive agreement for the sale and issuance of $20 million in aggregate principal amount of the unsecured Notes which included warrants to purchase up to 17,322,833 shares of our common stock. These warrants, along with the conversion feature of the notes, have been recorded at their relative fair value at the inception date of the agreement and will continue to be recorded at fair value at each subsequent balance sheet date. Any change in value between reporting periods will be recorded as other income (expense) at each reporting date. The impact of these non-operating, non-cash charges could have an adverse effect on our stock price in the future. The fair value of the warrant and derivatives is tied in large part to our stock price. If our stock price increases between reporting periods, the warrant and derivatives become more valuable. As such, there is no way to forecast what the impact on other income (expense) will be in the future or what the future impact will be on our financial statements.

We have agreed to certain limitations on our ability to sell our securities in future financings, which may restrict our ability to raise capital, and any future financing may require the consent of our note holders, who may be unwilling to provide such consent.

We have agreed, for so long as any Notes or related warrants remain outstanding, that we will not issue or sell, subject to certain exceptions, shares of our common stock for a consideration per share less than the conversion price of the Notes or the exercise price of the such warrants immediately prior to such sale, if the effect of the issuance or sale is to cause the conversion price or exercise price to be adjusted below certain fixed floor prices, unless we first obtain stockholder approval. In addition, we have agreed, for so long as any Notes or related warrants remain outstanding, that we will not sell, subject to certain exceptions, securities with a conversion or exercise price that varies from the market price of our common stock. These limitations will restrict our ability to raise capital through equity or debt financing in the future, unless we obtain prior written consent from the holders of the Notes. There is no assurance that the holders will provide us with such consent. If we cannot raise more capital or obtain additional financings on terms satisfactory to us, we will have to reduce our capital expenditures, scale back our development of new products, significantly reduce our workforce and seek to license to others products or technologies that we otherwise would seek to commercialize ourselves, which will have an adverse effect on our business operations and financial results.

Restrictive covenants in the Indenture and the secured Notes may limit our ability to expand our operations and capitalize on our business opportunities.

The terms of the Notes include restrictive covenants which limit our ability to borrow money, create liens, dispose assets, transact businesses with affiliates, effect equity and debt financing and engage in certain other activities. These restrictive covenants may limit our ability to expand our operations and capitalize on business opportunities. If we are unable to expand our operation or otherwise capitalize on our business opportunities, our business, financial condition and results of operations could be materially adversely affected and we may not be able to meet our debt service obligations. In addition, as described above, we are required to apply a portion of net proceeds received from certain disposition of assets and financing transactions to redeem the secured 9.75% Notes, which may limit our ability to capitalize on these opportunities.

Conversion of the Notes and exercise of related warrants and issuance of shares of common stock in payment of interests on the Notes will dilute the ownership interest of existing stockholders, including holders who had previously converted their Notes.

The conversion or exercise of some or all of the Notes and related warrants, respectively, and the issuance of shares of common stock in payment of interests on the Notes, could significantly dilute the ownership interests

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of existing stockholders. The restructuring transaction completed in March 2008 also increased substantially the number of shares that may be issued upon conversion of the Notes by lowering the initial conversion price of the Notes from $1.27 per share to $0.68 per share, which will result in increased dilution. Any sales in the public market of the common stock issuable upon such conversion or exercise could adversely affect prevailing market prices of our common stock. In addition, the existence of the Notes may encourage short selling by market participants because the conversion of the Notes could be used to satisfy short positions, or anticipated conversion of the Notes into shares of our common stock could depress the price of our common stock.

The CDC project may not continue beyond the previously funded phases.

We received a $4.5 million contract from the CDC to cover the first two phases of a possible five phase development program totaling up to $12.5 million. We currently estimate that completion of the contract will require more than $12.5 million in funding. Future awards will be given at the discretion of the CDC. In making further contract awards, the CDC may consider the achievement of certain milestones in the current contract but there can be no assurance that we will successfully attain them. The exact reimbursement rates provided by the CDC are also subject to our performance of the contract under allowed rates of reimbursement and the ratio of internal versus outside supplier expenses. The CDC could modify our rates of reimbursement based on our actual performance.

If we fail to regain compliance with the minimum bid price requirement under NASDAQ rules, we could lose our listing on the NASDAQ Global Market, and the loss of listing will result in an event of default under our Notes.

Our common stock is listed on the NASDAQ Global Market and NASDAQ s marketplace rules for continued listing on the NASDAQ Global Market require, among other things, that the bid price for our common stock not fall below $1.00 per share for a period of 30 consecutive trading days. If our minimum bid price is below $1.00 for 30 consecutive trading days, under the current NASDAQ Global Market rules we will have a period of 180 days to attain compliance by meeting the minimum bid price requirement for 10 consecutive days during such compliance period.

On November 27, 2007, we received a letter from NASDAQ Stock Market informing us that the closing bid price of our common stock was under $1.00 per share for 30 consecutive business days, and that we have 180 calendar days, or until May 27, 2008, to regain compliance with the minimum bid requirement under NASDAQ rules. If the Company does not regain compliance by May 27, 2008, the NASDAQ staff will send us a written notification that our common stock will be delisted from NASDAQ Global Market. At that time, we may appeal the delisting determination to a NASDAQ Listings Qualifications Panel, or we may transfer our common stock to the NASDAQ Capital Market if the common stock satisfies all criteria, other than compliance with the minimum bid price requirement, for initial inclusion on such market. In the event of such a transfer, we will be afforded an additional 180 calendar days to comply with the minimum bid price requirement while listed on the NASDAQ Capital Market.

There is no guarantee that we will be able to regain compliance of the minimum bid price requirement under NASDAQ rules prior to May 27, 2008, nor can we be sure that we will satisfy the initial listing requirement of NASDAQ Capital Market in order to take advantage of the additional 180-day grace period to regain compliance. In addition, while stockholders have approved a measure to give our board of directors the authority to effectuate a reverse stock split of our common stock in order to raise the stock price, there is no guarantee that such reverse stock split will result in a higher stock price. Our stock price as of March 24, 2008 was $0.39 per share. Our failure to meet NASDAQ s minimum bid price requirement may result in the delisting of our common stock, which will make our stock significantly less liquid and negatively affect its value. Delisting may also result in an event of default under our Notes and a breach of certain covenants with our warrant holders, which will have a material adverse effect on us.

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If our acquisitions are unsuccessful, our business may be harmed.

As part of our business strategy, we have acquired companies, technologies and product lines to complement our internally developed products. Acquisitions involve numerous risks, including the following:

- The possibility that we will pay more than the value we derive from the acquisition, which could result in future non-cash impairment charges such as the $59 million non-cash goodwill impairment charge recorded in the fourth quarter of 2005;
- Difficulties in integration of the operations, technologies, and products of the acquired companies, which may require significant attention of our management that otherwise would be available for the ongoing development of our business;
- The assumption of certain known and unknown liabilities of the acquired companies; and
- Difficulties in retaining key relationships with employees, customers, partners and suppliers of the acquired company.

Any of these factors could have a negative impact on our business, results of operations or financing position.

Future acquisitions could also result in potentially dilutive issuances of equity securities, the incurrence of debt, contingent liabilities and/or amortization expenses related to certain intangible assets and increased operating expenses, which could adversely affect our results of operations and financial condition. Further, any additional equity financing, debt financing, or credit facility used for such acquisition may not be on satisfactory terms, and any such financing or facility may place restrictions on our business. In addition, to the extent that the economic benefits associated with any of our acquisitions diminish in the future, we may be required to record additional write downs of goodwill, intangible assets or other assets associated with such acquisitions, which would adversely affect our operating results.

We may not realize the benefits that we anticipate from our acquisitions of the diagnostic division of Amplimedical, the rapid cardiac immunoassay test business of Spectral Diagnostics, Epoch Biosciences, Inc., SynX Pharma Inc. or other acquisitions due to integration and other challenges.

On May 1, 2006, we completed the acquisition of the molecular testing division of Amplimedical S.r.L. On February 6, 2006, we completed the acquisition of the rapid cardiac immunoassay test business of Spectral Diagnostics (Spectral). In April 2004, we completed the acquisition of SynX Pharma, Inc. (SynX), and in December 2004, we completed the acquisition of Epoch Biosciences, Inc. (Epoch). We expected that the Spectral and SynX product lines would accelerate our entry into the point-of-care market and that the Amplimedical and Epoch acquisitions would broaden our reach in the molecular diagnostic market. However, we cannot be certain that we will achieve these and other benefits which we expected from these acquisitions. The process of integrating these and other acquired companies requires, significant efforts and expenditures, including the coordination of information technologies, research and development, sales and marketing, administration and manufacturing. Combining our product offerings with those of acquired companies is a complex and lengthy process involving a number of steps in which we will seek to achieve increasing degrees of integration of our products. Additionally, Amplimedical is located in Italy, Spectral and SynX are located in Canada, Epoch is located in the state of Washington, and because our facilities in San Diego, California are or may be physically separated from facilities of other companies we acquire, it may be difficult for us to communicate effectively with, manage and integrate these employees and operations with the rest of the Company. If we are not able to integrate the operations of these acquired companies and businesses successfully, we may not be able to meet our expectations of future results of operations.

Factors that will affect the success of these acquisitions and any future acquisitions include the following:

- our ability to manage a more complex corporate structure that requires additional resources for such responsibilities as tax planning, foreign currency management, financial reporting and risk management;

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our ability to identify and retain key employees of acquired companies;

our ability to increase revenues due to the integration of the products and technologies of the acquired companies; and

our ability to operate efficiently following the completion of acquisitions and to achieve cost savings.

Even if we are able to successfully integrate our acquired operations, we may never realize the anticipated benefits of the SynX, Epoch, Spectral, or Amplimedical acquisitions, or any other acquisition. Our failure to achieve these benefits and synergies could have a material adverse effect on our business, results of operations and financial condition.

Competing technologies may adversely affect us.

We expect to encounter intense competition from a number of companies that offer products in our targeted application areas. We anticipate that our competitors in these areas will include:

companies developing molecular diagnostic tests;

companies developing point-of-care diagnostic tests;

health care and other companies that manufacture laboratory-based tests and analyzers;

diagnostic and pharmaceutical companies; and

companies developing drug discovery technologies.

If we are successful in developing new products in these areas, we will face competition from established companies and numerous development-stage companies that continually enter these markets. In many instances, our competitors have substantially greater financial, technical, research and other resources and larger, more established marketing, sales, distribution and service organizations than us. Moreover, these competitors may offer broader product lines and have greater name recognition than us and may offer discounts as a competitive tactic.

In addition, several development-stage companies are currently making or developing products that compete with or will compete with our potential products. Our competitors may succeed in developing, obtaining clearance/approval from the FDA or marketing technologies or products that are more effective or commercially attractive than our current or potential products or that render our technologies and current or potential products obsolete.

As these companies develop their technologies, they may develop proprietary positions that may prevent us from successfully commercializing products.

Also, we may not have the financial resources, technical expertise or marketing, distribution or support capabilities to compete successfully in the future.

The uncertainty of patent and proprietary technology protection may adversely affect us.

Our success will depend in part on obtaining, maintaining and enforcing meaningful patent protection on our inventions, technologies and discoveries. Our ability to compete effectively will depend on our ability to develop and maintain proprietary aspects of our technology, and to operate without infringing the proprietary rights of others, or to obtain rights to third-party proprietary rights, if necessary. Our pending patent applications may not result in the issuance of patents. Our patent applications may not have priority over others applications, and even if issued, our patents may not offer protection against competitors with similar technologies. Any patents issued to us may be challenged, invalidated or

circumvented, and the rights created thereunder may not

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afford us a competitive advantage. Budgetary concerns may cause us to not file, or continue, litigation against known infringers of our patent rights, or may cause us not to file for, or pursue, patent protection for all of our inventive technologies in jurisdictions where they may have value.

We also rely upon trade secrets, technical know-how and continuing inventions to develop and maintain our competitive position. Others may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets or disclose our technology and we may not be able to meaningfully protect our trade secrets, or be capable of protecting our rights to our trade secrets. We seek to protect our technology and patents, in part, by confidentiality agreements with our employees and contractors. Our employees may breach their existing confidentiality agreements and these agreements may not protect our intellectual property. This could have a material adverse effect on us.

Our products could infringe on the intellectual property rights of others, which may subject us to future litigation and cause us to be unable to license technology from third parties.

Our commercial success also depends in part on us neither infringing valid, enforceable patents or proprietary rights of third parties, nor breaching any licenses that may relate to our technologies and products. We are aware of other third-party patents that may relate to our technology. It is possible that we may unintentionally infringe these patents or other patents or proprietary rights of third parties. In the past, we and the companies we have acquired have received, and may in the future receive, notices claiming infringement from third parties as well as invitations to take licenses under third-party patents which have, in some instances, resulted in litigation, settlement of litigation and our licensing of third party intellectual property rights. In particular, the receipt of infringement notices by us may subject us to costly litigation, divert management resources and result in the invalidation of our intellectual property rights. These claims may require us to pay significant damages, cease production of infringing products, terminate our use of infringing technologies or develop non-infringing technologies. Further, any legal action against us or our collaborative partners claiming damages and seeking to enjoin commercial activities relating to our products and processes affected by third-party rights may require us or our collaborative partners to obtain licenses in order to continue to manufacture or market the affected products and processes. These actions may also subject us to liability for damages. Although in the past we and the companies we have acquired have succeeded in settling some third party claims concerning alleged infringement of intellectual property rights, which settlements have involved the payment of royalties by us or such companies we have acquired, there can be no assurance that in the future we would be successful in settling such claims. In addition, there can be no assurance that, even if such settlements are achieved, that they would be on commercially reasonable terms or would not otherwise have a material adverse impact on the company s business. We or our collaborative partners may not prevail in an action and any license required under a patent may not be made available on commercially acceptable terms, or at all.

There are many U.S. and foreign patents and patent applications held by third parties in our areas of interest, and we believe that there may be significant other litigation in the industry regarding patent and other intellectual property rights. Additional litigation could result in substantial costs and the diversion of management s efforts regardless of the result of the litigation. Additionally, the defense and prosecution of interference proceedings before the U.S. Patent and Trademark Office, or USPTO, and related administrative proceedings would result in substantial expense to us and significant diversion of effort by our technical and management personnel. We may in the future become subject to other USPTO interference proceedings to determine the priority of inventions. In addition, laws of some foreign countries do not protect intellectual property to the same extent as do laws in the U.S., which may subject us to additional difficulties in protecting our intellectual property in those countries.

The regulatory clearances or approvals required to manufacture, market and sell our products are uncertain, and our failure to comply with such clearances and approvals could have a material adverse effect on our company.

Unless otherwise exempt, in vitro diagnostic devices require FDA approval or clearance prior to marketing in the United States. Obtaining 510(k) clearance and premarket approval may be time-consuming, expensive and

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uncertain. The regulatory approval or clearance process required to manufacture, market and sell our existing and future products is currently uncertain. If the FDA or other regulatory authorities assert that our current products are subject to 510(k) clearance and premarket approval requirements or other similar procedures, our business may experience incremental costs, increased regulatory risks and production delays. In addition, we could be subject to:

- the recall or seizure of our products;
- total or partial suspension of the production of our products;
- the failure of the government to grant premarket clearance or premarket approval for our devices or the withdrawal of marketing clearances or approvals once granted to us;
- substantial delay in the manufacture or sale of our current or future products;
- limitations on intended uses imposed as a condition of approvals or clearances; or
- criminal prosecution, civil penalties, other administrative sanctions or judicially imposed sanctions, such as injunctions.

In August 2005 we received an untitled letter from the Office of In Vitro Diagnostic Device Evaluation and Safety (OIVD), a division of the FDA. The letter described the OIVD s concern that the micro array NanoChip systems and certain related products sold as ASRs might be a closed system and therefore a medical device that requires a pre-market application. During the first quarter of 2006 we met with the FDA and made certain changes in our marketing materials and sales approach. In September 2006, the FDA published Draft Guidance for Industry and FDA Staff: Commercially Distributed Analyte Specific Reagents (ASRs): Frequently Asked Questions setting forth the FDA s interpretation of the regulations governing the sale of ASR products. Subsequently, we received a second letter from the OIVD in which the FDA asserted that our micro array and multiplexed reagents require FDA pre-market review. In November 2006, we met with the FDA to discuss the second letter. In the fourth quarter 2007, we made the decision to exit the micro array business. Our remaining molecular ASRs are subject to the FDA s new final ASR guidance document. We believe that our ASR products must be repackaged to meet the guidance and we may incur substantial costs in this repackaging effort. This will also divert resources from other efforts. Further, there can be no assurance that the repackaged ASR products would be acceptable to all of our customers.

The regulatory approval process for, and compliance with regulations applicable to, our products may be expensive, time-consuming and uncertain.

To the extent that our products require FDA or other regulatory approval or clearance prior to marketing, such regulatory approval process may be expensive, time-consuming, uncertain and may prevent us from obtaining or maintaining required approvals for the commercialization of our products, which may have a significant impact on our business. It generally takes at least three to six months from the time of submission or more to obtain 510(k) clearance, but the process may take longer if the FDA requests more data or asks other questions. The premarket approval process generally takes between one and two years from the time of submission but can take longer. Prior to submitting to the FDA a 510(k) clearance or pre-market application, we must spend time and money preparing the submission, including generating the necessary data. Regulatory clearance or approval of any of our products may not be granted by the FDA or foreign regulatory authorities. Our failure to obtain required approvals or clearances from regulatory authorities could have a material adverse effect on our business, results of operations and financial condition. In other countries, the manufacture or sale of our products may require approval by local government agencies with missions comparable to the FDA s. The process of obtaining any such approval may also be lengthy, expensive and uncertain.

We expect to submit some of our products in the future to the 510(k) clearance process or premarket approval process and, as such, expect to incur significant expenses in order to receive such clearances or approvals. We also cannot predict the likelihood of obtaining such clearances or approvals. The failure to obtain

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such clearances or approvals could prevent the successful development, introduction and marketing of certain of our products, and could cause the market price for our stock to decline.

In addition, whether or not our products are subject to 510(k) clearance or premarket approval, we are subject to certain FDA regulations covering, among other things, manufacturing, promotion and medical device reporting. For instance, manufacturing facilities are required to adhere to the FDA s current Quality System Regulations, including extensive record keeping and periodic inspections of our manufacturing facilities. Similar requirements are imposed by foreign governmental agencies. Compliance with these regulations requires substantial expenditures of time, money and effort in such areas as production and quality control. Failure to comply with such regulations at one of our manufacturing facilities could result in an enforcement action brought by the FDA, which could include withholding the approval of products manufactured at that facility or all facilities registered with the FDA under our name.

On July 17, 2007, our Point-of-Care Division received a warning letter from the FDA following an earlier inspection of the division s facility in Toronto, Canada in February 2007. The letter cited violation of the FDA s Current Good Manufacturing Practice requirements of the Quality System Regulations with respect to the manufacture, packing and installation of products in our cardiac business: Cardiac STATus, Decision Point and i-Lynx. Since the inspection in February 2007, we have undertaken steps to address these concerns, and will continue to take appropriate corrective and preventive actions in response to the warning letter. There is no guarantee that we will correct all of the violations cited in the letter to the satisfaction of the FDA. Failure to do so may result in further regulatory actions, including suspension of sales of our Point-of-Care products in the United States and delay in the granting of pre-market approval applications, which could have a material adverse effect on our business, financial position and results of operations. In addition, we may need to expend substantial funds and efforts implementing corrective measures and maintaining our Toronto facility in compliance with the FDA s regulatory requirements.

If we are unable to manufacture products on a commercial scale, our business may suffer.

We manufactured the majority of our products sold in 2007. In the future, we anticipate significant new sales in point-of-care quantitative tests that will be manufactured by PBM. We and PBM rely on subcontractors to manufacture the limited quantities of components we require for use by and sale to our customers, as well as for internal and collaborative purposes. Manufacturing, supply and quality control problems may arise as we or PBM either alone, together or with subcontractors, attempt to further scale up manufacturing procedures or to manufacture new products. We or PBM may not be able to scale-up in a timely manner or at a commercially reasonable cost. Problems could lead to delays or pose a threat to the ultimate commercialization of our products and cause us to fail. We or PBM or any of our contract manufacturers could encounter manufacturing difficulties, including those relating to:

- the ability to scale up manufacturing capacity;
- production yields;
- quality control and assurance; or
- shortages of components or qualified personnel.

Our manufacturing facilities and those of PBM and any other of our contract manufacturers are or will be subject to periodic regulatory inspections by the FDA and other federal, state and international regulatory agencies and these facilities are or may become subject to Quality System Regulation, or QSR, requirements of the FDA. If we, PBM or other third-party manufacturers we utilize, fail to maintain facilities in accordance with QSR regulations, other international quality standards or other regulatory requirements, then the manufacture process could be suspended or terminated which would harm us.

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Our dependence on suppliers for materials could impair our ability to manufacture our products.

