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

FORM 10-K

Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the fiscal year ended December 31, 2005

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 000-31923

HARVARD BIOSCIENCE, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware (State or other jurisdiction of Incorporation or organization)	04-3306140 (I.R.S. Employer Identification No.)
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84 October Hill Road, Holliston, Massachusetts 01746
(Address of Principal Executive Offices, including zip code)

(508) 893-8999

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act: None

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

Common Stock, \$0.01 par value per share

(Title of Class)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES NO

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

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 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.

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 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

The aggregate market value of 19,727,090 shares of voting stock held by non-affiliates of the registrant as of June 30, 2005 was approximately \$61,943,063 based on the closing sales price of the registrant's common stock on that date. Shares of the registrant's common stock held by each officer and director and each person known to the registrant to own 10% or more of the outstanding voting power of the registrant have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not a determination for other purposes.

At February 28, 2006, there were 30,493,140 shares of the Registrant's Common Stock, par value \$0.01 per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Company's definitive Proxy Statement in connection with the 2006 Annual Meeting of Stockholders to be held on May 18, 2006 are incorporated by reference into Part III of this Form 10-K.

HARVARD BIOSCIENCE, INC.
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FOR THE YEAR ENDED DECEMBER 31, 2005

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PART I

This Annual Report on Form 10-K contains statements that are not statements of historical fact and are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. The forward-looking statements are principally, but not exclusively, contained in "Item 1: Business" and "Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations." These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. Forward-looking statements include, but are not limited to, statements about management's confidence or expectations, our plans to divest the Capital Equipment Business segment, our business strategy, our ability to raise capital or borrow funds to consummate acquisitions and the availability of attractive acquisition candidates, our expectations regarding future costs of product revenues, our estimates regarding our capital requirements, our expenses of complying with the Sarbanes-Oxley Act of 2002, our anticipated compliance with the covenants contained in our credit facility, the adequacy of our financial resources and our plans, objectives, expectations and intentions that are not historical facts. In some cases, you can identify forward-looking statements by terms such as "may," "will," "should," "could," "would," "expects," "plans," "anticipates," "believes," "estimates," "projects," "predicts," "intends," "potential" and similar expressions intended to identify forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Given these uncertainties, you should not place undue reliance on these forward-looking statements. We discuss many of these risks in detail under the heading "Item 1A. Risk Factors" beginning on page 11 of this Annual Report on Form 10-K. You should carefully review all of these factors, as well as other risks described in our public filings, and you should be aware that there may be other factors, including factors of which we are not currently aware, that could cause these differences. Also, these forward-looking statements represent our estimates and assumptions only as of the date of this report. We may not update these forward-looking statements, even though our situation may change in the future, unless we have obligations under the federal securities laws to update and disclose material developments related to previously disclosed information.

Item 1. Business.

Overview

Harvard Bioscience, a Delaware corporation, is a global developer, manufacturer and marketer of a broad range of specialized products, primarily apparatus and scientific instruments, used to improve life science research at pharmaceutical and biotechnology companies, universities and government laboratories worldwide. We sell our products to thousands of researchers in over 100 countries through our direct sales force, our 1,100 page catalog (and various other specialty catalogs) and our website, and through distributors, including GE Healthcare (formerly known as Amersham Biosciences), Fisher Scientific and VWR. We have sales and manufacturing operations in the United States, the United Kingdom, Germany and Austria with sales facilities in France and Canada.

Our History

Our business began in 1901 under the name Harvard Apparatus and has grown over the intervening years with the development and evolution of modern life science tools. Our early inventions include the mechanical syringe pump in the 1950s for drug infusion and the microprocessor controlled syringe pump in the 1980s.

In March 1996, a group of investors led by our CEO and President acquired a majority of the then existing business of our predecessor, Harvard Apparatus. Following this acquisition, we redirected the focus of the Company to participate in the higher growth areas, or bottlenecks, within life science research by acquiring and licensing innovative technologies while continuing to grow the existing business through internal product development and marketing, partnerships and acquisitions. Since March 1996, we have

completed 17 business acquisitions related to our continuing operations and internally developed many new product lines including: new generation Harvard Apparatus syringe pumps, advanced Inspira ventilators, GeneQuant DNA/RNA/protein calculators, Ultrospec spectrophotometers, UVM plate readers and the BTX-MOS 96 well electroporation system.

In July 2005, we announced plans to divest our Capital Equipment Business segment. The decision to divest this business was based on the fact that market conditions for the Capital Equipment Business segment have been such that this business has not met our expectations and the decision to focus our resources on our Apparatus and Instrumentation Business segment. As a result, we began reporting our Capital Equipment Business segment as a discontinued operation in the third quarter of 2005. Accordingly, unless otherwise indicated, the discussion of our business is focused on our continuing operations, which constitute our apparatus and instrumentation business.

Our Strategy

Our goal is to become a leading provider of tools for life science research.

Our strategy is to have a broad range of highly specialized but relatively inexpensive products that have strong positions in niche markets in life science research:

- We believe that having a broad product offering reduces the risk of being dependent on a single technology;
- We believe that having relatively inexpensive products reduces the volatility associated with expensive capital equipment; and
- We believe focusing on niche markets reduces head-to-head competition with the major instrument companies.

We seek to grow this range of products through internal development of new products and the acquisition of closely related products. We use acquisitions to expand our product offerings because we believe we can use our well-established brands and distribution channels to accelerate the growth of these acquired products. We also believe that our expertise in operational management frequently allows us to improve profitability at acquired companies.

Our Products

Today, our broad product range is generally targeted towards two major application areas: ADMET screening and molecular biology.

ADMET Screening

The goal of ADMET screening is to identify compounds that have toxic side effects or undesirable physiological or pharmacological properties. These pharmacological properties consist of absorption, distribution, metabolism and elimination, which together with toxicology, form the acronym ADMET. We have a wide range of products that our customers use to help their researchers conduct better experiments on cells, tissues, organs and animals.

We primarily sell these products under the Harvard Apparatus, BTX, KD Scientific, Medical Systems, Clark Electromedical, NaviCyte, Hugo Sachs Elektronik and Warner Instruments brand names. The individual sales prices of these products are often under \$5,000 but when combined into systems such as the Hugo Sachs isolated organ system the total sales price can be over \$25,000. We typically sell our ADMET products through our catalogs and website with support from technical specialists, although BTX and KD Scientific branded products are primarily sold through distributors. Some of these products are described below:

Absorption Diffusion Chambers

A diffusion chamber is a small plastic chamber with a membrane separating the two halves of the chamber used to measure the absorption of a drug into the bloodstream. The membrane can either be tissue such as intestinal tissue or a cultured layer of cells such as human colon cells. This creates a miniaturized model of intestinal absorption. We entered this market with our 1999 acquisition of the assets of NaviCyte Inc., a wholly-owned subsidiary of Trega Biosciences (now Lion Bioscience) and today we make and sell a wide range of tissue handling products under the Warner Instruments brand name.

Distribution—96 Well Equilibrium Dialysis Plate for Serum Protein Binding Assays

Our 96 well equilibrium dialysis plate contains 96 pairs of chambers with each pair separated by a membrane. The protein target is placed on one side of the membrane and the drug on the other. The small molecule drug diffuses through the membrane. If it binds to the target, it cannot diffuse back again. If it does not bind, it will diffuse back and forth until equilibrium is established. Once equilibrium is established, the concentration of the drug can be measured thereby indicating the strength of the binding. This product is principally used for ADMET screening to determine if a drug binds to blood proteins. A certain level of reversible binding is advantageous in order to promote good distribution of a drug through the human body. However, if the binding is too strong, it may impair normal protein function and cause toxic effects. These products are part of our sample preparation product line which we began offering in 2000 after our acquisition of Amika.

Metabolism and Elimination—Organ Testing Systems

Organ testing systems use glass or plastic chambers together with stimulators and recording electrodes to study organ function. Organ testing systems enable either whole organs or strips of tissue from organs such as hearts, livers and lungs to be kept functioning outside the body while researchers perform experiments with them. This typically allows for multiple studies on a single donor animal. Studies on isolated livers are useful in determining metabolism and studies on kidneys are useful in determining elimination. We have sold basic versions of these systems for many years, but significantly expanded our product offerings through our 1999 acquisition of Hugo Sachs Elektronik.

Toxicology—Precision Infusion Pumps

Infusion pumps, typically syringe pumps, are used to accurately infuse very small quantities of liquid, commonly drugs. Infusion pumps are generally used for long-term toxicology testing of drugs by infusion into animals, usually laboratory rats. We sell a wide range of different types of syringe pumps and many other products for infusing samples into and collecting samples from tissues, organs and animals. We expanded our range of infusion pumps with the acquisition of KD Scientific in 2004.

Cell Injection Systems

Cell injection systems use extremely fine bore glass capillaries to penetrate and inject drugs into or around individual cells. Cell injection systems are used to study the effects of drugs on single cells. Injection is accomplished either with air pressure or, if the drug molecule is electrically charged, by applying an electric current. We entered this market with our 1998 acquisition of the research products of Medical Systems Corporation and considerably expanded our presence in this market with our acquisitions of Clark Electromedical Instruments in 1999 and Warner Instruments in 2001.

Ventilators

Ventilators use a piston driven air pump to inflate the lungs of an anesthetized animal. Ventilators are typically used in surgical procedures common in life science research and are part of our Harvard

Apparatus product line. In the late 1990's we launched our advanced Inspira ventilators, which have significant safety and ease of use features, such as default safety settings. We further expanded our ventilator product line with the MiniVent acquired as part of our acquisition of Hugo Sachs Elektronik in 1999 and expanded our presence in anesthesia with our acquisition of IMS in 2001.

Electroporation Products

Acquired with our purchase of the BTX division of Genetronics Biomedical Corporation in January 2003, our electroporation products include systems and generators, electrodes and accessories for research applications including in vivo, in ovo and in vitro gene delivery, electrocell fusion and nuclear transfer cloning. Through the application of precise pulsed electrical signals, electroporation systems open small "pores" in cell membranes allowing genes and/or drugs to pass through the cell membranes. The principal advantages of electroporation over other transfection techniques are speed, and the fact that electroporation does not require harsh chemicals that can interfere with or change cell function. In 2004, we launched our BTX MOS 96 well electroporation system, which can greatly increase the throughput of this otherwise essentially manual technique.

In addition to our proprietary manufactured products, we buy and resell, through our catalog, products that are made by other manufacturers. We have negotiated supply agreements with the majority of the companies that provide our distributed products. These supply agreements specify pricing only and contain no minimum purchase commitments. Each of these agreements represented less than one percent of our revenues for the year ended December 31, 2005. Distributed products accounted for approximately 10% of our revenues for the year ended December 31, 2005. These distributed products enable us to provide our customers with a single source for their experimental needs. These complementary products consist of a large variety of devices, instruments and consumable items used in experiments involving cells, tissues, organs and animals in the fields of proteomics, physiology, pharmacology, neuroscience, cell biology, molecular biology and toxicology. We believe that our proprietary manufactured products are often leaders in their fields; however, researchers often need complementary products in order to conduct particular experiments. Most of these complementary products come from small companies that do not have our extensive distribution and marketing capabilities to these researchers.

Molecular Biology

We primarily sell these products through our distributors, including GE Healthcare, under their brand names. These products are mainly scientific instruments such as spectrophotometers and plate readers that analyze light to detect and quantify a wide range of molecular and cellular processes or apparatus such as gel electrophoresis units. The instrumentation products are typically sold for a price ranging from \$5,000 to \$10,000. The apparatus products typically sell for less than \$5,000.

Molecular Biology Spectrophotometers

A spectrophotometer is an instrument widely used in molecular biology and cell biology to quantify the amount of a compound in a sample by shining a beam of white light through a prism or grating to divide it into component wavelengths. Each wavelength in turn is shone through a liquid sample and the spectrophotometer measures the amount of light absorbed at each wavelength. This enables the quantification of the amount of a compound in a sample. We sell a wide range of spectrophotometers under the names UltroSpec, NovaSpec, Libra and Biowave. Our Biochrom subsidiary manufactures these products, and we primarily sell them through our distribution arrangement with GE Healthcare and other distributors.

DNA/RNA/Protein Calculators

A DNA/RNA/protein calculator is a bench top instrument dedicated to quantifying the amount of DNA, RNA or protein in a sample. It uses a process similar to that of a molecular biology spectrophotometer. These are sold under the names GeneQuant and GeneQuant Pro. Launched in 1993, we believe that it was the first such instrument sold. Our Biochrom subsidiary manufactures these products, and we primarily sell them through GE Healthcare.

Multi-Well Plate Readers

Multi-well plate readers are widely used for high throughput screening assays in the drug discovery process. The most common format is 96 wells per plate. Plate readers use light to detect chemical interactions. We introduced a range of these products in 2001 beginning with absorbance readers and followed by luminescence readers. Our Asys Hitech subsidiary manufactures these products, and we primarily sell them through GE Healthcare and other distributors. We acquired Asys Hitech in December 2001 through our Biochrom subsidiary.

Amino Acid Analysis Systems

An amino acid analysis system uses chromatography to separate the amino acids in a sample and then uses a chemical reaction to detect each one in turn as they flow out of the chromatography column. Amino acids are the building blocks of proteins. In June 2000, we acquired substantially all of the amino acid analysis systems business of the Biotronik subsidiary of Eppendorf-Netheler-Hinz GmbH and integrated it with the existing amino acid analysis systems business in our Biochrom subsidiary. We sell these systems, which are more expensive than most of our products, through our Biochrom direct sales force and through distributors including GE Healthcare.

Low Volume, High-Throughput Liquid Dispensers

A liquid dispenser dispenses low volumes, typically microliters, of liquids into high density microtitre plates used in high throughput screening processes in life science research. Our unique technology enables dispensing to take place without the need for contact between the droplet and the liquid already present in the plate, thereby removing any risk of cross-contamination from the process. Our Asys Hitech subsidiary primarily markets these products, and we sell them under distributor brand names as well as our own name. We acquired Asys Hitech in December 2001 through our Biochrom subsidiary. Asys Hitech develops, manufactures and markets both these liquid dispensers and a line of OEM plate readers (see above for a description of plate readers).

Gel Electrophoresis Systems

Gel electrophoresis is a method for separating and purifying DNA, RNA and proteins. In gel electrophoresis, an electric current is run through a thin slab of gel and the DNA, RNA or protein molecules separate out based on their charge and size. The gel is contained in a plastic tank with an associated power supply. We entered this market with the acquisition of Scie-Plas in November 2001 and greatly expanded our range of gel electrophoresis products with our November 2003 acquisition of Hoefer. The majority of Hoefer revenues come from a distribution partnership with GE Healthcare but we have also added new distributors and are establishing a catalog/web distribution channel under the Hoefer name.

Our Customers

Our end-user customers are primarily research scientists at pharmaceutical and biotechnology companies, universities and government laboratories, including the U.S. National Institutes of Health, or

NIH. Our academic customers have included major colleges and universities such as Baylor College, Cambridge University, Harvard University, Johns Hopkins University, Massachusetts Institute of Technology, Yale University and the University of Texas—MD Anderson Center. Our pharmaceutical and biotechnological customers have included pharmaceutical companies and research laboratories such as Amgen, Inc., AstraZeneca plc, Genentech, Inc., Johnson & Johnson and the Max Planck Institute.

We conduct direct sales in the United States, the United Kingdom, Germany, France and Canada. We also maintain distributors in other countries. Aggregate sales to our largest customer, GE Healthcare, a distributor with end-users similar to ours, accounted for approximately 23% of our revenues for the year ended December 31, 2005 compared to approximately 25% for the year ended December 31, 2004. We have several thousand customers worldwide and no other customer accounted for more than two percent of our revenues for such period.

Sales and Marketing

For the year ended December 31, 2005, revenues from direct sales to end-users through our Harvard Apparatus catalog represented approximately 33% of our revenues; revenues from direct sales to end-users through our direct sales force represented approximately 6% of our total revenues; and revenues from sales of our products through distributors represented approximately 61% of our revenues.

Direct Sales

We periodically produce and mail a Harvard Apparatus full line catalog, which contains approximately 11,000 products on 1,100 pages and is printed in varying quantities ranging from 50,000 to 100,000 copies. The catalog, which is accessible on our website, serves as the primary sales tool for the Harvard Apparatus product line, which includes both proprietary manufactured products and complementary products from various suppliers. Our leadership position in many of our manufactured products creates traffic to the catalog and website and enables cross-selling and facilitates the introduction of new products. In addition to the comprehensive catalog, we create and mail abridged catalogs that focus on specific product areas along with direct mailers and targeted e-mailers, which introduce or promote new products. We distribute the majority of our products ordered from our catalog, through our worldwide subsidiaries. In those regions where we do not have a subsidiary, or for products which we have acquired, that had distributors in place at the time of our acquisition as the distribution channel, we use distributors.

Distributors

In August 2001, we entered into a new agreement with GE Healthcare. Under the terms of the agreement, GE Healthcare serves as the exclusive distributor, marketer and seller of a majority of our spectrophotometer and DNA/RNA calculator product lines of our Biochrom subsidiary. This agreement has a five year finite life, expiring in August 2006, and is currently under renegotiation.

In November 2003, in connection with the acquisition of Hoefer from GE Healthcare, we entered into a separate distribution agreement with GE Healthcare for the distribution of the Hoefer products. This contract has a five year term with an automatic five-year renewal period, provides for minimum purchases for the first three years, allows us to use the Hoefer name (which we acquired in the transaction) on direct sales by us to end users or through other distributors, and may be terminated after five years with a one year advance notice. Additionally, upon breach of certain terms of the agreement, such as pricing, exclusivity and delivery, by either party, the agreement may be terminated with a 30 day notice period.

In addition to engaging GE Healthcare as the primary distributor for our Biochrom and Hoefer products, we also engage distributors for the sales of Harvard Apparatus, BTX, KD Scientific, Asys Hitech and SciePlas branded products in certain areas of the world and for certain product lines. In those regions

where we do not have a subsidiary, and for products, which we have acquired that had distributors in place as the distribution channel at the time of our acquisition, we use distributors.

