

Nanogen

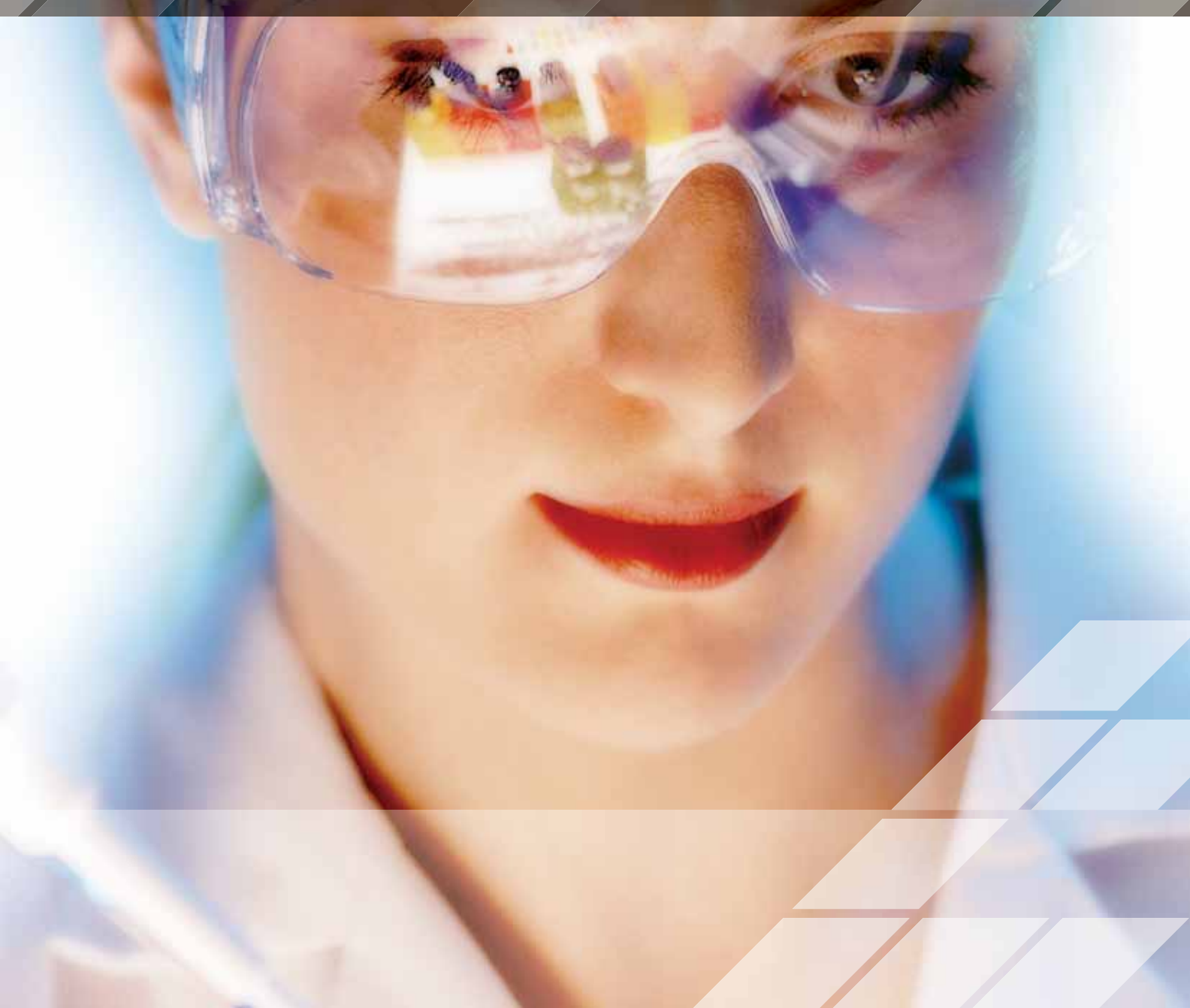
Building Real Value for Patients and Investors