Outside vendors provide key components and raw materials used by us and PBM in the manufacture of our products. Although we believe that alternative sources for these components and raw materials are available, any supply interruption in a limited or sole source component or raw material would harm our and PBM s ability to manufacture our products until a new source of supply is identified and qualified, including qualification under applicable FDA regulations. In addition, an uncorrected defect or supplier s variation in a component or raw material, either unknown to us or PBM or incompatible with our or PBM s manufacturing processes, could harm our or PBM s ability to manufacture our products. We or PBM may not be able to find a sufficient alternative supplier in a reasonable time period, or on commercially reasonable terms, if at all. If we or PBM fail to obtain a supplier for the manufacture of components of our products, we may be forced to curtail or cease operations.

Lead times for obtaining materials and components for our products and the manufacturing and introduction of our products may vary significantly which could lead to excess inventory levels as well as shortages of critical components and products if our supply and demand forecasts are inaccurate.

We anticipate that our products, including our ASRs and most of our other products will be manufactured and introduced by us and third parties, if any, based on forecasted demand and that we will seek to purchase components and materials in anticipation of the actual receipt of purchase orders from our customers. Lead times for materials and components to be included in our products vary significantly and may depend on factors such as the business practices of each specific supplier and the terms of the particular contracts, as well as the overall market demand for such materials and components at any given time. Also, we often rely on our own and third party forecasted demand for various products and the accuracy of such forecasts may depend on a number of factors, including but not limited to, government reports and recommendations for certain genetic testing, regulatory burdens, competitive products, the nature and effectiveness of our products, the timing and extent of the introduction of our products into the marketplace and other factors. If the forecasts are inaccurate, we could experience fluctuations in excess inventory of our products, or shortages of critical components or products, either of which could cause our business to suffer.

We currently rely on one manufacturer for some of our point-of-care products, and such reliance may delay the manufacture and shipment of our products to customers.

We have an exclusive manufacturing agreement with PBM for the manufacture of certain future point-of-care products, including CHF tests. Because we are solely dependent on one company for the manufacture of these products, any disruption in the company s business or in our relationship with the company may have a material adverse effect on our business. To the extent we have adverse developments in our relationship with PBM, or to the extent we develop contractual disputes, it may have an adverse impact on our business, our ability to implement existing products or launch new products. In particular, to the extent we seek to amend, modify or extend or otherwise change aspects of our contractual relationship with PBM, we may experience manufacturing delays associated with negotiating the terms of those arrangements and other related complications. If we determine to curtail or terminate our manufacturing relationship with PBM, a lengthy process would be required to negotiate and begin work under a manufacturing agreement with a new manufacturer which could disrupt our manufacturing process and harm our business. Furthermore, the manufacturing of certain point-of-care products, including CHF tests, depends on certain intellectual property owned by PBM and licensed by PBM from third parties, and we may not be able to manufacture or find an alternative manufacturer of the design of these products without this intellectual property, which would severely impact our point-of-care products.

Failure to expand our international sales as we intend would reduce our ability to become profitable.

We expect that a significant portion of our sales will be made outside the United States. A successful international effort will require us to develop relationships with international customers and partners. We may

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not be able to identify, attract or retain suitable international customers and distribution partners. As a result, we may be unsuccessful in our international expansion efforts. Furthermore, expansion into international markets will require us to continue to establish and expand foreign sales and marketing efforts, hire additional sales and marketing personnel and maintain good relations with our foreign customers and distribution partners.

International operations involve a number of risks not typically present in domestic operations, including:

- currency fluctuation risks;
- changes in regulatory requirements;
- political and economic instability, including the war on terrorism; and
- difficulties in staffing and managing foreign offices.

In addition, we expect increased costs in deploying products in foreign countries due to:

- licenses, tariffs and other trade barriers;
- costs and difficulties in establishing and maintaining foreign distribution partnerships;
- potentially adverse tax consequences; and
- the burden of complying with a wide variety of complex foreign laws and treaties.

Our international sales and marketing efforts will also be subject to the risks associated with the imposition of legislation and regulations relating to the import or export of high technology products. We cannot predict whether tariffs or restrictions upon the importation or exportation of our products will be implemented by the United States or other countries.

We may lose money when we exchange foreign currency received from international sales into U.S. dollars. A significant portion of our business is expected to be conducted in currencies other than the U.S. dollar. We recognize foreign currency gains or losses arising from our operations in the period incurred. As a result, currency fluctuations between the U.S. dollar and the currencies in which we do business will cause foreign currency transaction gains and losses, and may cause fluctuations in our operating results. We cannot predict the effects of exchange rate fluctuations upon our future operating results because of the number of currencies involved, the variability of currency exposure and the potential volatility of currency exchange rates. We currently do not engage in foreign exchange hedging transactions to manage our foreign currency exposure.

We may have significant product liability exposure.

We face an inherent business risk of exposure to product liability and other claims in the event that our technologies or products are alleged to have caused harm. These risks are inherent in the testing, manufacturing and marketing of our products. In addition, we began a targeted acquisition strategy during 2004, and our due diligence of acquired companies may fail to reveal material risks relating to product liabilities of such companies. Any product liability claim brought against us could be expensive to defend and could result in a diversion of management s attention from our core business. We may be required to pay substantial damages in connection with any product liability claims. A successful product liability claim or series of claims could have an adverse effect on our business, financial condition and results of operations. Further, we may not be able to maintain adequate levels of product liability insurance at reasonable cost or reasonable terms. Excessive insurance costs or

uninsured claims would add to our future operating expenses and adversely affect our financial condition.

If we lose our key personnel or are unable to attract and retain additional personnel, we may not be able to pursue collaborations or develop our own products.

We are highly dependent on the principal members of our scientific, manufacturing, marketing, administrative, management and executive personnel, the loss of whose services might significantly delay or

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prevent the achievement of our objectives. We face competition from other companies, academic institutions, government entities and other organizations in attracting and retaining personnel. For the twelve months ended December 31, 2007, 2006, and 2005, we experienced turnover rates of 14%, 13%, and 17%, respectively. Turnover at these rates may continue and, if they continue, may adversely affect us.

The turnover rates above exclude the impact of reductions in workforce. In November 2007, we announced a phased reduction in force of approximately 18%, and incurred severance related expenses of $800,000. In September 2007, we announced a reduction of approximately 4% of our workforce and incurred severance related expenses of approximately $305,000 in the third quarter of 2007. In October 2006, we announced a reduction of approximately 15% of our workforce and incurred severance related expenses of approximately $500,000 in the fourth quarter of 2006.

Future layoffs could have an adverse effect on us and on our ability to retain critical staff.

Health care reform and restrictions on reimbursement may adversely affect our business.

In recent years, health care payors as well as federal and state governments have focused on containing or reducing health care costs. We cannot predict the effect that any of these initiatives may have on our business, and it is possible that they will adversely affect our business. Health care cost containment initiatives focused on genetic testing could cause the growth in the clinical market for diagnostic testing to be curtailed or slowed. In addition, health care cost containment initiatives could cause pharmaceutical companies to reduce research and development spending. In either case, our business and our operating results would be harmed. In addition, diagnostic testing in clinical settings is often billed to third-party payors, including private insurers and governmental organizations. If our current and future clinical products are not considered cost-effective by these payors, reimbursement may not be available to users of our products. In this event, potential customers would be much less likely to use our products and our business and operating results could be seriously harmed.

In addition, sales of our future products may depend, in large part, on the availability of adequate reimbursement to users of those products from government insurance plans, managed care organizations and private insurance plans. Physicians recommendations to use our products may be influenced by the availability of reimbursement by insurance companies and other third-party payors. There can be no assurance that insurance companies or third-party payors will provide coverage for our products or that reimbursement levels will be adequate for the reimbursement of the providers of our products. In addition, outside the United States, reimbursement systems vary from country to country and there can be no assurances that third-party reimbursement will be made available at an adequate level, if at all, for our products under any other reimbursement system. Lack of or inadequate reimbursement by government or other third-party payors for our products could have a material adverse effect on our business, financial condition and results of operations.

If ethical and other concerns surrounding the use of genetic information become widespread, we may have less demand for our products.

Genetic testing has raised ethical issues regarding confidentiality and the appropriate uses of the resulting information. For these reasons, governmental authorities may call for limits on or regulation of the use of genetic testing or prohibit testing for genetic predisposition to certain conditions, particularly for those that have no known cure. Any of these scenarios could reduce the potential markets for our products, which could seriously harm our business, financial condition and results of operations.

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

Our research and development processes involve the controlled storage, use and disposal of hazardous materials including, but not limited to, biological hazardous materials and radioactive compounds. We are

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subject to federal, state and local regulations governing the use, manufacture, storage, handling and disposal of materials and waste products. Although we believe that our safety procedures for handling and disposing of these hazardous materials comply with the standards prescribed by law and regulation, the risk of accidental contamination or injury from hazardous materials cannot be completely eliminated. In the event of an accident, we could be held liable for any damages that result, and any liability could exceed the limits or fall outside the coverage of our insurance. We may not be able to maintain insurance on acceptable terms, or at all. We could be required to incur significant costs to comply with current or future environmental laws and regulations.

Our stock price could continue to be highly volatile and our stockholders may not be able to resell their shares at or above the price they paid for them.

The market price of our common stock, like that of many other life sciences companies, has been highly volatile and is likely to continue to be highly volatile. The following factors, among others, could have a significant impact on the market price of our common stock:

delisting, or risk of delisting, from the NASDAQ Global Market;

period-to-period fluctuations in sales, inventories and our operating results;

asset impairment charges, including goodwill and other intangible assets;

adoption of new stock option expensing rules;

the announcement of issues involving our liquidity;

that announcement of product development failures;

the announcement of financing or acquisitions that dilutes our equity;

conversion, restructuring, repricing or exercise of a significant amount of our Notes or related warrants;

the results of our premarket studies and clinical trials or those of our collaborators or competitors or for diagnostic testing in general;

evidence of the safety or efficacy of our potential products or the products of our competitors;

the announcement by us or our competitors of technological innovations or new products;

announcements by us of government or private grants or contracts or of failure to obtain such government or private grants or contracts;

announcements by us of involvement in litigation;

developments concerning our patents or other proprietary rights or those of our competitors, including other litigation or patent office proceedings;

loss of key board, executive, management or other personnel or the increase or decrease in size of our sales and marketing staff;

governmental regulatory actions or the failure to gain necessary clearances or approvals;

our ability to obtain necessary licenses;

changes or announcements in reimbursement policies;

developments with our subsidiaries and collaborators;

changes in or announcements relating to acquisition programs for our products, including the expiration or continuation of our development site agreements;

market conditions for life science stocks, nanotechnology stocks and other stocks in general;

changes in estimates of our performance by securities analysts and the loss of coverage by one or more securities analysts;

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the announcement by us of any stock repurchase plan, any purchases made thereunder by us and any cessation of the program by us; and

changes in the United States war on terrorism and other geopolitical and military situations in which the country is involved.

As of December 31, 2007, we identified material weaknesses in internal control over financial reporting. If we fail to maintain an effective system of internal controls, we may not be able to accurately report our financial results or prevent fraud and as a result, investors may be misled and lose confidence in our financial reporting and disclosures, and the price of our common stock may be negatively affected.

The Sarbanes-Oxley Act of 2002 requires that we report annually on the effectiveness of our internal control over financial reporting. A significant deficiency means 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 the Company s financial reporting. A material weakness is a deficiency or a combination of deficiencies in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis.

In connection with the assessment of our internal control over financial reporting for the Annual Report on Form 10-K, as further described in Item 9A, we and our independent registered public accounting firm determined that as of December 31, 2007 our internal controls over financial reporting were ineffective due to material weaknesses in the financial statement close process and inventory valuation process. These material weaknesses were caused primarily by the following:

inadequate management oversight of the financial statement close process; and

an insufficient number of staff accountants with a sufficient level of knowledge;

insufficient controls over assessing inventory values including reserve requirements.

In addition, continuing assessment or subsequent assessment by us and our independent registered public accounting firm, may reveal additional deficiencies in our internal controls, some of which may require disclosure in future reports.

Although we have made and are continuing to make improvements in our internal controls, if we are unsuccessful in remediating the material weaknesses in our internal controls over financial reporting, or if we discover other deficiencies or material weaknesses, it may adversely impact our ability to report accurately and in a timely manner our financial condition and results of operations in the future, which may cause investors to lose confidence in our financial reporting and may negatively affect the price of our common stock. Moreover, effective internal controls are necessary to produce accurate, reliable financial reports and to prevent fraud. If we continue to have deficiencies in our internal controls over financial reporting, these deficiencies may negatively impact our business and operations.

Our anti-takeover provisions could discourage potential takeover attempts and make attempts by stockholders to change management more difficult.

The approval of two-thirds of our voting stock is required to take some stockholder actions, including the amendment of any of the anti-takeover provisions contained in our certificate of incorporation or amendment of our bylaws.

Further, pursuant to the terms of our stockholder rights plan adopted in November 1998, as amended, we have distributed a dividend of one right for each outstanding share of common stock. These rights will cause substantial dilution to the ownership of a person or group that attempts to acquire us on terms not approved in advance by our board of directors and may have the effect of deterring unsolicited takeover attempts.

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Our business is subject to changing regulation of corporate governance and public disclosure that has increased both our costs and the risk of noncompliance.

Because our common stock is publicly traded, we are subject to certain rules and regulations of federal, state and financial market exchange entities charged with the protection of investors and the oversight of companies whose securities are publicly traded. These entities, including the Public Company Accounting Oversight Board, the SEC and the Nasdaq Global Market, have continued to develop additional regulations and requirements in response to laws enacted by Congress, most notably the Sarbanes-Oxley Act of 2002. Our efforts to comply with these new regulations have resulted in, and are likely to continue to result in, increased general and administrative expenses and a diversion of management time and attention from revenue-generating activities to compliance activities.

Moreover, because these laws, regulations and standards are subject to varying interpretations, their application in practice may evolve over time as new guidance becomes available. This evolution may result in continuing uncertainty regarding compliance matters and additional costs necessitated by ongoing revisions to our disclosure and governance practices.

In addition, as a result of the deficiencies in our internal control over financial reporting, we will incur significant professional fees and other expenses to implement remedies and prepare our consolidated financial statements in compliance with the requirements of Section 404 of the Sarbanes-Oxley Act. Until our remediation is completed, we will continue to incur these additional costs and management burdens, which may divert valuable resources from our business operations.

The closure of our micro array business may result in loss of revenue due to returns by existing customers and subject us to potential claims by such customers

During the fourth quarter of 2007, we made a decision to close our micro array business, which will result in the cessation of the manufacturing and distribution of our molecular array-based testing products, including the NanoChip instrument system and related multiplexed reagents and other supporting hardware. The termination of these production activities may prompt our existing molecular array-based diagnostic customers to return their products and demand refunds, which will negatively impact our revenue and cash flow. The closure may also disrupt the business operation of our existing customers and cause them to suffer financial loss. These customers may decide to file claims against us to recover such losses, and we may be required to divert valuable resources to defend such claims and incur significant cost, which will have an adverse effect on our business operations.

Terrorist attacks, war, natural disasters and other catastrophic events may negatively impact aspects of our operations, revenue, costs and stock price.

Threats of terrorist attacks in the United States of America, as well as future events occurring in response to or in connection with them, including, without limitation, future terrorist attacks or threats against United States of America targets, rumors or threats of war, actual conflicts involving the United States of America or its allies, including the on-going U.S. conflicts in Iraq and Afghanistan, further conflicts in the Middle East and in other developing countries, or military or trade disruptions affecting our domestic or foreign suppliers of merchandise, may impact our operations. Our operations also may be affected by natural disasters or other similar events, including floods, hurricanes, earthquakes or fires. Our California and Washington facilities, including our corporate offices and principal product development facilities, are located near major earthquake faults. The potential impact of any of these events to our operations includes, among other things, delays or losses in the delivery of products by us and decreased sales of such products. Additionally, any of these events could result in increased volatility in the United States of America and worldwide financial markets and economies. Also, any of these events could result in economic recession in the United States of America or abroad. Any of these occurrences could have a significant impact on our operating results, revenue and costs and may result in the volatility of the future market price of our common stock.

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Item 1B. ***Unresolved Staff Comments***

The Staff of the Securities and Exchange Commission (the SEC) has reviewed and issued comments pertaining to our Form 10-K for the fiscal year ended December 31, 2006 and our Form 10-Q for the three and nine-month periods ended September 30, 2007. As of the date of this filing, there were unresolved comments related to our accounting for a variable interest entity originally consolidated in the quarter ending September 30, 2005.

After thorough consideration of the questions and comments raised in the SEC review process relating to accounting treatment for the variable interest entity, on March 28, 2008, our Audit Committee of the Board of Directors, in consultation with management and our independent registered public accounting firm, concluded that certain adjustments are required to properly apply the consolidation methodology under FIN46(R), *Consolidation of Variable Interest Entities.* The adjustments required to correct the previously issued financial statements primarily related to complying with a requirement to: record the fair value of assets, liabilities and noncontrolling interests of the variable interest entity at the time of initial consolidation rather than recording the book value on the date of initial consolidation; and, to allocate operating losses in future periods to noncontrolling interests.

We have restated our consolidated financial statements for the impacted periods herein, have labeled periods impacted As Restated, and have provided expanded quarterly financial information in footnote 2 to the financial statements herein reconciling the restated quarterly consolidated Balance Sheets and Statements of Operations to previously filed quarterly financial information.

Although we believe the restatement made to our historical financial statements will address the comments raised by the SEC, as of the date of this filing the comments are still unresolved.

Item 2. ***Properties***

At December 31, 2007, we occupied the indicated square footage in the leased facilities described below:

Number of Buildings	Location	Total Square Footage	Primary Use
1	San Diego, California	51,000	Administrative offices, research and development, sales and marketing and manufacturing for a term ending in March 2010.
1	Bothell, Washington	30,000	Research and development, sales and marketing and manufacturing for a term ending in 2012.
1	Toronto, Canada	47,700	Manufacturing and administrative offices for a term ending in July 2017.
1	Milan, Italy	4,500	Administrative and sales and marketing offices subleased for a term ending January 2013.
1	Turin, Italy	13,200	Research and development, sales and marketing and manufacturing for a term ending February 2013.

Our leases expire at varying dates through 2018 not including renewals at our option. Our facilities in San Diego and Bothell are underutilized and we are looking to find suitable lessors for the unused portion of these facilities. We believe that our other facilities are suitable and adequate for our planned operations. Our lease in Turin, Italy was renewed in 2007, and during 2007 we entered into a new lease in Milan, Italy to replace the administrative and sales and marketing offices utilized in 2006.

Item 3. ***Legal Proceedings***

We currently are not a party to any material legal proceedings and are not aware of any pending or threatened litigation that would have a material adverse effect on us or our business.

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

The following matters were submitted to a vote of security holders and were approved at a special meeting of stockholders held in February 2008:

	For	Against	Abstain
To approve and ratify the Company s debt financing in August 2007 in which the Company issued and sold an aggregate of $20 million of senior convertible notes, convertible initially into an aggregate of up to 15,748,030 shares of the Company s common stock, and related warrants to purchase shares of our common stock, exercisable initially into an aggregate of 11,023,621 shares of our common stock, and may become exercisable for an additional 6,299,212 shares of our common stock;	22,252,101	2,746,392	980,963
To approve an amendment to the Company s Certificate of Incorporation to effect a reverse stock split of our common stock, $0.001 par value per share, at a specific ratio within a range of 1:5 to 1:15, to be determined by our Board of Directors, in its sole discretion, within a twelve month period following stockholder approval;	42,873,489	5,677,612	1,337,677
To approve an amendment to the Company s Certificate of Incorporation to increase the number of authorized shares of common stock from one hundred thirty-five million (135,000,000) to two hundred and fifty million (250,000,000).	41,923,783	7,145,025	819,971

PART II

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

Market Information

Our common stock trades on the Nasdaq Global Market under the symbol NGEN. The following table sets forth the range of high and low closing sales prices as reported for our common stock by Nasdaq for the periods indicated:

Year ended December 31, 2007	**High**	**Low**
1st Quarter	$ 1.88	$ 1.22
2nd Quarter	$ 1.94	$ 1.26
3rd Quarter	$ 1.62	$ 0.73
4th Quarter	$ 1.02	$ 0.35
Year ended December 31, 2006		
1st Quarter	$ 3.18	$ 2.26
2nd Quarter	$ 2.84	$ 1.61
3rd Quarter	$ 2.25	$ 1.71
4th Quarter	$ 2.23	$ 1.76

As of February 21, 2008 there were approximately 302 stockholders of record of our common stock. We have not paid any cash dividends to date and do not anticipate any being paid in the foreseeable future.

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Stock Performance Graph

The following graph shows the total stockholder return of an investment of $100 in cash on December 31, 2002, through December 31, 2007, for (i) Nanogen s Common Stock, (ii) the Nasdaq Composite Index and (iii) Nasdaq Biotechnology Index. All values assume reinvestment of the full amount of all dividends and are calculated as of December 31 of each year. The comparisons in the graph are required by the Securities and Exchange Commission and are not intended to forecast or be indicative of possible future performance of the Company s Common Stock.

	Nanogen, Inc. Index	Nasdaq Composite Index	Nasdaq Biotechnology Index
12/31/02	$ 100.00	$ 100.00	$ 100.00
12/31/03	$ 581.23	$ 150.79	$ 145.74
12/31/04	$ 474.76	$ 164.60	$ 154.64
12/31/05	$ 168.37	$ 168.08	$ 159.01
12/31/06	$ 120.64	$ 185.55	$ 160.62
12/31/07	$ 23.25	$ 211.29	$ 167.99

The above Stock Performance Graph and related information shall not be deemed soliciting material or to be filed with the Securities and Exchange Commission, nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933 or Securities Exchange Act of 1934, each as amended, except to the extent that the Company specifically incorporates it by reference into such filing.