Backlog

Our order backlog was approximately \$3.3 million as of December 31, 2005 and \$2.6 million as of December 31, 2004. We include in backlog only those orders for which we have received valid purchase orders. Purchase orders may be cancelled at any time prior to shipment. Our backlog as of any particular date may not be representative of actual sales for any succeeding period. We typically ship our backlog at any given time within 90 days.

Research and Development

Our principal research and development mission is to develop products which address bottlenecks within the life science research process, particularly for application in the areas of ADMET screening and molecular biology.

Our research and development expenditures were approximately \$3.0 million in 2005 and 2004 and \$2.0 million in 2003. We anticipate that we will continue to make significant development expenditures, as we deem appropriate given the circumstances at such time. We plan to continue to pursue a balanced development portfolio strategy of originating new products from internal research and development programs and acquiring products through business and technology acquisitions.

We maintain development staff in most of our manufacturing facilities to design and develop new products and to re-engineer existing products to bring them to the next generation level. In-house development is focused on our current technologies. For major new technologies, our strategy has been to partner with universities, government labs or pharmaceutical companies to develop technology into commercially viable products.

Manufacturing

We manufacture and test the majority of our products in our principal manufacturing facilities located in the United States, the United Kingdom, Austria and Germany. We have considerable manufacturing flexibility at our various facilities, and each facility can manufacture multiple products at the same time. We maintain in-house key manufacturing know-how, technologies and resources. We seek to maintain multiple suppliers for key components that are not manufactured in-house, and while some of our products are dependent on sole-source suppliers, we do not believe our dependence upon these suppliers creates any significant risks.

Our manufacturing operations are primarily to assemble and test. Our manufacturing of syringe pumps, ventilators, cell injectors, miniaturized sample preparation products and electroporation products takes place in Holliston, Massachusetts. The manufacture of our cell biology and electrophysiology products takes place in both our Holliston, Massachusetts facility and our Hamden, Connecticut facility. Our manufacturing of spectrophotometers and amino acid analysis systems takes place in our Cambridge, England facility. Our manufacturing of surgery and anesthesia related products and physiology-teaching products takes place in Edenbridge, England. Our manufacturing of complete organ testing systems takes place in March-Hugstetten, Germany. Our electrophoresis products are manufactured at our Warwickshire, England facility and our San Francisco, California facility. Our low-volume, high-throughput liquid dispensers and our plate readers are manufactured in our facility in Eugendorf, Austria.

Competition

The markets into which we sell our products are highly competitive, and we expect the intensity of competition to continue or increase. We compete with many companies engaged in developing and selling tools for life science research. Many of our competitors have greater financial, operational, sales and marketing resources, and more experience in research and development and commercialization than we have. Moreover, our competitors may have greater name recognition than we do, and many offer discounts as a competitive tactic. These competitors and other companies may have developed or could in the future develop new technologies that compete with our products, which could render our products obsolete. We cannot assure you that we will be able to make the enhancements to our technologies necessary to compete successfully with newly emerging technologies. We are not aware of any significant products sold by us, which are currently obsolete.

We believe that we offer one of the broadest selections of products to companies engaged in life science research. We are not aware of any competitor that offers a product line of comparable breadth across our target markets. We have numerous competitors on a product line basis. We believe that we compete favorably with our competitors on the basis of product performance, including quality, reliability and speed, technical support, price and delivery time.

We compete with several companies that provide instruments for ADMET screening and molecular biology. In the ADMET screening area, we compete with, among others, Razel Scientific Instruments, Inc., Kent Scientific Corporation, General Valve Corp., Eppendorf-Netheler-Hinz GmbH, Ugo Basile and Becton, Dickinson and Company. In the molecular biology products, we compete with, among others, Bio-Rad Laboratories, Inc., PerkinElmer, Inc., Invitrogen Corporation, Beckman Coulter, Inc., Thermo Electron Corporation, Eppendorf and Molecular Devices Corporation.

Intellectual Property

To establish and protect our proprietary technologies and products, we rely on a combination of patent, copyright, trademark and trade-secret laws, as well as confidentiality provisions in our contracts. Patents or patent applications cover many of our new technologies. Most of our more mature product lines are protected by trade names and trade secrets only.

We have implemented a patent strategy designed to provide us with freedom to operate and facilitate commercialization of our current and future products. In our continuing operations, we have 19 issued U.S. patents and 7 pending applications. In our discontinued operations, we have 25 issued U.S. patents and 35 pending applications.

Generally, U.S. patents have a term of 17 years from the date of issue for patents issued from applications filed with the U.S. Patent Office prior to June 8, 1995, and 20 years from the application filing date or earlier claimed priority date in the case of patents issued from applications filed on or after June 8, 1995. Our issued US patents will expire between 2011 and 2020. Our success depends to a significant degree upon our ability to develop proprietary products and technologies. We intend to continue to file patent applications as we develop new products and technologies.

Patents provide some degree of protection for our intellectual property. However, the assertion of patent protection involves complex legal and factual determinations and is therefore uncertain. The scope of any of our issued patents may not be sufficiently broad to offer meaningful protection. In addition, our issued patents or patents licensed to us may be successfully challenged, invalidated, circumvented or unenforceable so that our patent rights would not create an effective competitive barrier. Moreover, the laws of some foreign countries may protect our proprietary rights to a greater or lesser extent, as do the laws of the United States. In addition, the laws governing patentability and the scope of patent coverage continue to evolve, particularly in areas of interest to us. As a result, there can be no assurance that patents

will issue from any of our patent applications or from applications licensed to us. In view of these factors, our intellectual property positions bear some degree of uncertainty.

We also rely in part on trade-secret protection of our intellectual property. We attempt to protect our trade secrets by entering into confidentiality agreements with third parties, employees and consultants. Our employees and consultants also sign agreements requiring that they assign to us their interests in patents and copyrights arising from their work for us. Although many of our U.S. employees have signed agreements not to compete unfairly with us during their employment and after termination of their employment, through the misuse of confidential information, soliciting employees, soliciting customers and the like, the enforceability of these provisions varies from jurisdiction to jurisdiction and, in some circumstances, they may not be enforceable. In addition, it is possible that these agreements may be breached or invalidated and if so, there may not be an adequate corrective remedy available. Despite the measures we have taken to protect our intellectual property, we cannot assure you that third parties will not independently discover or invent competing technologies, or reverse engineer our trade secrets or other technologies. Therefore, the measures we are taking to protect our proprietary rights may not be adequate.

We do not believe that our products infringe on the intellectual property rights of any third party. We cannot assure you, however, that third parties will not claim such infringement by us or our licensors with respect to current or future products. We expect that product developers in our market will increasingly be subject to such claims as the number of products and competitors in our market segment grows and the product functionality in different market segments overlaps. In addition, patents on production and business methods are becoming more common and we expect that more patents will be issued in our technical field. Any such claims, with or without merit, could be time-consuming, result in costly litigation and diversion of management's attention and resources, cause product shipment delays or require us to enter into royalty or licensing agreements. Moreover, such royalty or licensing agreements, if required, may not be on terms acceptable to us, or at all, which could seriously harm our business or financial condition.

"Harvard" is a registered trademark of Harvard University. The marks "Harvard Apparatus" and "Harvard Bioscience" are being used pursuant to a license agreement entered into in December 2002 between Harvard University and Harvard Bioscience, Inc.

Government Regulation

We are not subject to direct governmental regulation other than the laws and regulations generally applicable to businesses in the domestic and foreign jurisdictions in which we operate. In particular, our products are not subject to pre-market approval by the United States Food and Drug Administration for use on human clinical patients. In addition, we believe we are in compliance with all relevant environmental laws.

Employees

As of December 31, 2005, we employed 269 employees, of which 245 are full-time and 24 are part-time, in our continuing operations and 112 employees, of whom 107 are full-time and 5 are part-time, in our discontinued operations. Geographical residence information for these employees is summarized in the table below:

	<u>Continuing Operations</u>	<u>Discontinued Operations</u>	<u>Total</u>
United States	125	53	178
United Kingdom	108	50	158
Austria	15	—	15
Germany	14	2	16
Belgium	—	7	7
Canada	4	—	4
France	3	—	3
Total	<u>269</u>	<u>112</u>	<u>381</u>

We believe that our relationship with our employees is good. None of our employees is subject to any collective bargaining agreement.

Discontinued Operations

In July 2005, we announced plans to divest our Capital Equipment Business segment. The Capital Equipment Business segment contains our Genomic Solutions, Union Biometrica, and MAIA Scientific subsidiaries. The decision to divest this business was based on the fact that market conditions for the Capital Equipment Business segment have been such that this business has not met our expectations and the decision to focus our resources on our Apparatus and Instrumentation Business segment. As a result, we began reporting our Capital Equipment Business segment as a discontinued operation in the third quarter of 2005.

Generally, the products sold by the Capital Equipment Business segment are large scientific instruments that rapidly process and analyze samples of DNA, RNA or proteins or that use fluid flow and lasers and night-vision cameras to analyze small model organisms. These systems are typically sold for over \$25,000 each and are primarily sold by our field sales force and by distributors in select countries. Our direct sales force is complemented in the field by our technical support and field service organizations, and together they effectively sell and service our capital equipment product lines.

Geographic Area

Financial information regarding geographic areas in which we operate is provided in Note 16 of the "Notes to Consolidated Financial Statements," which are included elsewhere in this report.

Website

Our website is www.harvardbioscience.com. Our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and exhibits and amendments to those reports filed or furnished with the Securities and Exchange Commission pursuant to Section 13(a) of the Exchange Act are available for review on our website. Any such materials that we file with, or furnish to, the Securities and Exchange Commission in the future will be available on our website as soon as reasonably practicable after they are electronically filed with, or furnished to, the Securities and Exchange Commission. The information on our website is not incorporated by reference into this Annual Report on Form 10-K.

Item 1A. Risk Factors.

Our operating results may vary significantly from quarter to quarter and year to year depending on a number of factors, including:

If we are unable to complete the divestiture of our Capital Equipment Business segment on attractive terms, our ability to implement our business strategy and our financial condition and results of operations may be materially adversely affected.

In July 2005, we announced our decision to divest our Capital Equipment Business segment. We have decided to divest this business segment based on the fact that market conditions for our Capital Equipment Business segment have been such that this business has not met our expectations, and because we have made a decision to focus resources on our Apparatus and Instrumentation business. We cannot assure you that we will be able to complete the divestiture of our Capital Equipment Business segment on favorable terms, or at all. If we are unable to divest our Capital Equipment Business for more than current carrying value, we will record a loss in connection with the sale that could be significant. If we are unable to sell our Capital Equipment Business at all, we will be required to alter our current business strategy to determine how to proceed with this business segment. As a result, we may be required to engage in further restructuring activities or cease operating some or all of this business segment and liquidate its assets. In either case, we may incur additional expenses and additional asset impairments and management's attention may be diverted from our current business strategy. Additionally, under the current terms of our existing credit facility, we will be required to obtain consent from our lenders upon the sale of our Capital Equipment Business segment. If we are unable to obtain this consent, sale of the Capital Equipment Business segment will trigger a default under the credit facility whereby our lenders could accelerate all of our outstanding indebtedness and terminate our credit facility. As of December 31, 2005, we had \$8.5 million outstanding under our credit facility. As a result of any of these events, our ability to implement our business strategy and our financial condition and results of operations may be materially adversely affected.

By completing the divestiture of the Capital Equipment Business, we will be losing a substantial source of our revenues.

Our Capital Equipment Business segment represented 25%, 30% and 40% of total revenues from continuing operations and discontinued operations in 2005, 2004 and 2003, respectively. By divesting our Capital Equipment Business segment, we will no longer have the assets that generated these revenues and, unless we are able to increase our revenues through organic growth or acquisitions, our revenues following the disposition will be lower than they have been for these historical periods.

Our decision to divest of our Capital Equipment Business may cause potential customers to be less likely to commit to purchases of capital equipment from this business segment, which may materially adversely affect revenues generated from, and value that we may receive upon the sale of, our Capital Equipment Business segment.

Our Capital Equipment Business segment relies on sales of capital products that are typically priced over \$25,000 and supported, following their sale, by customer support, technical support and field application service support personnel. As a result of the uncertain future of our Capital Equipment Business segment, potential customers may be less likely to commit to purchases of expensive capital equipment from this business segment. Accordingly, the revenues generated from, and value that we may receive upon the divestiture of, our Capital Equipment Business segment may be materially adversely affected. In addition, we may lose key employees of the Capital Equipment Business segment that may in turn adversely affect the revenues and operating results of the division and may reduce the value we receive upon the divestiture of the Business segment.

The divestiture of our Capital Equipment Business segment may disrupt our business or result in costs that could have a material adverse effect on our financial condition and results of operations.

The divestiture of our Capital Equipment Business may disrupt our apparatus and instrumentation business and divert management's attention away from our continuing operations. We will also incur expenses in connection with our attempted divestiture of this business segment, which could materially adversely affect our financial condition or results of operations. This divestiture will require management to utilize estimates related to realizable values of assets made redundant or obsolete and expenses for severances, lease cancellations and other exit costs. Actual results could differ materially from those estimated due to, among other things: inability to sell the businesses at prices, or within time periods, anticipated by management; unanticipated expenditures in connection with the effectuation of the disposition; costs and length of time required to comply with legal requirements applicable to the disposition; and unanticipated difficulties in connection with consolidation of manufacturing and administrative functions.

Our quarterly revenues will likely be affected by various factors, including the timing of equipment purchases by customers and the seasonal nature of purchasing in Europe.

Our quarterly revenues will likely be affected by various factors, including the volatile and seasonal nature of purchasing in Europe. Our revenues may vary from quarter to quarter due to a number of factors, including the timing of catalog mailings and new product introductions, the release of grant and budget funding, future acquisitions and our substantial sales to European customers, who in summer months often defer purchases. In particular, delays or reduction in purchase orders from the pharmaceutical and biotechnology industries could have a material adverse effect on us and could adversely affect our stock price.

If we engage in any acquisition, we will incur a variety of costs, and may never realize the anticipated benefits of the acquisition.

Our business strategy includes the future acquisition of businesses, technologies, services or products that we believe are a strategic fit with our business. If we undertake any acquisition, the process of integrating an acquired business, technology, service or product may result in unforeseen operating difficulties and expenditures and may absorb significant management attention that would otherwise be available for ongoing development of our business. Moreover, we may fail to realize the anticipated benefits of any acquisition as rapidly as expected or at all. Future acquisitions could reduce stockholders' ownership, cause us to incur debt, expose us to future liabilities and result in amortization expenses related to intangible assets with definite lives.

Uncertain economic trends may adversely impact our business.

We have experienced, and may experience in the future, reduced demand for our products as a result of the uncertainty in the general economic environment in which our customers and we operate. We cannot project the extent of the impact of the economic environment specific to our industry. If economic conditions worsen or if an economic slowdown occurs, we may experience a material adverse effect on our business, operating results and financial condition.

We may not realize the expected benefits from acquisitions due to difficulties integrating the businesses, operations and product lines.

Our ability to achieve the benefits of acquisitions depends in part on the integration and leveraging of technology, operations, sales and marketing channels and personnel. The integration process is a complex,

time-consuming and expensive process and may disrupt our business if not completed in a timely and efficient manner.

We may have difficulty successfully integrating the acquired businesses, the domestic and foreign operations or the product lines, and as a result, we may not realize any of the anticipated benefits of the acquisitions. Additionally, we cannot assure that our growth rate will equal the growth rates that have been experienced by us and the acquired companies, respectively, operating as separate companies in the past.

As an acquisitive company, we may be the subject of lawsuits from either an acquired company's previous stockholders or our current stockholders.

As an acquisitive company, we may be the subject of lawsuits from either an acquired company's previous stockholders or our current stockholders. These lawsuits could result from the actions of the acquisition target prior to the date of the acquisition, from the acquisition transaction itself or from actions after the acquisition. Defending potential lawsuits could cost us significant expense and detract management's attention from the operation of the business. Additionally, these lawsuits could result in the cancellation of or the inability to renew, certain insurance coverage that would be necessary to protect our assets.

Accounting for goodwill and other intangible assets may have a material adverse effect on us.

In accordance with the provisions of Statement of Financial Accounting Standards (SFAS) No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, we assess the recoverability of identifiable intangibles with finite lives and other long-lived assets, such as property, plant and equipment, for impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable. In accordance with SFAS No. 142, *Goodwill and Other Intangible Assets*, goodwill and intangible assets with indefinite lives from acquisitions are evaluated annually, or more frequently, if events or circumstances indicate there may be an impairment, to determine whether any portion of the remaining balance of goodwill and indefinite lived intangibles may not be recoverable. If it is determined in the future that a portion of our goodwill and other intangible assets is impaired, we will be required to write off that portion of the asset according to the methods defined by SFAS No. 144 and SFAS No. 142, which could have an adverse effect on net income for the period in which the write off occurs. During 2005, the Company recorded abandonment, impairment and write-down charges of approximately \$28.7 million on goodwill and other intangible assets, which are classified under the caption "Discontinued Operations, net of tax". In addition, if any time prior to the sale of our Capital Equipment Business segment we determine that the fair value less cost to sell is below the current carrying value we will record additional impairment losses that could be significant. At December 31, 2005, our continuing operations had goodwill and intangible assets with indefinite lives of \$21.1 million, or 24%, of our total assets from continuing operations.

Future changes in financial accounting standards may adversely affect our reported results of operations.

A change in accounting standards can have a significant effect on our reported results. New accounting pronouncements and varying interpretations of accounting pronouncements have occurred and may occur in the future. These new accounting pronouncements may adversely affect our reported financial results.

For example, under SFAS No. 123R, *Share-Based Payments, a revision of SFAS No. 123, Accounting for Stock-Based Compensation*, we will be required to account for our stock-based awards as a compensation expense and our net income and net income per share could be significantly reduced. Currently, we record compensation expense only in connection with option grants that have an exercise price below fair market value. For option grants that have an exercise price at fair market value, we calculate compensation

expense and disclose their impact on net income (loss) and net income (loss) per share, as well as the impact of all stock-based compensation expense in a footnote to the consolidated financial statements. SFAS No. 123R requires us to adopt the new accounting provisions beginning in our first quarter of 2006, and will require us to expense stock-based awards, including shares issued under our employee stock purchase plan, stock options, restricted stock and stock appreciation rights, as compensation cost.