annual report 2007



Better diagnostics
Point-of-care products Cost reductions

Real-time molecular products
Integrations



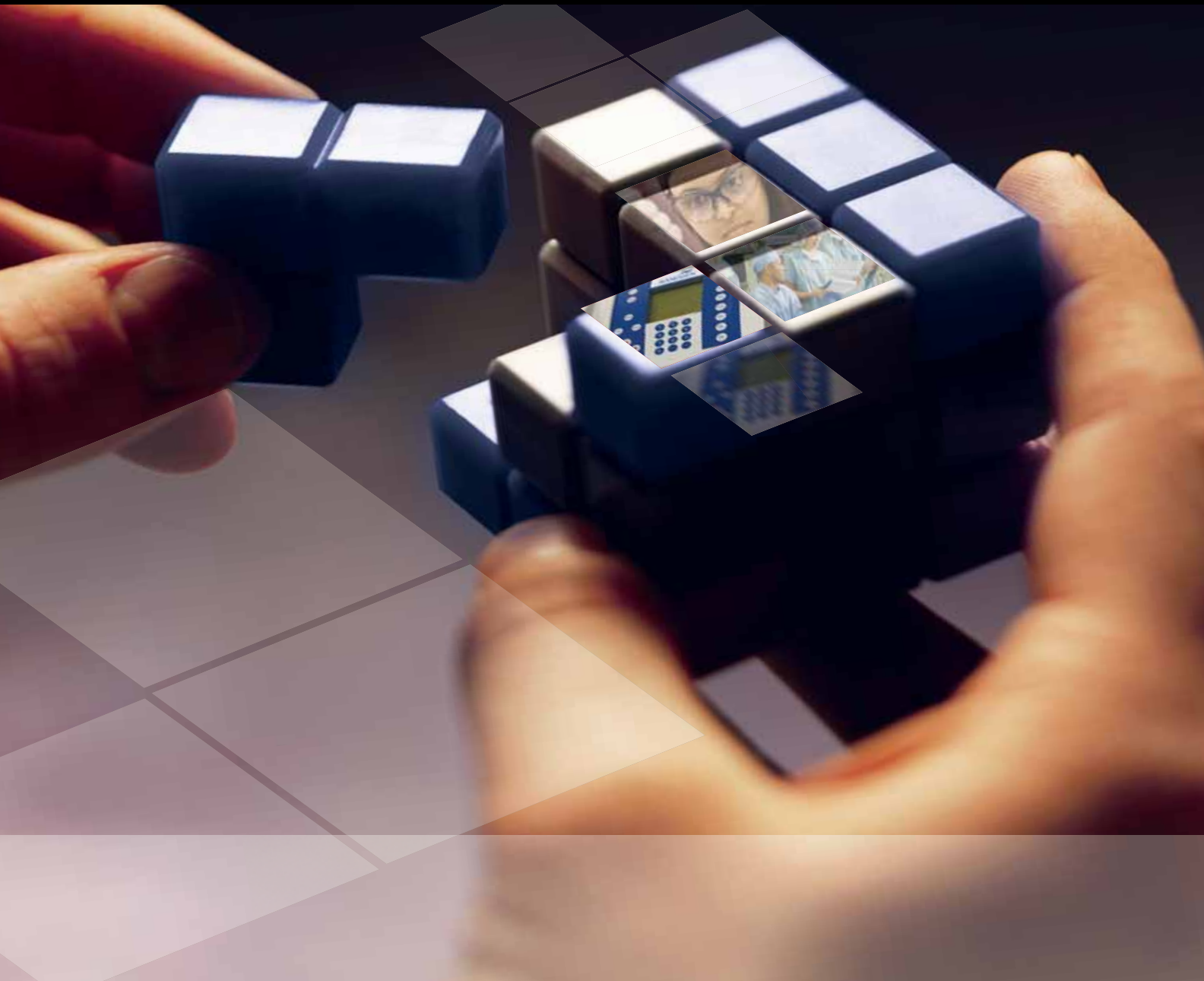
Building Real Value for Patients and Investors

Nanogen's point-of-care and real-time molecular products have been the company's largest sources of revenue over the past two years. They deliver real clinical value by helping physicians diagnose and monitor patient health. Importantly, these products serve the two fastest growing segments of the global *in vitro* diagnostics (IVD) market, offering tremendous growth potential while having the capability to deliver strong margins that will fuel the company's drive toward profitability.

Consolidation EBITDA growth Revenue growth Improved Patient_{care}

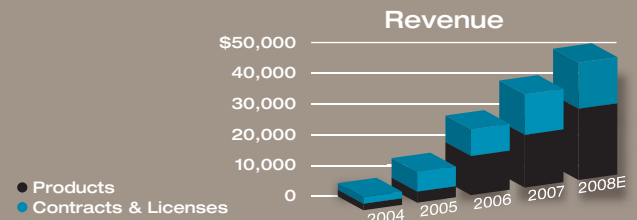
New technologies

Partnerships Better tests



DEAR STOCKHOLDERS:

We generated \$38.2 million in revenues in 2007, led by sales of our real-time molecular testing products.