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Item 6. ***Selected Financial Data***

The selected financial data set forth below has been derived from our audited financial statements. This data should be read in conjunction with Management s Discussion and Analysis of Financial Condition and Results of Operations and our financial statements and notes included in this Annual Report on Form 10-K on pages F-1 through F-57 in this document:

	Years Ended December 31,				
	2007[2]	2006[1] (as restated)[4]	2005[2] (as restated)[4]	2004[3]	2003
	(in thousands, except per share amounts)				
Consolidated Statement of Operations Data:					
Revenues:					
Product sales	$ 22,866	$ 15,996	$ 4,544	$ 2,690	$ 2,762
License fees and royalty income	6,981	7,908	6,530	490	84
Contract and grant	8,336	2,948	1,470	1,694	2,367
Sponsored research				500	1,500
Total revenues	38,183	26,852	12,544	5,374	6,713
Costs and expenses:					
Cost of product sales	24,295	13,290	4,518	5,642	3,176
Research and development	26,463	25,683	22,033	18,117	18,014
Selling, general and administrative	38,181	33,385	23,578	18,232	15,319
Amortization of purchased intangible assets	2,991	2,987	1,677		
Impairment charge on goodwill			59,000		
Charge for acquired in-process research and development			3,491	3,758	
Impairment of acquired technology rights			167		1,024
Total costs and expenses	91,930	75,345	114,464	45,749	37,533
Loss from operations	(53,747)	(48,493)	(101,920)	(40,375)	(30,820)
Interest income	965	1,046	1,408	926	713
Interest expense	(4,944)	(1,572)	(645)	(409)	(224)
Other income (loss)	(33)	(717)	(78)	(221)	(141)
Warrant valuation adjustment	11,254	75	1,026	(74)	
Loss on sale of investments				(47)	(1,925)
Gain (loss) on foreign currency transactions	(126)	311	17	1,293	(16)
Gain on deconsolidation of variable interest entity	12,686				
Noncontrolling interests share of losses in VIE		2,618	4,675		
Minority interest in loss of consolidated subsidiary					1,817
Loss before extraordinary item	$ (33,945)	$ (46,732)	$ (95,517)	$ (38,907)	$ (30,596)

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	Years Ended December 31,				
	2007[2]	2006[1] (as restated) [4]	2005[2] (as restated) [4]	2004[3]	2003
	(in thousands, except per share amounts)				
Extraordinary item:					
Charge for excess purchase price in VIE	$	$	$ (9,262)	$	$
Net loss	$ (33,945)	$ (46,732)	$ (104,779)	$ (38,907)	$ (30,596)
Loss before extraordinary item per share	$ (0.47)	$ (0.74)	$ (1.93)	$ (1.21)	$ (1.38)
Extraordinary item per share	$	$	$ (0.19)	$	$
Net loss per share basic and diluted	$ (0.47)	$ (0.74)	$ (2.11)	$ (1.21)	$ (1.38)
Number of shares used in computing net loss per share basic and diluted	72,312	63,221	49,585	32,203	22,244
Consolidated Balance Sheet Data:					
Cash, cash equivalents and short-term investments	$ 7,256	$ 25,184	$ 32,379	$ 51,934	$ 29,114
Working capital	(187)	20,621	30,651	44,999	30,872
Total assets	98,351	119,253	98,081	176,024	43,849
Long-term liabilities	30,476	31,000	12,899	6,065	5,005
Accumulated deficit	(400,618)	(366,673)	(319,941)	(215,162)	(176,255)
Total stockholders equity	$ 41,504	$ 62,373	$ 73,213	$ 157,516	$ 32,823

(1) 2006 includes the results of operations of Spectral and Amplimedical since February 6, 2006 and May 1, 2006, respectively, the date of acquisitions, which affects comparability of the Selected Financial Data.

(2) 2005 includes the results of operations of Jurilab since of July 20, 2005, the date of consolidation, through July 2007 the date of deconsolidation which affects comparability of the Selected Financial Data.

(3) 2004 includes the results of operations of SynX and Epoch since April 21, 2004 and December 16, 2004, respectively, the date of acquisitions, which affects comparability of the Selected Financial Data.

(4) See Footnote 2 to the financial statements for detail regarding the restatement.

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

This report contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 which provides a safe harbor for these types of statements. To the extent statements in this report involve, without limitation, our expectations for growth, estimates of future revenue, expenses, profit, cash flow, balance sheet items or any other guidance on future periods, these statements are forward-looking statements. Forward-looking statements are not guarantees of performance. They involve known and unknown risks, uncertainties and assumptions that may cause actual results, levels of activity, performance or achievements to differ materially from any results, level of activity, performance or achievements expressed or implied by any forward-looking statement. These risks and uncertainties include those included in Item 1A. Risk Factors. We assume no obligation to update any forward-looking statements. The audited financial statements and this Management s Discussion and Analysis of Financial Condition and Results of Operations should be read in conjunction with the Consolidated Financial Statements and Notes thereto for the years ended December 31, 2007, 2006 and 2005 in this Annual Report on Form 10-K.

Overview

The following Management s Discussion and Analysis of Financial Condition and Results of Operations (MD&A) is intended to help provide the reader a clear and straightforward understanding through the eyes of management of our operations and present business conditions. When used in this management discussion, the terms Nanogen, Company, we, us, or our mean Nanogen, Inc. and its subsidiaries. This overview summa information within the MD&A, which includes the following sections:

Summary an executive summary of the significant business events that have occurred after January 1, 2007.

Our Business a general description of our business, our technologies and the actions we have taken to develop our business to help the reader better understand our objectives, areas of focus, various strategic investments, relationships and agreements we have entered into after January 1, 2007.

Critical Accounting Policies and Estimates an analysis of the judgmental accounting policies, estimates and assumptions we made while completing our condensed consolidated financial statements, to provide the reader an understanding of how these decisions materially effected the results of operations.

Results of Operations an analysis of our results of operations for the years ended December 31, 2007, 2006, and 2005, as presented in our financial statements, to provide the reader information about trends and material changes in revenues and expenditures.

Liquidity and Capital Resources an analysis of our cash flow statement and financial position to help the reader understand our current and anticipated capital resource requirements and our ability generate the liquidity required to support our current and planned operations.

Summary:

The following significant business developments occurred during 2007:

In November 2007, we began implementing a plan to restructure our business to significantly improve our financial performance. The key element of this restructuring plan was the decision to exit the micro array business, which was the founding technology of our business. This decision is expected to reduce our annual cash use by approximately $15 million. Although the products performed well, this technology was developed based on an assumption that the market for complex array based testing would be much larger than it is today. We believe this market will develop over time; however, we chose to discontinue this product line and focus on the two remaining product lines that are growing and present market opportunities that are of a sufficient size today. The two existing product lines that we will now focus on are the real-time PCR products and Point of Care rapid testing products. In addition to closing the micro array business, we are also actively managing expenses.

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In September 2007, we announced that we were evaluating strategic alternatives for our micro array business, which includes the NanoChip instrument system and related multiplexed reagents and consumables. As a result of this evaluation, we decided to close our micro array business. The closure of our micro array business will not affect the real-time PCR products or Point of Care rapid testing solutions offered.

In a series of investments from July 2005 through June 30, 2006, we invested approximately $3.0 million to purchase 29.7% of the outstanding stock of Jurilab. In addition, we had the option to purchase the entire company at not-to-exceed prices through December 31, 2007. Based on our initial analysis of the investment agreement, we were the primary beneficiary under FIN 46R, Consolidation of Variable Interest Entities, and were required to consolidate Jurilab s financial statements. In July 2007 an additional equity investment by a new investor resulted in reconsideration of our position as a primary beneficiary. Based on this reconsideration event, we are no longer the primary beneficiary under FIN 46R, Consolidation of Variable Interest Entities and are no longer required to consolidate Jurilab s financial statements. Our 2007 Statement of Operations includes the results of Jurilab through July 2007, at which point Jurilab was deconsolidated from our balance sheet. As a result of recording losses in excess of our investment, a gain on deconsolidation was recorded at the time of deconsolidation.

In August 2007, we entered into a definitive agreement for the sale and issuance of $20 million in aggregate principal amount of unsecured senior convertible notes (Notes) which are convertible initially into an aggregate of up to 15,748,030 shares of our common stock. In addition, upon conversion we are required to issue an additional number of shares representing the present value of future interest. The Notes bear interest at 6.25% per annum and interest is accrued and payable on a quarterly basis. Any portion of the Notes and all accrued but unpaid interest which is not converted are repayable in cash in August 2010. The notes may be converted into common stock at a stated rate of $1.27 per share. Upon conversion, whether at our election or the debt holders election, we are also required to pay the present value of the future interest payments that would have been made if the conversion had not occurred (Make Whole Payments). These Make Whole Payments are to be paid in cash or in common stock at a rate of $1.27 per share. This agreement also includes warrants to purchase up to 17,322,833 shares of our common stock at an initial exercise price of $1.14 per share. We received net proceeds of approximately $18.5 million, of which $7.3 million has been restricted until our stock price reaches $1.52, from the sale of the Notes and warrants after deducting the placement agent fees and estimated offering expenses of $1.5 million. The conversion rate and exercise price of the warrants may be adjusted under certain circumstances.

On July 17, 2007 we announced that we began shipments of our congestive heart failure (CHF) product, the *Status*First CHF NT-proBNP rapid test. The product is CE-marked and has been cleared by the FDA for diagnostic use with EDTA plasma samples. It has been developed by us under license from Roche and is being manufactured for us by Princeton BioMeditech Corporation (PBM). Distribution in the United States is handled by PBM s affiliate LifeSign. A version of this product that will use whole blood for the sample is currently under development.

We have completed work on the $4.5 million contract awarded in December 2006 by the Centers for Disease Control and Prevention (CDC) to develop a diagnostic assay for the influenza. The goal of the overall contract is a low cost, high sensitivity point-of-care immunoassay that detects both seasonal influenza and avian influenza. HX Diagnostics will commercialize this version of the product upon FDA clearance. The current award of $4.5 million funded the first two phases of a five-phase development project. If all five phases are funded by the CDC, the award can total about $12.5 million. Additional future awards are based on the achievement of milestones and approval by the CDC.

On February 5, 2007, we entered into a placement agency agreement with Ascendiant Securities, LLC (Ascendiant) relating to the offering of stock pursuant to an effective shelf registration statement. Under the placement agency agreement, Ascendiant agreed to act as our placement agent in connection with the issuance and sale of our common stock and warrants to purchase shares of common stock to certain

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institutional investors. We paid a placement agent fee of 5% of the gross cash proceeds of the offering. Under this agreement and related purchase agreements with the investors, we sold 4,916,667 shares of our common stock and 983,333 warrants to purchase a share of our common stock for net proceeds of approximately $7.2 million.

Our business:

We are a diagnostics company, focusing on developing and marketing advanced human *in vitro* diagnostics (IVD) to aid in providing healthcare for the individual. We were founded on innovative research and technology development and have been in business since 1993. We have has been publicly traded on NASDAQ (symbol: NGEN) since 1998.

During 2007, we significantly restructured our operations. In the fourth quarter of 2007, we decided to close one of our three product lines, the micro array platform, and focus on products and opportunities acquired in the past four years. Although the micro array platform was technologically a success, the market for highly complex molecular testing remains small and we concluded that we did not have sufficient resources to support this product line as we wait for the market to grow.

While our consolidated revenue has been growing, we recognized the need to reduce our expenses in order to dramatically accelerate our path to profitability. By making the difficult decision to discontinue the micro array platform, we will be able to enhance financial performance and predictability. We expect that this restructuring will improve operational performance by at least $15 million in annual cash flow with less than a 10% impact on revenue performance. Despite the loss of micro array revenue, we expect 2008 revenues to significantly exceed our 2007 revenues.

In 2008 and beyond we will continue to participate in two large and growing markets. The first is the molecular diagnostics market where we offer assays for real-time polymerase chain reaction (PCR) applications. The second is the point of care (POC) market where we offer rapid immunoassay tests for cardiac emergency care. Both are ready markets that our customers understand and participate in today, as opposed to the microc array market which was a new market that required significant education and training of potential customers. Products in the molecular diagnostics and POC markets were developed by us and incorporate proprietary technologies that improve product performance and competitiveness, and supported by a strong patent portfolio.

We operate in the United States, Canada and Europe and have grown rapidly in the past four years through both internal development and acquisition.

Markets

We participate in two major *in vitro* diagnostic markets: the molecular diagnostic market and the point-of-care market. Molecular diagnostics is the analysis of DNA, RNA and proteins at the molecular level and is typically performed in clinical laboratories. This differs from the point-of-care market, where the diagnostic may be performed in near patient settings such as an emergency room or doctor s office. Within these two markets, we focus on infectious disease and cardiac testing.

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Products

Our products, broken out by market, are summarized as follows:

Molecular Diagnostic Market

We sell real-time PCR molecular products in the molecular diagnostic market. These products accounted for approximately 75% of our total 2007 product revenues. We offer two real-time PCR molecular product lines:

TaqMan/MGB we offer a comprehensive menu of real-time products that are in the TaqMan format, coupled with our proprietary MGB technology. MGB is an abbreviation for minor groove binder which is a small crescent-shaped molecule that fits into the minor groove of duplex DNA. These products are CE marked IVD products and are sold in Italy via a contract sales force and in other European countries through a network of distributors. In Italy, sales are mostly made through government tenders, which are contracts that last for two to five years and cover multiple products.

Eclipse/MGB the real-time molecular products we sell in the US and Canada are sold as Analyte Specific Reagents (ASRs) or Research Use Only (RUO) products. Today, the products are sold either direct to an end user or through a distribution relationship with ThermoFisher. The Eclipse/MGB technology is proprietary and provides significant performance and economic advantages. These products are platform independent and are currently used by customers on multiple instrument platforms.

Both of the real-time molecular products line menus consist mostly of infectious disease tests with the largest medical application being for use in transplantation settings. There are additional tests for genetic conditions and oncology. Examples of the diseases tested for include: CMV; HSV 1,2; HSV Type; HHV 6; M. pneumoniae; norovirus 1 & 2; EBV; enterovirus; VZV; b. pertussis/parapertussis; and, on a research use only based, hMPV.

Our proprietary real-time technology provides chemistry elements that offer distinct competitive advantages as well as reduced cost. These elements include the MGB molecule that increases binding and specificity of designs, modified bases that provide design alternatives for improved sequence detection and discrimination, and proprietary dyes and quenchers that improve overall system performance and reduce costs and royalty burdens. In total, the system permits the development of assays that can reduce the royalties normally paid by customers to other technology providers.

Our PCR product line is described as real time to distinguish it from traditional end point technology. Real time PCR is an advance over traditional end point technology as data provided with traditional PCR is available only at the end of the chain reaction. The key feature of real-time PCR is that DNA is quantified in real time as it accumulates after each amplification cycle in the chain reaction. As a result, real-time PCR provides fast, precise, and accurate results as the chain reaction is proceeding.

Point of Care Diagnostics

POC products account for approximately 15% of Nanogen s product revenues in 2007. This ratio is expected to increase in future years. Our point-of-care products currently include both cardiac rapid tests and we plan to add infectious disease assays in the future.

Qualitative cardiac tests these products are rapid test (less than 15 minutes) assays that are used in emergency care settings for the diagnosis of myocardial infarction. The products measure the presence of Troponin I, Myoglobin and CKMB versus predetermined cutoff levels and are visually read by the attending physician or nurse. There is also a handheld instrument that can be used to read and record the test results. The market for qualitative (yes/no) tests is flat or declining.

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Quantitative cardiac tests our newest product is a rapid, quantitative measure of NT-proBNP for the diagnosis of congestive heart failure (CHF). The product is offered for use in plasma samples and the whole blood version is expected to come on to the market in 2008. This product addresses a large opportunity. The product target is licensed from Roche, produced by Princeton Biomeditech (PBM), and is FDA cleared. In the future, the cardiac menu will be extended to include quantitative tests for Troponin I and other cardiac markers. These quantitative tests are performed on a small, desktop reader that measures and reports the quantitative amounts of target proteins present in the patient sample.

Infectious Disease as part of a competitive contract awarded by the Center for Disease Control (the CDC); we are developing a pandemic influenza test that detects and differentiates the various strains of influenza including potential pandemic strains. This product will operate using our proprietary technology that we believe will provide significant improvements in sensitivity as well as the capability of detecting multiple protein markers in a single test system. The system will provide a rapid quantitative test using a small, desktop reader.

The Point of Care cardiac products are sold through distribution channels in the US, Canada and Europe using a small sales force to sell to and manage the distributors. The US distribution rights to the CHF product are exclusive to LifeSign, a PBM company. The influenza test will be marketed through HX Diagnostics.

We believe that the CDC point of care platform offers an opportunity to develop point of care assays not possible using existing technologies. The POC area is dominated by lateral flow solutions that lack sensitivity and are generally unable to produce tests that correlate results with those performed in the hospital laboratory. The CDC platform utilizes a synthetic DNA and a rare earth metal (europium) to produce a diagnostic platform that can be used at the point of patient care with results that show increased sensitivity and an ability to meet the correlation requirements of the central laboratory. This increased sensitivity, the ability to detect multiple simultaneous protein markers on the same test strip and the potential to meet CLIA wavier requirements presents an opportunity to develop new and far reaching point of care diagnostics. We expect to continue development of tests for this proprietary platform that will include additional infectious disease diagnostics as well as future cardiac tests. This technology platform is compatible with low cost manufacturing approaches and has the further economic advantage of a non-lateral flow design that reduces licensing and royalty costs.

Restatement of Financial Statements

The Staff of the Securities and Exchange Commission (the SEC) has reviewed and issued comments pertaining to our Form 10-K for the fiscal year ended December 31, 2006 and our Form 10-Q for the three and nine-month periods ended September 30, 2007. After thorough consideration of the questions and comments raised in the SEC review process relating to accounting treatment for a variable interest entity, on March 28, 2008, our Audit Committee of the Board of Directors, in consultation with management and our independent registered public accounting firm, concluded that certain adjustments are required to properly apply the consolidation methodology under FIN46R, Consolidation of Variable Interest Entities. The adjustments required to correct the previously issued financial statements primarily relate to complying with a requirement to: record the fair value of assets, liabilities and noncontrolling interests of the variable interest entity at the time of initial consolidation rather than recording the book value on the date of initial consolidation; and, to allocate operating losses in future periods to noncontrolling interests. The changes to our consolidation methodology do not impact previously reported cash, short-term investments, or revenues.

Investors, potential investors and other readers of our prior SEC filings for the periods noted are cautioned not to rely on the consolidated financial statements therein that have not been restated for the fiscal years ended December 31, 2006 and 2005 and the interim periods from September 30, 2005 through September 30, 2007.

We have restated our consolidated financial statements for the impacted periods herein, have labeled periods impacted As Restated, and have provided expanded quarterly financial information in footnote 2 to the financial statements herein reconciling the restated quarterly consolidated Statements of Operations to previously filed quarterly financial information.

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Critical Accounting Policies and Estimates

Our discussion and analysis of our results of operations and liquidity and capital resources are based on our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates and judgments, including those related to revenue recognition, valuation of inventory, intangible assets and investments, and litigation. We base our estimates on historical and anticipated results and trends and on various other assumptions that we believe are reasonable under the circumstances, including assumptions as to future events. These estimates form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. By their nature, estimates are subject to an inherent degree of uncertainty. Actual results that differ from our estimates could have a significant adverse effect on our operating results and financial position. We consider an accounting estimate and policy to be critical if: 1) the accounting estimate requires us to make assumptions about matters that were highly uncertain at the time the accounting estimate was made, and 2) changes in the estimate that are reasonably likely to occur from period to period, or the use of different estimates that we reasonably could have used in the current period, would have a material impact on our financial condition or results of operations. We believe that the following critical accounting policies and assumptions may involve a higher degree of judgment and complexity than others.

Going Concern

We have incurred net losses of $33.9 million, $46.7 million, and $104.8 million for the years ended December 31, 2007, 2006 and 2005, and have an accumulated deficit of $400.6 million as of December 31, 2007. Based on our operating plan, our existing working capital is not sufficient to meet the cash requirements to fund our planned operating expenses, capital expenditures, and working capital requirements through December 31, 2008 without additional sources of cash and/or the deferral, reduction or elimination of significant planned expenditures.

These factors raise substantial doubt about our ability to continue as a going concern. The accompanying consolidated financial statements have been prepared assuming that we will continue as a going concern. This basis of accounting contemplates the recovery of the Company s assets and the satisfaction of liabilities in the normal course of business.

Valuation of Goodwill

We have $39.0 million of goodwill on our December 31, 2007 consolidated balance sheet related to our acquisitions of Amplimedical and Spectral in 2006, and our acquisitions of SynX and Epoch in 2004. We used significant estimates and assumptions to determine the value of these assets. In many cases we use a third party to perform a valuation analysis on these assets, while we review their assumptions, calculations and conclusions for reasonableness and accuracy.