If our accounting estimates are not correct, our financial results could be adversely affected.

Management judgment and estimates are necessarily required in the application of our Critical Accounting Policies. We discuss these estimates in the subsection entitled Critical Accounting Policies beginning on page 32. If our estimates are incorrect, our future financial operating results and financial condition could be adversely affected.

Our business is subject to economic, political and other risks associated with international revenues and operations.

Since we manufacture and sell our products worldwide, our business is subject to risks associated with doing business internationally. Our revenues from our non-U.S. operations represented approximately 51%, of total revenues for 2005. We anticipate that revenue from international operations will continue to represent a substantial portion of total revenues. In addition, a number of our manufacturing facilities and suppliers are located outside the United States. Accordingly, our future results could be harmed by a variety of factors, including:

- changes in foreign currency exchange rates, which resulted in a foreign currency loss of approximately \$55,000 for the year ended December 31, 2005 and a decrease in foreign equity of approximately \$4.3 million for the year ended December 31, 2005,
- changes in a specific country or region's political or economic conditions, including Western Europe, in particular,
- potentially negative consequences from changes in tax laws affecting the ability to expatriate profits,
- difficulty in staffing and managing widespread operations, and
- unfavorable labor regulations applicable to European operations, such as severance and the unenforceability of non-competition agreements in the European Union.

We may lose money when we exchange foreign currency received from international revenues into U.S. dollars.

Approximately 47% of our business from continuing operations during 2005 was conducted in functional currencies other than the U.S. dollar, which is our reporting currency. As a result, currency fluctuations among the U.S. dollar and the currencies in which we do business have caused and will continue to cause foreign currency transaction gains and losses. Currently, we attempt to manage foreign currency risk through the matching of assets and liabilities. In the future, we may undertake to manage foreign currency risk through additional hedging methods. We recognize foreign currency gains or losses arising from our operations in the period incurred. We cannot guarantee that we will be successful in managing foreign currency risk or in predicting 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.

Additional costs for complying with recent changes in Securities and Exchange Commission, NASDAQ Stock Market and accounting rules could adversely affect our profits.

Recent changes in the Securities and Exchange Commission and NASDAQ rules including the Sarbanes-Oxley Act of 2002, as well as changes in accounting rules, will cause us to incur significant additional costs including professional fees, as well as additional personnel costs, in order to keep informed of the changes and attempt to operate in a compliant manner. These additional costs, which were approximately \$1.5 million and \$1.3 million during 2005 and 2004, respectively, may be significant enough to cause our growth targets to be reduced, and consequently, our financial position and results of operations may be negatively impacted.

If we are not able to manage our growth, our operating profits or losses may be adversely impacted.

Our success will depend on the expansion of our operations through both organic growth and acquisitions. Effective growth management will place increased demands on management, operational and financial resources and expertise. To manage growth, we must expand our facilities, augment our operational, financial and management systems, and hire and train additional qualified personnel. Failure to manage this growth effectively could impair our ability to generate revenue or could cause our expenses to increase more rapidly than revenue, resulting in operating losses or reduced profitability.

If we fail to retain key personnel and hire, train and retain qualified employees, we may not be able to compete effectively, which could result in reduced revenue or increased costs.

Our success is highly dependent on the continued services of key management, technical and scientific personnel. Our management and other employees may voluntarily terminate their employment at any time upon short notice. The loss of the services of any member of the senior management team, including the Chief Executive Officer, Chane Graziano, the President, David Green, the Chief Operating Officer, Susan Luscinski, the Chief Financial Officer, Bryce Chicoyne or any of the managerial, technical or scientific staff may significantly delay or prevent the achievement of product development and other business objectives. We maintain key person life insurance on Messrs. Graziano and Green. Our future success will also depend on our ability to identify, recruit and retain additional qualified scientific, technical and managerial personnel. Competition for qualified personnel in the technology area is intense, and we operate in several geographic locations where labor markets are particularly competitive, including Boston, Massachusetts and London and Cambridge, England, and where demand for personnel with these skills is extremely high and is likely to remain high. As a result, competition for qualified personnel is intense, particularly in the areas of general management, finance, information technology, engineering and science, and the process of hiring suitably qualified personnel is often lengthy and expensive, and may become more expensive in the future. If we are unable to hire and retain a sufficient number of qualified employees, our ability to conduct and expand our business could be seriously reduced.

Our competitors and potential competitors may develop products and technologies that are more effective or commercially attractive than our products.

We expect to encounter increased competition from both established and development-stage companies that continually enter the market. We anticipate that these competitors will include:

- companies developing and marketing life sciences research tools,
- health care companies that manufacture laboratory-based tests and analyzers,
- diagnostic and pharmaceutical companies,
- analytical instrument companies, and
- companies developing life science or drug discovery technologies.

Currently, our principal competition comes from established companies that provide products that perform many of the same functions for which we market our products. Our competitors may develop or market products that are more effective or commercially attractive than our current or future products. Many of our competitors have substantially greater financial, operational, marketing and technical resources than we do. Moreover, these competitors may offer broader product lines and tactical discounts, and may have greater name recognition. In addition, we may face competition from new entrants into the field. We may not have the financial resources, technical expertise or marketing, distribution or support capabilities to compete successfully in the future.

Our products compete in markets that are subject to rapid technological change, and therefore one or more of our products could be made obsolete by new technologies.

Because the market for life science tools is characterized by rapid technological change and frequent new product introductions, our product lines may be made obsolete unless we are able to continually improve existing products and develop new products. To meet the evolving needs of its customers, we must continually enhance our current and planned products and develop and introduce new products. However, we may experience difficulties that may delay or prevent the successful development, introduction and marketing of new products or product enhancements. In addition, our product lines are based on complex technologies that are subject to rapid change as new technologies are developed and introduced in the marketplace. We may have difficulty in keeping abreast of the rapid changes affecting each of the different markets we serve or intend to serve. Our failure to develop and introduce products in a timely manner in response to changing technology, market demands or the requirements of our customers could cause our product sales to decline, and we could experience significant losses.

We offer and plan to offer a broad product line and have incurred and expect to continue to incur substantial expenses for development of new products and enhanced versions of our existing products. The speed of technological change in our market may prevent us from being able to successfully market some or all of our products for the length of time required to recover development costs. Failure to recover the development costs of one or more products or product lines could decrease our profitability or cause us to experience significant losses.

We entered into a \$20 million credit facility in November 2003, which contains certain financial and negative covenants the breach of which may adversely affect our financial condition.

During 2003, we entered into a \$20 million credit facility with Brown Brothers Harriman & Co., under which we had drawn down \$8.5 million as of December 31, 2005. The credit facility contains various financial and other covenants, including covenants relating to income, debt coverage and cash flow and minimum working capital requirements. If we are not in compliance with certain of these covenants, in addition to other actions the creditor may require, the amounts drawn on the \$20 million facility may become immediately due and payable. This immediate payment may negatively impact our financial condition and we may be forced by our creditor into actions, which may not be in our best interests.

Failure to raise additional capital or generate the significant capital necessary to implement our acquisition strategy, expand our operations and invest in new products could reduce our ability to compete and result in lower revenue.

We anticipate that our financial resources, which include available cash, cash generated from operations, and debt and equity capacity, will be sufficient to finance operations and capital expenditures for at least twelve months. However, this expectation is premised on the current operating plan, which may change as a result of many factors, including market acceptance of new products and future opportunities with collaborators. Consequently, we may need additional funding sooner than anticipated. Our inability to raise capital could seriously harm our business and product development and acquisition efforts.

If we raise additional funds through the sale of equity or convertible debt or equity-linked securities, existing percentages of ownership in our common stock will be reduced. In addition, these transactions may dilute the value of our outstanding common stock. We may issue securities that have rights, preferences and privileges senior to our common stock. If we raise additional funds through collaborations or licensing arrangements, we may relinquish rights to certain of our technologies or products, or grant licenses to third parties on terms that are unfavorable. We may be unable to raise additional funds on acceptable terms or at all. In addition, our credit facility with Brown Brothers Harriman contains limitations on our ability to incur additional indebtedness and requires creditor approval for acquisitions funded with cash in excess of \$6 million and acquisitions funded with equity in excess of \$10 million. If future financing is not available or is not available on acceptable terms, we may have to curtail operations or change our business strategy.

If we are unable to effectively protect our intellectual property, third parties may use our technology, which would impair our ability to compete in our markets.

Our continued success will depend in significant part on our ability to obtain and maintain meaningful patent protection for certain of our products throughout the world. Patent law relating to the scope of claims in the technology fields in which we operate is still evolving. The degree of future protection for our proprietary rights is uncertain. In our continuing operations, we have 19 issued U.S. patents and 7 pending applications. In our discontinued operations, we have 25 issued U.S. patents and 35 pending applications. We also own numerous U.S. registered trademarks and trade names and have applications for the registration of trademarks and trade names pending. We rely on patents to protect a significant part of our intellectual property and to enhance our competitive position. However, our presently pending or future patent applications may not issue as patents, and any patent previously issued to us may be challenged, invalidated, held unenforceable or circumvented. Furthermore, the claims in patents which have been issued or which may be issued to us in the future may not be sufficiently broad to prevent third parties from producing competing products similar to our products. In addition, the laws of various foreign countries in which we compete may not protect our intellectual property to the same extent, as do the laws of the United States. If we fail to obtain adequate patent protection for our proprietary technology, our ability to be commercially competitive will be materially impaired.

In addition to patent protection, we also rely on protection of trade secrets, know-how and confidential and proprietary information. To maintain the confidentiality of trade-secrets and proprietary information, we generally seek to enter into confidentiality agreements with our employees, consultants and strategic partners upon the commencement of a relationship. However, we may not obtain these agreements in all circumstances. In the event of unauthorized use or disclosure of this information, these agreements, even if obtained, may not provide meaningful protection for our trade-secrets or other confidential information. In addition, adequate remedies may not exist in the event of unauthorized use or disclosure of this information. The loss or exposure of our trade secrets and other proprietary information would impair our competitive advantages and could have a material adverse effect on our operating results, financial condition and future growth prospects.

We may be involved in lawsuits to protect or enforce our patents that would be expensive and time-consuming.

In order to protect or enforce our patent rights, we may initiate patent litigation against third parties. We may also become subject to interference proceedings conducted in the patent and trademark offices of various countries to determine the priority of inventions. Several of our products are based on patents that are closely surrounded by patents held by competitors or potential competitors. As a result, we believe there is a greater likelihood of a patent dispute than would be expected if our patents were not closely surrounded by other patents. The defense and prosecution, if necessary, of intellectual property suits, interference proceedings and related legal and administrative proceedings would be costly and divert our

technical and management personnel from their normal responsibilities. We may not prevail in any of these suits. An adverse determination of any litigation or defense proceedings could put our patents at risk of being invalidated or interpreted narrowly and could put our patent applications at risk of not issuing.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. For example, during the course of this kind of litigation, there could be public announcements of the results of hearings, motions or other interim proceedings or developments in the litigation. Securities analysts or investors may perceive these announcements to be negative, which could cause the market price of our stock to decline.

Our success will depend partly on our ability to operate without infringing on or misappropriating the intellectual property rights of others.

We may be sued for infringing on the intellectual property rights of others, including the patent rights, trademarks and trade names of third parties. Intellectual property litigation is costly and the outcome is uncertain. If we do not prevail in any intellectual property litigation, in addition to any damages we might have to pay, we could be required to stop the infringing activity, or obtain a license to or design around the intellectual property in question. If we are unable to obtain a required license on acceptable terms, or are unable to design around any third party patent, we may be unable to sell some of our products and services, which could result in reduced revenue.

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

We have licensed key components of our technologies from third parties. While we do not currently derive a material portion of our revenue from products that depend on these licensed technologies, we may in the future. If our license agreements were to terminate prematurely or if we breach the terms of any licenses or otherwise fail to maintain our rights to these technologies, we may lose the right to manufacture or sell our products that use these licensed technologies. In addition, we may need to obtain licenses to additional technologies in the future in order to keep our products competitive. If we fail to license or otherwise acquire necessary technologies, we may not be able to develop new products that we need to remain competitive.

Many of our current and potential customers are from the pharmaceutical and biotechnology industries and are subject to risks faced by those industries.

We derive a substantial portion of our revenues from pharmaceutical and biotechnology companies. We expect that pharmaceutical and biotechnology companies will continue to be one of our major sources of revenues for the foreseeable future. As a result, we are subject to risks and uncertainties that affect the pharmaceutical and biotechnology industries, such as pricing pressures as third-party payers continue challenging the pricing of medical products and services, government regulation, ongoing consolidation and uncertainty of technological change, and to reductions and delays in research and development expenditures by companies in these industries.

In particular, the biotechnology industry has been faced with declining market capitalization and a difficult capital-raising and financing environment. If biotechnology companies are unable to obtain the financing necessary to purchase our products, our business and results of operations could be materially adversely affected. As it relates to both the biotechnology and pharmaceutical industries, many companies have significant patents that have expired or are about to expire, which could result in reduced revenues for those companies. If pharmaceutical companies suffer reduced revenues as a result of these patent

expirations, they may be unable to purchase our products, and our business and results of operations could be materially adversely affected.

In addition, we are dependent, both directly and indirectly, upon general health care spending patterns, particularly in the research and development budgets of the pharmaceutical and biotechnology industries, as well as upon the financial condition and purchasing patterns of various governments and government agencies. Many of our customers, including universities, government research laboratories, private foundations and other institutions, obtain funding for the purchase of products from grants by governments or government agencies. There exists the risk of a potential decrease in the level of governmental spending allocated to scientific and medical research, which could substantially reduce or even eliminate these grants. If government funding necessary to purchase our products were to decrease, our business and results of operations could be materially adversely affected.

If GE Healthcare (formerly Amersham Biosciences) terminates its distribution agreements with us, fails to renew them on favorable terms or fails to perform its obligations under the distribution agreements, it could impair the marketing and distribution efforts for some of our products and result in lost revenues.

During 2004, General Electric Company acquired Amersham plc, the parent of Amersham Biosciences. In connection with the acquisition, Amersham Biosciences was renamed GE Healthcare. While GE Healthcare has indicated its intention to continue Amersham's presence in the life science market, and we believe our relationship with GE Healthcare is good, we cannot guarantee that the distribution agreements will be renewed, that GE Healthcare will aggressively market our products in the future or that GE Healthcare will continue the partnership. If any of these events occurs, our marketing and distribution efforts for some of our products may be impaired and our revenues may be adversely impacted.

For 2005, approximately 23% of our revenues were generated through two distribution agreements with GE. In August 2001, we entered into an agreement with GE Healthcare. This agreement has a five year finite life, expiring in August 2006, and is currently under renegotiation. Under this agreement, GE Healthcare acts as the primary marketing and distribution channel for the majority of the products of our Biochrom subsidiary and, as a result, we are restricted from allowing another person or entity to distribute, market and sell the majority of the products of our Biochrom subsidiary into the life sciences market. We are also restricted from making or promoting sales of the majority of the products of our Biochrom subsidiary to any person or entity other than GE Healthcare or its authorized sub-distributors. We have little or no control over GE Healthcare's marketing and sales activities or the use of its resources. GE Healthcare may fail to purchase sufficient quantities of products from us or perform appropriate marketing and sales activities. The failure by GE Healthcare to perform these activities could materially adversely affect our business and growth prospects during the term of this agreement. In addition, our inability to maintain our arrangement with GE Healthcare for product distribution could materially impede the growth of our business and our ability to generate sufficient revenue. Our agreement with GE Healthcare may be terminated with 30 days notice under certain circumstances. This agreement had an initial term of three years, commencing August 1, 2001, after which it automatically renewed for an additional two years, unless terminated earlier by either party. In addition, the agreement may be terminated in accordance with its terms by either party upon 18 months prior written notice. We are currently renegotiating this agreement.

The second distribution agreement, between Hoefer, Inc., our subsidiary, and GE Healthcare was entered into in November 2003 in connection with our acquisition of certain assets of the Hoefer 1-D gel electrophoresis business, including the Hoefer name, from Amersham Bioscience. The agreement provides that Hoefer will be the exclusive supplier of 1-D gel electrophoresis products to GE Healthcare. Hoefer also has the right to develop, manufacture and market 2-D gel electrophoresis products, which would be offered to GE Healthcare for sale under the GE Healthcare's brand name. Hoefer has the right to sell any

of its products, under the Hoefer brand name or any other non-GE Healthcare brand name, through other distribution channels, both direct and indirect. This contract has a five year term with an automatic five-year renewal period, and may be terminated after five years with a one year advance notice. Additionally, upon breach of certain terms of the agreement, such as pricing, exclusivity and delivery, by either party, the agreement may be terminated with a 30 day notice period.

Customer, vendor and employee uncertainty about the effects of any of our acquisitions could harm us.

We and the customers of any companies we acquire may, in response to the consummation of the acquisitions, delay or defer purchasing decisions. Any delay or deferral in purchasing decisions by customers could adversely affect our business. Similarly, employees of acquired companies may experience uncertainty about their future role until or after we execute our strategies with regard to employees of acquired companies. This may adversely affect our ability to attract and retain key management, sales, marketing and technical personnel following an acquisition.

Ethical concerns surrounding the use of our products and misunderstanding of the nature of our business could adversely affect our ability to develop and sell our existing products and new products.

Genetic screening of humans is used to determine individual predisposition to medical conditions. Genetic screening has raised ethical issues regarding the confidentiality and appropriate uses of the resulting information. Government authorities may regulate or prohibit the use of genetic screening to determine genetic predispositions to medical conditions. Additionally, the public may disfavor and reject the use of genetic screening.

Genomic and proteomic research is used to determine the role of genes and proteins in living organisms. Our products are designed and used for genomic and proteomic research and drug discovery and are generally not well suited for human screening. However, it is possible that government authorities and the public may fail to distinguish between the genetic screening of humans and genomic and proteomic research. If this occurs, our products and the processes for which our products are used may be subjected to government regulations intended to affect genetic screening. Further, if the public fails to distinguish between the two fields, it may pressure our customers to discontinue the research and development initiatives for which our products are used.