In 2007, product revenues increased 42% over 2006 and were fueled mostly from our real-time molecular testing products. By focusing on cost improvement measures to gain strong product margins and adding new product launches in the coming year, we anticipate continued year-over-year revenue growth and expect to be EBITDA positive by the end of 2008.

We built significant momentum in our real-time business this year through the introduction of 11 new real-time PCR tests for infectious disease. This business area is growing at more than 15% per year and represents our largest source of revenue. In 2008, we intend to add seven new tests to our product menu and are looking forward to further expanding our share of both the U.S. laboratory market and the lucrative European market with new distribution partnerships.

Our rapid point-of-care business also made advances with the expansion of our menu of tests for urgent health-care applications. In July 2007, we

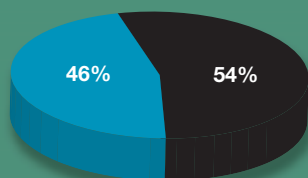
launched the plasma version of our NT-proBNP test for congestive heart failure and in August we made our first drugs of abuse (DOA) rapid test product available. We plan to begin marketing the NT-proBNP test for use with whole blood in Europe in the middle of 2008, followed later in the year by our U.S. launch of the product, once we have received FDA clearance. To date, our *StatusFirst*[®]CHF test is the only rapid test for NT-proBNP to receive FDA clearance.

Together with our partner HX Diagnostics, we made progress in the development of a rapid pandemic influenza assay. The product is based on a new and highly sensitive point-of-care platform for immunoassay testing that significantly lowers detection limits and improves precision for these fast and easy-to-use tests. In 2007, we completed development of a prototype of the device and shipped it to the CDC for their evaluation. We expect to receive funding from the CDC, or from HX Diagnostics, to move this product into clinical studies in 2008.

Restructuring Yields a Stronger Company

During the year, we made some difficult business decisions that have strengthened our financial profile. The most significant of these was our decision to close our NanoChip[®] electronic microarray business. As the founding technology for the company, this was a tough decision to make, but it was a necessary action in order to improve the financial performance and ensure the growth of the company. While we possessed an industry-leading technology, multiplex molecular testing is a nascent market whose growth has been hampered by the slow change in clinical and regulatory practices. These market conditions limited our ability to generate significant NanoChip revenues and would have required continued significant development and marketing costs. In contrast, our rapid point-of-care and real-time molecular products are state-of-the-art, well-accepted solutions with current customer demand, and provide strong margins and much higher growth potential.

2007 Revenue Distribution



● US
● EU/Other Int'l

Our StatusFirst® CHF test measures circulating levels of NT-proBNP, a biomarker for heart disease, and provides a quantitative assessment of the biomarker's concentration in as little as 15 minutes using a small, low cost reader.



Point-of-care rapid testing for cardiovascular disease is expected to grow over 20% in 2008.



We realized that we could not continue our microarray business and still achieve our financial objectives. By choosing to retain the two fastest growing portions of our revenue base and shedding the most costly portion, we are saving \$15 million per year in costs.

Financial Update We generated \$38.2 million in revenues in 2007, led by sales of our real-time molecular products. Our contract and royalty revenues were \$15.0 million for the year, and included \$5.4 million from the CDC contract to develop the rapid pandemic avian flu diagnostic. In addition, we received \$7.0 million in royalty revenue for a variety of proprietary technologies, but primarily for the minor groove binder (MGB) technology that gives our real-time products their competitive edge. We expect total revenues to grow approximately 25% during 2008, and gross margins to be around 60%. We anticipate that our contract and royalty revenues will increase, but that the majority of our growth in 2008 will come from our product revenues.

Our \$9.9 million of exit costs in closing our array business in 2007 were more than offset by a \$12.7 million gain recorded as a result of deconsolidating Jurilab. By eliminating Jurilab from our consolidated financial results, we improved our reported quarterly expenses by approximately \$1.2 million and removed \$10 million of reported debt from our balance sheet. In our continued effort to aggressively manage our expenses, in 2007 we completed the consolidation of our Toronto operations into one facility, saving another \$1 million per year from our operational costs going forward.

Relationships Fuel Corporate

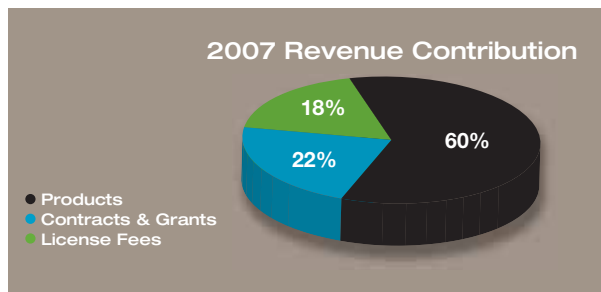
Growth Our customers can be found in hospitals, emergency rooms (ER), and in clinical and molecular diagnostic laboratories around the world. While they are our customers, we also view them as partners in our quest to develop better diagnostics that deliver real clinical value. We are constantly listening to them to gain important feedback on the tests we are developing and what we can do to improve our products.