We test goodwill for impairment on an annual basis in the fourth quarter or more frequently if we believe indicators of impairment exist. The performance of the test involves a two-step process. The first step of the impairment test involves comparing the fair values of the applicable reporting units with their aggregate carrying values, including goodwill. The Company generally determines the fair value of its reporting units using a combination of the income approach methodology of valuation that includes the discounted cash flow method and a market based methodology. If the carrying amount of a reporting unit exceeds the reporting unit s fair value, the Company performs the second step of the goodwill impairment test to determine the amount of impairment loss. The second step of the goodwill impairment test involves comparing the implied fair value of the affected reporting unit s goodwill with the carrying value of that goodwill.

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During our annual review for impairment in 2007 and 2006 we determined that no impairment of goodwill existed. In the fourth quarter of 2005, under the first step of the SFAS 142 analysis we determined that the carrying value of the reporting unit that included Epoch was in excess of its fair value. Therefore, we were required to proceed to the second step of the SFAS 142 analysis for the Epoch reporting unit and use the methodology described in SFAS No. 141, *Business Combinations*, to determine the fair value of the reporting unit as if we purchased the reporting unit on October 1, 2005. The fair value was based on a combination of the income approach, which estimates the fair value based on the future discounted cash flows, and the market approach, which estimates the fair value based on comparable market prices. Under the income approach, we assumed a cash flow period through 2010 with terminal values thereafter, long-term annual revenue growth rates of 5% to 43%, a discount rate of 20% and terminal value growth rates of 5%. We determined the fair value by weighting 67% to the income approach and 33% to the market approach. The resulting fair value of the Epoch reporting unit was approximately $26.6 million. Therefore, we incurred a non-cash impairment charge to our goodwill of $59.0 million during the fourth quarter of 2005.

The estimates and assumptions we use are consistent with our internal planning and there are inherent uncertainties in this assessment process as it is difficult to model all possible future events. If these estimates or their related assumptions change in the future, we may be required to record an impairment charge on all or a portion of our goodwill or intangible assets. Any resulting impairment loss could have an adverse impact on our results of operations.

Valuation of embedded derivatives.

We value certain embedded features issued in connection with our February and August 2007 financing activities. Our February 2007 financing included issuance of warrants, while our August 2007 convertible debt financing included warrants and conversion features that we are required to fair value at each balance sheet date. The warrants, along with the conversion feature of the notes, have been recorded at their relative fair value at the inception date of the agreement and will continue to be recorded at fair value at each subsequent balance sheet date. Any change in value between reporting periods will be recorded as other income (expense) at each reporting date. The fair value of these warrants and rights are primarily affected by our stock price and its volatility, expected life and interest rates. We recorded approximately $11.3 million of other income in 2007 related to the change in the fair value of the warrants and the conversion feature. As of December 31, 2007, the fair value of the warrants and conversion feature was determined to be $2.4 million. This amount is reflected in our financial statements as a current liability.

Valuation of intangible and other long-lived assets.

We assess the carrying value of intangible and other long-lived assets each quarter, which requires us to make assumptions and judgments regarding the future cash flows of these assets. The assets are considered to be impaired if we determine that the carrying value may not be recoverable based upon our assessment of the following events or changes in circumstances such as:

- the asset s ability to continue to generate income from operations and positive cash flow in future periods;
- loss of legal ownership or title to the asset;
- significant changes in our strategic business objectives and utilization of the asset(s); and
- the impact of significant negative industry or economic trends.

If the assets are considered to be impaired, the impairment we recognize is the amount by which the carrying value of the assets exceeds the fair value of the assets. In addition, we base the useful lives and related amortization or depreciation expense on our estimate of the period that the assets will generate revenues or otherwise be used by us. We also periodically review the lives assigned to our intangible assets to ensure that our

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initial estimates do not exceed any revised estimated periods from which we expect to realize cash flows from the technologies. If a change were to occur in any of the above-mentioned factors or estimates, the likelihood of a material change in our reported results would increase.

Revenue Recognition

We recognize revenue principally from various real-time PCR products (both custom and proprietary tests), molecular testing platforms (the NanoChip® systems), various ASRs, cardiac tests, sponsored research, contract and grant agreements and from license and royalty fees for intellectual property. Each element of revenue recognition requires a certain amount of judgment to determine if the following criteria have been met: i) persuasive evidence of an arrangement exists; ii) delivery has occurred or services have been rendered; iii) the seller s price to the buyer is fixed or determinable; iv) collectibility is reasonably assured, and v) both title and the risks and rewards of ownership are transferred to the buyer. We are required to make more significant estimates involving our recognition of revenue from license and royalty fees, than from revenue generated from our products sales and contracts and grant agreements. Our license and royalty fees revenue estimates depend upon on our interpretation of the specific terms of each individual arrangement and our judgment to determine if the arrangement has more than one deliverable and how each of these deliverables should be measured and allocated to revenue. In addition, we have to make significant estimates about the useful life of the technology transferred to determine when the risk and rewards of ownership have transferred to the buyer to decide the period of time to recognize revenue. In certain circumstances we are required to make judgments about the reliability of third party sales information and recognition of royalty revenue before actual cash payments for these royalties have been received.

Inventory valuation and related reserves

We have a history of writing down the value of our inventory due to lack of market demand. We have approximately $9.2 million of inventory reserves as of December 31, 2007, with a net ending inventory balance of approximately $2.3 million. Given the inherent unpredictability of demand for new products, we are required to make significant estimates about the future demand for this inventory. Our estimates of realizable value are based upon our analysis and assumptions including, but not limited to, forecasted sales levels by product, expected product lifecycle, product development plans and future demand requirements. If actual market conditions are less favorable than our forecasts or actual demand from our customers is lower than our estimates, we may be required to record additional inventory write downs. If actual market conditions are more favorable than anticipated, inventory previously written down may be sold, resulting in lower cost of sales and higher income from operations than expected in that period.

Variable Interest Entities

We provide various forms of funding into other entities for business purposes. FIN46R, *Consolidation of Variable Interest Entities*, requires that we make significant assumptions about these entities ability to generate unrelated additional capital funding and/or revenues. In addition, we are required to make assumptions about the intentions of unrelated parties initial and potential future investments to determine if we are required to consolidate or de-consolidate these entities. If any of these facts, circumstances or assumptions change in the future we maybe required to consolidate or de-consolidate these entities operations.

Share-Based Compensation

Share-based compensation expense is significant to our financial position and results of operations, even though no cash is used for such expense. In determining the period expense associated with unvested options, we estimate the fair value of each option at the date of grant. We believe it is important for investors to be aware of the high degree of subjectivity involved when using option pricing models to estimate share-based compensation under SFAS No. 123R. The determination of the fair value of share-based payment awards on the date of grant

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using an option-pricing model is affected by our stock price as well as assumptions regarding a number of complex and subjective variables. These variables include, but are not limited to, our valuation methodology, the expected term, expected stock price volatility over the term of the awards, the risk-free interest rate, expected dividends and pre-vesting forfeitures. If any one of these factors changes and we employ different assumptions in the application of SFAS No. 123R in future periods, the compensation expense that we record under SFAS No. 123R will differ significantly from what we have recorded in the current period.

For share-based awards issued during the year ended December 31, 2007, we estimated the expected term by considering various factors including the vesting period of options granted employees historical exercise and post-employment termination behavior and aggregation by homogeneous employee groups. Our estimated volatility was derived using our historical stock price volatility. We have never declared or paid any cash dividends on our common stock and currently do not anticipate paying such cash dividends. The risk-free interest rate is based upon U.S. Treasury securities with remaining terms similar to the expected term of the share-based awards.

Results of Operations

Years ended December 31, 2007, 2006 and 2005

Revenues

The following table summarizes our revenues for the years ended December 31, 2007, 2006 and 2005 (in thousands):

	Year ended December 31,			Year ended December 31,		
	2007	2006	Difference	2006	2005	Difference
Product sales	$ 22,866	$ 15,996	$ 6,870	$ 15,996	$ 4,544	$ 11,452
License fee and royalty income	6,981	7,908	(927)	7,908	6,530	1,378
Contracts and grants	8,336	2,948	5,388	2,948	1,470	1,478
Total	$ 38,183	$ 26,852	$ 11,331	$ 26,852	$ 12,544	$ 14,308

Our real-time molecular products account for approximately 75% of our product sales. Point-of-care products account for approximately 15% of product sales, and the remaining 10% is related to the micro array business which is being discontinued. The increase in product sales revenue in the year ended December 31, 2007 as compared to the same period in 2006 is due partially to first full year of revenues included from our Italian subsidiary, as well as a general increase in the real time product line. Sales revenue grew in 2006 as compared to 2005 due primarily to the acquisitions of Spectral s and Amplimedical s product lines on February 6, 2006 and May 1, 2006, respectively.

The future: We expect revenue to continue to increase significantly in 2008 as compared to 2007 despite the discontinuation of our micro array product line. The projected increases are primarily based on existing products, but also include the anticipated introduction of additional new products we intend to introduce in 2008.

The whole blood congestive heart failure test, which remains in development, will significantly expand the potential market and revenue generating capability of the product if cleared with the FDA.

License fee and royalty revenue is generated by licensing our intellectual property rights to third parties. The majority of our license fee and royalty revenue was related to our royalty minimums under a licensing agreement with Applied Biosystems Inc. (Applied Biosystems) for the TaqMan® 5 -nuclease real-time PCR. The decrease in license fees and royalty revenue in the year ended December 31, 2007 as compared to the same period in 2006 is primarily due to royalties being recognized based on actual sales since the end of 2006 whereas they are based on minimum payments prior to this time. The increase in license fees and royalty revenue in the year ended December 31, 2006 as compared to the same period in 2005 was due to increases in minimum royalties due to us.

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The future: In March 2008, we entered into an agreement for DRT to acquire, for $10 million, all future royalties generated by Applied Biosystems. Drug Royalty also released Nanogen from its obligation to guarantee minimum royalty payments and Nanogen agreed to forego royalty sharing arrangements included in a previous agreement between Nanogen and Drug Royalty, which was reflected as a liability of $17.6 million in our December 31, 2007 balance sheet. We are evaluating the revenue recognition impact of the new arrangement and anticipate that it may significantly impact the timing of revenue related to this agreement. Other than the changes that may result from the sale of ABI royalties, we anticipate the remainder of our license and royalty income to remain at levels similar to 2007.

In addition, with our growing intellectual property profile of 191 U.S. patents, we are continuing to evaluate royalty and licensing opportunities and we may choose to license other intellectual property in the future, if we believe the terms and conditions are acceptable.

Contracts and grants revenue represent funding by various federal, state and private agencies earned through our research and development efforts awarded through contracts and grants. Contracts and grants revenue is recorded as the costs and expenses to perform the research are incurred, if the amount is reasonably commensurate with the effort expended and collection of the payment is reasonably assured. Under certain arrangements where funding is provided contractually on a scheduled basis, revenue is recorded ratably over the term of the arrangement. Payments received in advance under these arrangements are recorded as deferred revenue until the expenses are incurred. The increase in contract and grant revenue in 2007 as compared to 2006 is primarily due to funding received from the CDC for an influenza project. The increase in contract and grant revenue in 2006 as compared to 2005 was primarily related to additional revenue generated from a research and development agreements we entered into with a private entity in July 2006 and a full year of receiving the Bill and Melinda Gates Foundation grant.

The future: The recognition of revenue under contracts and grants may vary from quarter to quarter and may result in significant fluctuations in operating results from year to year depending on the timing and quantity of agreements and contracts. On December 4, 2006 we announced we were awarded a $4.5 million contract from the U.S. Centers for Disease Control and Prevention (CDC). This award was for the first two phases of a five-phase development project. If we are awarded all five phases, the award may total approximately $12.5 million over the next two to three years. As a result, our future contract and grant revenue will be significantly impacted by whether or not we are awarded the remaining phase of the CDC contract.

Cost and expenses

Cost of product sales (in thousands):

	Year ended December 31,			Year ended December 31,		
	2007	2006	Difference	2006	2005	Difference
Cost of product sales	$ 24,295	$ 13,290	$ 11,005	$ 13,290	$ 4,518	$ 8,772

Cost of product sales relates to the expenses associated with manufacturing our products. These expenses include the materials, labor, and various overhead costs required to build our products. Included in our overhead expenses are charges for excess capacity as well as inventory impairment charges. The increase in the cost of product sales in 2007 as compared to the same period in 2006 was partially due to significant increase in sales in 2007. In addition, approximately $5.8 million of the increase is due to inventory impairment charges related to the decision to close the micro array business. The increase in the cost of product sales in 2006 as compared to the same period in 2005 primarily related to increased product sales arising from the acquisition of the Spectral and Amplimedical product line related manufacturing costs with no comparable expenses in 2005. The Spectral and Amplimedical product lines accounted for $2.6 million and $3.8 million, respectively, of the increase in the cost of product sales as compared to the same periods in 2005. In addition, following the commercial launch of the second generation molecular testing platform, in late 2005, we incurred additional overhead charges

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related to the conversion of a significant portion of our product development facilities to a manufacturing and assembly facility. This was reflected in approximately $2.0 million in excess capacity charges in 2006 as compared to 2005 when these overhead charges were expensed into research and development.

As of December 31, 2007, 2006 and 2005 we had inventory reserves of $9.2 million, $4.9 million, and $5.4 million, respectively, that primarily related to our micro array business which is being closed. In 2007 and 2006, we did not sell any inventory out of inventory reserves established in 2003 and 2004 related to our first generation micro array platform; however, in December 2006 we determined that the reserve as originally recorded exceeded the carrying value of the related first generation inventory. In order to correct this, we reversed the reserve related to our first generation instrument by approximately $0.8 million; we also determined that we were under-reserved on our point-of-care inventory and took an additional charge of approximately $0.3 million. The net of these two items was a $0.5 million reserve reduction that lowered cost of goods sold during the fourth quarter of 2006. In 2005, we sold approximately $223,000 of first generation molecular testing systems that had been fully reserved. As of December 31, 2007 we have approximately $350,000 on our balance sheet related to the micro array business which has given rise to the majority of historical impairments.

The future. In 2008 we expect our cost of product sales to increase as a result of increasing product sales.

Research and development expenses (in thousands):

	Year ended December 31,			Year ended December 31,		
	2007	2006	Difference	2006	2005	Difference
Research and development	$ 26,463	$ 25,683	$ 780	$ 25,683	$ 22,033	$ 3,650

Research and development relates to the expenses associated with our efforts to develop clinical diagnostic products for commercialization and the expenses incurred while conducting reimbursable research and development under contractual agreements with various federal, state and private entities. Research and development costs were relatively stable in 2007 as compared with the same period in 2006. The increase in research and development costs in 2006 as compared to the same period in 2005 related to $641,000 in additional research and development activities acquired after our acquisition of Spectral and Amplimedical, $2.0 million in additional research activities related to consolidating our minority interest in Jurilab for a full year in 2006, and $1.1 million in non-cash stock base compensation expenses with no comparable expenses in 2005.

The future. As a part of our continual focus on narrowing our losses and working towards positive cash flows from operations, we plan to reduce costs in research and development expenditures that are not funded by contracts or grants.

Selling, general and administrative expenses (in thousands):

	Year ended December 31,			Year ended December 31,		
	2007	2006	Difference	2006	2005	Difference
Selling, general and administrative	$ 38,181	$ 33,385	$ 4,796	$ 33,385	$ 23,578	$ 9,807

Selling, general and administrative expenses relate to the costs associated with promoting and selling our products and the administrative costs required to support our operations. The increase in expenses in 2007 as compared with the same period in 2006 is primarily due to 2007 being the first full year of Amplimedical costs, as the acquisition occurred mid year 2006. The increase in expenses in 2006 as compared to 2005 included an additional $4.7 million for the on-going operational costs associated with Spectral and Amplimedical and $2.6 million in non-cash stock based compensation with no comparable charges in 2005.

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The future. We expect that our selling, general and administrative expenditures on a percentage basis will trend lower than the increases in our revenue. We also anticipate our costs will further decline as we work to reduce expenses and further focus our business after our exit of the micro array business.

Charges for goodwill, acquired in-process research and development & impairment for acquired technology (in thousands):

	Year ended December 31,			Year ended December 31,		
	2007	2006	Difference	2006	2005 (restated)	Difference
Impairment charge on goodwill	$	$	$	$	$ 59,000	$ (59,000)
Amortization of purchased intangible assets	$ 2,991	$ 2,987	$ 4	$ 2,987	$ 1,677	$ 1,310
Charge for in-process research and development	$	$	$	$	$ 3,491	$ (3,491)
Impairment of acquired technology rights	$	$	$	$	$ 167	$ (167)

Goodwill is created using the purchase method of accounting for acquisitions and it represents the difference between the acquisition price and the fair value of the identifiable tangible and intangible assets. In 2004, we recognized $85.6 million and $10.5 million in goodwill assets related to our purchases of Epoch and SynX, respectively. In 2005, using the prescribed methodology of SFAS 142, we determined that the fair value of the reporting unit related to Epoch was approximately $26.6 million. Therefore, we incurred a non-cash impairment charge to our goodwill of $59.0 million. We used the same methodology to evaluate goodwill in both 2006 and 2007 and determined that goodwill was not impaired.

The future. We assess potential impairments to goodwill annually or more frequently when there is evidence that events or circumstances indicate that the recorded value of an asset (the carrying amount) may not be recovered. These assessments are based on estimates of the materiality of various on-going events and circumstances related to the goodwill asset. Indicators of impairment may be the asset s inability to meet prior revenue estimates, inconsistent operational performance, lack of future potential, or other factors. As of December 31, 2007 we believe we have recorded the fair value of our goodwill on our balance sheet. However, it is difficult to model all possible future events and if these estimates or their related assumptions change in the future, we may be required to record an impairment charge on all or a portion of our remaining goodwill.

Amortization of purchased intangibles is our effort to match the benefits of the intellectual property we have acquired with current period expenses. The level of amortization of intangible purchased assets in 2007 remained consistent with 2006 as no significant new assets were added during the year. The increase in the amortization of purchased intangible assets in 2006 compared to 2005 related to the recording of $11.1 million in acquired identifiable intangible assets when we purchased Spectral s and Amplimedical s assets in 2006.

The future. We expect amortization expense to remain consistent at its current level for the next couple years. However, amortization expense may be impacted by potential future business combinations or our periodic impairment evaluations.

Charge for acquired in-process research and development

Amount represents estimated fair value of acquired in-process research and development at Jurilab at the time of our initial investment in July 2005.

Impairment of acquired technology rights

Amount represents impairments of capitalized license rights which were no longer being used in our product.

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Other income

The following table summarizes our other income for the years ended December 31, 2007, 2006 and 2005 (in thousands):

	Year ended December 31,			Year ended December 31,		
	2007	2006 (restated)	Difference	2006 (restated)	2005 (restated)	Difference
Interest income	$ 965	$ 1,046	$ (81)	$ 1,046	$ 1,408	$ (362)
Interest expense	(4,944)	(1,572)	(3,372)	(1,572)	(645)	(927)
Other expense	(33)	(717)	684	(717)	(78)	(639)
Warrant valuation adjustment	11,254	75	11,179	75	1,026	(951)
Gain (loss) on foreign currency	(126)	311	(437)	311	17	294
Gain on deconsolidation of VIE	12,686		12,686			
Noncontrolling interests share of losses in VIE		2,618	(2,618)	2,618	4,675	(2,057)
Total other income	$ 19,802	$ 1,761	$ 18,041	$ 1,761	$ 6,403	$ (4,642)

Interest income

Interest income relates to the interest we receive on our cash, cash equivalents, and short-term investments. Our interest income is primarily influenced by the average balances held in our cash, cash equivalent and short-term investment accounts. An additional, less significant, factor causing fluctuations in our interest income is the interest rate yield achieved.

Interest expense

The increase in interest expense in 2007 as compared to 2006 is primarily related to our August 2007 convertible debt offering, as well as interest recognized on our contract to assign certain rights associated with our royalty agreement with Applied Biosystems to DRT. In 2007 we have recognized approximately $1.5 million in interest expense related to the convertible notes, and approximately $2.8 million in interest expense related to the agreement to assign certain royalty rights to DRT. The interest expense related to the agreement to assign certain royalty rights to DRT has increased in 2007 as compared to 2006 as the agreement was not signed until September 2006. In addition, interest expenses increased in 2006 as compared to 2005 primarily due to us assigning certain rights associated with a royalty agreement with Applied Biosystems to DRT through 2011 for a $20.0 million upfront payment in cash. We guaranteed DRT a minimum of $25.1 million in royalty revenue through 2011. Using an implied interest rate of 11.3% we incurred approximately $567,000 in interest expense with no comparable expenses in 2005.

Warrant valuation adjustment

As a result of our convertible debt issuance in August 2007 and financing transaction in February 2007, we have issued warrants for 17.3 million and 983,333 shares of our common stock, respectively. In addition, as a result of our December 2004 acquisition of Epoch, we assumed warrants for 381,312 shares of our common stock. Using the methodology prescribed in Emerging Issues Task Force (EITF) 00-19, Accounting for Derivative Financial Instruments Indexed To, and Potentially Settled In a Company s Own Stock, we recorded a current liability for the fair value of the warrants. The valuation of the warrants and the corresponding liability is re-measured quarterly, in accordance with the terms of the warrant, until the warrants are exercised or expire. The decrease in the market price of our common stock and other changes in the variables used in our warrant valuation methodologies resulted in a $11.3 million decrease in the value of the warrants during 2007. We reported $11.3 million, $75,000 and $1.0 million in income as warrant valuation adjustments in our statement of operations for the years ended December 31, 2007, 2006, and 2005 respectively.