Additionally, some of our products may be used in areas of research involving cloning, stem cells, human tissue, organ transplants, animal research and other techniques presently being explored in the life science industry. These techniques have drawn much negative attention recently in the public forum and could face similar risks to those identified above surrounding products for genomic and proteomic research.

Our stock price has fluctuated in the past and could experience substantial declines in the future and, as a result, management's attention may be diverted from more productive tasks.

The market price of our common stock has experienced significant fluctuations and may become volatile and could decline in the future, perhaps substantially, in response to various factors including:

- technological innovations by competitors or in competing technologies,
- revenues and operating results fluctuating or failing to meet the expectations of management, securities analysts, or investors in any quarter,
- termination or suspension of equity research coverage by securities' analysts,
- comments of securities analysts and mistakes by or misinterpretation of comments from analysts,
- downward revisions in securities analysts' estimates or management guidance,

- investment banks and securities analysts may themselves be subject to suits that may adversely affect the perception of the market,
- conditions or trends in the biotechnology and pharmaceutical industries,
- announcements of significant acquisitions or financings or changes in strategic partnerships,
- non-compliance with the internal control standards pursuant to the Sarbanes-Oxley Act of 2002, and
- a decrease in the demand for our common stock.

In addition, the stock market and the NASDAQ National Market in general, and the biotechnology industry and small cap markets in particular, have experienced significant price and volume fluctuations that at times may have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance. In the past, securities class action litigation has often been instituted following periods of volatility in the market price of a company's securities. A securities class action suit against us could result in substantial costs, potential liabilities and the diversion of management's attention and resources.

Provisions of Delaware law and of our charter and bylaws may make a takeover more difficult, which could cause our stock price to decline.

Provisions in our certificate of incorporation and bylaws and in the Delaware corporate law may make it difficult and expensive for a third party to pursue a tender offer, change in control or takeover attempt, which is opposed by management and the board of directors. Public stockholders who might desire to participate in such a transaction may not have an opportunity to do so. We also have a staggered board of directors that makes it difficult for stockholders to change the composition of the board of directors in any one year. These anti-takeover provisions could substantially impede the ability of public stockholders to change our management and board of directors. Such provisions may also limit the price that investors might be willing to pay for shares of our common stock in the future.

An active trading market for our common stock may not be sustained.

Although our common stock is quoted on the NASDAQ National Market, an active trading market for the shares may not be sustained.

Future issuance of preferred stock may dilute the rights of our common stockholders.

Our board of directors has the authority to issue up to 5,000,000 shares of preferred stock and to determine the price, privileges and other terms of these shares. The board of directors may exercise this authority without any further approval of stockholders. The rights of the holders of common stock may be adversely affected by the rights of future holders of preferred stock.

Cash dividends will not be paid on our common stock.

Currently, we intend to retain all of our earnings to finance the expansion and development of our business and do not anticipate paying any cash dividends in the near future. As a result, capital appreciation, if any, of our common stock will be a stockholder's sole source of gain for the near future.

The merger with Genomic Solutions may fail to qualify as a reorganization for federal income tax purposes, resulting in the recognition of taxable gain or loss in respect of our treatment of the merger as a taxable sale.

Both we and Genomic Solutions intended the merger to qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended. Although the Internal Revenue Service, or IRS, will not provide a ruling on the matter, Genomic Solutions obtained a legal opinion from its tax counsel that the merger constitutes a non-taxable reorganization for federal income tax purposes. This opinion does not bind the IRS or prevent the IRS from adopting a contrary position. If the merger fails to qualify as a non-taxable reorganization, the merger would be treated as a deemed taxable sale of assets by Genomic Solutions for an amount equal to the merger consideration received by Genomic Solutions' stockholders plus any liabilities assumed by us. As successor to Genomic Solutions, we would be liable for any tax incurred by Genomic Solutions as a result of this deemed asset sale.

Item 1B. *Unresolved Staff Comments.*

We have not received written comments from the Securities and Exchange Commission regarding our periodic or current reports under the Securities Exchange Act of 1934, as amended, that were received 180 days or more before December 31, 2005 and remain unresolved.

Item 2. *Properties.*

The Company's 10 principal facilities, for both continuing and discontinued businesses, incorporate manufacturing, development, sales and marketing, and administration functions. Our facilities consist of:

Continuing Operations

- a leased 43,750 square foot facility in Holliston, Massachusetts, which is our corporate headquarters,
- a leased 28,000 square foot facility in Cambridge, England,
- a leased 22,600 square foot facility in San Francisco, California,
- a leased 18,000 square foot facility in Warwickshire, England,
- an owned 15,500 square foot facility in Edenbridge, England,
- a leased 9,000 square foot facility in March-Hugstetten, Germany,
- a leased 7,500 square foot facility in Hamden, Connecticut,
- a leased 4,700 square foot facility in Eugendorf, Austria.

Discontinued Operations

- a leased 16,094 square foot facility in Ann Arbor, Michigan,
- a leased 24,000 square foot facility in Huntingdon, England,

We also lease additional facilities for sales and administrative support in Geel, Belgium; Les Ulis, France and Montreal, Canada.

Item 3. *Legal Proceedings.*

From time to time, we may be involved in various claims and legal proceedings arising in the ordinary course of business. We are not currently a party to any such claims or proceedings

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

None.

PART II

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

Price Range of Common Stock

Our common stock has been quoted on the Nasdaq National Market since our initial public offering on December 7, 2000, and currently trades under the symbol "HBIO." The following table sets forth the range of the high and low sales prices per share of our common stock as reported on the Nasdaq National Market for the quarterly periods indicated.

Year Ended December 31, 2005	High	Low
First Quarter	\$ 4.84	\$3.79
Second Quarter	\$ 3.93	\$2.80
Third Quarter	\$ 3.58	\$2.66
Fourth Quarter	\$ 4.80	\$2.98
Year Ended December 31, 2004	High	Low
First Quarter	\$11.10	\$7.76
Second Quarter	\$10.61	\$4.00
Third Quarter	\$ 4.98	\$3.51
Fourth Quarter	\$ 4.67	\$3.57

On February 28, 2006, the closing sale price of our common stock on the Nasdaq National Market was \$4.99 per share. The number of record holders of our common stock as of February 28, 2006 was 217. We believe that the number of beneficial owners of our common stock at that date was substantially greater.

Dividend Policy

We have never declared or paid dividends on our common stock in the past and do not intend to pay dividends in the foreseeable future. Any future determination to pay dividends will be at the discretion of our board of directors and will depend on our financial condition, results of operations, capital requirements and other factors the board of directors deems relevant.

Item 6. Selected Financial Data.

	For The Years Ended December 31,				
	2005	2004	2003	2002	2001
	(in thousands, except per share data)				
Statement of Operations Data:					
Revenues	\$ 67,431	\$64,745	\$52,024	\$47,009	\$38,088
Cost of product revenues	34,156	33,312	27,430	24,702	19,710
Gross profit	33,275	31,433	24,594	22,307	18,378
Operating expenses	25,351	23,049	17,421	16,882	15,266
Operating income	7,924	8,384	7,173	5,425	3,112
Other income (expense), net	(784)	(751)	(1,012)	450	1,244
Income from continuing operations before income taxes	7,140	7,633	6,161	5,875	4,356
Income taxes	899	3,115	2,542	2,805	2,449
Income from continuing operations	6,241	4,518	3,619	3,070	1,907
Discontinued operations, net of tax(1)	(38,118)	(2,189)	641	(2,333)	(7,115)
Net income (loss)	(31,877)	2,329	4,260	737	(5,208)
Income (loss) per share:					
Basic earnings per common share from continuing operations	\$ 0.20	\$ 0.15	\$ 0.12	\$ 0.11	\$ 0.07
Discontinued operations	(1.25)	(0.07)	0.02	(0.08)	(0.27)
Basic earnings (loss) per common share	\$ (1.05)	\$ 0.08	\$ 0.14	\$ 0.03	\$ (0.20)
Diluted earnings per common share from continuing operations	\$ 0.20	\$ 0.15	\$ 0.12	\$ 0.11	\$ 0.07
Discontinued operations	(1.24)	(0.08)	0.02	(0.08)	(0.27)
Diluted earnings (loss) per common share	\$ (1.04)	\$ 0.07	\$ 0.14	\$ 0.03	\$ (0.20)
Weighted average common shares:					
Basic	30,442	30,269	29,924	27,090	25,785
Diluted	30,781	31,103	30,712	27,597	26,382

	As of December 31,				
	2005	2004	2003	2002	2001
	(in thousands)				
Balance Sheet Data:					
Cash and cash equivalents	\$ 7,632	\$ 13,867	\$ 8,223	\$ 15,313	\$29,385
Working capital	42,400	45,245	40,182	31,816	32,597
Total assets	92,035	139,881	128,429	107,584	82,362
Long-term debt, net of current portion	8,500	16,520	12,787	400	637
Stockholders' equity	68,416	104,357	98,878	88,381	66,812

- (1) During the quarter ended September 30, 2005, we announced plans to divest our Capital Equipment Business segment. The decision to divest this business segment was based on the fact that market conditions for the Capital Equipment Business have been such that this business has not met our expectations and the decision to focus our resources on the Apparatus and Instrumentation Business segment. As a result, we began reporting the Capital Equipment Business segment as a discontinued operation in the third quarter of 2005. During 2005, we recorded abandonment, impairment and write-down charges related to our Capital Equipment Business segment of approximately \$28.7 million on goodwill and other long-lived assets, which are classified under the caption "Discontinued Operations, net of tax."

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

Forward-Looking Statements

The following section of this Annual Report on Form 10-K entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations" contains statements that are not statements of historical fact and are forward-looking statements within the meaning of federal securities laws. These statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, performance or achievements to be materially different from any future results, performance or achievements expressed or implied by the forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Factors that may cause our actual results to differ materially from those in the forward-looking statements include those factors described in "Item 1A. Risk Factors" beginning on page 11 of this Annual Report on Form 10-K. You should carefully review all of these factors, as well as the comprehensive discussion of forward-looking statements on page 1 of this Annual Report on Form 10-K.

Overview

During the second quarter of 2005, we realigned our lines of business into two business segments, the Apparatus and Instrumentation Business segment and our Capital Equipment Business segment. Our business had previously been arranged in a single segment.

In July 2005, we announced plans to divest our Capital Equipment Business segment. The decision to divest this business was based on the fact that market conditions for the Capital Equipment Business segment have been such that this business has not met our expectations and the decision to focus our resources on our Apparatus and Instrumentation Business segment. As a result, we began reporting our Capital Equipment Business segment as a discontinued operation in the third quarter of 2005. Accordingly, unless otherwise indicated, the discussion of our business is focused on our continuing operations, which constitute our Apparatus and Instrumentation businesses.

From 1999 to 2005, the revenues from our continuing operations grew from \$26.2 million to \$67.4 million, an annual compounded growth rate of approximately 20%. During the second half of 2005, we successfully refocused our resources on our core apparatus and instrumentation business, which has been the cornerstone to our success over the last decade. As a result of these efforts, throughout 2005 we were able to steadily increase our organic growth and improve both our gross margin and our operating income margin. The organic sales growth has been driven by the continued strength in our core physiology and our spectrophotometer product lines and an increase in international sales, particularly in Europe.

Looking forward to 2006, we remain encouraged by the continued strengthening of our international sales in the life sciences market and we remain committed to our goal of high revenue and profit growth through a combination of organic growth and tuck under acquisitions.

Generally, management evaluates the financial performance of its operations before the effects of stock compensation expense and before the effects of purchase accounting and amortization of intangible assets related to our acquisitions. Our goal is to develop and sell products that improve life science research and as such, we monitor the operating metrics of the Company and when appropriate, effect organizational changes to leverage infrastructure and distribution channels. These changes may be effected as a result of various events, including acquisitions, the worldwide economy, general market conditions and personnel changes.

During 2003, we entered into a \$20 million credit facility with Brown Brothers Harriman & Co., under which we had drawn down \$8.5 million as of December 31, 2005. The credit facility expires on January 1, 2007. We believe that the financial covenants contained in the credit facility involving income, debt coverage and cash flow, as well as minimum working capital requirements are covenants that we will

continue to be in compliance with under current operating plans. The credit facility also contains limitations on our ability to incur additional indebtedness. Additionally, the facility requires creditor approval for acquisitions funded with cash in excess of \$6 million and for acquisitions funded with equity in excess of \$10 million. We do not believe that these requirements will be a significant constraint on our operations or on the acquisition portion of our growth strategy. As of December 31, 2005, we had available borrowing capacity under our revolving credit facility of \$11.5 million, but were limited to borrowing approximately \$9.8 million by the revolving credit facility's covenants.

Historically, we have funded acquisitions with debt, capital raised by issuing equity and cash flow from operations. In order to continue the acquisition portion of our growth strategy beyond what our current cash balances and cash flow from operations can support we will need to raise more capital, either by incurring additional debt, issuing equity or a combination or through the sale of our Capital Equipment Business segment.

To the extent we receive some or all of the proceeds in cash from the planned divestiture of our Capital Equipment Business segment, we intend to apply any cash proceeds to the repayment of debt, to continue our tuck-under acquisition strategy within our Apparatus and Instrumentation Business segment or to other general corporate purposes.

Under the current terms of our existing credit facility, we will be required to obtain consent from our lenders upon the sale of our Capital Equipment Business segment. If we are unable to obtain this consent, sale of our Capital Equipment Business segment will trigger a default under the credit facility whereby our lenders could accelerate all of our outstanding indebtedness and terminate our credit facility.

In the table below, we provide an overview of selected operating metrics.

	2005	% of Revenue	2004	% of Revenue	2003	% of Revenue
	(in thousands)					
Total revenues	\$67,431		\$64,745		\$52,024	
Cost of product revenues	34,156	50.7%	33,312	51.5%	27,430	52.7%
Sales and marketing expenses	8,110	12.0%	7,564	11.7%	6,062	11.7%
General & administrative expenses	12,627	18.7%	10,922	16.9%	8,434	16.2%
Research and development expenses	2,950	4.4%	2,981	4.6%	2,034	3.9%

Revenues. We generate revenues by selling apparatus instruments, devices and consumables through our catalog, our direct sales force, our distributors and our website.

For products primarily priced under \$10,000, every one to three years, we intend to distribute a new, comprehensive catalog initially in a series of bulk mailings, first to our existing customers, followed by mailings to targeted markets of potential customers. Over the life of the catalog, distribution will also be made periodically to potential and existing customers through direct mail and trade shows and in response to e-mail and telephone inquiries. From time to time, we also intend to distribute catalog supplements that promote selected areas of our catalog or new products to targeted subsets of our customer base. Future distributions of our comprehensive catalog and our catalog supplements will be determined primarily by the incidence of new product introductions, which cannot be predicted. Our end user customers are research scientists at pharmaceutical and biotechnology companies, universities and government laboratories. Revenue from catalog sales in any period is influenced by the amount of time elapsed since the last mailing of the catalog, the number of catalogs mailed and the number of new items included in the catalog. We launched our latest comprehensive catalog in March 2004, with approximately 1,100 pages and approximately 70,000 copies printed. Revenues direct to end users, derived through our catalog and the electronic version of our catalog on our website, represented approximately 33% and 32% of our revenues for the years ended December 31, 2005 and 2004, respectively.

Products sold under brand names of distributors including GE Healthcare, are typically priced in the range of \$5,000-\$15,000. They are mainly scientific instruments like spectrophotometers and plate readers that analyze light to detect and quantify a very wide range of molecular and cellular processes or apparatus like gel electrophoresis units. We also use distributors for both our catalog products and our higher priced products, for sales in locations where we do not have subsidiaries or where we have distributors in place for acquired businesses. For the years ended December 31, 2005 and 2004, approximately 61% and 63%, respectively, of our revenues were derived from sales to distributors.

For the years ended December 31, 2005 and 2004, approximately 90% and 89%, respectively, of our revenues were derived from products we manufacture or from collaboration and research grant projects. The remaining 10% and 11%, respectively, of our revenues for the years ended December 31, 2005 and 2004, were derived from complementary products we distribute in order to provide the researcher with a single source for all equipment needed to conduct a particular experiment. For the years ended December 31, 2005 and 2004, approximately 51% and 47%, respectively, of our revenues were derived from sales made by our non-U.S. operations. A large portion of our international sales during this period consisted of sales to GE Healthcare (formerly Amersham Biosciences), the distributor for our spectrophotometers and plate readers. GE Healthcare distributes these products to customers around the world, including to many customers in the United States, from its distribution center in Upsalla, Sweden. As a result, we believe our international sales would have been a lower percentage of our revenues if we had shipped our products directly to our end-users. Changes in the relative proportion of our revenue sources between catalog sales, direct sales, and distribution sales are the result of a different sales proportion of acquired companies.

Cost of product revenues. Cost of product revenues includes material, labor and manufacturing overhead costs, obsolescence charges, packaging costs, warranty costs, shipping costs and royalties. Our cost of product revenues may vary over time based on the mix of products sold. We sell products that we manufacture and products that we purchase from third parties. The products that we purchase from third parties have higher cost of goods sold because the profit is effectively shared with the original manufacturer. We anticipate that our manufactured products will continue to have a lower cost of product revenues as a percentage of revenues as compared with the cost of non-manufactured products for the foreseeable future. Additionally, our cost of product revenues as a percent of product revenues will vary based on mix of direct to end user sales and distributor sales, mix by product line and mix by geography.

General and administrative expenses. General and administrative expense consists primarily of salaries and other related costs for personnel in executive, finance, accounting, information technology and human relations functions. Other costs include professional fees for legal and accounting services, restructuring costs, facility costs, investor relations, insurance and provision for doubtful accounts.