Despite being spread across a variety of settings and time zones, their demands are the same – they want sensitive, highly specific assays that deliver fast results. In the ERs and urgent care settings where our rapid point-of-care products are most needed, our tests must also be easy to use and easy to interpret. Our strong revenue growth generated by our real-time molecular and point-of-care product lines is a direct result of listening to our customers and developing products that meet and often exceed their needs.

To reach our customers more effectively, we continue to partner with leading life science companies that provide us with broader access to the market through a large and knowledgeable sales force. Fisher Healthcare continues to be our exclusive distributor of real-time PCR products in the United States for the clinical market and has been instrumental in supporting the revenue growth of this product line. Fisher Healthcare's extensive reach into U.S. hospitals and molecular diagnostic laboratories provides our customers with convenient access to our growing portfolio of real-time PCR products for diagnosing infectious disease.



We now offer more than 35 real-time PCR products. All incorporate our MGB technology that provides greater specificity and sensitivity than competing technologies.



In March 2008, we expanded our relationship with Fisher Healthcare's parent company, ThermoFisher, through a licensing and distribution agreement. ThermoFisher will use our real-time PCR technology to market RNA gene expression assays for the research market. While each licensing and partnering deal provides a larger foundation for future revenues, we also view them as validation of the value of our underlying intellectual property and technology base.

Nanogen is well recognized in Europe as one of the leading real-time PCR suppliers. Our current European revenue base is the result of winning large government tenders, or contracts, that provide a predictable and growing source of revenue. To further increase our penetration into this market beyond our Italian base, in 2008 we will aggressively implement a multiple distribution model to sell our real-time PCR kits in the pan-European market.

Real-Time Molecular Products

Build Momentum The success of our real-time molecular products fueled the lion's share of our organic

growth in 2007 and has enabled us to expand our presence and reputation in the diagnostics market. Continued growth in this product group will be a significant factor as we improve our business performance. Each of our real-time PCR products is designed to detect the presence of a unique sequence of DNA; e.g. a gene sequence associated with a genetic disorder or a pathogen known to cause infectious disease, such as Epstein-Barr virus (mononucleosis), Varicella zoster virus (chicken pox and shingles) and *Bordetella pertussis* (whooping cough). In 2007, we introduced 11 new real-time PCR products. All incorporate our proprietary MGB technology, which has become recognized in the industry for its ability to provide greater specificity and sensitivity than traditional PCR technologies.

Nanogen holds more than 40 patents in the field of DNA/RNA detection and views molecular biology chemistry and technology as a core competency and key driver of our future product strategies. In 2008, we will continue to expand our product offering and expect to pursue FDA clearance

for some of our products for the U.S. market. We believe we have the opportunity to gain first mover advantage in achieving FDA clearance for many of the products in our portfolio and, in doing so, differentiate ourselves from other manufacturers and provide real benefit to the clinical laboratory market.

Developing Our Point-of-Care Business

Our rapid point-of-care diagnostics are designed to meet the demands of an urgent care environment. Cardiac conditions continue to be the number one cause of death in both men and women, and one of the largest contributing factors to congestion in the ER. Hospitals are increasingly scrutinizing length of stay and patient processing times for ER patients with complaints of chest pain or shortness of breath. Using a rapid 15-minute blood test like ours to diagnose cardiac conditions can significantly improve patient care and reduce ER congestion. The worldwide market for diagnostic testing of cardiac conditions is nearly \$1 billion and growing at >20% annually due to an aging population and the preponderance of obesity and diabetes.



Our rapid pandemic influenza assay is a third generation high-sensitivity lateral flow test designed to be accurate, highly portable and simple to use, but with a cost in-line with current influenza point-of-care tests.



Increasingly, there is clinical evidence that the use of multiple biomarkers, such as NT-proBNP and Troponin, provide better diagnostic value. Since our intellectual property includes patents on the use of multiple cardiac markers, we believe our investment of the past few years to acquire and develop this portfolio of products will have a significant impact on our growth and strengthen our position in the IVD market. We are committed to bringing better diagnostic products to the ER to improve patient care and add value to the healthcare market.