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Gain (Loss) on Foreign Currency

In 2007, we have recorded a loss of $126,000 in foreign currency transactions primarily related to a lease termination penalty. The loss is due to the requirement to settle this lease liability in Canadian dollars, a currency that has strengthened against the U.S. currency since this liability was originally recorded. In 2006, the gain of $311,000 in foreign currency transactions primarily related to our May 1, 2006 acquisition of Amplimedical s Italian assets and operations where we were required to hold certain Euro based investments as security for acquisition related payables. We recorded a gain as the value of the Euro based investments rose against the dollar. There was no significant currency transaction in 2005.

Gain on deconsolidation of VIE

Amount represents the non-cash gain recognized on the deconsolidation of Jurilab, a variable interest entity, in July 2007 as a result of a reconsideration event in which we were no longer considered the primary beneficiary.

Noncontrolling interests share of loss in VIE

Amount represents the losses in Jurilab, a variable interest entity, which were allocated to the noncontrolling interests through September 30, 2006, at which time the initial fair value of their interests had been reduced to zero.

Extraordinary item (in thousands):

	Year ended December 31,			Year ended December 31,		
	2007	2006	Difference	2006	2005 (restated)	Difference
Charge for excess purchase price in VIE	$	$	$	$	$ 9,262	$ (9,262)

Amount represents charge related to the difference in the overall fair value of Jurilab as compared to the net identifiable assets acquired at the time of our initial investment in July 2005.

Liquidity and capital resources

At December 31, 2007 we had cash and cash equivalents and short-term investments available for sale of approximately $7.3 million. Even after giving consideration to the $10 million sale of royalties in March 2008 (as described in footnote 18) we will need to raise additional funds to continue to support our planned operations until we achieve cash flow break even. Without access to this financing, on terms acceptable to us, we may have to curtail or cease operations and product development that will materially alter our current business strategy. With our exit from the micro array business and based on our current plans with our ongoing other businesses, if we obtain the required financing, we expect to be cash flow break even by the end of 2008.

Cash provided by (used in) operating, investing and financing activities of the years ended December 31, 2007, 2006 and 2005 is as follows (in thousands):

	December 31, 2007	December 31, 2006	December 31, 2005
Net cash used in operating activities	$ (35,255)	$ (38,443)	$ (34,613)
Net cash provided by (used in) investing activities	$ 2,956	$ (160)	$ 5,404
Net cash provided by financing activities	$ 26,326	$ 44,510	$ 20,089

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Short-term and long-term liquidity

The following is a summary of our key liquidity measures as of December 31, 2007, 2006 and 2005 (in thousands):

	December 31, 2007	December 31, 2006	December 31, 2005
Total cash, cash equivalents and short-term investment, available for sale	$ 7,256	$ 25,184	$ 32,379
Working capital (deficit)	$ (187)	$ 20,621	$ 30,651

Our cash and cash equivalents and short-term investments, available for sale and working capital have decreased. This is primarily a result of cash receipts from revenues and financing not offsetting the cash used in our on-going research and business development efforts. Going forward, with our exit from the micro array business, we believe we can use less cash as we focus on further cutting costs and work to increase sales to achieve cash flow break even.

Historic sources of finances:

From inception to December 31, 2007, we have financed our operations primarily by:

- Issuing our stock and warrants
- Issuing convertible debt
- Generating revenues
- Assignment of certain royalty interests to DRT
- Financing our trade receivables
- Obtained cash through our acquisition of Epoch
- Using proceeds from our litigation settlement with CombiMatrix
- Obtaining capital equipment financing
- Reimbursement from federal, state and private agencies for certain research and development projects

Financing activities

In 2007, 2006, and 2005 due to our negative cash flows from operations we remained dependent on equity, debt, or other sources financing to fund our operations.

Significant equity financing activities in 2007, 2006, and 2005 included:

We filed a shelf registration statement in June 2005 with the U.S. Securities and Exchange Commission (SEC) that allowed us to raise up to $60.0 million in equity and debt financing transactions. On May 9, 2006, we filed a 462(b) registration statement with the SEC to increase our available funding under this shelf registration statement as of May 9, 2006 by approximately $4.0 million.

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The following table illustrates our financing under the June 2005 shelf registration statement:

Date of Financing	Number of Shares	Issuance Share Price	Proceeds, Net (in million)
September, 2005	6.8 million shares	$2.94	$18.8
September, 2005	1.0 million warrants	$4.00	
March, 2006	5.7 million shares	$2.65	15.0
July, 2006	2.5 million shares	$1.58	3.9
September, 2006	0.8 million shares	$1.80	1.5
February, 2007	4.9 million shares	$1.54	7.2
February, 2007	1.0 million warrants	$1.85	
Total shares and warrants issued:	22.7 million	Total proceeds:	$46.4

In July 2007, we filed a shelf registration statement with the SEC that allowed us to raise up to $50.0 million equity and debt financings. In August 2007, we filed a 462(b) registration statement with the SEC to increase the maximum amount of equity and debt financings covered by this shelf registration statement by approximately $10.0 million. In August 2007, we entered into a definitive agreement for the sale and issuance of $20 million in aggregate principal amount of unsecured senior convertible notes (Notes) which are convertible initially into an aggregate of up to 15,748,030 shares of our common stock. In addition, upon conversion we are required to issue an additional number of shares representing present value of future interest. The Notes bear interest at 6.25% per annum and interest is accrued and payable on a quarterly basis. Any portion of the Notes and all accrued but unpaid interest which is not converted are repayable in cash in August 2010. The notes may be converted into common stock at a stated rate of $1.27 per share. Upon conversion whether at our election or the debt holders election, we are also required to pay the present value of the future interest payments that would have been made if the conversion had not occurred (Make Whole Payments). These Make Whole Payments must be paid in common stock at a rate of $1.27 per share. This agreement also includes warrants to purchase up to 17,322,833 shares of our common stock at an initial exercise price of $1.14 per share. We received net proceeds of approximately $18.5 million, of which $7.3 million has been restricted until our stock price reaches $1.52, from the sale of the Notes and warrants after deducting the placement agent fees and estimated offering expenses of $1.5 million.

Significant financing activities in 2007, 2006 and 2005 included:

In 2006, we entered into an agreement where we assigned certain rights associated with a royalty agreement from July 2006 through December 2011 for a $20.0 million upfront payment in cash.

In 2007 and 2006, our outstanding balances under our revolving working capital debt facility were $4.4 million and $2.9 million. These borrowings are secured by our Italian accounts receivables.

In 2006 we entered into an equipment funding agreement for up to approximately $2.3 million through December 31, 2007. In March 2005, we extended our $2.0 million December 2003 equipment funding agreement to provide financing for equipment purchases through March 2006. In 2007, 2006 and 2005 we received approximately $290,000, $600,000, and $828,000, respectively, under these equipment funding agreements. Under these equipment funding agreements, in 2007, 2006 and 2005 we used approximately $644,000, $754,000, and $1.1 million, respectively, to pay down the debt associated with these equipment funding obligations.

Operating activities

Cash used in operations decreased slightly in 2007 as compared to 2006. A significant driver in the reduction related to the reduced amount of working capital needed at our Italian subsidiary, which was acquired in May 2006. At the time of acquisition, we did not purchase any

receivables. As a result, there was virtually no

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account receivable collection in 2006 because the typical collection cycle in their marketplace is 270 days. In 2007, we started to see collections begin in a manner consistent with our expectations. The increase in cash used in operating activities in 2006 as compared to 2005 primarily related to additional on-going operational costs after our acquisitions of Spectral and Amplimedical, as well as the additional impact on working capital for the increase in accounts receivable at Amplimedical due to its long collection times.

Investing activities

In 2007, 2006 and 2005 to increase the rate of return on excess cash balances, we invested excess cash received from our financing activities into highly liquid short-term investments. In 2007, 2006 and 2005, cash provided by investing activities was primarily the result of using cash from the sale and maturity of these short-term investments to fund on-going operations. Cash provided by investing activities has increased in 2007 as compared to the same period in 2006, primarily due to not having any new acquisitions in 2007. Cash provided by investing activities is lower in 2006 as compared to 2005 primarily due to the use of approximately $7 million in cash related to the purchase of Spectral s and Amplimedical s assets.

As of December 31, 2007 we had approximately $1.4 million invested in auction rate securities. Auction rate securities represent debt instruments with long term nominal maturity on which monthly auctions provide interest rate resets and liquidity. Subsequent to December 31, 2007, we liquidated approximately $1 million of these instruments for their December 31, 2007 carrying values. We have one remaining instrument for $400,000. There was a successful auction on this security in January 2008, but subsequent auctions have failed. As a result, we may need to record an impairment on this security in the first quarter of 2008. Future ability to use these funds is uncertain.

Capital spending is essential to our product innovation initiatives and maintaining our operational capabilities. Therefore, in 2007, 2006 and 2005 we used cash to purchase $2.5 million, $2.1 million, and $1.4 million in property and equipment to support the ongoing development of our product lines. The increases in spending in property equipment purchased in 2007, 2006 and 2005 is a result of us purchasing additional property and equipment to support the on-going selling and development efforts of the businesses we acquired.

We have no significant contractual obligations not fully recorded on our Consolidated Balance Sheets or fully disclosed in the Notes to our Condensed Consolidated Financial Statements. We have no off-balance sheet arrangements as defined in S-K 303(a)(4)(ii).

At December 31, 2007, our outstanding contractual obligations included (in thousands):

		Payments Due by Period			
Contractual Obligations & Other Commitments	**Total**	**Less Than 1 year**	**1 2 years**	**3 5 years**	**Thereafter**
Debt obligations	20,789	474	20,315		
Other long term liabilities[(a)]	4,848				4,848
Operating leases	12,228	2,812	4,699	2,566	2,151
Commitments to fund research and development[(b)]	775	775			
Assignment of royalty interests[(c)]	21,940	4,820	10,608	6,512	
Total contractual obligations & other commitments	$ 60,580	$ 8,881	$ 35,622	$ 9,078	$ 6,999

(a) In July 2000, we executed a ten-year agreement with Hitachi to develop, manufacture and distribute potential products based on the parties proprietary technologies. At a minimum, we were required to match the Hitachi contribution to our research and development on an annual basis over a ten-year period. In addition, we are required to repay 50% of Hitachi s contributions to research and development with no interest over an indefinite period of time based on a percentage of micro array cartridge sales. From the

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inception of the collaboration agreement with Hitachi through the termination of the agreement in August 2003, we received a total of $9.8 million in sponsored research funding. Half of this funding was recorded as revenue and the remaining half is recorded as a long-term liability.

(b) We have entered into various development agreements for the development of a certain future products. Actual funding of the commitments included in the table above is subject to performance by our development partners and their ability to meet certain milestones. The $775,000 commitment above assumes that all milestones and payments are achieved.

(c) In September 2006, we entered into an agreement to assign certain rights associated with our Applied Biosystems, Inc. royalty agreement from the period of July 2006 through December 2011 to DRT for an upfront payment of $20.0 million. Under the agreement, we have guaranteed minimum royalty payments from Applied Biosystems to DRT. If the royalty payments fall below certain minimums in a given fiscal year, we are required to pay cash to DRT for the difference between the actual royalty payments from Applied Biosystems and the minimums. In addition, if royalty payments from Applied Biosystems are above certain thresholds for a given calendar year we will receive, in cash, a certain percentage of the amount above the threshold.

Additional Financing Required in 2008

We will require additional financing in order to complete our stated plan of operations for the next twelve months. There can be no assurance, however, that such financing will be available or, if it is available, that we will be able to structure such financing on terms acceptable to us and that it will be sufficient to fund our cash requirements until we can reach a level of profitable operations and positive cash flows. If we are unable to obtain the financing necessary to support our operations, we will be unable to continue as a going concern.

Our independent registered public accounting firm has included an explanatory paragraph in its report on our 2007 financial statements related to the uncertainty in our ability to continue as a going concern. We anticipate that our cash at December 31, 2007, together with the net proceeds from our sale of certain patent rights in March 2008, are not sufficient to meet the cash requirements to fund our operating expenses, capital expenditures, and working capital through December 2008 without additional sources of cash.

While we believe that we will be successful in generating additional cash through a combination of corporate partnerships and collaborations, federal and state grant funding, sale or licensing of intellectual property and incremental product sales, if we are unsuccessful in obtaining additional cash flows from any of these sources, we need to defer, reduce or eliminate certain planned expenditures. There can be no assurance that we will be able to obtain any sources of financing on acceptable terms, or at all. If we are not able to defer, reduce or eliminate our expenditures, secure additional sources of revenue or otherwise secure additional funding, we will need to restructure or significantly curtail our operations, file for bankruptcy or cease operations.

The trading price of our shares of common stock, a downturn in the United States stock and debt markets, and the existence of, and covenants in our Notes could make it more difficult to obtain financing through the issuance of equity or debt securities. We will also seek to raise capital from other sources, such as sale of assets, licensing of technology or intellectual property. Any delay in reaching cash flow break even will require us to raise additional capital. Under the terms of the 9.75% Notes, we are required to use a portion of the proceeds of certain financings to redeem the 9.75% Notes. Any additional equity financing will be dilutive to our stockholders, and debt financing, if available, may include restrictive covenants and require significant collateral. Further, if we issue additional equity or debt securities, stockholders may experience additional dilution or the new equity securities may have rights, preferences or privileges senior to those of existing holders of our shares of common stock. If additional financing is not available or is not available on acceptable terms, we will have to curtail our operations.

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Future Accounting Requirements

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements.* SFAS 157 defines fair value, establishes a framework for measuring fair value in generally accepted accounting principles and expands disclosures about fair value measurements. SFAS 157 applies only to fair value measurements that are already required or permitted by other accounting standards. Accordingly, SFAS 157 does not require any new fair value measurements. SFAS 157 is effective for fiscal years beginning after December 15, 2007. Management is currently evaluating the impact, if any, the adoption of SFAS 157 will have on the Company s consolidated results of operations and financial position.

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities including an amendment of FASB Statement No. 115.* SFAS 159 permits entities to choose to measure many financial instruments and certain other items at fair value. Unrealized gains and losses on items for which the fair value option has been elected will be recognized in earnings at each subsequent reporting date. SFAS 159 is effective for us beginning January 1, 2008. We are evaluating the impact that the adoption of SFAS 159 will have on our consolidated financial statements.

Net operating loss carryforwards

As of December 31, 2007 we had federal, state and foreign net operating loss, or NOL, carryforwards of approximately $300.3 million, $165.2 million, and $33.3 million, respectively. If not utilized, the net operating loss carryforwards will continue expiring in 2008 for federal purposes, 2008 for state purposes, and 2008 for foreign purposes. As of December 31, 2007, we had both federal and state research and development tax credit carryforwards of approximately $10.4 million, and $7.6 million, respectively. The federal tax credits will continue expiring in 2008 unless utilized and the state tax credits carryforward indefinitely.

The federal and state NOL carryforwards are subject to alternative minimum tax limitations and to examination by the various taxing authorities. Additionally, pursuant to Sections 382 and 383 of the Internal Revenue Code, annual use of the our net operating losses and credit carryforwards may be limited due to cumulative changes in ownership of more than 50% over a 3-year period. We may be subject to similar limitations on our Canadian losses acquired from SynX (aka Nanogen Point-of-Care).

Although the Company has determined that an ownership change had not occurred through June 30, 2007, based on analysis performed during adoption of FIN48, it is possible that an ownership change occurred subsequent to that date. Certain owners are not required to submit ownership change information with the Securities and Exchange Commission until mid-February 2008. The Company plans to update its Section 382 analysis based on this information for the limitation of the net operating loss and research and development credit carry forwards.

Until this analysis has been updated the Company has removed the deferred tax assets for net operating losses of $111.6 million and research and development credits of $15.4 million generated through 2007 from its deferred tax asset schedule and have recorded a corresponding decrease to its valuation allowance. When this analysis is finalized, the Company plans to update its unrecognized tax benefits under FIN 48. Due to the existence of the valuation allowance, future changes in the Company s unrecognized tax benefits will not impact the Company s effective tax rate.

Item 7A. ***Quantitative and Qualitative Disclosures about Market Risk***

Interest rate exposure

Our exposure to market risk due to fluctuations in interest rates relates primarily to short-term investments. These short-term investments, reported at an aggregate fair market value of $1.4 million as of December 31, 2007, consist primarily of investments in debt instruments of financial institutions and corporations with strong credit ratings and United States government obligations. These securities are subject to

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market rate risk inasmuch as their fair value will fall if market interest rates increase. If market interest rates were to increase immediately and uniformly by 100 basis points from the levels prevailing at December 31, 2007, for example, the fair value of the portfolio would not decline by a material amount. We do not use derivative financial instruments to mitigate the risk inherent in these securities. However, we do attempt to reduce such risks by generally limiting the maturity date of such securities, diversifying our investments and limiting the amount of credit exposure with any one issuer. We believe that reductions in the value of such securities attributable to short-term fluctuations in interest rates would not materially affect our financial position, results of operations or cash flows. Changes in interest rates would affect the interest income we earn on our cash balances after re-investment.

Foreign Currency Exchange Rate Exposure

The functional currency for our Canadian subsidiary is the U.S. dollar and the functional currency of our subsidiary in Italy is the euro. The Italian subsidiaries accounts are translated from the euro to the U.S. dollar using the current exchange rate in effect at the balance sheet date for balance sheet accounts, and using the average exchange rate during the period for revenues and expense accounts. The effects of translation are recorded in accumulated other comprehensive income in the consolidated financial statements included herein. In certain instances, our subsidiaries conduct business with customers and vendors in euros or in other local European currencies. Exchange gains and losses arising from these transactions are recorded using the actual exchange rate differences on the dates of the transactions. We have not taken any action to reduce our exposure to changes in foreign currency exchange rates, such as options or futures contracts, with respect to transactions with our European customers and vendors. The net tangible assets of our foreign subsidiaries, excluding intercompany balances, were approximately $11.0 million at December 31, 2007.

Notwithstanding the foregoing, the indirect effect of fluctuations in interest rates and foreign currency exchange rates could have a material adverse effect on our business financial condition and results of operations. For example currency exchange rate fluctuations may affect international demand for our products. In addition, interest rates fluctuations may affect our customers buying patterns. Furthermore, interest rate and currency exchange rate fluctuations may broadly influence the United States and foreign economies resulting in a material adverse effect on our business, financial condition and results of operations.

Item 8. ***Financial Statements and Supplementary Data***

Our consolidated financial statements as of December 31, 2007 and 2006 and for the three years in the period ended December 31, 2007 and the Report of Ernst and Young LLP, Independent Registered Public Accounting Firm, are included in this Annual Report on Form 10-K.

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

None.

Item 9A. ***Controls and Procedures***

(a) Evaluation of Disclosure Controls and Procedures.

We maintain disclosure controls and procedures that are designed to ensure that (a) the information required to be disclosed by us in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the periods specified in the SEC s rules and forms, and (b) that such information is accumulated and communicated to our management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can only provide reasonable assurance of achieving the desired control objectives, and in reaching a reasonable level of assurance, management necessarily was required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

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Under the supervision and with the participation of our management, including our Chief Executive Officer and our Chief Financial Officer, we carried out an evaluation of the effectiveness of our disclosure controls and procedures (as such term is defined in SEC Rules 13a-15(e) and 15d-15(e)) as of December 31, 2007. Based on such evaluation, such officers have concluded that, as of December 31, 2007, our disclosure controls and procedures were not effective because of the identification of material weaknesses in our internal control over the financial close and inventory valuation processes as described below. Based on a number of factors, including our performance of additional procedures as discussed under Additional Disclosures and Management s Remediation Efforts below, our management has concluded that the consolidated financial statements included in Part II, Item 8 of this Form 10-K fairly present, in all material respects, our financial position, results of operations and cash flows for the periods presented in conformity with generally accepted accounting principles (GAAP). The unqualified opinion, which contains an explanatory paragraph relating to our ability to continue as a going concern and our restatement of previously issued financial statements relating to accounting for a variable interest entity, of our independent registered public accounting firm on our financial statements as of December 31, 2007 and 2006 and for each of the years in the three year period ended December 31, 2007 is included in Part II, Item 8 of this Form 10-K.

(b) Change in Internal Control over Financial Reporting.

There were no significant changes in our internal control processes and procedures over financial reporting identified in connection with the evaluation of such controls that occurred during our most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect our internal control over financial reporting. The implementation of certain processes and procedures, however, were not determined to be effectively implemented as of December 31, 2007 as discussed more fully in the report below.