Sales and marketing expenses. Sales and marketing expense consists primarily of salaries and related expenses for personnel in sales, marketing and customer support functions. We also incur costs for travel, trade shows, demonstration equipment, public relations and marketing materials, consisting primarily of the printing and distribution of our approximately 1,100 page catalog, supplements and various other specialty catalogs, and the maintenance of our websites. We may from time to time expand our marketing efforts by employing additional technical marketing specialists in an effort to increase sales of selected categories of products in our catalog. We may also from time to time expand our direct sales organizations in an effort to increase and/or support sales of our higher priced capital equipment instruments or to concentrate on key accounts or promote certain product lines.

Research and development expenses. Research and development expense consists primarily of salaries and related expenses for personnel and capital resources used to develop and enhance our products and to support collaboration agreements. Other research and development expense includes fees for consultants and outside service providers, and material costs for prototype and test units. We expense research and development costs as incurred. We believe that significant investment in product development is a competitive necessity and plan to continue to make these investments in order to realize the potential of new technologies that we develop, license or acquire.

Stock compensation expenses. Currently, stock compensation expense resulting from stock option grants to our employees represents the difference between the fair market value and the exercise price of the stock options on the grant date for those options considered fixed awards. Stock compensation is amortized as a charge to operations using an accelerated vesting method in accordance with Financial Accounting Standards Board (FASB) Interpretation No. 28, *Accounting for Stock Appreciation Rights and Other Variable Stock Option or Award Plans*, which results in decreasing compensation expense from the date of the stock option grant until the vesting dates. In addition, upon the acceleration of vesting pursuant to separation agreements, the Company will record stock compensation expense equal to the difference between the fair market value and the exercise price related to the options, which were accelerated. Stock compensation expense is included as a component of cost of product sales, sales and marketing expenses, research and development expenses, and general and administrative expenses as appropriate. During the first quarter of 2006, we will adopt SFAS No. 123R, *Share-Based Payments, a revision of SFAS No. 123, Accounting for Stock-Based Compensation*. Please see "Recent Accounting Pronouncements" for further information.

Results of Operations

Year Ended December 31, 2005 Compared to Year Ended December 31, 2004

Revenues. Revenues increased \$2.7 million, or 4.1%, to \$67.4 million for the year ended December 31, 2005 compared to \$64.7 million during 2004. The revenue increase was across various product lines in the Biochrom and in the Harvard Apparatus businesses of approximately \$1.7 million and approximately \$0.9 million, respectively. In addition, revenue growth of \$0.8 million was attributed to our acquisition of KD Scientific in March 2004. Offsetting these increases in revenue during 2005 was a negative foreign exchange impact on sales denominated in foreign currencies of approximately \$0.6 million, or 1%.

Cost of product revenues. Cost of product revenues increased \$0.8 million, or 2.5%, to \$34.2 million for the year ended December 31, 2005 compared to \$33.3 million during 2004. The increase in cost of product revenues is primarily attributable to the increase in revenues described above. Gross profit as a percentage of revenue increased to 49.3% for the year ended December 31, 2005 compared with 48.5% during 2004. Improvements in gross profit as a percentage of sales was driven by increased sales of more profitable products and improved factory efficiencies. In 2004, approximately \$0.3 million of the cost of product revenues was related to fair value adjustments of inventory and backlog acquired from Hoefer for products, which were sold in 2004.

General and administrative expenses. General and administrative expenses, including restructuring costs, increased \$1.7 million, or 15.6%, to \$12.6 million for the year ended December 31, 2005 compared to \$10.9 million during 2004. The increase in general and administrative expenses is primarily due to direct and indirect costs associated with Sarbanes-Oxley compliance of \$0.5 million, bonuses to be paid to employees at our Harvard Apparatus and Biochrom subsidiaries of \$0.4 million and restructuring expenses for the realignment of personnel at our Biochrom, Scie-Plas and Hoefer subsidiaries of \$0.3 million.

Sales and marketing expenses. Sales and marketing expenses increased \$0.5 million, or 7.2%, to \$8.1 million for the year ended December 31, 2005 from \$7.6 million during 2004. The increase in sales and marketing expenses is primarily due to increased investment in direct marketing in our Harvard Apparatus business.

Research and development expenses. Research and development expenses were \$3.0 million for the year ended December 31, 2005 and 2004, respectively.

Amortization of intangible assets. Amortization of intangibles was \$1.7 million in the year ended December 31, 2005 compared to \$1.6 million during 2004.

Other income (expense), net. Other expense, net, was \$0.8 million in 2005, and consisted primarily of net interest expense of \$0.7 million and foreign exchange losses of \$55,000. Other expense, net of \$0.8 million in 2004 consisted primarily of \$0.6 million net interest expense and foreign exchange gains of \$33,000. Other than intercompany debt that is considered as long-term in nature, these exchange gains and losses are primarily the result of currency fluctuations on intercompany transactions between our subsidiaries.

Income taxes. The Company's effective income tax rate for its continuing operations was 13% for 2005 compared to 41% for 2004. The decrease in the effective income tax rate is principally due to the allocation of tax benefits resulting from the ability of our continuing operations to use net operating loss carryforwards that have been reserved for under SFAS No. 109, *Accounting for Income Taxes*.

Discontinued Operations. During the quarter ended September 30, 2005, the Company announced plans to divest its Capital Equipment Business segment. The decision to divest this business segment was based on the fact that market conditions for our Capital Equipment Business have been such that this business has not met the Company's expectations and the decision to focus Company resources on the Apparatus and Instrumentation Business segment. As a result, the Company began reporting our Capital Equipment Business segment as a discontinued operation in the third quarter of 2005.

During 2004, we announced restructuring activities within our Capital Equipment Business segment at our Genomic Solutions subsidiary related to the closure of a manufacturing facility and realignment of our cost structure. Total restructuring charges for 2004 were approximately \$0.4 million. During the second quarter of 2005, we expanded this plan to include the closure of another manufacturing facility and to discontinue certain product lines due to product rationalization decisions made during the second quarter. Total restructuring charges during 2005 for the Genomic Solutions subsidiary were \$4.0 million. These charges related primarily to the write-off of inventory for rationalized products of \$3.5 million, severance costs of \$0.2 million, facility closure costs of \$0.2 million and other costs of \$0.1 million. In addition, we recorded approximately \$0.2 million related to a decision to consolidate our Union Biometrica US manufacturing facility into our Holliston, MA facility.

Also during the second quarter of 2005, as a result of a significant decrease in the revenues and operating profit in our Capital Equipment Business segment, we recorded impairment charges of approximately \$17.5 million. During the fourth quarter of 2005, we did not meet our forecasts and expectations. As a result, with the assistance of third party independent appraisers we re-evaluated the fair-value of the disposal group. This resulted in the recording of an additional write-down of approximately \$11.2 million, which consisted of a goodwill impairment charge of approximately \$7.9 million and write-down of long-lived assets of approximately \$3.4 million. Total abandonment, impairment and write-down charges of approximately \$28.7 million have been classified within discontinued operations for the year ended December 31, 2005.

Year Ended December 31, 2004 Compared to Year Ended December 31, 2003

Revenues. Revenues increased \$12.7 million, or 24.5%, to \$64.7 million for the year ended December 31, 2004 from \$52.0 million in the same period of 2003. The increase in revenues was primarily due to the acquisitions of Hoefer and KD Scientific (which increased revenues by approximately \$10.9 million) and a positive impact from sales denominated in foreign currencies (which increased revenues by approximately \$3.1 million), a majority of which was at Biochrom. The favorable foreign exchange effect for the year ended December 31, 2004 was due primarily to the strengthening of the British pound sterling and the Euro against the U.S. dollar.

Cost of product revenues. Cost of product revenues increased \$5.9 million or 21.4%, to \$33.3 million for the year ended December 31, 2004 from \$27.4 million for the same period in 2003. The increase in the cost of product revenues was primarily due to the factors, which contributed to the growth in revenues. As a percentage of total revenues, gross profit for the years ended December 31, 2004 and 2003 was 51.5% and 52.7%, respectively. For the year ended December 31, 2004, approximately \$0.3 million of the cost of product revenues was related to fair value adjustments of inventory and backlog acquired from Hoefer for products, which were sold in 2004. For the year ended December 31, 2003, approximately \$0.3 million of the cost of product revenues was related to fair value adjustments of inventory and backlog acquired from BTX and Hoefer for products, which were sold in 2003.

General and administrative expenses. General and administrative expenses increased \$2.5 million, or 29.5%, to \$10.9 million for the year ended December 31, 2004 compared to \$8.4 million for the same period in 2003. Approximately \$1.3 million of the increase is attributable to additional costs of Sarbanes-Oxley compliance efforts and approximately \$1.2 million of the increase is attributable to the acquisition of Hoefer in November 2003.

Sales and marketing expenses. Sales and marketing expenses increased \$1.5 million, or 24.8%, to \$7.6 million in 2004 from \$6.1 million in 2003 due primarily to the acquisitions of Hoefer in November 2003 of approximately \$0.6 million and KD Scientific of \$0.2 million and a general increase in spending on sales and marketing initiatives.

Research and development expenses. Research and development expenses was \$3.0 million in 2004 compared to \$2.0 million in 2003 due primarily to the acquisition of Hoefer in November 2003, which contributed approximately \$0.6 million to the increase in expense in 2004.

Amortization of intangible assets. Amortization of intangibles was \$1.6 million for the year ended December 31, 2004 compared to \$0.9 million for the same period in 2003. This increase is primarily attributed to the acquisitions of Hoefer and KD Scientific made during 2003 and 2004.

Other income (expense), net. Other expense, net, for 2004 of \$0.7 million included approximately \$0.6 million net interest expense compared to net interest expense of \$0.2 million for the same period in 2003. This increase in net interest expense is due to cash and interest-bearing debt being increasingly used to fund acquisitions since 2003. Other expense, net, for 2004 also included a \$33,000 foreign exchange gain compared to a \$52,000 loss for in 2003. Other than intercompany debt that is considered as long-term in nature, these exchange gains and losses are primarily the result of currency fluctuations on intercompany transactions between our subsidiaries. Other expense for 2003 included approximately \$0.8 million in charges related to the settlement of an arbitration award in favor of the former shareholders of our Union Biometrica subsidiary.

Income taxes. Our effective income tax rates were 41% for both 2004 and 2003, respectively.

Discontinued Operations. Loss from discontinued operations, net of tax was \$2.2 million for the year ended December 31, 2004 compared to income from discontinued operations, net of tax of \$0.6 million for the year ended December 31, 2003. The loss from discontinued operations during 2004 was primarily attributable to a decrease in revenue and operating profit at our Genomic Solutions subsidiary compared to the same period in 2003.

Liquidity and Capital Resources

Historically, we have financed our business through cash provided by operating activities, the issuance of common stock and preferred stock, and bank borrowings. Our liquidity requirements have arisen primarily from investing activities, including funding of acquisitions and capital expenditures. We ended the year with cash and cash equivalents of \$9.8 million, of which \$7.6 million was held in continuing operations and \$2.2 million in discontinued operations. This was a decrease of approximately \$4.1 million, compared to cash and cash equivalents of \$13.9 million at December 31, 2004. This decrease is primarily due to payments of approximately \$8.0 million, of which \$6.0 million were made during the fourth quarter, on our \$20 million revolving credit facility and capital expenditures of \$1.1 million, offset by cash provided

by operations of approximately \$5.2 million during 2005. We ended 2005 with \$8.5 million drawn against our revolving credit facility compared to \$16.5 million at December 31, 2004.

Overview of Cash Flows for the year ended December 31,

	2005	2004	2003
	(in thousands)		
Cash flows from operations:			
Net income	\$(31,877)	\$ 2,329	\$ 4,260
Adjust non-cash items	37,284	5,661	5,938
Changes in assets and liabilities	(212)	3,448	(8,170)
Cash provided by operations	<u>5,195</u>	<u>11,438</u>	<u>2,028</u>
Investing activities:			
Acquisition of businesses	—	(7,082)	(21,149)
Other investing activities	(1,076)	(3,337)	(1,248)
Cash used in investing activities	<u>(1,076)</u>	<u>(10,419)</u>	<u>(22,397)</u>
Financing activities:			
Cash (repaid) provided by debt, net	(8,018)	3,339	11,782
Other financing activities	225	871	1,272
Cash provided by (used in) financing activities	<u>(7,793)</u>	<u>4,210</u>	<u>13,054</u>
Exchange effect on cash	(422)	415	225
Increase (decrease) in cash and cash equivalents	<u>\$ (4,096)</u>	<u>\$ 5,644</u>	<u>\$ (7,090)</u>

Our operating activities generated cash of \$5.2 million for the year ended December 31, 2005 compared to \$11.4 million for the same period in 2004. The decrease in cash flow from operations from 2005 compared to 2004 was primarily the result of a reduction in net income less non-cash charges, a decrease in accounts payable and accrued expenses due to the timing of payments and a decrease in accrued income taxes payable. This was slightly offset by a decrease in inventory balances of approximately \$1.6 million.

Our investing activities used cash of \$1.1 million in 2005 compared to \$10.4 million in 2004. In 2004, approximately \$6.7 million was used to fund the acquisition of KD Scientific, which is more fully described in Note 6 to our consolidated financial statements, and approximately \$3.0 million was used to fund additions of property, plant and equipment. Other than cash used for acquisitions, cash flow used for other investing activities primarily consists of capital expenditures. Capital expenditures during 2005 were approximately \$1.1 million compared to approximately \$3.3 million during 2004. During the next twelve months, we expect to spend between \$1.0 million and \$2.0 million on capital expenditures.

Our financing activities have historically consisted of borrowings under a revolving credit facility with Brown Brothers Harriman & Co., long-term debt and the issuance of preferred stock and common stock, including the common stock issued in our initial public offering. We used cash of \$7.8 million in financing activities in 2005 compared to 2004 where financing activities provided net cash of \$4.2 million. We ended the year with \$8.5 million drawn against our \$20 million revolving credit facility, a decrease of approximately \$8.0 million since December 31, 2004 as a result of repayments during 2005.

On November 21, 2003, we entered into a \$20 million revolving credit facility with Brown Brothers Harriman and Company (the "bank"). The credit facility, which expires on January 1, 2007 and bears an

interest rate equal to the bank's base rate, which at December 31, 2005 was equal to the prime rate of 7.25%. The credit facility contains covenants relating to net income, debt service coverage and cash flow coverage. The Company is currently in compliance with such covenants. The credit facility requires the Company to seek approval from the bank prior to any acquisition where the purchase price will exceed \$10 million in stock or \$6 million in cash. We are assessed a .25% fee on the unused portion of the credit facility. As of December 31, 2005, there was \$8.5 million outstanding under the credit facility, a decrease of approximately \$8.0 million from \$16.5 million as of December 31, 2004. As of December 31, 2005, we had available borrowing capacity under our revolving credit facility of \$11.5 million, but were limited to borrowing approximately \$9.8 million by the revolving credit facility's covenants.

Our forecast of the period of time through which our financial resources will be adequate to support our operations is a forward-looking statement that involves risks and uncertainties, and actual results could vary as a result of a number of factors. Based on our current operations and current operating plans, we expect that our available cash, cash generated from current operations and debt capacity will be sufficient to finance current operations and capital expenditures for 12 months and beyond. However, we may use substantial amounts of capital to accelerate product development or expand our sales and marketing activities. We may need to raise additional capital in order to make significant acquisitions. Additional capital raising activities will dilute the ownership interests of existing stockholders to the extent we raise capital by issuing equity securities and we cannot assure you that we will be successful in raising additional capital on favorable terms or at all. Our credit facility with Brown Brothers Harriman contains limitations on our ability to incur additional indebtedness and requires creditor approval for acquisitions funded with cash in excess of \$6 million and for acquisitions funded with equity in excess of \$10 million.

Off-Balance Sheet Arrangements

We do not use special purpose entities or other off-balance sheet financing arrangements.

Contractual Obligations

The following schedule represents our contractual obligations as of December 31, 2005.

	Total	2006	2007	2008	2009	2010	2011 and Beyond
	(in thousands)						
Notes payable	\$ 8,500	\$ —	\$ 8,500	\$ —	\$ —	\$ —	\$ —
Capital leases, including imputed interest	21	21	—	—	—	—	—
Operating leases	6,450	1,704	1,639	1,428	583	299	797
Total	<u>\$14,971</u>	<u>\$1,725</u>	<u>\$10,139</u>	<u>\$1,428</u>	<u>\$583</u>	<u>\$299</u>	<u>\$797</u>

Critical Accounting Policies

We believe that our critical accounting policies are as follows:

- revenue recognition;
- accounting for income taxes;
- inventory;
- valuation of identifiable intangible assets and in-process research and development in business combinations; and
- valuation of long-lived and intangible assets and goodwill.

Revenue recognition. We recognize revenue of products when persuasive evidence of a sales arrangement exists, the price to the buyer is fixed or determinable, delivery has occurred, and collectibility of the sales price is reasonably assured. Sales of some of our products include provisions to provide additional services such as installation and training. We evaluate all sales with multiple deliverables, including our collaboration agreements, to determine if more than one unit of accounting exists, in accordance with Emerging Issues Task Force (EITF) Issue No. 00-21, *Revenue Arrangements with Multiple Deliverables*. When we determine that there is more than one unit of accounting, and there is objective and reliable evidence of fair value for all units of accounting in an arrangement, the arrangement consideration is allocated to the separate units of accounting based on their relative fair values. In situations where there is objective and reliable evidence of the fair value(s) of the undelivered item(s) in an arrangement but no such evidence for the delivered item(s), we apply the residual method to allocate fair value. Under the residual method, the amount of consideration allocated to the delivered item(s) equals the total arrangement consideration less the aggregate fair value of the undelivered item(s). Revenue for each unit of accounting is recorded once all applicable revenue recognition criteria have been met. Service agreements on our equipment are typically sold separately from the sale of the equipment. Revenues on these service agreements are recognized ratably over the life of the agreement, typically one year, in accordance with FASB Technical Bulletin (FTB) 90-1, *Accounting for Separately Priced Extended Warranty and Product Maintenance Contracts*.