Expanding our rapid point-of-care portfolio beyond cardiac markers is an important part of our development plan. This past year, we completed two of the five milestones under a CDC contract to develop a new product for the rapid detection of influenza with our partner HX Diagnostics. We delivered a prototype to the CDC in December 2007 and we are proud of the fact that, of the four companies awarded these grants, we are the first to reach the prototype milestone.

The product is a third generation high-sensitivity lateral flow test designed to be accurate, highly portable and simple to use, but with a cost in-line with current influenza point-of-care tests. We have fused our experience in cardiac immunoassay products and rapid testing formats with innovations from our molecular programs to develop this next generation

platform. The product could be used for seasonal flu testing, as well as an “early warning system” for the detection of pandemic flu, with a test format that is designed to be readily adapted to detect new strains of the influenza virus as they emerge. We are very encouraged by the longer-term prospects of this technology platform and its application in other rapid testing markets, including cardiac disease and other infectious diseases.

Rich History of Innovation Our restructuring of the business clearly has not changed our focus on enabling better patient care through innovation. We have a rich intellectual property and technology base across all our products that will continue to create value for our customers and stockholders. In fact, a significant portion of our non-product revenue is derived from the licensing of our MGB technology, the same technology we use to differentiate our real-time molecular products from the competition.

Invention for its own sake or for building an IP war chest, however, is not our aim. Meaningful innovation in the context of enabling better patient care with products that help physicians obtain time critical diagnoses is.

In 2007 we grew the top line by 42% over the prior year; a doubling of the industry growth rate for the markets we serve. We recognized, however,

that growth of the top line was only part of what we needed to manage. During the year we took a hard look at our business and made some difficult decisions about our future product strategy and took steps that would lead us to improved overall financial performance so that we can build real value for our stockholders.

As 2008 progresses, we will be attentive to our top line growth while showing consistent improvement in EBITDA. Our goal is to be cash flow positive in the fourth quarter of 2008. We have challenged our employees to create a company brand that is known for better diagnostic products and that is recognized by our customers for quality and value. We value you, our stockholders, and appreciate your support of Nanogen.

Sincerely,

David Ludvigson
President and Chief Operating Officer

Howard Birndorf
Chairman of the Board and
Chief Executive Officer

March 31, 2008

CORPORATE INFORMATION

Management Team

Howard C. Birndorf
Chairman of the Board and
Chief Executive Officer

David G. Ludvigson
President and Chief Operating Officer

Nicholas J. Venuto, CPA
Chief Financial Officer

Graham Lidgard, Ph.D.
Senior Vice President, Research and Development

William L. Respass, Ph.D., J.D.
Senior Vice President, General Counsel and Secretary

Board of Directors

Howard C. Birndorf
Chairman and Chief Executive Officer
Nanogen, Inc.

Stelios B. Papadopoulos
Former Chairman and Chief Executive Officer
CN Biosciences, Inc.

David R. Schreiber
Chief Executive Officer
Atherotech, Inc.

Robert E. Whalen
Former Chairman, Chief Executive Officer and Director
Unilab

Heiner Dreismann, Ph.D.
Chief Executive Officer
Vectrant, Inc.

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SEC Form 10-K

A copy of the company's annual report to the Securities and Exchange Commission on Form 10-K is available, without charge, upon written request to:

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Annual Meeting

The annual meeting of stockholders of Nanogen, Inc. will be held at 10:00 a.m. on Wednesday, June 25, 2008 at Nanogen headquarters in San Diego, California. All stockholders are cordially invited to attend.

NanoChip and Cardiac STATus are registered trademarks of Nanogen, Inc. StatusFirst is a registered trademark of Princeton BioMeditech Corporation.

This Annual Report contains forward-looking statements that involve a number of risks and uncertainties. Forward looking statements can be identified by the use of the words "believes," "expects," "hopes," "may," "will," "plan," "intends," "estimates," "could," "should," "would," "continue," "seeks," or "anticipates," or other similar words (including their use in the negative), or by discussions of future matters such as the development of new products, commercial acceptance of products, the development of the market for advanced diagnostic products, integration of acquisitions, future acquisitions and other statements that are not historical. Actual results and outcomes may differ materially from the results and outcomes discussed in the forward-looking statements as a result of various factors and uncertainties discussed under the caption "Risk Factors" and elsewhere in our Form 10-K and our most recent Form 10-Q filed with the Securities and Exchange Commission. These forward-looking statements speak only as of the date hereof. Nanogen disclaims any intent or obligation to update these forward-looking statements.



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