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Management s Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over our financial reporting. Internal control over financial reporting refers to the process designed by, or under the supervision of, our Chief Executive Officer and Chief Financial Officer, and effected by our board of directors, management and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, and includes those policies and procedures that:

(1) Pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets;

(2) Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management; and

(3) Provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting cannot provide absolute assurance of achieving financial reporting objectives. Internal control over financial reporting is a process that involves human diligence and compliance and is subject to lapses in judgment and breakdowns resulting from human failures. Internal control over financial reporting also can be circumvented by collusion or improper management override. Because of such limitations, there is a risk that material misstatements may not be prevented or detected on a timely basis by internal control over financial reporting. However, these inherent limitations are known features of the financial reporting process. Therefore, it is possible to design into the process safeguards to reduce, though not eliminate, this risk. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become ineffective because of changes in conditions or that the degree of compliance with established policies or procedures may deteriorate.

Management assessed the effectiveness of our internal control over financial reporting as of December 31, 2007 using the framework set forth in the report entitled Internal Control Integrated Framework published by the Committee of Sponsoring Organizations (COSO) of the Treadway Commission. Management reviewed the results of this evaluation with the Audit Committee of our Board of Directors, and based on this evaluation, management identified deficiencies in our financial statement close and inventory valuation processes related to:

- inadequate management oversight of the financial reporting process,
- an insufficient number of staff accountants with a sufficient level of technical accounting knowledge, and
- insufficient controls over assessing inventory values, including reserve requirements.

We believe that the combination of these deficiencies result in a reasonable possibility that a material misstatement of the company s annual or interim financial statements will not be prevented on a timely basis. Therefore, management has concluded that we had material weaknesses and that our internal control over financial reporting was not effective as of December 31, 2007. As a result of these material weaknesses there were material adjustments that resulted from the annual audit. These adjustments primarily resulted in changes to the inventory and accrued liability balances.

Ernst & Young LLP, our independent registered public accounting firm, has issued an attestation report on our internal control over financial reporting which is included below.

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Additional Discussion and Management s Remediation Efforts

We are currently implementing additional controls and procedures to remediate these deficiencies, including:

- recruitment of additional staff (subsequent to December 31, 2007, we have hired an accounting manager and a senior accountant to help remediate the insufficient number of qualified staff accountants); and

- adding detailed review procedures over accounting close activities, including inventory valuation analysis.

We expect these measures to be fully implemented on or before December 31, 2008.

These actions we have taken to remediate these deficiencies are subject to continued management review supported by testing, as well as oversight by the Audit Committee of our Board of Directors. We cannot assure you that material weaknesses or significant deficiencies will not occur in the future and that we will be able to remediate such weaknesses or deficiencies in a timely manner, which could impair our ability to accurately and timely report our financial position, results of operations or cash flows. See the Risk Factor entitled As of December 31, 2007, we identified material weaknesses in internal control over financial reporting. If we fail to maintain an effective system of internal controls, we may not be able to accurately report our financial results or prevent fraud and as a result, investors may be misled and lose confidence in our financial reporting and disclosures, and the price of our common stock may be negatively affected in this Annual Report on Form 10-K.

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Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders of Nanogen, Inc.

We have audited Nanogen, Inc. s internal control over financial reporting as of December 31, 2007, based on criteria established in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (the COSO criteria). Nanogen, Inc. s management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management s Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the company s internal control over financial reporting based on our audit.

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

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

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

A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company s annual or interim financial statements will not be prevented or detected on a timely basis**.** A combination of deficiencies related to inadequate management oversight of the financial statement close process, an insufficient number of staff accountants with a sufficient level of technical accounting knowledge and insufficient controls over assessing inventory values, including related reserves resulted in material weaknesses in internal control at December 31, 2007.

These material weaknesses were considered in determining the nature, timing, and extent of audit tests applied in our audit of the 2007 financial statements, and this report does not affect our report dated March 28, 2008 on those financial statements.

In our opinion, because of the effect of the material weaknesses described above on the achievement of the objectives of the control criteria, Nanogen, Inc. has not maintained effective internal control over financial reporting as of December 31, 2007, based on the COSO criteria.

/s/ ERNST & YOUNG LLP

San Diego, California

March 28, 2008

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Item 9B. ***Other Information***
None.

PART III

Item 10. ***Directors, Executive Officers and Corporate Governance***
The information required by this item concerning our directors, executive officers, Section 16 compliance and code of ethics is incorporated by reference to the information set forth in the sections titled Election of Directors, Executive Officers of the Company, Section 16(a) Beneficial Ownership Reporting Compliance and Code of Ethics in our definitive proxy statement to be filed with the Securities and Exchange Commission in connection with the 2008 Annual Meeting of Stockholders (the Proxy Statement).

Item 11. ***Executive Compensation***
The information required by this item is incorporated by reference to the Proxy Statement under the heading Compensation of Executive Officers and Directors.

Item 12. ***Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters***
The information required by this item is incorporated by reference to the Proxy Statement under the heading Security Ownership of Certain Beneficial Owners and Management and Equity Compensation Plan Information .

Item 13. ***Certain Relationships and Related Transactions and Director Independence***
The information required by this item is incorporated by reference to the Proxy Statement under the heading Certain Transactions and Election of Directors.

Item 14. ***Principal Accountant Fees and Services***
The information required by this item is incorporated by reference to the Proxy Statement under the heading Principal Accountant Fees and Services .

PART IV

Item 15. ***Exhibits and Financial Statement Schedules***
(a)(1) Financial Statements:

Our consolidated restated financial statements are included herein as required under Item 8 of this Annual Report on Form 10-K. See Index on page F-1.

(2) Financial Statement Schedules

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Schedule II Valuation and Qualifying Accounts

For the Years Ended December 31, 2007, 2006 and 2005

(in thousands)

	Balance at Beginning of Period	Acquired in acquisitions	Additions (charges to expenses)	Deductions	Balance at end of year
Allowance for doubtful accounts					
Year ended December 31, 2007	$ 183	$	$ 652	$ (567)	$ 268
Year ended December 31, 2006	$ 70	$ 64	$ 62	$ (13)	$ 183
Year ended December 31, 2005	$ 176	$	$	$ (106)	$ 70
Inventory reserve for obsolescence					
Year ended December 31, 2007	$ 4,145	$	$ 7,594	$ (2,701)	$ 9,038
Year ended December 31, 2006	$ 5,148	$ 379	$ 480	$ (1,862)	$ 4,145
Year ended December 31, 2005	$ 5,860	$	$	$ (712)	$ 5,148

All other schedules are omitted because they are not applicable, not required or the information is included in the consolidated financial statements or notes thereto.

3) Exhibits

EXHIBIT INDEX

Exhibit Number	Description of Document
1.1(35)	Placement Agency Agreement, between Registrant and Ascendant Securities, dated February 5, 2007. (1.1)
1.2(35)	Form of Securities Purchase Agreement, dated February 5, 2007. (1.2)
1.3(38)	Placement Agency Agreement between Registrant and Seven Hills Partners LLC, dated August 26, 2007. (10.6)
1.4(38)	Securities Purchase Agreement, dated August 26, 2007. (10.1)
2.1(20)	Plan of Arrangement between Nanogen, Inc. and SynX Pharma, Inc., dated February 9, 2004.
2.2(19)	Agreement and Plan of Merger and Reorganization dated September 7, 2004, by and among Nanogen, Inc., Empire Acquisition Corp. and Epoch Biosciences, Inc.
2.3(28)	Asset Purchase Agreement among Registrant, SynX Pharma, Inc. and Spectral Diagnostics, Inc., dated December 19, 2005.
2.4(34)	Asset Purchase Agreement by and between Nanogen, Inc., Nanogen Advanced Diagnostics, S.r.L. and Amplimedical S.p.A. (2.1)
3.1(3)	Restated Certificate of Incorporation. (3.(I)1)
3.2(17)	Certificate of Amendment to Restated Certificate of Incorporation.
3.3(3)	Certificate of Designations, as filed with the Delaware Secretary of State on November 23, 1998. (3.(I)2)
3.4(11)	Amended and Restated Bylaws of Registrant. (3.(II)1)
4.1(1)	Form of Common Stock Certificate.
4.2(2)	Rights Agreement between Registrant and BankBoston, N.A., dated November 17, 1998.
4.3(8)	Amendment No. 1 to Rights Agreement between Registrant and FleetBoston, N.A., dated December 11, 2000.

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Exhibit Number	Description of Document
4.4(34)	Form of Convertible Promissory Note. (4.1)
4.5(29)	Form of Warrant, dated September 28, 2005. (4.1)
4.6(35)	Form of Warrant, dated February 5, 2007. (4.1)
4.7(38)	Indenture, dated as of August 27, 2007, between Registrant and The Bank of New York Trust Company, N.A. (4.1)
4.8(38)	First Supplemental Indenture, dated as of August 27, 2007, between Registrant and The Bank of New York Trust Company, N.A. (4.2)
4.9(38)	Form of Notes, dated August 27, 2007. (10.2)
4.10(38)	Form of Series A Warrants, dated August 27, 2007. (10.3)
4.11(38)	Form of Series B Warrants, dated August 27, 2007. (10.4)
4.12(38)	Form of Series C Warrants, dated August 27, 2007. (10.5)
10.1(21)(A)	Amended and Restated 1997 Stock Incentive Plan of Nanogen, Inc. (the 1997 Plan). (99.1)
10.2(6)(A)	Form of Incentive Stock Option Agreement under the 1997 Plan, as amended. (10.2)
10.3(6)(A)	Form of Nonqualified Stock Option Agreement under the 1997 Plan, as amended. (10.3)
10.4(21)(A)	Amended and Restated Nanogen, Inc. Employee Stock Purchase Plan. (99.2)
10.5(13)(A)	Nanogen, Inc. 2002 Stock Bonus Plan.
10.6(1)(A)	Form of Indemnification Agreement between Registrant and its directors and executive officers. (10.7)
10.7(7)	Warrant to Purchase Common Stock between Registrant, Aventis Research and Technologies Verwaltungs GmbH, dated September 22, 2000. (10.9)
10.8(12)	Warrant to Purchase Common Stock between Registrant and Gene Type AG, dated April 12, 2002. (10.9)
10.9(16)	Form of Securities Purchase Agreement between Registrant and investors described therein, dated September 17, 2003.
10.10(18)	Warrant to Purchase Common Stock between Registrant and Aventis Pharma Deutchland GmbH, dated June 6, 2003. (10.10)
10.11(5)(+)	Reader, Loader and Cassette Low Cost Engineering and Manufacturing Agreement between Registrant and Hitachi, Ltd., dated as of December 15, 1999.
10.12(7)(+)	First Amendment to Reader, Loader and Cassette Low Cost Engineering and Manufacturing Agreement between Registrant and Hitachi, Ltd., dated July 26, 2000. (10.7)
10.13(7)(+)	Collaboration Agreement among Registrant and Hitachi, Ltd., Nissei Sangyo Co. Ltd. and Hitachi Instruments Service Co. Ltd. (collectively, Hitachi), dated July 26, 2000. (10.6)
10.14(7)	Common Stock Purchase Agreement between Registrant and Hitachi, dated July 26, 2000. (10.8)
10.15(1)	Amended and Restated Investors Rights Agreement between Registrant and certain security holders set forth therein, dated May 5, 1997. (10.18)
10.16(1)	Master Lease Agreement between Registrant and Mellon US Leasing, dated September 11, 1997. (10.19)

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Exhibit Number	Description of Document
10.17(1)	Master Lease Agreement between Registrant and LMP Properties Ltd., dated June 29, 1994, as amended on March 14, 2001. (10.20)
10.18(1)	Lease Agreement between Registrant and Lease Management Services, Inc., dated April 26, 1994, as amended on December 13, 1994 and June 13, 1996. (10.21)
10.19(1)(A)	Form of Promissory Note between Registrant and certain of its executive officers, dated August 22, 1996. (10.23)
10.20(1)(A)	Form of Promissory Note between Registrant and certain of its executive officers, dated June 30, 1995. (10.24)
10.21(1)(A)	Forms of Performance Stock Option Agreement. (10.26)
10.22(15)(A)	Separation Agreement between Registrant and Kieran T. Gallahue, dated January 2, 2003.(10.21)
10.23(15)(A)	Separation Agreement between Registrant and Dr. Vance R. White, dated December 11, 2002. (10.22)
10.24(18)(A)	Separation Agreement between Registrant and Ira Marks, dated August 15, 2003.
10.25(15)(A)	Employment Agreement between Registrant and Bruce A. Huebner, dated December 1, 2002.(10.24)
10.26(15)(A)	Employment Agreement between Registrant and William Franzblau, dated January 24, 2003. (10.25)
10.27(15)(A)	Employment Agreement between Registrant and David Macdonald, dated January 24, 2003. (10.26)
10.28(18)(A)	Separation Agreement between Registrant and Gerard A. Wills, dated May 21, 2003.
10.31(15)(A)	Indemnification Agreement between Registrant and Bruce A. Huebner, dated effective as of December 1, 2002. (10.30)
10.32(15)(A)	Indemnification Agreement between Registrant and Graham Lidgard, dated effective as of January 24, 2003. (10.31)
10.33(9)(+)	Cooperation and Shareholders Agreement among Aventis Research & Technologies GmbH & Co. KG (Aventis), Registrant and Nanogen Recognomics GmbH (Nanogen Recognomics), dated June 29, 2001. (10.3)
10.34(9)(+)	Contribution Agreement among Aventis, Registrant and Nanogen Recognomics, dated June 27, 2001. (10.4)
10.35(11)(+)	Settlement Agreement among Motorola, Inc., Genometrix, Inc., Massachusetts Institute of Technology and Registrant, dated July 20, 2001. (10.6)
10.36(14)	Settlement Agreement among CombiMatrix Corporation, Dr. Donald Montgomery, Acacia Research Corporation and Registrant, dated September 30, 2002.
10.37(4)	Master Loan and Security Agreement between Registrant and Transamerica Business Credit Corporation, dated June 14, 1999.
10.38 (22)(+)	Cross License Agreement on NT-proBNP between SynX Pharma, Inc. and Roche Diagnostics GmbH., dated July 17, 2003.
10.39(23)	SynX Pharma, Inc. Stock Option Plan. (99.1)
10.40(23)	Form of Stock Option Agreement (SynX Pharma, Inc. Stock Option Plan). (99.2)

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Exhibit Number	Description of Document
10.41(23)	Form of Stock Option Assumption Agreement (99.3)
10.42(24)	Epoch Biosciences, Inc. 2003 Stock Incentive Plan. (99.1)
10.43(24)	Epoch Pharmaceuticals, Inc. Incentive Stock Option, Nonqualified Stock Option and Restricted Stock Purchase Plan 1991. (99.2)
10.44(24)	Epoch Pharmaceuticals, Inc. Incentive Stock Option, Nonqualified Stock Option and Restricted Stock Purchase Plan 1993. (99.3)
10.45(25)	Epoch Biosciences, Inc. 2003 Stock Incentive Plan, Non-qualified Stock Option Agreement. (10.46)
10.46(25)(+)	Second Amended and Restated Collaboration, License and Supply Agreement by and between Epoch Pharmaceuticals, Inc. and PE Corporation, through its Applied Biosystems Group, dated August 17, 2000. (10.49)
10.47(25)(+)	First Side Agreement dated October 31, 2001 by and between Epoch and PE Corporation, through its Applied Biosystems Group. (10.50)
10.48(25)(+)	Amendment No. 1 to Second Amended and Restated Collaboration, License and Supply Agreement between Epoch and Applera Corporation, formerly PE Corporation, through its Applied Biosystems Group, dated July 26, 2002. (10.51)
10.49(26)	Epoch Biosciences, Inc. 2003 Stock Incentive Plan, as Assumed by Nanogen, Inc., amended and restated as of July 29, 2005.
10.50(28)	Placement Agency Agreement among Registrant, Seven Hills Partners LLC and Stonegate Securities, Inc., dated September 27, 2005. (10.1)
10.51(29)(+)	Amendment No. 2 to Second Amended and Restated Collaboration, License and Supply Agreement between Epoch and Applera Corporation, formerly PE Corporation, through its Applied Biosystems Group, dated effective as of December 31, 2005. (10.56)
10.52(29)(+)	Manufacturing and Distribution Agreement between Registrant and Princeton BioMeditech Corporation, dated October 27, 2005. (10.58)
10.53(29)(+)	Development Agreement between Registrant and Princeton BioMeditech Corporation, dated January 13, 2006. (10.57)
10.54(29)(+)(A)	2006 Executive Officer Incentive Compensation Plan. (10.59)
10.55(30)	Stock Purchase Agreement, dated as of March 15, 2006 between Fisher Scientific International Inc., and Nanogen, Inc. (10.1)
10.56(34)	Amended and Restated Stock Purchase Plan. (Appendix A)
10.57(34)(A)	Nanogen, Inc. Employee Stock Purchase Plan. (Appendix B)
10.58(31)	Common Stock Purchase Agreement between Nanogen, Inc. and Azimuth Opportunity Ltd., dated May 10, 2006.
10.59(33)(++)	Royalty Interest Assignment Agreement between Epoch BioSciences, Inc., Drug Royalty Trust 9, and Nanogen Inc., dated September 29, 2006. (10.1)
10.60(32)	Security Agreement between Drug Royalty Trust 9 and Epoch BioSciences, Inc., dated September 29, 2006. (10.2)
10.61(32)(A)	Independent Contractor Agreement between Nanogen, Inc. and Heiner Dreismann, dated November 6, 2006. (10.3)

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Exhibit Number	Description of Document
10.62(36)(A)	Amended and Restated Employment Agreement between Registrant and Howard C. Birndorf, dated February 19, 2007. (10.1)
10.63(36)(A)	Amended and Restated Employment Agreement between Registrant and Robert Saltmarsh, dated February 19, 2007. (10.2)
10.64(36)(A)	Amended and Restated Employment Agreement between Registrant and Graham Lidgard, dated February 19, 2007. (10.3)
10.65(36)(A)	Employment Agreement between Registrant and Dr. William L. Respess, dated February 19, 2007. (10.4)
10.66(36)(A)	Employment Agreement between Registrant and David Ludvigson, dated February 19, 2007. (10.5)
10.67(37)(A)	Amended and Restated 1997 Stock Incentive Plan of Registrant (10.1)
14.1(15)	Nanogen, Inc. Code of Business Conduct and Ethics. (99.2)
21.1	List of Subsidiaries. (21.1)
23.1	Consent of Independent Registered Public Accounting Firm.
31.1	Certifications of Chief Executive Officer Required by Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended.
31.2	Certifications of Chief Financial Officer Required by Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended.
32.1	Certifications of Chief Executive Officer Required by Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended.
32.2	Certifications of Chief Financial Officer Required by Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended.

(1) Incorporated by reference to Registrant s Registration Statement on Form S-1 (File No. 333-42791). Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.

(2) Incorporated by reference to Exhibit 4.2 to the Registrant s Registration Statement on Form 8-A12G, filed on November 24, 1998.

(3) Incorporated by reference to Registrant s Annual Report on Form 10-K filed on March 29, 1999. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.

(4) Incorporated by reference to Exhibit 10.38 to the Registrant s Annual Report on Form 10-K for the year ended December 31, 1999.

(5) Incorporated by reference to Exhibit 10.1 to the Registrant s Quarterly Report on Form 10-Q filed on May 12, 2000.

(6) Incorporated by reference to the Registrant s Form S-8 filed on June 15, 2000. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed

(7) Incorporated by reference to the Registrant s Quarterly Report on Form 10-Q filed on November 14, 2000. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.

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(8) Incorporated by reference to Exhibit 4.1 to the Registrant s Form 8-K filed on December 12, 2000.

(9) Incorporated by reference to the Registrant s Quarterly Report on Form 10-Q filed on August 14, 2001. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.

(10) Incorporated by reference to Exhibit 10.1 to the Registrant s Form S-8 filed on June 20, 2001. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.

(11) Incorporated by reference to the Registrant s Quarterly Report on Form 10-Q filed on November 14, 2001. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.

(12) Incorporated by reference to the Registrant s Quarterly Report on Form 10-Q filed on August 14, 2002. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.

(13) Incorporated by reference to Exhibit 10.1 to the Registrant s Form S-8 filed on August 16, 2002.

(14) Incorporated by reference to Exhibit 10.1 to the Registrant s Quarterly Report on Form 10-Q for the quarter ended September 31, 2002.

(15) Incorporated by reference to Registrant s Annual Report on Form 10-K filed on March 31, 2003. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.

(16) Incorporated by reference to Exhibit 10.1 to the Registrant s Form 8-K filed on September 22, 2003.

(17) Incorporated by reference to Exhibit 3.1 to the Registrant s Form 8-K filed on December 21, 2004.

(18) Incorporated by reference to the Registrant s Form 10-K filed on March 30, 2004. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.

(19) Incorporated by reference to Exhibit 2.1 of the Registrant s Form 8-K filed on September 8, 2004.

(20) Incorporated by reference to Exhibit 2.1 of the Registrant s Form 8-K filed on May 6, 2004.

(21) Incorporated by reference to the Registrant s Form S-8 (File No. 333-116605) filed on June 18, 2004. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.

(22) Incorporated by reference to Exhibit 10.2 of the Registrant s Quarterly Report on Form 10-Q filed on August 16, 2004.

(23) Incorporated by reference to the Registrant s Registration Statement on Form S-8 (File No. 333-115629), filed on May 19, 2004. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.

(24) Incorporated by reference to the Registrant s Registration Statement on Form S-8 (File No. 333-121508) filed on December 21, 2004. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.