We account for shipping and handling fees and costs in accordance with EITF Issue No. 00-10, *Accounting for Shipping and Handling Fees and Costs*, which requires all amounts charged to customers for shipping and handling to be classified as revenues. Our costs incurred related to shipping and handling are classified as cost of product revenues. Warranties and product returns are estimated and accrued for at the time sales are recorded. We have no obligations to customers after the date products are shipped or installed, if applicable, other than pursuant to warranty obligations and service or maintenance contracts. We provide for the estimated amount of future returns upon shipment of products or installation, if applicable, based on historical experience. While product returns and warranty costs have historically not been significant, they have been within our expectations and the provisions established, however, there is no assurance that we will continue to experience the same return rates and warranty repair costs that we have in the past. Any significant increase in product return rates or a significant increase in the cost to repair our products could have a material adverse impact on our operating results for the period or periods in which such returns or increased costs materialize.

We make estimates evaluating our allowance for doubtful accounts. On an ongoing basis, we monitor collections and payments from our customers and maintain a provision for estimated credit losses based upon our historical experience and any specific customer collection issues that we have identified. While such credit losses have historically not been significant, they have been within our expectations and the provisions established, however, there is no assurance that we will continue to experience the same credit loss rates that we have in the past. A significant change in the liquidity or financial position of our customers could have a material adverse impact on the collectibility of our accounts receivable and our future operating results.

Accounting for income taxes. We are required to determine our annual income tax provision in each of the jurisdictions in which we operate. This involves determining our current and deferred income tax expense as well as accounting for differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. The future tax consequences attributable to these differences result in deferred tax assets and liabilities, which are included in our consolidated balance sheets. We must assess the recoverability of the deferred tax assets by considering whether it is more likely than not that some portion or all of the deferred tax assets will not be realized. To the extent we believe that recovery does not meet this "more likely than not" standard as required in SFAS No. 109, *Accounting for Income Taxes*, we must establish a valuation allowance. If a valuation allowance is established or

increased in a period, generally we must allocate the related income tax expense to income from continuing operations in the consolidated statement of operations.

Management's judgment and estimates are required in determining our income tax provision, deferred tax assets and liabilities and any valuation allowance recorded against deferred tax assets. We have established a valuation allowance attributable to certain temporary differences as we believe that a portion of the deferred tax assets at December 31, 2005 do not meet the "more likely than not" standard of realization based on our ability to generate sufficient future taxable income in the carryback and carryforward periods based on the criteria set forth in SFAS No. 109. We review the recoverability of deferred tax assets during each reporting period by reviewing estimates of future taxable income, future reversals of existing taxable temporary differences, and tax planning strategies that would, if necessary, be implemented to realize the benefit of a deferred tax asset before expiration.

Inventory. We value our inventory at the lower of the actual cost to purchase (first-in, first-out method) and/or manufacture the inventory or the current estimated market value of the inventory. We regularly review inventory quantities on hand and record a provision to write down excess and obsolete inventory to its estimated net realizable value if less than cost, based primarily on its estimated forecast of product demand. Since forecasted product demand quite often is a function of previous and current demand, a significant decrease in demand could result in an increase in the charges for excess inventory quantities on hand. In addition, our industry is subject to technological change and new product development, and technological advances could result in an increase in the amount of obsolete inventory quantities on hand. Therefore, any significant unanticipated changes in demand or technological developments could have a significant adverse impact on the value of our inventory and our reported operating results.

Valuation of identifiable intangible assets acquired in business combinations. Identifiable intangible assets consist primarily of trademarks and acquired technology. Such intangible assets arise from the allocation of the purchase price of businesses acquired to identifiable intangible assets based on their respective fair market values. Amounts assigned to such identifiable intangible assets are primarily based on independent appraisals using established valuation techniques and management estimates. The value assigned to trademarks was determined by estimating the royalty income that would be negotiated at an arm's-length transaction if the asset were licensed from a third party. A discount factor, ranging from 20% to 40%, which represents both the business and financial risks of such investments, was used to determine the present value of the future streams of income attributable to trademarks. The specific approach used to value trademarks was the Relief from Royalty ("RFR") method. The RFR method assumes that an intangible asset is valuable because the owner of the asset avoids the cost of licensing that asset. The royalty savings are then calculated by multiplying a royalty rate times a determined royalty base, i.e., the applicable level of future revenues. In determining an appropriate royalty rate, a sample of guideline, arm's length royalty and licensing agreements are analyzed. In determining the royalty base, forecasts are used based on management's judgments of expected conditions and expected courses of actions. The value assigned to acquired technology was determined by using a discounted cash flow model, which measures what a buyer would be willing to pay currently for the future cash stream potential of existing technology. The specific method used to value the technologies involved estimating future cash flows to be derived as a direct result of those technologies, and discounting those future streams to their present value. The discount factors used, ranging from 20% to 40%, reflects the business and financial risks of an investment in technologies. Forecasts of future cash flows are based on management's judgment of expected conditions and expected courses of action.

Valuation of in-process research and development acquired in business combinations. Purchase price allocation to in-process research and development represents the estimated fair value of research and development projects that are reasonably believed to have no alternative future use. The value assigned to in-process research and development was determined by independent appraisals by estimating the cost to

develop the purchased in-process research and development into commercially feasible products, estimating the percentage of completion at the acquisition date, estimating the resulting net risk-adjusted cash flows from the projects and discounting the net cash flows to their present value. The discount rates used in determining the in-process research and development expenditures reflects a higher risk of investment because of the higher level of uncertainty due in part to the nature of the Company and the industry to constantly develop new technology for future product releases and ranged from 25% to 43.5%. The forecasts used by us in valuing in-process research and development were based on assumptions we believed at the time to be reasonable, but which are inherently uncertain and unpredictable. Given the uncertainties of the development process, no assurance can be given that deviations from our estimates will occur and no assurance can be given that the in-process research and development projects identified will ever reach either technological or commercial success.

Valuation of long-lived and intangible assets and goodwill. In accordance with the provisions of SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*, we assess the value of identifiable intangibles with finite lives and long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Factors we consider important which could trigger an impairment review include the following: significant underperformance relative to expected historical or projected future operating results; significant changes in the manner of our use of the acquired assets or the strategy for our overall business; significant negative industry or economic trends; significant changes in who our competitors are and what they do; significant changes in our relationship with GE Healthcare; significant decline in our stock price for a sustained period; and our market capitalization relative to net book value.

If we were to determine that the value of long-lived assets and identifiable intangible assets with finite lives was not recoverable based on the existence of one or more of the aforementioned factors, then the recoverability of those assets to be held and used would be measured by a comparison of the carrying amount of those assets to undiscounted future net cash flows before tax effects expected to be generated by those assets. If such assets are considered to be impaired, the impairment to be recognized would be measured by the amount by which the carrying value of the assets exceeds the fair value of the assets.

A long-lived asset classified as “held for sale” is initially measured at the lower of carrying amount or fair value less costs to sell. In the period the “held for sale” criteria are met, the Company recognizes an impairment charge for any initial adjustment of the long-lived assets. During each reporting period after the initial measurement, gains or losses resulting from fluctuations in the fair value less costs to sell are recognized. Gains and losses not previously recognized resulting from the sale of a long-lived asset are recognized on the date of sale. Assets to be disposed of are separately presented in the consolidated balance sheet and long-lived assets are no longer depreciated or amortized. The assets and liabilities of a disposal group, which are classified as held for sale, are presented separately in the appropriate asset and liability sections of the balance sheet. Operating results for all periods presented are presented as discontinued operations, net of tax. In accordance with Emerging Issues Task Force Issue No. 87-24, *Allocation of Interest to Discontinued Operations*, the Company has elected not to allocate interest of its consolidated debt to discontinued operations.

In June 2001, SFAS No. 142, *Goodwill and Other Intangible Assets* was issued. SFAS No. 142 addresses financial accounting and reporting for acquired goodwill and other intangible assets. Among other things, SFAS No. 142 requires that goodwill and intangible assets with indefinite useful lives no longer be amortized, but rather tested annually for impairment or more frequently if events or circumstances indicate that there may be impairment. The goodwill impairment test consists of a comparison of the fair value of the Company’s reporting units with their carrying amount. If the carrying amount exceeds its fair value, the Company is required to perform the second step of the impairment test, as this is an indication that goodwill may be impaired. The impairment loss is measured by comparing the implied fair value of the reporting unit’s goodwill with its carrying amount. If the carrying amount exceeds the implied fair

value, an impairment loss shall be recognized in an amount equal to the excess. After an impairment loss is recognized, the adjusted carrying amount of the intangible asset shall be its new accounting basis. Subsequent reversal of a previously recognized impairment loss is prohibited. For unamortizable intangible assets if the carrying amount exceeds the fair value of the asset, the Company would write-down the unamortizable intangible asset to fair value.

During the second quarter of 2005, the asset groups that comprise our Capital Equipment Business segment experienced a significant decrease in revenues and operating profit margins. As a result, with the assistance of third party independent appraisers we re-evaluated the long-lived assets associated with these asset groups in accordance with SFAS No. 144, *Accounting for Impairments or Disposal of Long-Lived Assets* and determined that certain intangible assets within these asset groups were impaired as of June 30, 2005. We recorded abandonment and impairment charges within the Capital Equipment Business segment totaling approximately \$8.1 million for long-lived assets during the second quarter of 2005. The abandonment and impairment charges have been classified within discontinued operations for the year ended December 31, 2005.

Also, as a result of the significant decrease in revenues and operating profit margins experienced by our Capital Equipment Business segment during the second quarter, in accordance with SFAS No. 142, we, with the assistance of third party independent appraisers, re-evaluated the goodwill associated with the Genomic Solutions and Union Biometrika reporting units for impairment as of June 30, 2005. As a result of this goodwill impairment testing, we recorded impairment charges within our Capital Equipment Business segment of approximately \$9.3 million for goodwill during the second quarter of 2005. The impairment charges have been classified within discontinued operations for the year ended December 31, 2005.

During the fourth quarter of 2005, with the assistance of third party independent appraisers, the Company performed its annual impairment testing on the goodwill included in the Capital Equipment disposal group in accordance with SFAS No. 142. In addition, the Company re-evaluated the fair value of the disposal group in accordance with SFAS No. 144. As a result, an additional goodwill impairment charge of approximately \$7.9 million and a write-down of long-lived assets of approximately \$3.4 million were recorded during the fourth quarter of 2005. The Company used a combination of an income approach and a market approach to determine the fair value of the disposal group.

Impact of Foreign Currencies

We sell our products in many countries and a substantial portion of our sales, costs and expenses are denominated in foreign currencies, especially the United Kingdom pound sterling and the Euro. During 2005, the U.S. dollar strengthened against these currencies resulting in decreased consolidated revenue and earnings declines. During 2004, the U.S. dollar weakened against these currencies resulting in increased consolidated revenue and earnings growth. The loss associated with the translation of foreign equity into U.S. dollars was approximately \$4.3 million for 2005 compared to a gain of approximately \$2.2 million for 2004. In addition, currency fluctuations resulted in approximately \$55,000 and \$52,000 in foreign currency losses in 2005 and 2003, respectively, and \$33,000 in foreign currency gains in 2004.

Historically, we have not hedged our foreign currency position. Currently, we attempt to manage foreign currency risk through the matching of assets and liabilities. However, as our sales expand internationally, we plan to evaluate our currency risks and we may enter into foreign exchange contracts from time to time to mitigate foreign currency exposure.

Recently Issued Accounting Pronouncements

In November 2004, SFAS No. 151, *Inventory Costs: an Amendment of ARB No. 43, Chapter 4*, was issued. SFAS No. 151 clarifies the accounting for abnormal amounts of idle facility expense, freight, handling costs and wasted material by requiring those items to be recognized as current-period charges. The Statement is effective for fiscal years beginning after June 15, 2005. The Company does not believe that adoption of this Statement will have a material impact on its consolidated results of operations or financial position.

In December 2004, SFAS No. 123R, *Share-Based Payments, a revision of SFAS No. 123, Accounting for Stock-Based Compensation*, was issued. SFAS No. 123R addresses financial accounting and reporting for costs associated with stock-based compensation. SFAS No. 123R will require the Company to recognize compensation expense in an amount equal to the fair value of share-based payments related to unvested share-based awards over the applicable vesting period. The Statement is effective for annual periods beginning after June 15, 2005. The Company anticipates adopting this statement on a modified prospective basis and is currently evaluating the impact that the adoption of this Statement will have on its consolidated results of operations and financial position.

In December 2004, SFAS No. 153, *Exchanges of Nonmonetary Assets* was issued. SFAS No. 153 amends APB 29, *Accounting for Nonmonetary Transactions*. SFAS No. 153 is based on the principle that exchanges of nonmonetary assets should be measured based on the fair value of the assets exchanged. The guidance in APB 29 included certain exceptions to that principle. SFAS No. 153 amends APB 29 to eliminate the exception for nonmonetary exchanges of similar productive assets and replaces it with a general exception for exchanges of nonmonetary assets that do not have commercial substance. A nonmonetary exchange has commercial substance if the future cash flows of the entity are expected to change significantly as a result of the exchange. SFAS No. 153 is effective for fiscal years beginning after June 15, 2005. We do not anticipate that the adoption of this statement will impact our financial position or results of operations.

Impact of Inflation

We believe that our revenues and results of operations have not been significantly impacted by inflation during the past three years.

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

We manufacture and test the majority of products in research centers in the United States, the United Kingdom, Germany and Austria. We sell our products globally through our direct catalog sales, direct sales force and indirect distributor channels. As a result, our financial results are affected by factors such as changes in foreign currency exchange rates and weak economic conditions in foreign markets.

We collect amounts representing a substantial portion of our revenues and pay amounts representing a substantial portion of our operating expenses in foreign currencies. As a result, changes in currency exchange rates from time to time may affect our operating results. Historically, we have not hedged our foreign currency position. Currently, we attempt to manage foreign currency risk through the matching of assets and liabilities. However, as our sales expand internationally, we plan to evaluate currency risks and we may enter into foreign exchange contracts from time to time to mitigate foreign currency exposure.

We are exposed to market risk from changes in interest rates primarily through our financing activities. At December 31, 2005, we had \$8.5 million outstanding under our revolving credit facility, which bears interest at a variable rate equal to the prime rate. At December 31, 2005, the interest rate on this debt was 7.25%. Assuming no other changes, which would affect the margin of the interest rate under our revolving credit facility, the effect of interest rate fluctuations on outstanding borrowings under our revolving credit facility as of December 31, 2005 over the next twelve months is quantified and summarized as follows:

<u>If compared to the rate at December 31, 2005</u>	<u>Interest Expense Increase (in thousands)</u>
Interest rates increase by 1.0%	\$ 85
Interest rates increase by 2.0%	\$ 170

Item 8. *Financial Statements and Supplementary Data.*

The consolidated financial statements filed as part of this Annual Report on Form 10-K are listed under Item 15 below.

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

As required by Rules 13a-15 and 15d-15 under the Securities Exchange Act of 1934, we have evaluated, with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, the effectiveness of our disclosure controls and procedures as of the end of the period covered by this report. In designing and evaluating our disclosure controls and procedures, we and our management recognize that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and our management necessarily was required to apply its judgment in evaluating and implementing our disclosure controls and procedures. Based upon the evaluation described above, our Chief Executive Officer and Chief Financial Officer have concluded that they believe that our disclosure controls and procedures were effective, as of the end of the period covered by this report, to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms.

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

The Company's management is responsible for establishing and maintaining an adequate system of internal control over financial reporting. 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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of consolidated 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 (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized

acquisition, use, or disposition of the company's assets that could have a material effect on the consolidated 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.

Management of the Company conducted an evaluation of the effectiveness of the Company's internal control over financial reporting as of December 31, 2005 based on the Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on that evaluation, management of the Company concluded that our internal control over financial reporting was effective as of December 31, 2005.

KPMG LLP, an independent registered public accounting firm, has issued an audit report on management's assessment of the Company's internal control over financial reporting, which is included in Item 9A(d).

(c) Changes in Internal Controls Over Financial Reporting

During the fourth quarter of 2005, we changed our internal control over financial reporting by implementing additional controls designed to address the material weaknesses identified in our internal control over financial reporting.

The changes in internal control over financial reporting were made beginning in the third quarter and completed in the fourth quarter of 2005. These changes include the modification of our income tax provision process, including the reconciliation of certain income tax payable accounts, and the implementation of additional review procedures over the processing of certain journal entries. In addition, we hired a tax director to assist us in the development and execution of certain of these controls. The new processes and procedures have been tested by us as part of management's evaluation of the effectiveness of internal control over financial reporting as of December 31, 2005.

Other than the items noted above, we have made no significant changes in the Company's internal controls over financial reporting during the quarter ended December 31, 2005 that would materially affect, or are reasonably likely to materially affect our internal controls over financial reporting.

(d) Report of Independent Registered Public Accounting Firm

**The Board of Directors and Stockholders
Harvard Bioscience, Inc. and subsidiaries:**

We have audited management's assessment, included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting (Item 9A(b)), that Harvard Bioscience, Inc. and subsidiaries maintained effective internal control over financial reporting as of December 31, 2005, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company'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. Our responsibility is to express an opinion on management's assessment and an opinion on the effectiveness of 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, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, 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 consolidated financial statements for external purposes in accordance with U.S. 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 consolidated financial statements in accordance with U.S. 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 consolidated 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.

In our opinion, management's assessment that Harvard Bioscience, Inc. and subsidiaries maintained effective internal control over financial reporting as of December 31, 2005, is fairly stated, in all material respects, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Also, in our opinion, Harvard Bioscience, Inc. and subsidiaries maintained, in all material respects, effective internal control over financial reporting as of December 31, 2005, based on criteria established in Internal Control Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Harvard Bioscience, Inc. and subsidiaries as of December 31, 2005 and 2004, and the related consolidated statements of operations, stockholders' equity and comprehensive income (loss), and cash flows for each of the years in the three-year period ended December 31, 2005 and our report dated March 16, 2006 expressed an unqualified opinion on those consolidated financial statements.

/s/ KPMG LLP

Boston, Massachusetts
March 16, 2006

Item 9B. Other Information.

None.

PART III

Item 10. *Directors and Executive Officers of the Registrant.*

Incorporated by reference to the Company's definitive Proxy Statement filed pursuant to Regulation 14A, in connection with the 2006 Annual Meeting of Stockholders.