(25) Incorporated by reference to the Registrant s Annual Report on Form 10-K filed on March 15, 2005. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.

(26) Incorporated by reference to Exhibit 99.1 to the Registrant s Form S-8 (File No. 333-127916) filed on August 29, 2005.

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(27) Incorporated by reference to Exhibit 2.1 to the Registrant s Form 8-K filed on December 23, 2005.

(28) Incorporated by reference to the Registrant s Form 8-K filed on September 28, 2005. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.

(29) Incorporated by reference to the Registrant s Annual Report on Form 10-K filed on March 16, 2006. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.

(30) Incorporated by reference to the Registrant s Form 8-K filed on March 16, 2006.

(31) Incorporated by reference to Exhibit 10.1 to the Registrant s Form 8-K filed on May 10, 2006.

(32) Incorporated by reference to the Registrant s Quarterly Report on Form 10-Q filed on November 9, 2006. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.

(33) Incorporated by reference to the Registrant s Form 8-K filed on May 5, 2006. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.

(34) Incorporated by reference to the Registrant s definitive proxy statement filed on May 5, 2006. Parenthetical references following the description of each document relate to the Appendix under which such exhibit was initially filed.

(35) Incorporated by reference to the Registrant s Form 8-K filed on February 5, 2007. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.

(36) Incorporated by reference to Registrant s Form 8-K filed on February 23, 2007. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.

(37) Incorporated by reference to Registrant s Form 8-K filed on June 15, 2007. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.

(38) Incorporated by reference to Registrant s Form 8-K filed on August 27, 2007. Parenthetical references following the description of each document relate to the exhibit number under which such exhibit was initially filed.

(A) Indicates management compensatory plan or arrangement.

(+) Confidential treatment has been granted for certain information contained in this document pursuant to an order of the Securities and Exchange Commission. Such information has been omitted and filed separately with the Securities and Exchange Commission.

(++) Confidential treatment has been requested for certain information contained in this document. Such information has been omitted and filed separately with the Securities and Exchange Commission.

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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.

NANOGEN, INC.

Date: March 31, 2008 By: /s/ HOWARD C. BIRNDORF
Howard C. Birndorf
Chairman of the Board,
and Chief Executive Officer

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

Signature	Title	Date
/s/ HOWARD C. BIRNDORF **Howard C. Birndorf**	Chairman of the Board, and Chief Executive Officer (Principal Executive Officer)	March 31, 2008
/s/ NICHOLAS J. VENUTO **Nicholas J. Venuto**	Chief Financial Officer (Principal Financial and Accounting Officer)	March 31, 2008
/s/ DAVID SCHREIBER **David Schreiber**	Director	March 31, 2008
/s/ STELIOS B. PAPADOPOULOS **Stelios B. Papadopoulos**	Director	March 31, 2008
/s/ ROBERT E. WHALEN **Robert E. Whalen**	Director	March 31, 2008
/s/ HEINER DREISMANN **Heiner Dreismann**	Director	March 31, 2008

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NANOGEN, INC.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders of Nanogen, Inc.

We have audited the accompanying consolidated balance sheets of Nanogen, Inc., as of December 31, 2007 and 2006 (restated), and the related consolidated statements of operations, stockholders equity, and cash flows for each of the years ended December 31, 2007, 2006 (restated) and 2005 (restated). Our audits also included the financial statement schedule listed in the Index at Item 15(a)(2). These financial statements and schedule are the responsibility of the Company s management. Our responsibility is to express an opinion on these financial statements and schedule based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Nanogen, Inc., at December 31, 2007 and 2006 (restated), and the consolidated results of its operations and its cash flows for the years ended December 31, 2007, 2006 (restated) and 2005 (restated), in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic financial statements taken as a whole, presents fairly in all material respects, the information set forth therein.

As disclosed in Note 3 to the consolidated financial statements, Nanogen, Inc. changed its method of accounting for share-based payments in accordance with Statement of Financial Accounting Standards (SFAS) No. 123 (revised 2004) on January 1, 2006.

The accompanying consolidated financial statements have been prepared assuming the Company will continue as a going concern. As discussed in Note 1 to the consolidated financial statements, the Company has recurring operating losses, a working capital deficit and an accumulated deficit of $400.6 million as of December 31, 2007. These factors, among others, as discussed in Note 1 to the consolidated financial statements, raise substantial doubt about the Company s ability to continue as a going concern. Management s plans regarding these matters are also described in Note 1. The consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from the outcome of this uncertainty.

As disclosed in Note 2, the Company has restated previously issued financial statements as of December 31, 2006, and for the years ended December 31, 2006 and 2005.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of Nanogen, Inc. s internal control over financial reporting as of December 31, 2007, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated March 28, 2008 expressed an adverse opinion on effectiveness of internal control over financial reporting.

/s/ Ernst & Young LLP

San Diego, California

March 28, 2008

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NANOGEN, INC.

CONSOLIDATED BALANCE SHEETS

(in thousands, except par value and share data)

	As of December 31, 2007	2006 (Restated)
ASSETS		
Current assets:		
Cash and cash equivalents	$ 5,806	$ 11,261
Short-term investments	1,450	13,923
Receivables, net	14,821	11,568
Inventories, net	2,267	7,691
Other current assets	1,840	2,058
Total current assets	26,184	46,501
Property and equipment, net	6,662	9,388
Acquired technology rights and intangibles, net	14,905	17,894
Restricted cash	9,626	5,131
Other assets, net	2,011	1,312
Goodwill	38,963	39,027
Total assets	$ 98,351	$ 119,253
LIABILITIES AND STOCKHOLDERS EQUITY		
Current liabilities:		
Accounts payable and accrued liabilities	$ 15,600	$ 13,395
Acquisition payable, secured by letter of credit		2,061
Deferred revenue	663	3,376
Conversion feature of convertible debt	664	
Current portion of assigned royalty interests obligation	2,868	3,447
Common stock warrants	1,708	11
Current portion of debt obligations	4,868	3,590
Total current liabilities	26,371	25,880
Debt obligations, less current portion	8,139	535
Debt obligations of variable interest entity		7,781
Sponsored research payable	4,848	4,851
Long-term assigned royalty interests obligation	14,711	15,529
Other long-term liabilities	2,778	2,304
Total long-term liabilities	30,476	31,000
Commitments and contingencies		
Stockholders equity:		
Convertible preferred stock, $0.001 par value, 5,000,000 shares authorized at December 31, 2007 and 2006; no shares issued and outstanding at December 31, 2007 and 2006		
Common stock, $0.001 par value, 135,000,000 shares authorized at December 31, 2007 and 2006; 73,218,128 and 67,468,252 shares issued and outstanding at December 31, 2007 and 2006, respectively	73	68
Additional paid-in capital	440,583	430,110
Accumulated other comprehensive income (loss)	2,237	(361)
Accumulated deficit	(400,618)	(366,673)
Treasury stock, at cost, 416,027 shares at December 31, 2007 and 2006	(771)	(771)

Total stockholders equity	41,504	62,373
Total liabilities and stockholders equity	$ 98,351	$ 119,253

See accompanying notes.

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NANOGEN, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands, except per share data)

	For the Years Ended December 31,		
	2007	2006 (Restated)	2005 (Restated)
Revenues:			
Product sales	$ 22,866	$ 15,996	$ 4,544
License fees and royalty income	6,981	7,908	6,530
Contracts and grants	8,336	2,948	1,470
Total revenues	38,183	26,852	12,544
Costs and expenses:			
Cost of product sales	24,295	13,290	4,518
Research and development	26,463	25,683	22,033
Selling, general and administrative	38,181	33,385	23,578
Amortization of purchased intangible assets	2,991	2,987	1,677
Impairment charge on goodwill			59,000
Charge for acquired in-process research and development			3,491
Impairment of acquired technology rights			167
Total costs and expenses	91,930	75,345	114,464
Loss from operations:	(53,747)	(48,493)	(101,920)
Other income (expense):			
Interest income	965	1,046	1,408
Interest expense	(4,944)	(1,572)	(645)
Other expense	(33)	(717)	(78)
Warrant and conversion right valuation adjustment	11,254	75	1,026
Gain (loss) on foreign currency transactions	(126)	311	17
Gain on deconsolidation of variable interest entity	12,686		
Noncontrolling interests share of losses in variable interest entity		2,618	4,675
Total other income	19,802	1,761	6,403
Loss before extraordinary item	(33,945)	(46,732)	(95,517)
Extraordinary item:			
Charge for excess purchase price in variable interest entity			(9,262)
Net loss	$ (33,945)	$ (46,732)	$ (104,779)
Loss before extraordinary item per share	$ (0.47)	$ (0.74)	$ (1.93)
Extraordinary item per share			(0.19)
Net loss per share basic and diluted	$ (0.47)	$ (0.74)	$ (2.11)
Number of shares used in computing net loss per share basic and diluted	72,312	63,221	49,585

See accompanying notes.

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NANOGEN, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS EQUITY

(in thousands)

	Common Stock		Additional Paid-in Capital	Treasury Stock		Accumulated Other Comprehensive Income (Loss)	Deferred Compensation	Accumulated Deficit	Total Stockholders Equity
	Shares	Amount		Shares	Amount				
Balance at December 31, 2004	47,766	$ 48	$ 374,910	(500)	$ (922)	$ (174)	$ (1,184)	$ (215,162)	$ 157,516
Components of comprehensive loss:									
Net loss (as restated)								(104,779)	(104,779)
Unrealized gain on short-term investments						136			136
Unrealized loss on other investments						(93)			(93)
Cumulative foreign currency translation adjustment						(50)			(50)
Total comprehensive loss (as restated)									(104,786)
Issuance of common stock in a private placement, net of expenses	6,803	7	18,793						18,800
Issuance of common stock for employee stock purchase plan	124		324						324
Issuance of common stock to employees	19		36	(6)	(16)				20
Amortization of stock options related to acquisitions							376		376
Issuance of common stock to Board of Directors	34		125						125
Issuance of common stock in connection with defined contribution plan, net of forfeitures	49		122				(36)		86
Proceeds from the exercise of options	121		239						239
Rescinded warrants	(121)								
Issuance of restricted stock grants to employees			1,761				(1,395)		366
Options issued to consultants			(13)				21		8
Other			139						139
Balance at December 31, 2005 (as restated)	54,795	$ 55	$ 396,436	(506)	$ (938)	$ (181)	$ (2,218)	$ (319,941)	$ 73,213

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NANOGEN, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS EQUITY (Continued)

(in thousands)

	Common Stock		Additional Paid-in Capital	Treasury Stock		Accumulated Other Comprehensive Income (Loss)	Deferred Compensation	Accumulated Deficit	Total Stockholders Equity
	Shares	Amount		Shares	Amount				
Balance at December 31, 2005 (as restated)	54,795	$ 55	$ 396,436	(506)	$ (938)	$ (181)	$ (2,218)	$ (319,941)	$ 73,213
Components of comprehensive loss:									
Net loss (as restated)								(46,732)	(46,732)
Unrealized gain on short-term investments						73			73
Cumulative foreign currency translation adjustment						(253)			(253)
Total comprehensive loss (as restated)									(46,912)
Issuance of common stock in private placements, net of expenses	9,018	9	20,491						20,500
Issuance of common stock related to the conversion of acquisition related debt	2,887	3	6,937						6,940
Issuance of restricted stock	90								
Issuance of common stock for acquisition	975	1	2,905						2,906
Amortization of stock-based compensation			5,486						5,486
Elimination of deferred compensation upon adoption of FAS 123R			(2,218)				2,218		
Issuance of common stock to Board of Directors	65								
Issuance of common stock in connection with defined contribution plan, net of forfeitures	3		1	90	167				168
Proceeds from the exercise of options	51		72						72
Balance at December 31, 2006 (as restated)	67,884	$ 68	$ 430,110	(416)	$ (771)	$ (361)	$	$ (366,673)	$ 62,373

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NANOGEN, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS EQUITY (Continued)

(in thousands)

	Common Stock			Treasury Stock				
	Shares	Amount	Additional Paid-in Capital	Shares	Amount	Accumulated Other Comprehensive Income (Loss)	Accumulated Deficit	Total Stockholders Equity
Balance at December 31, 2006 (as restated)	67,884	$ 68	$ 430,110	(416)	$ (771)	$ (361)	$ (366,673)	$ 62,373
Components of comprehensive loss:								
Net loss							(33,945)	(33,945)
Unrealized gain on short-term investments						127		127
Cumulative foreign currency translation adjustment						2,471		2,471
Total comprehensive loss								(31,347)
Issuance of common stock in private placements, net of expenses	4,917	5	6,383					6,388
Issuance of common stock related to the conversion of debt	76		82					82
Issuance of restricted stock	323							
Issuance of common stock for acquisition								
Amortization of stock-based compensation			3,417					3,417
Issuance of common stock for employee stock purchase plan	166		351					351
Issuance of common stock to Board of Directors	72							
Issuance of common stock in connection with defined contribution plan, net of forfeitures	196		379					379
Proceeds from the exercise of options								
Other			(139)					(139)
Balance at December 31, 2007	73,634	$ 73	$ 440,583	(416)	$ (771)	$ 2,237	$ (400,618)	$ 41,504

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NANOGEN, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)

	For the Years Ended December 31,		
	2007	**2006 (Restated)**	**2005 (Restated)**
Operating activities:			
Net loss	$ (33,945)	$ (46,732)	$ (104,779)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	7,126	6,573	4,979
Goodwill impairment charges			59,000
Non-cash charges related to exit of micro-array business	9,238		
Gain on deconsolidation of variable interest entity	(12,686)		
Other asset impairment and non-cash charges (gains)	848	(230)	52
Loss on disposal of fixed assets	231	597	31
Accretion related to short-term investments	89	100	276
Foreign currency transactions gain		(310)	
Stock-based compensation expense	3,417	5,486	997
Warrant valuation and conversion right adjustment	(11,254)	(75)	(1,026)
Accretion of long-term debt	1,061	280	101
Charge for excess purchase price in VIE			9,262
Noncontrolling interests share of losses in VIE		(2,618)	(4,675)
Charge for acquired in-process research and development relating to VIE			3,491
Increase (decrease) in cash caused by changes in operating assets and liabilities, excluding the effects of acquisitions:			
Receivables, net	(2,250)	(9,197)	(118)
Inventories, net	(1,602)	(1,153)	(2,294)
Other current and long-term assets	484	164	595
Accounts payable and accrued liabilities	4,575	5,831	(620)
Deferred revenue and other long-term liabilities	(587)	2,841	115
Net cash used in operating activities	(35,255)	(38,443)	(34,613)
Investing activities:			
Purchase of short-term investments	(21,642)	(38,137)	(50,088)
Conversion of cash to restricted cash	(5,094)	(3,337)	
Proceeds from sale and maturities of short-term investments	34,150	50,371	60,376
Strategic investments, including investment in variable interest entity			(3,475)
Acquisition of businesses, net of cash acquired	(1,978)	(6,970)	
Purchase of equipment and technology rights	(2,480)	(2,087)	(1,409)
Net cash provided by (used in) investing activities	2,956	(160)	5,404
Financing activities:			
Payments on long term obligations	(698)	(754)	(1,082)
Proceeds from assignment of royalty interests obligation		20,000	
Payments on assigned royalty interests obligation	(2,118)	(1,024)	
Proceeds from debt financing secured by receivables	1,050	2,931	
Proceeds from debt obligations of variable interest entity	1,895	2,178	996
Issuance of common stock, net	7,420	20,578	19,363
Proceeds from long-term obligations	18,777	601	828
Acquisition of treasury stock			(16)
Net cash provided by financing activities	26,326	44,510	20,089

Effect of exchange rate changes on cash	518	(840)	(58)
Net increase (decrease) in cash and cash equivalents	(5,455)	5,067	(9,178)
Cash and cash equivalents at beginning of year	11,261	6,194	15,372
Cash and cash equivalents at end of year	$ 5,806	$ 11,261	$ 6,194
Supplemental disclosure of cash flow information:			
Interest paid	$ 3,452	$ 495	$ 211
Net assets of Spectral acquired for common stock	$	$ 2,906	$
Net assets of Amplimedical acquired for promissory note	$	$ 6,939	$
Net assets of Amplimedical acquired for letter of credit	$	$ 2,061	$
Conversion of debt to equity	$ 82	$	$

See accompanying notes.

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NANOGEN, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2007

1. Organization

Organization and Business Activity

Nanogen, Inc. (the Company) was incorporated in California in November 1991 and, in November 1997, was reincorporated in Delaware. We are in the business of developing, manufacturing, and selling diagnostic products for use in the in vitro diagnostic (IVD) market.

Basis of Consolidation

These consolidated financial statements and the accompanying notes relate to Nanogen, Inc. and its consolidated subsidiaries which include the following:

Nanogen Point-of-Care, Inc.: based in Toronto, Canada, and includes assets purchased from SynX Pharma (SynX) on April 21, 2004, and from Spectral Diagnostics (Spectral) on February 6, 2006.

Epoch Biosciences, Inc. (Epoch): all of the outstanding stock was acquired on December 16, 2004.

Nanogen Advanced Diagnostics, S.r.L. (Amplimedical): formed in 2006 and acquired the assets related to rapid cardiac immunoassay test business of an unaffiliated company on May 1, 2006.

In addition, we have several other legal entities which are included in the consolidation, but collectively they are not material.

Variable Interest Entities

In a series of investments from July 2005 to June 2006, we purchased $3.0 million in equity of Jurilab LTD (Jurilab). Using the methodology prescribed in Financial Accounting Standards Board FASB Interpretation No. 46R, *Consolidation of Variable Interest Entities, an Interpretation of ARB No. 51,* (FIN 46(R)) we determined we were the primary beneficiary and were required to include Jurilab s assets and liabilities in our consolidated financial statements. We included Jurilab s assets and liabilities as of the date of our initial investment on July 20, 2005 and its operating results after this date. In July 2007, a reconsideration event occurred as a result of Jurilab obtaining new equity financing from a third party. We have determined that under FIN 46(R), we no longer qualify as the primary beneficiary as a result of the new equity financing and therefore no longer consolidate Jurilab s assets and liabilities in our financial statements. The results of Jurilab s operations through the date of the reconsideration event are included in our consolidated results of operations.

Basis of Presentation

The Company has incurred net losses of $33.9 million, $46.7 million, and $104.8 million for the years ended December 31, 2007, 2006 and 2005, and has an accumulated deficit of $400.6 million as of December 31, 2007. Based on the Company s operating plan, its existing working capital is not sufficient to meet the cash requirements to fund the Company s planned operating expenses, capital expenditures, and working capital requirements through December 31, 2008 without additional sources of cash and/or the deferral, reduction or elimination of significant planned expenditures.

These factors raise substantial doubt about the Company s ability to continue as a going concern. The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. This basis of accounting contemplates the recovery of the Company s assets and the satisfaction of liabilities in the normal course of business.

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NANOGEN, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2007

The Company s plan to address the expected shortfall of working capital is to generate additional financing through a combination of financing sources (in addition to the monetization of intellectual property disclosed as a subsequent event in Note 18), equity, or debt, and incremental product sales. If the Company is unsuccessful in raising significant additional capital from any of these sources, it will defer, reduce, or eliminate certain planned expenditures. The Company will continue to consider other financing alternatives. There can be no assurance that the Company will be able to obtain any sources of financing on acceptable terms, or at all.

If the Company cannot obtain sufficient additional financing in the short-term, it will be forced to restructure or significantly curtail its operations, file for bankruptcy or cease operations. The consolidated financial statements do not include any adjustments relating to the recoverability and classification of recorded asset amounts or amounts and classification of liabilities that might be necessary should the Company be forced to take any such actions.

The accompanying consolidated financial statements include the accounts of the Company and all of the subsidiaries. Intercompany transactions and balances are eliminated in consolidation.

2. Restatement

Restatement of Prior Periods Presented

We have restated our previously issued consolidated financial statements to reflect certain accounting adjustments. As disclosed in the Current Report on Form 8-K filed March 28, 2008, the staff of the Securities and Exchange Commission (the SEC Staff) reviewed and issued comments pertaining to our Form 10-K for the year ended December 31, 2006 and the Form 10-Q for the three and nine month periods ended September 30, 2007. After reviewing the accounting related to certain comments received pertaining to the Company s accounting for Jurilab, a variable interest entity (VIE), management determined that certain adjustments should have been recorded at the date of initial consolidation of the VIE, July 2005, and during the years ended December 31, 2006 and 2005 and the interim reporting periods in 2007, 2006 and 2005, during which time the VIE was consolidated in our balance sheets and included in our results of operations.

In July 2005, we made an initial $1.6 million equity investment in Jurilab which provided us with an initial ownership percentage of approximately 16.8%. Upon completion of the initial investment, we determined that we were the primary beneficiary under FIN 46(R), and were required to consolidate Jurilab s financial statements. In June 2006, we made a subsequent investment in Jurilab of $1.5 million, which increased our ownership percentage to approximately 29.7%.

At the time of initial investment, we originally consolidated Jurilab s balance sheet based on the carrying value of their assets and liabilities. After receiving the SEC comment letter, we have reviewed our accounting and determined that, in accordance with FIN 46(R), we should have recorded the identifiable assets, liabilities and noncontrolling interests in the VIE at their fair value upon initial consolidation. We have performed an assessment of the fair value of the identifiable assets, liabilities and noncontrolling interests and as a result, we have adjusted the initial carrying value of the VIE s assets, liabilities and the noncontrolling interests to reflect their estimated fair value. The most significant changes to the balance sheet accounts related to: the establishment of noncontrolling interests in Jurilab of $7.6 million representing the fair value of the other investors interest Jurilab as of the date of our investment, and the reduction of the carrying value of the debt from $7.0 million to $5.2 million as a result of the assessment of the underlying structure of the debt compared to available market terms primarily relating to its interest rates. In addition, we recorded two charges upon the initial consolidation. The first charge relates to the excess of the value paid compared to the fair value of identified assets, liabilities and noncontrolling interest. As of the initial consolidation date, we determined that

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NANOGEN, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2007

this amounted to $9.3 million. Under FIN 46(R), this excess is recorded as either goodwill or an extraordinary charge, based on the status of the VIE. As Jurilab was a development stage company and did not meet the definition of a business as defined by FIN 46 (R) as of the date of initial consolidation, the company was required to record the excess as an extraordinary charge. The second charge relates to the identification of research projects that were in process as of the date of initial consolidation and resulted in us recording a charge for in-process research and development of $3.5 million.

As a result of the changes made to correct the accounting for the initial consolidation of the VIE, we have restated subsequent periods reported in our results of operations. As the fair value of the debt was determined to be less than the carrying value as of the date of initial consolidation, that discount was required to be accreted to the debt over the estimated term of the debt. As a result, the Company has recorded additional interest expense of $169,000, $280,000 and $101,000 for the years ended December 31, 2007, 2006 and 2005. In addition, as noncontrolling interest was established as of the date of initial consolidation, we are required to allocate to the noncontrolling interests their prorata share of the losses of the VIE until such time that the balance of the noncontrolling interests reach zero, and thereafter we absorbed all of the losses of the VIE. We have recorded a reduction to our consolidated net loss of $2.6 million and $4.7 million in 2006 and 2005 to reflect the allocation of losses to the noncontrolling interests. Based on the allocations of losses to the noncontrolling interests through the third quarter of 2006, the balance of noncontrolling interests was reduced to zero and subsequent losses were no longer allocated to the noncontrolling interests.

In July 2007, an additional equity investment by a new investor resulted in our reconsideration of our position as primary beneficiary. At the time of this reconsideration event, we determined that we were no longer the primary beneficiary, and we deconsolidated Jurilab in July 2007. As a result of the deconsolidation, we removed the Jurilab balances from our books and recorded a gain for the excess of the liabilities removed over the assets removed of $12.7 million.

The purchase consideration paid by us in July 2005 to obtain the 16.8% ownership was used as the primary determinate to assess the overall fair value of Jurilab and the basis of the noncontrolling interests.

Based on the result of our assessment of fair values of Jurilab s assets, liabilities and noncontrolling interests, the following is the allocation of fair value at the time of initial investment (in thousands):

Cash	$ 1,525
Restricted cash	486
Other assets	722
Completed technology	106
In-process research and development	3,491
Extraordinary charge for excess purchase price	9,262
Debt obligations	(5,223)
Other liabilities	(1,153)
Net assets	$ 9,216

The allocation of the fair value between the Company and the noncontrolling interest is summarized as follows (in thousands):

Our basis in fair value	$ 1,664
Noncontrolling interests basis in fair value	$ 7,552

Total fair value	$ 9,216

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NANOGEN, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2007

Reconciliation of Original Financial Statements to Restated Financial Statements.

The following tables reconcile the consolidated financial statements originally reported by the Company to the restated financials:

Impact of the changes related to accounting for VIE Adjustments on the Consolidated Financial Statements

The following table presents the impact of the changes in accounting for VIE related adjustments on our previously-reported consolidated statements of operations for the years ended December 31, 2006 and 2005:

RECONCILIATION OF CONSOLIDATED STATEMENTS OF OPERATIONS FOR 2006 AND 2005

(In thousands, except per share data)

	Year Ended December 31, 2006			Year Ended December 31, 2005		
	As Reported	Adjustments[(a)]	As Restated	As Reported	Adjustments[(a)]	As Restated
Consolidated Statements of Operations						
Revenues:						
Product Sales	$ 15,996	$	$ 15,996	$ 4,544	$	$ 4,544
License fees and royalty income	7,908		7,908	6,530		6,530
Contracts and grants	2,948		2,948	1,470		1,470
Total revenues	26,852		26,852	12,544		12,544
Costs and expenses:						
Cost of product sales	13,290		13,290	4,518		4,518
Research and development	25,683		25,683	22,033		22,033
Selling, general and administrative	33,385		33,385	23,578		23,578
Amortization of purchased intangible assets	2,987		2,987	1,571	106	1,677
Impairment charge on goodwill				59,000		59,000
Charge for acquired in-process research and development					3,491	3,491
Impairment of acquired technology rights				167		167
Total costs and expenses	75,345		75,345	110,867	3,597	114,464
Loss from operations	(48,493)		(48,493)	(98,323)	(3,597)	(101,920)
Other income (expense)						
Interest income	1,046		1,046	1,408		1,408
Interest expense	(1,292)	(280)	(1,572)	(544)	(101)	(645)
Other expense	(717)		(717)	(78)		(78)
Warrant valuation adjustment	75		75	1,026		1,026
Gain of foreign currency transactions	311		311	17		17
Noncontrolling interests share of losses in VIE		2,618	2,618		4,675	4,675
Total other income (expense)	(577)	2,338	1,761	1,829	4,574	6,403

Loss before extraordinary item	$ (49,070)	$ 2,338	$ (46,732)	$ (96,494)	$ 977	$ (95,517)
Extraordinary item:						
Charge for excess purchase price in VIE					(9,262)	(9,262)
Net loss	$ (49,070)	$ 2,338	$ (46,732)	$ (96,494)	$ (8,285)	$ (104,779)
Loss before extraordinary item per share-basic and diluted	$ (0.78)	$ 0.04	$ (0.74)	$ (1.95)	$ 0.02	$ (1.93)
Extraordinary item per share					(0.19)	(0.19)
Net loss per share-basic and diluted	$ (0.78)	$ 0.04	$ (0.74)	$ (1.95)	$ (0.17)	$ (2.11)
Weighted average shares-basic and diluted	63,221		63,221	49,585		49,585

(a) Adjustments to reflect accretion of debt in VIE to fair value, and to allocate the pro rata share of losses to the non-controlling interests, and to record a charge for acquired in-process research and development and extraordinary loss upon our initial investment in the VIE.

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NANOGEN, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2007

The following table presents the impact of the additional VIE related adjustments on our previously-reported consolidated balance sheets as of December 31, 2006 and 2005:

RECONCILIATION OF CONSOLIDATED BALANCE SHEETS FOR 2006 AND 2005

(In thousands)

	December 31, 2006			December 31, 2005		
	As Reported	Adjustments[(a)]	As Restated	As Reported	Adjustments[(a)]	As Restated
Assets						
Current assets:						
Cash and cash equivalents	$ 11,261	$	$ 11,261	$ 6,194	$	$ 6,194
Short-term investments	13,923		13,923	26,185		26,185
Receivables, net	11,568		11,568	2,141		2,141
Inventories, net	7,691		7,691	3,724		3,724
Other current assets	2,058		2,058	1,457		1,457
Total current assets	46,501		46,501	39,701		39,701
Property and equipment, net	9,388		9,388	7,590		7,590
Acquired technology rights and intangibles, net	17,894		17,894	9,604		9,604
Restricted cash	5,131		5,131	1,794		1,794
Other assets, net	1,312		1,312	2,214		2,214
Goodwill	39,027		39,027	37,178		37,178
Total assets	$ 119,253	$	$ 119,253	$ 98,081	$	$ 98,081
Liabilities and Stockholders Equity						
Current liabilities:						
Accounts payable and accrued liabilities	$ 13,395	$	$ 13,395	$ 7,728	$	$ 7,728
Acquisition payable, secured by letter of credit	2,061		2,061			
Deferred revenue	3,376		3,376	535		535
Current portion of assigned royalty interests obligation	3,447		3,447			
Common stock warrants	11		11	86		86
Current portion of debt obligations Deferred revenue	3,590		3,590	701		701
Total current liabilities	25,880		25,880	9,050		9,050
Debt obligation less current portion	535		535	643		643
Debt obligation of variable interest entity	9,941	(2,160)	7,781	7,245	(1,637)	5,608
Sponsored research payable	4,851		4,851			
Long term assigned royalty interest obligation	15,529		15,529			
Other long-term liabilities	2,304		2,304	6,648		6,648
Noncontrolling interests share of losses in VIE					2,919	2,919
Stockholders equity:						
Convertible preferred stock						

Common stock	68		68	55		55
Additional paid-in capital	429,971	139	430,110	396,297	139	396,436
Accumulated other comprehensive loss	(956)	595	(361)	(189)	8	(181)
Deferred Compensation				(2,218)		(2,218)
Capital deficit in VIE, net	(7,373)	7,373		(6,856)	6,856	
Accumulated deficit	(360,726)	(5,947)	(366,673)	(311,656)	(8,285)	(319,941)
Treasury stock	(771)		(771)	(938)		(938)
Total stockholders equity	60,213	2,160	62,373	74,495	(1,282)	73,213
Total liabilities and stockholders equity	$ 119,253	$	$ 119,253	$ 98,081	$	$ 98,081

(a) Adjustments to reflect recording of VIE s assets, liabilities and noncontrolling interests.

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NANOGEN, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2007

The unaudited quarterly information set forth below has been restated from previously-reported information filed on Form 10-Q and Form 10-K for all quarters beginning with the quarter ended September 30, 2005 (the period of initial consolidation of Jurilab) through the quarter ended September 30, 2007 (the period of deconsolidation):

UNAUDITED CONSOLIDATED STATEMENTS OF OPERATIONS FOR INTERIM PERIODS OF 2007 AND 2006

	Three Months Ended			Three Months Ended			
	March 31, 2007 (Restated)	June 30, 2007 (Restated)	September 30, 2007 (Restated)	March 31, 2006 (Restated)	June 30, 2006 (Restated)	September 30, 2006 (Restated)	December 31, 2006 (Restated)
	(In thousands, except per share data)			(In thousands, except per share data)			
Consolidated Statements of Operations							
Revenues:							
Product Sales	$ 6,084	$ 5,294	$ 5,549	$ 2,122	$ 4,016	$ 4,727	$ 5,131
License fees and royalties	1,241	2,058	1,833	1,814	1,814	1,866	2,414
Contracts and grants	2,328	2,963	986	416	481	912	1,139
Total Revenues	9,653	10,315	8,368	4,352	6,311	7,505	8,684
Costs and expenses:							
Cost of product sales	4,830	4,529	8,705	2,239	4,023	3,509	3,519
Research and development	6,512	7,546	7,540	6,260	6,552	6,242	6,629
Selling, general and administrative	8,853	11,233	9,167	7,369	8,928	8,441	8,647
Amortization of purchased intangible assets	767	760	733	560	730	869	828
Total costs and expenses	20,962	24,068	26,145	16,428	20,233	19,061	19,623
Loss from operations	(11,309)	(13,753)	(17,777)	(12,076)	(13,922)	(11,556)	(10,939)
Other income (expense):							
Interest income	538	31	188	351	219	141	335
Interest expense	(1,143)	(856)	(1,439)	(238)	(191)	(180)	(963)
Other expense	(28)	(25)	27	(97)	(300)	(243)	(77)
Warrant valuation adjustment	10		5,426	(25)	88	10	2
Gain (Loss) on foreign currency transactions	2	(16)	(12)	(3)	(15)	(25)	354
Gain on deconsolidation of VIE			12,686				
Noncontrolling interests share of losses in VIE				948	1,187	482	
Total other income (expense)	(621)	(866)	16,876	936	988	185	(349)
Loss before extraordinary item	(11,930)	(14,619)	(901)	(11,140)	(12,934)	(11,371)	(11,288)
Extraordinary item:							
Charge for excess purchase price in VIE							
Net loss	$ (11,930)	$ (14,619)	$ (901)	$ (11,140)	$ (12,934)	$ (11,371)	$ (11,288)
Loss before extraordinary item per share	$ (0.17)	$ (0.20)	$ (0.01)	$ (0.20)	$ (0.21)	$ (0.17)	$ (0.17)
Extraordinary item per share	$	$	$	$	$	$	$
Net loss per share basic and diluted	$ (0.17)	$ (0.20)	$ (0.01)	$ (0.20)	$ (0.21)	$ (0.17)	$ (0.17)
Weighted average shares basic and diluted	70,496	72,616	72,966	56,340	61,477	66,839	67,968

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NANOGEN, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2007

UNAUDITED CONSOLIDATED STATEMENTS OF OPERATIONS FOR INTERIM PERIODS OF 2005

	Three months ended	
	September 30, 2005 (Restated)	December 31, 2005 (Restated)
	(In thousands, except per share data)	
Consolidated Statements of Operations		
Revenues:		
Product Sales	$ 1,060	$ 1,196
License fees and royalties	1,748	1,459
Contracts and grants	363	407
Total Revenues	3,171	3,062
Costs and expenses:		
Cost of product sales	799	1,445
Research and development	5,701	6,260
Selling, general and administrative	5,326	5,875
Amortization of purchased intangible assets	499	393
Impairment charge on goodwill		59,000
Charge for acquired in-process research and development	3,491	
Impairment charge on acquired technology		167
Total costs and expenses	15,816	73,140
Loss from operations	(12,645)	(70,078)
Other income (expense):		
Interest income	110	810
Interest expense	(46)	(599)
Other expense	(8)	40
Warrant valuation adjustment	109	80
Gain (Loss) on foreign currency transactions	(1)	14
Noncontrolling interests share of losses in VIE	3,615	1,060
Total other income (expense)	3,779	1,405
Loss before extraordinary item	(8,866)	(68,673)
Extraordinary item:		
Charge for excess purchase price in VIE	(9,262)	
Net loss	$ (18,128)	$ (68,673)
Loss before extraordinary item per share	$ (0.18)	$ (1.26)
Extraordinary item per share	$ (0.19)	$
Net loss per share basic and diluted	$ (0.38)	$ (1.26)

Weighted average shares basic and diluted	48,018	54,689

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NANOGEN, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2007

The quarterly consolidated balance sheets set forth below have been restated from previously-reported information filed in our quarterly and annual reports on Forms 10-Q and Form 10-K for restated quarters beginning with the quarter ending September 30, 2005 (the period of initial consolidation of Jurilab) through the quarter ending September 30, 2007 (period of deconsolidation):

UNAUDITED CONSOLIDATED BALANCE SHEETS FOR INTERIM PERIODS OF 2007 AND 2006

(In thousands)

	March 31, 2007 (Restated)	June 30, 2007 (Restated)	September 30, 2007 (Restated)	March 31, 2006 (Restated)	June 30, 2006 (Restated)	September 30, 2006 (Restated)
Assets						
Current assets:						
Cash and cash equivalents	$ 8,811	$ 7,285	$ 8,236	$ 12,322	$ 7,893	$ 26,761
Short-term investments	12,443	6,084	7,061	20,096	10,725	6,025
Receivables, net	14,649	15,537	15,053	2,729	4,828	7,779
Inventories, net	7,462	7,470	3,487	5,059	6,935	7,366
Other current assets	2,299	3,020	4,412	1,875	2,051	2,122
Total current assets	45,664	39,396	38,249	42,081	32,432	50,053
Property and equipment, net	9,307	8,522	6,386	8,080	9,790	9,424
Acquired technology rights, net	16,999	16,091	14,956	14,243	19,307	18,750
Restricted cash	2,028	2,013	8,931	1,561	4,140	4,341
Other assets, net	1,246	967	2,503	1,922	2,115	1,533
Goodwill	38,853	38,853	38,853	38,407	39,078	39,727
Total assets	$ 114,097	$ 105,842	$ 109,878	$ 106,294	$ 106,862	$ 123,828
Liabilities and Stockholders Equity						
Current liabilities:						
Accounts payable and accrued liabilities	$ 12,968	$ 15,963	$ 17,435	$ 7,810	$ 10,489	$ 11,388
Acquisition payable					2,570	2,570
Deferred revenue	3,267	2,923	1,345	594	676	775
Conversion feature of convertible debt			3,351			
Current portion of assigned royalty interests	2,268	2,780	2,662			2,930
Common stock warrants	1	1	4,838	111	22	13
Current portion of debt obligations	3,851	4,288	4,601	642	645	687
Total current liabilities	22,355	25,955	34,232	9,157	14,402	18,363
Debt obligations, less current portion	453	405	7,571	557	460	619
Debt obligation of VIE	8,548	9,790		6,311	6,732	7,825
Sponsored research payable	4,851	4,851	4,848	4,853	4,852	4,852
Long term assigned royalty interest obligation	17,011	16,257	15,508			17,070
Other long-term liabilities	2,262	2,654	960	2,080	2,814	2,407
Noncontrolling interests share of losses in VIE				1,891	515	
Stockholders equity:						
Common stock	73	73	73	61	65	67
Additional paid-in capital	438,306	439,892	440,372	413,629	422,166	428,899
Accumulated other comprehensive loss	(388)	(43)	1,209	(177)	(157)	(64)
Deferred compensation				(49)	(35)	(54)

Accumulated deficit	(378,603)	(393,221)	(394,124)	(331,081)	(344,014)	(355,385)
Treasury Stock	(771)	(771)	(771)	(938)	(938)	(771)
Total stockholders equity	58,617	45,930	46,759	81,445	77,087	72,692
Total liabilities and stockholders equity	$ 114,097	$ 105,842	$ 109,878	$ 106,294	$ 106,862	$ 123,828

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NANOGEN, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2007

UNAUDITED CONSOLIDATED BALANCE SHEET AS OF SEPTEMBER 30, 2005

(In thousands)

	September 30, 2005 (Restated)
Assets	
Current assets:	
Cash and cash equivalents	$ 27,670
Short-term investments	12,989
Receivables, net	2,416
Inventories, net	3,372
Other current assets	1,850
Total current assets	48,297
Property and equipment, net	8,037
Acquired technology rights, net	10,043
Restricted cash	1,897
Other assets, net	1,928
Goodwill	96,178
Total assets	$ 166,380
Liabilities and Stockholders Equity	
Current liabilities:	
Accounts payable and accrued liabilities	$ 7,274
Deferred revenue	539
Common stock warrants	166
Current portion of debt obligations	727
Total current liabilities	8,706
Debt obligations, less current portion	774
Debt obligation of VIE	5,270
Sponsored research payable	4,855
Other long-term liabilities	1,391
Noncontrolling interests share of losses in VIE	3,937
Stockholders equity:	
Common stock	55
Additional paid-in capital	396,156
Accumulated other comprehensive loss	(84)
Deferred compensation	(2,490)
Accumulated deficit	(251,268)
Treasury Stock	(922)
Total stockholders equity	141,447

Total liabilities and stockholders equity	$	166,380

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NANOGEN, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

December 31, 2007

The following tables present the impact of the changes in accounting to VIE related adjustments on our previously-reported consolidated statements of operations for all quarters beginning with the quarter ending September 30, 2005 (the period of initial consolidation of Jurilab) through the quarter ending September 30, 2007 (period of deconsolidation):

UNAUDITED RECONCILIATION OF CONSOLIDATED STATEMENTS OF OPERATIONS FOR INTERIM PERIODS OF 2007

(In thousands, except per share data)

	Three Months Ended								
	March 31, 2007			June 30, 2007			September 30, 2007		
	As Reported	Adjustments	As Restated	As Reported	Adjustments	As Restated	As Reported	Adjustments	As Restated
Consolidated Statements of Operations									
Revenues:									
Product Sales	$ 6,084	$	$ 6,084	$ 5,294	$	$ 5,294	$ 5,549	$	$ 5,549
License fees and royalty income	1,241		1,241	2,058		2,058	1,833		1,833
Contracts and grants	2,328		2,328	2,963		2,963	986		986
Total Revenues	9,653		9,653	10,315		10,315	8,368		8,368
Costs and expenses:									
Cost of product sales	4,830		4,830	4,529		4,529	8,705		8,705
Research and development	6,512		6,512	7,546		7,546	7,238	302	7,540
Selling, general and administrative	8,853		8,853	11,233		11,233	9,167		9,167
Amortization of purchased intangible assets	767		767	760		760	733		733
Total costs and expenses	20,962		20,962	24,068		24,068	25,843	302	26,145
Loss from operations	(11,309)		(11,309)	(13,753)		(13,753)	(17,475)	(302)	(17,777)
Other income (expense):									
Interest income	538		538	31		31	188		188
Interest expense	(1,062)	(81)	(1,143)	(768)	(88)	(856)	(1,439)		(1,439)
Other expense	(28)		(28)	(25)		(25)	27		27
Warrant valuation adjustment	10		10				5,426		5,426
Gain (Loss) on foreign currency transactions	2		2	(16)		(16)	(12)		(12)
Gain on deconsolidation of VIE							5,831	6,855	12,686
Total other income (expense)	(540)	(81)	(621)	(778)	(88)	(866)	10,021	6,855	16,876
Net loss	$ (11,849)	$ (81)	$ (11,930)	$ (14,531)	$ (88)	$ (14,619)	$ (7,454)	$ 6,553	$ (901)