The following table shows information about our executive officers as of December 31, 2005.

<u>Name</u>	<u>Age</u>	<u>Position</u>
Chane Graziano	67	Chief Executive Officer and Director
David Green	41	President and Director
Bryce Chicoyne	36	Chief Financial Officer
Susan Luscinski	49	Chief Operating Officer
David Strack	59	President of Genomic Solutions, Inc. and Union Biometrica, Inc.
Mark Norige	51	Chief Operating Officer of the Harvard Apparatus Business Unit

Chane Graziano has served as our Chief Executive Officer and Chairman of our Board of Directors since March 1996. Prior to joining Harvard Bioscience, Mr. Graziano served as the President of Analytical Technology Inc., an analytical electrochemistry instruments company, from 1993 to 1996 and as the President and Chief Executive Officer of its predecessor, Analytical Technology Inc.-Orion, an electrochemistry instruments and laboratory products company, from 1990 until 1993. Mr. Graziano served as the President of Waters Corporation, an analytical instrument manufacturer, from 1985 until 1989. Mr. Graziano has over 42 years experience in the laboratory products and analytical instruments industry.

David Green has served as our President and as a member of our Board of Directors since March 1996. Prior to joining Harvard Bioscience, Mr. Green was a strategy consultant with Monitor Company, a strategy consulting company, in Cambridge, Massachusetts and Johannesburg, South Africa from June 1991 until September 1995 and a brand manager for household products with Unilever PLC, a packaged consumer goods company, in London from September 1985 to February 1989. Mr. Green graduated from Oxford University with a B.A. Honors degree in physics and holds a M.B.A. degree with distinction from Harvard Business School.

Bryce Chicoyne has served as our Chief Financial Officer since August 2004. Prior to joining Harvard Bioscience, Mr. Chicoyne served from December 2002 to August 2004 as Director of Financial Reporting with Apogent Technologies Inc. (now a subsidiary of Fisher Scientific Inc.), a developer and manufacturer of products for the clinical and research industries. From May 2000 to December 2002, Mr. Chicoyne served as the Manager of Financial Reporting of Sonus Networks, Inc., a provider of voice over IP infrastructure solutions for wireline and wireless service providers. Mr. Chicoyne holds a B.S. in accounting from the University of Southern New Hampshire and a M.B.A. from the F.W. Olin School of Business at Babson College.

Susan Luscinski has served as our Chief Operating Officer since August 2004. Ms. Luscinski served as our Chief Financial Officer from August 2001 until August 2004 and Vice President of Finance and Administration from May 1999 until August 2001. Ms. Luscinski served as our Corporate Controller from May 1988 until May 1999 and has served in various other positions at our company and its predecessor since January 1985.

David Strack has served as the President of our Union Biometrica subsidiary since 2001 and President of our Genomic Solutions subsidiary since March 2004. Prior to joining Harvard Bioscience, Dr. Strack served from 2000 to 2001 as President and Chief Operating Officer of Folia Inc., a biodegradable specialty polymers company. From 1996 to 1999, Dr. Strack served as President and Chief Operating Officer of Synthon Corporation, a chemicals company producing specialized chemicals for pharmaceutical companies. Dr. Strack has over 25 years experience in sales, marketing and general management, primarily

in the laboratory instruments arena, including six years as President of the N.A. Instruments Division of ATI, and 13 years at Waters Corporation, progressing through market and product management, field sales management, VP for Pacific (Tokyo) and President of the consumables business unit. Dr. Strack holds a B.S. degree in chemistry from Rochester Institute of Technology, a Ph.D. degree in chemistry from Syracuse University, and a M.B.A. degree in marketing from Fairleigh Dickinson University.

Mark Norige has served as our Chief Operating Officer of the Harvard Apparatus business unit since January 2000 and in various other positions with us since September 1996. Prior to joining Harvard Bioscience, Mr. Norige served as a Business Unit Manager at QuadTech, Inc., an impedance measuring instrument manufacturer, from May 1995 until September 1996. Mr. Norige worked at Waters Corporation from 1977 until May 1995. Mr. Norige holds a B.S. degree from Lowell Technological Institute and a M.B.A. from Babson College.

Item 11. *Executive Compensation.*

Incorporated by reference to the Company's definitive Proxy Statement filed pursuant to Regulation 14A, in connection with the 2006 Annual Meeting of Stockholders.

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

Incorporated by reference to the Company's definitive Proxy Statement filed pursuant to Regulation 14A, in connection with the 2006 Annual Meeting of Stockholders.

Item 13. *Certain Relationships and Related Transactions.*

Incorporated by reference to the Company's definitive Proxy Statement filed pursuant to Regulation 14A, in connection with the 2006 Annual Meeting of Stockholders.

Item 14. *Principal Accountant Fees and Services.*

Incorporated by reference to the Company's definitive Proxy Statement filed pursuant to Regulation 14A, in connection with the 2006 Annual Meeting of Stockholders.

PART IV

Item 15. Exhibits and Financial Statement Schedules.

(a) Documents Filed. The following documents are filed as part of this Annual Report or incorporated by reference as indicated:

1. Financial Statements. The consolidated financial statements of Harvard Bioscience, Inc. and its subsidiaries filed under Item 8:

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Consolidated Balance Sheets as of December 31, 2005 and 2004	F-3
Consolidated Statements of Operations for the years ended December 31, 2005, 2004 and 2003	F-4
Consolidated Statements of Stockholders' Equity and Comprehensive Income (Loss) for the years ended December 31, 2005, 2004 and 2003	F-5
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2. Exhibits and Exhibit Index. See the Exhibit Index included as the last part of this Annual Report, which is incorporated herein by reference.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS
HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

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Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Harvard Bioscience, Inc. and subsidiaries:

We have audited the accompanying consolidated balance sheets of Harvard Bioscience, Inc. and subsidiaries as of December 31, 2005 and 2004, and the related consolidated statements of operations, stockholders' equity and comprehensive income (loss), and cash flows for each of the years in the three-year period ended December 31, 2005. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Harvard Bioscience, Inc. and subsidiaries as of December 31, 2005 and 2004, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2005, in conformity with U.S. generally accepted accounting principles.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of the Company's internal control over financial reporting as of December 31, 2005 based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated March 16, 2006 expressed an unqualified opinion on management's assessment of, and the effective operation of, internal control over financial reporting.

/s/ KPMG LLP

Boston, Massachusetts
March 16, 2006

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

Consolidated Balance Sheets

(In thousands except share and per share data)

	<u>December 31,</u> <u>2005</u>	<u>December 31,</u> <u>2004</u>
Assets		
Current assets:		
Cash and cash equivalents	\$ 7,632	\$ 13,867
Accounts receivable, net of allowance for doubtful accounts of \$347 and \$853, respectively	10,143	18,519
Inventories	9,086	25,465
Deferred income tax assets	1,305	495
Other receivables and other assets	3,286	2,963
Assets of discontinued operations—held for sale	23,944	—
Total current assets	<u>55,396</u>	<u>61,309</u>
Property, plant and equipment, net	3,983	7,143
Deferred income tax assets	273	810
Amortizable intangible assets, net	11,153	27,403
Goodwill and other indefinite lived intangible assets	21,074	42,535
Other assets	156	681
Total assets	<u>\$ 92,035</u>	<u>\$ 139,881</u>
Liabilities and Stockholders' Equity		
Current liabilities:		
Current installments of long-term debt	\$ 21	\$ 20
Accounts payable	3,379	6,251
Deferred revenue	275	2,159
Accrued income taxes payable	647	1,886
Accrued expenses	3,085	4,802
Other liabilities	700	946
Liabilities of discontinued operations	4,889	—
Total current liabilities	<u>12,996</u>	<u>16,064</u>
Long-term debt, less current installments	8,500	16,520
Deferred income tax liabilities	1,235	1,507
Other liabilities	888	1,433
Total liabilities	<u>23,619</u>	<u>35,524</u>
Commitments and contingencies		
Stockholders' equity:		
Preferred stock, par value \$0.01 per share, 5,000,000 shares authorized	—	—
Common stock, par value \$0.01 per share, 80,000,000 shares authorized; 35,142,569 and 35,052,449 shares issued and 30,481,785 and 30,391,665 shares outstanding, respectively	351	351
Additional paid-in-capital	173,694	173,469
Accumulated deficit	(108,139)	(76,262)
Accumulated other comprehensive income	3,178	7,467
Treasury stock, 4,660,784 common shares, at cost	<u>(668)</u>	<u>(668)</u>
Total stockholders' equity	<u>68,416</u>	<u>104,357</u>
Total liabilities and stockholders' equity	<u>\$ 92,035</u>	<u>\$ 139,881</u>

See accompanying notes to consolidated financial statements.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

Consolidated Statements of Operations

(In thousands except per share data)

	<u>Years ended December 31,</u>		
	<u>2005</u>	<u>2004</u>	<u>2003</u>
Revenues	\$ 67,431	\$64,745	\$52,024
Cost of product revenues	34,156	33,312	27,430
Gross profit	<u>33,275</u>	<u>31,433</u>	<u>24,594</u>
Sales and marketing expenses	8,110	7,564	6,062
General and administrative expenses	12,627	10,922	8,434
Research and development expenses	2,950	2,981	2,034
Amortization of intangible assets	1,664	1,582	891
Total operating expenses	<u>25,351</u>	<u>23,049</u>	<u>17,421</u>
Operating income	<u>7,924</u>	<u>8,384</u>	<u>7,173</u>
Other income (expense):			
Foreign exchange	(55)	33	(52)
Interest expense	(917)	(765)	(313)
Interest income	234	123	154
Other, net	(46)	(142)	(801)
Other income (expense), net	<u>(784)</u>	<u>(751)</u>	<u>(1,012)</u>
Income from continuing operations before income taxes	7,140	7,633	6,161
Income taxes	899	3,115	2,542
Income from continuing operations	6,241	4,518	3,619
Discontinued operations, net of tax	<u>(38,118)</u>	<u>(2,189)</u>	<u>641</u>
Net income (loss)	<u>\$ (31,877)</u>	<u>\$ 2,329</u>	<u>\$ 4,260</u>
Income (loss) per share:			
Basic earnings per common share from continuing operations	\$ 0.20	\$ 0.15	\$ 0.12
Discontinued operations	(1.25)	(0.07)	0.02
Basic earnings (loss) per common share	<u>\$ (1.05)</u>	<u>\$ 0.08</u>	<u>\$ 0.14</u>
Diluted earnings per common share from continuing operations	\$ 0.20	\$ 0.15	\$ 0.12
Discontinued operations	(1.24)	(0.08)	0.02
Diluted earnings (loss) per common share	<u>\$ (1.04)</u>	<u>\$ 0.07</u>	<u>\$ 0.14</u>
Weighted average common shares:			
Basic	<u>30,442</u>	<u>30,269</u>	<u>29,924</u>
Diluted	<u>30,781</u>	<u>31,103</u>	<u>30,712</u>

See accompanying notes to consolidated financial statements.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
Consolidated Statements of Stockholders' Equity and
Comprehensive Income (Loss)
Years Ended December 31, 2005, 2004 and 2003
(In thousands)

	Number of Shares Outstanding	Common Stock	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income	Notes Receivable	Treasury Stock	Total Stockholders' Equity
Balance at December 31, 2002	34,692	\$ 347	\$ 171,622	\$ (82,851)	\$ 894	\$ (963)	\$ (668)	\$ 88,381
Issuance of common stock								
Stock option exercises	47	—	65	—	—	—	—	65
Stock purchase plan	57	1	185	—	—	—	—	186
Stock compensation expense	—	—	519	—	—	—	—	519
Shareholder note								
Accrued interest	—	—	58	—	—	(58)	—	—
Note repayment	—	—	—	—	—	1,021	—	1,021
Comprehensive income:								
Net income	—	—	—	4,260	—	—	—	4,260
Translation adjustments	—	—	—	—	4,030	—	—	4,030
Minimum pension liability adjustment, net of tax	—	—	—	—	416	—	—	416
Total comprehensive income	—	—	—	—	—	—	—	8,706
Balance at December 31, 2003	34,796	\$ 348	\$ 172,449	\$ (78,591)	\$ 5,340	\$ —	\$ (668)	\$ 98,878
Issuance of common stock								
Stock option exercises	203	2	668	—	—	—	—	670
Stock purchase plan	53	1	200	—	—	—	—	201
Stock compensation expense	—	—	152	—	—	—	—	152
Comprehensive income:								
Net income	—	—	—	2,329	—	—	—	2,329
Translation adjustments	—	—	—	—	2,235	—	—	2,235
Minimum pension liability adjustment, net of tax	—	—	—	—	(108)	—	—	(108)
Total comprehensive income	—	—	—	—	—	—	—	4,456
Balance at December 31, 2004	35,052	\$ 351	\$ 173,469	\$ (76,262)	\$ 7,467	\$ —	\$ (668)	\$ 104,357
Issuance of common stock								
Stock option exercises	48	—	112	—	—	—	—	112
Stock purchase plan	42	—	113	—	—	—	—	113
Comprehensive income:								
Net loss	—	—	—	(31,877)	—	—	—	(31,877)
Translation adjustments	—	—	—	—	(4,251)	—	—	(4,251)
Minimum pension liability adjustment, net of tax	—	—	—	—	(38)	—	—	(38)
Total comprehensive income (loss)	—	—	—	—	—	—	—	(36,166)
Balance at December 31, 2005	35,142	\$ 351	\$ 173,694	\$ (108,139)	\$ 3,178	\$ —	\$ (668)	\$ 68,416

See accompanying notes to consolidated financial statements.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

**Consolidated Statements of Cash Flows
(In thousands)**

	Years ended December 31,		
	2005	2004	2003
Cash flows from operating activities:			
Net income (loss)	\$ (31,877)	\$ 2,329	\$ 4,260
Adjustments to reconcile net income to net cash provided by operating activities:			
Stock compensation expense	—	152	519
Depreciation	2,084	2,638	2,276
Abandonment and impairment of assets	28,679	—	—
Non-cash restructuring charges	3,685	—	—
Amortization of catalog costs	174	155	302
(Gain) loss on sale of property, plant and equipment	(18)	81	11
Amortization of intangible assets	2,672	3,446	2,702
Amortization of deferred financing costs	107	107	9
Deferred income taxes	(99)	(918)	119
Changes in operating assets and liabilities, net of effects of business acquisitions:			
(Increase) decrease in accounts receivable	1,865	1,382	(3,056)
(Increase) decrease in inventories	1,568	582	(1,076)
Decrease in other receivables and other assets	6	497	255
Decrease in trade accounts payable	(1,352)	(587)	(176)
Increase (decrease) in accrued income taxes payable	(1,978)	778	274
Increase (decrease) in accrued expenses	62	951	(3,066)
Increase (decrease) in deferred revenue	(38)	78	(910)
Decrease in other liabilities	(345)	(233)	(415)
Net cash provided by operating activities	<u>5,195</u>	<u>11,438</u>	<u>2,028</u>
Cash flows from investing activities:			
Additions to property, plant and equipment	(1,100)	(3,011)	(1,349)
Additions to catalog costs	—	(371)	(17)
Proceeds from sales of property, plant and equipment	24	45	118
Acquisition of businesses, net of cash acquired	—	(7,082)	(21,149)
Net cash used in investing activities	<u>(1,076)</u>	<u>(10,419)</u>	<u>(22,397)</u>
Cash flows from financing activities:			
Repayments of short-term debt	—	—	(6,500)
Proceeds from short-term debt	—	—	6,500
Net proceeds from long-term debt	—	6,950	12,489
Repayments of long-term debt	(8,018)	(3,611)	(707)
Net proceeds from issuance of common stock	225	871	1,272
Net cash provided by (used in) financing activities	<u>(7,793)</u>	<u>4,210</u>	<u>13,054</u>
Effect of exchange rate changes on cash	(422)	415	225
Increase (decrease) in cash and cash equivalents	(4,096)	5,644	(7,090)
Cash and cash equivalents at the beginning of period	13,867	8,223	15,313
Cash and cash equivalents at the end of period	<u>\$ 9,771</u>	<u>\$ 13,867</u>	<u>\$ 8,223</u>
Supplemental disclosures of cash flow information:			
Cash paid for interest	\$ 940	\$ 751	\$ 281
Cash paid for income taxes	\$ 2,493	\$ 2,106	\$ 2,466

Note: The above statement of cash flows includes both continuing and discontinued operations. Cash and cash equivalents include \$7,632 cash held by continuing operations and \$2,139 cash held by discontinued operations.

See accompanying notes to consolidated financial statements.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Organization

On March 15, 1996, HAI Acquisition Corp. and its subsidiary, Guell Limited, purchased certain assets and assumed certain liabilities of the former Harvard Apparatus, Inc. and its subsidiary in the United Kingdom, Harvard Apparatus, Ltd. (the "Purchase") for cash consideration of approximately \$3.3 million (including \$0.3 million of acquisition related expenses). After the date of the Purchase, HAI Acquisition Corp. and Guell Limited legally changed their names to Harvard Apparatus, Inc. and Harvard Apparatus, Ltd., respectively. On November 29, 2000, Harvard Apparatus, Inc. changed its name to Harvard Bioscience, Inc.

Harvard Bioscience, Inc. and subsidiaries (the "Company") is a global developer, distributor, manufacturer and marketer of a broad range of specialized products, primarily scientific instruments and apparatus, used to improve life science research at pharmaceutical and biotechnology companies, universities and government laboratories worldwide. We sell our products to thousands of researchers in over 100 countries through our direct sales force, our 1,100 page catalog (and various other specialty catalogs), and through distributors. We have sales and manufacturing operations in the United States, the United Kingdom, Germany and Austria with sales facilities in France and Canada.

2. Summary of Significant Accounting Policies

(a) Principles of Consolidation

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

(b) Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires the use of management estimates. Such estimates include the determination and establishment of certain accruals and provisions, including those for inventory obsolescence, catalog cost amortization periods, tax and reserves for bad debts. In addition, certain estimates are required in order to determine the value of assets and liabilities associated with acquisitions. Estimates are also required to evaluate the value and recoverability of existing long-lived and intangible assets, including goodwill. Actual results could differ from those estimates.

(c) Reclassifications

During the quarter ended September 30, 2005, the Company announced plans to divest its Capital Equipment Business segment. The decision to divest this business segment was based on the fact that market conditions for the Capital Equipment Business have been such that this business has not met the Company's expectations and the decision to focus Company resources on the Apparatus and Instrumentation Business segment. As a result, we began reporting the Capital Equipment Business segment as a discontinued operation in the third quarter of 2005.

Certain other reclassifications to prior year balances have been made to conform to current year presentations.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(d) Cash and Cash Equivalents

For purposes of the consolidated balance sheets and statements of cash flows, the Company considers all highly liquid instruments with original maturities of three months or less to be cash equivalents.

(e) Allowance for Doubtful Accounts

Allowance for doubtful accounts is based on the Company's assessment of the collectibility of customer accounts. The Company regularly reviews the allowance by considering factors such as historical experience, credit quality, age of the accounts receivable balances and other factors that may affect a customer's ability to pay.

(f) Inventories

The Company values its inventories at the lower of the actual cost to purchase (first-in, first-out method) and/or manufacture the inventories or the current estimated market value of the inventories. The Company regularly reviews inventory quantities on hand and records a provision to write down excess and obsolete inventories to its estimated net realizable value if less than cost, based primarily on its estimated forecast of product demand.

(g) Property, Plant and Equipment

Property, plant and equipment are stated at cost. Equipment under capital leases is stated at the present value of the minimum lease payments at the lease agreement date. Property, plant and equipment is depreciated using the straight-line method over the estimated useful lives of the assets as follows:

Buildings	40 years
Machinery and equipment	3-10 years
Computer equipment	3-7 years
Furniture and fixtures	5-10 years
Automobiles	4-6 years

Property and equipment held under capital leases and leasehold improvements are amortized using the straight line method over the shorter of the lease term or estimated useful life of the asset. Amortization of assets held under capital leases is included in depreciation expense.

(h) Catalog Costs

Significant costs of product catalog design, development and production are capitalized and amortized over the expected useful life of the catalog (usually one to three years).

(i) Income Taxes

Income taxes are accounted for under the asset and liability method. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to be applied to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

(j) Foreign Currency Translation

All assets and liabilities of the Company's foreign subsidiaries are translated at exchange rates in effect at year-end. Income and expenses are translated at rates which approximate those in effect on the transaction dates. The resulting translation adjustment is recorded as a separate component of stockholders' equity in accumulated other comprehensive income in the consolidated balance sheets. Gains and losses resulting from foreign currency transactions are included in net income (loss).

Certain debt between the Company and its foreign subsidiaries does not require repayment in the foreseeable future and accordingly the Company treats this intercompany debt as a long-term investment rather than as debt. The Company records the effects of the exchange rate fluctuations on this intercompany debt as a currency translation adjustment in accumulated other comprehensive income in stockholders' equity.

(k) Stock Based Compensation

Stock compensation expense resulting from stock option grants to employees represents the difference between the fair market value and the exercise price of the stock options on the grant date for those options considered fixed awards. Stock compensation is amortized as a charge to operations using an accelerated vesting method in accordance with Financial Accounting Standards Board (FASB) Interpretation No. 28, *Accounting for Stock Appreciation Rights and Other Variable Stock Option or Award Plans*, which results in decreasing compensation expense from the date of the stock option grant until the vesting dates.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The Company has adopted the disclosure provisions of Statement of Financial Accounting Standards (SFAS) No. 148, *Accounting for Stock-Based Compensation—Transition and Disclosure, an amendment of SFAS No. 123* and continues to apply Accounting Principles Board Opinion (APB) No. 25 and related interpretations in accounting for its stock option plans. If the Company had elected to recognize compensation cost for all of the plans based upon fair value at the grant dates for awards under those plans, consistent with the method prescribed by SFAS No. 123, net income and earnings per share would have been changed to the pro forma amounts indicated below:

	<u>Year Ended December 31,</u>		
	<u>2005</u>	<u>2004</u>	<u>2003</u>
	(in thousands, except per share data)		
Net income (loss), as reported	\$(31,877)	\$ 2,329	\$ 4,260
Add: stock-based employee compensation expense included in reported net income, net of tax	—	149	511
Deduct: total stock-based employee compensation expense determined under fair-value based method for all awards, net of tax	(3,146)	(4,786)	(3,774)
Pro forma net income (loss)	<u>\$(35,023)</u>	<u>\$(2,308)</u>	<u>\$ 997</u>
Earnings (loss) per share:			
Basic—as reported	\$ (1.05)	\$ 0.08	\$ 0.14
Basic—pro forma	<u>\$ (1.15)</u>	<u>\$ (0.08)</u>	<u>\$ 0.03</u>
Diluted—as reported	\$ (1.04)	\$ 0.07	\$ 0.14
Diluted—pro forma	<u>\$ (1.11)</u>	<u>\$ (0.08)</u>	<u>\$ 0.03</u>

The fair value of the Company's stock options used to compute pro forma net income (loss) and earnings (loss) per share disclosures is the estimated present value at grant date using the Black-Scholes option pricing model with the following weighted average assumptions:

	<u>Year Ended December 31,</u>		
	<u>2005</u>	<u>2004</u>	<u>2003</u>
Volatility	94.72%	85.00%	106.91%
Risk-free interest rate	3.85%	3.60%	3.50%
Expected holding period	3 years	4 years	4 years
Dividend yield	0%	0%	0%

The Black-Scholes option valuation model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. In addition, option valuation models require the input of highly subjective assumptions, including the expected stock price volatility. Because the Company's stock options have characteristics significantly different from traded options, and because changes in the subjective input assumptions can materially affect the fair value estimate, in the opinion of management, the existing models do not necessarily provide a reliable single value of the Company's stock options and may not be representative of the future effects on reported net income or the future stock price of the Company.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(l) Earnings Per Share

Basic earnings per share is computed by dividing the net income by the weighted average number of shares of common stock outstanding during the periods presented. The computation of diluted income per share is similar to the computation of basic income per share, except that the denominator is increased for the assumed exercise of dilutive options and other potentially dilutive securities using the treasury stock method unless the effect is antidilutive.

The weighted average number of shares used to compute basic and diluted earnings per share consists of the following:

	Years Ended December 31,		
	2005	2004	2003
	(in thousands)		
Basic	30,442	30,269	29,924
Effect of assumed conversion of employee stock options	339	834	788
Diluted	30,781	31,103	30,712

Options to purchase approximately 2,395,000, 2,374,000 and 182,000 shares of common stock for the years ended December 31, 2005, 2004 and 2003, respectively, were not included in the computation of diluted earnings per share because to do so would have been antidilutive.

(m) Comprehensive Income (Loss)

The Company follows SFAS No. 130, *Reporting Comprehensive Income*. SFAS No. 130 requires companies to report all changes in equity during a period, resulting from net income (loss) and transactions from non-owner sources, in a financial statement in the period in which they are recognized. The Company has chosen to disclose comprehensive income (loss), which encompasses net income (loss), foreign currency translation adjustments and pension minimum additional liability adjustments, net of tax, in the consolidated statements of stockholders' equity and comprehensive income (loss). As of December 31, 2005, accumulated other comprehensive income consisted of cumulative foreign currency translation adjustments of \$3.8 million and a minimum pension liability adjustment of \$(0.6) million, net of tax. As of December 31, 2004, accumulated other comprehensive income consisted of cumulative foreign currency translation adjustments of \$8.0 million and a minimum pension liability adjustment of \$(0.5) million, net of tax.

(n) Revenue Recognition

The Company recognizes revenue of products when persuasive evidence of a sales arrangement exists, the price to the buyer is fixed or determinable, delivery has occurred, and collectibility of the sales price is reasonably assured. Sales of some of the Company's products include provisions to provide additional services such as installation and training. The Company evaluates all sales with multiple deliverables, including our collaboration agreements, to determine if more than one unit of accounting exists, in accordance with Emerging Issues Task Force (EITF) Issue No. 00-21, *Revenue Arrangements with Multiple Deliverables*. When the Company determines that there is more than one unit of accounting, and there is objective and reliable evidence of fair value for all units of accounting in an arrangement, the arrangement consideration is allocated to the separate units of accounting based on their relative fair values. In situations where there is objective and reliable evidence of the fair value(s) of the undelivered item(s) in an

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

arrangement but no such evidence for the delivered item(s) the Company applies the residual method to allocate fair value. Under the residual method, the amount of consideration allocated to the delivered item(s) equals the total arrangement consideration less the aggregate fair value of the undelivered item(s). Revenue for each unit of accounting is recorded once all applicable revenue recognition criteria have been met. Service agreements on our equipment are typically sold separately from the sale of the equipment. Revenues on these service agreements are recognized ratably over the life of the agreement, typically one year, in accordance with FASB Technical Bulletin 90-1, *Accounting for Separately Priced Extended Warranty and Product Maintenance Contracts*. The Company accounts for shipping and handling fees and costs in accordance with EITF Issue No. 00-10, *Accounting for Shipping and Handling Fees and Costs*, which requires all amounts charged to customers for shipping and handling to be classified as revenues. The Company's costs incurred related to shipping and handling are classified as cost of product revenues. Warranties and product returns are estimated and accrued for at the time sales are recorded. The Company has no obligations to customers after the date products are shipped or installed, if applicable, other than pursuant to warranty obligations or service and maintenance contracts. The Company provides for the estimated amount of future returns upon shipment of products or installation, if applicable, based on historical experience.

(o) Goodwill and Other Intangible Assets

Goodwill and other intangible assets include goodwill, unamortizable intangible assets and amortizable intangible assets. Amortizable intangible assets (those intangible assets with definite estimated useful lives) are initially recorded at fair value and amortized, using the straight-line method, over their estimated useful lives. At December 31, 2005, amortizable intangible assets include existing technology, trade names, distribution agreements, customer relationships and patents. These amortizable intangible assets are amortized on a straight-line basis over 1 to 15 years, 15 years, 5 to 15 years, 11 years and 15 years, respectively.

Goodwill and unamortizable intangible assets acquired in a business combination and determined to have an indefinite useful life are not amortized, but instead tested for impairment annually or more frequently if events or changes in circumstances indicate that the asset might be impaired, in accordance with the provisions of SFAS No. 142, *Goodwill and Other Intangible Assets*. For goodwill, to the extent the carrying amount of a reporting unit exceeds the fair value of the reporting unit, the Company would be required to perform the second step of the impairment test, as this is an indication that the reporting unit goodwill may be impaired. For unamortizable intangible assets if the carrying amount exceeds the fair value of the asset, the Company would write-down the unamortizable intangible asset to fair value.

(p) Impairment or Disposal of Long-Lived Assets

The Company assesses the recoverability of its long-lived assets that are held for use, such as property, plant and equipment and amortizable intangible assets in accordance with SFAS No. 144, *Accounting for Impairment or Disposal of Long-Lived Assets* when events or changes in circumstances indicate that the carrying amount of an asset or asset group may not be recoverable. Recoverability of assets or an asset group to be held and used is measured by a comparison of the carrying amount of an asset or asset group to estimated undiscounted future cash flows expected to be generated by the asset or the asset group. Cash flow projections are based on trends of historical performance and management's estimate of future performance. If the carrying amount of the asset or asset group exceeds the estimated future cash flows, an

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

impairment charge is recognized by the amount by which the carrying amount of the asset or asset group exceeds its fair value.

A long-lived asset classified as “held for sale” is initially measured at the lower of carrying amount or fair value less costs to sell. In the period the “held for sale” criteria are met, the Company recognizes an impairment charge for any initial adjustment of the long-lived assets. During each reporting period after the initial measurement, gains or losses resulting from fluctuations in the fair value less costs to sell are recognized. Gains and losses not previously recognized resulting from the sale of a long-lived asset are recognized on the date of sale. Assets to be disposed of are separately presented in the consolidated balance sheet and long-lived assets are no longer depreciated or amortized. The assets and liabilities of a disposal group which are classified as held for sale are presented separately in the appropriate asset and liability sections of the balance sheet. Operating results for all periods presented are presented as discontinued operations, net of tax. In accordance with EITF No. 87-24, *Allocation of Interest to Discontinued Operations*, the Company has elected not to allocate interest of its consolidated debt to discontinued operations.

(q) Fair Value of Financial Instruments

The carrying value of the Company’s cash and cash equivalents, trade accounts receivable and trade accounts payable approximate their fair values because of the short maturities of those instruments. The fair value of our long-term debt approximates its carrying amount and is based on the amount of future cash flows associated with the debt discounted using the Company’s current borrowing rate for similar debt instruments of comparable maturity.

(r) Recently Issued Accounting Pronouncements

In November 2004, SFAS No. 151, *Inventory Costs: an Amendment of ARB No. 43, Chapter 4*, was issued. SFAS No. 151 clarifies the accounting for abnormal amounts of idle facility expense, freight, handling costs and wasted material by requiring those items to be recognized as current-period charges. The Statement is effective for fiscal years beginning after June 15, 2005. The Company does not believe that adoption of this statement will have a material impact on its consolidated results of operations or financial position.

In December 2004, SFAS No. 123R, *Share-Based Payments, a revision of SFAS No. 123, Accounting for Stock-Based Compensation*, was issued. SFAS No. 123R addresses financial accounting and reporting for costs associated with stock-based compensation. SFAS No. 123R will require the Company to recognize compensation expense in an amount equal to the fair value of share-based payments related to unvested share-based awards over the applicable vesting period. The Company anticipates adopting this statement on a modified prospective basis and is currently evaluating the impact that the adoption of this Statement will have on its consolidated results of operations and financial position.

In December 2004, SFAS No. 153, *Exchanges of Nonmonetary Assets* was issued. SFAS No. 153 amends APB No. 29, *Accounting for Nonmonetary Transactions*. SFAS No. 153 is based on the principle that exchanges of nonmonetary assets should be measured based on the fair value of the assets exchanged. The guidance in APB No. 29 included certain exceptions to that principle. SFAS No. 153 amends APB No. 29 to eliminate the exception for nonmonetary exchanges of similar productive assets and replaces it with a general exception for exchanges of nonmonetary assets that do not have commercial substance. A nonmonetary exchange has commercial substance if the future cash flows of the entity are expected to

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

change significantly as a result of the exchange. SFAS No. 153 is effective for fiscal years beginning after June 15, 2005. We do not anticipate that the adoption of this statement will impact our financial position or results of operations.

3. Concentrations

One commercial customer accounted for 23%, 25% and 22% of revenues for the years ended December 31, 2005, 2004 and 2003, respectively. The Company has an agreement with this commercial customer, which expires in August 2006, and is currently under renegotiation. At December 31, 2005, two customers accounted for 34% and at December 31, 2004, one customer accounted for 12% of net accounts receivable. Except as noted above, no other individual customer accounted for more than 10% of revenues for the years ended December 31, 2005, 2004 and 2003. In addition, except as noted above, no other individual customer accounted for more than 10% of accounts receivable at December 31, 2005 and 2004.

4. Inventories

Inventories consist of the following:

	<u>December 31,</u>	
	<u>2005</u>	<u>2004</u>
	(in thousands)	
Finished goods	\$3,205	\$ 9,390
Work in process	987	3,746
Raw materials	4,894	12,329
	<u>\$9,086</u>	<u>\$25,465</u>

As of December 31, 2005, inventories held by our Capital Equipment Business segment of \$9.8 million were included in assets of discontinued operations—held for sale. See Note 7—Discontinued Operations.

5. Property, Plant and Equipment

Property, plant and equipment consist of the following:

	<u>December 31,</u>	
	<u>2005</u>	<u>2004</u>
	(in thousands)	
Land, buildings and leasehold improvements	\$ 2,196	\$ 2,368
Machinery and equipment	3,836	6,749
Computer equipment	2,254	3,200
Furniture and fixtures	618	1,612
Automobiles	185	257
	<u>\$ 9,089</u>	<u>\$14,186</u>
Less: accumulated depreciation	(5,106)	(7,043)
Property, plant and equipment, net	<u>\$ 3,983</u>	<u>\$ 7,143</u>

As of December 31, 2005, property, plant and equipment held by our Capital Equipment Business segment of \$1.2 million were included in assets of discontinued operations—held for sale. See Note 7—Discontinued Operations.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

6. Acquisitions

The Company's continuing operations have completed three acquisitions since January 1, 2003.

KD Scientific

On March 3, 2004, the Company acquired all issued and outstanding shares of KD Scientific, Inc. ("KDS") for approximately \$6.8 million (including acquisition costs of approximately \$0.2 million). KDS designs, manufactures and sells a range of quality fluidics equipment used in research laboratories worldwide. The acquisition complements our core fluidics products with the addition of the recognized KD Scientific brand and complementary technology. Currently, KDS sells primarily through major scientific products distributors. Goodwill recognized in connection with the acquisition, represents excess of purchase price over the fair value of net tangible and intangible assets acquired and can be attributed to, among other factors, expected future strategic synergies and the potential for new customers. The acquisition was funded by proceeds from the Company's \$20 million credit facility with Brown Brothers Harriman. The results of operations of KDS have been included in the consolidated financial statements of the Company from the date of acquisition.

During 2004, with the assistance of an external valuation company, management finalized the purchase price allocation for the KDS acquisition. The final aggregate purchase price of this acquisition was allocated to tangible and intangible assets acquired based on their fair values as follows:

	(in thousands)
Tangible assets	\$ 456
Liabilities assumed	(1,901)
Net liabilities assumed	(1,445)
Goodwill and intangible assets:	
Existing technology	500
Distribution agreements / customer relations	3,100
Goodwill	3,777
Other indefinite lived intangibles (trade name)	900
Total goodwill and intangible assets	<u>8,277</u>
Cash paid for acquisition	<u>\$ 6,832</u>

Hoefer

On November 24, 2003, the Company acquired certain assets and liabilities of the Hoefer one-dimensional gel electrophoresis business of Amersham Biosciences Corp., including the Hoefer brand name for approximately \$5.4 million (including acquisition costs of approximately \$0.4 million). The results of operations have been included in the consolidated financial statements since the date of acquisition.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

As of December 31, 2004, with the assistance of an external valuation company, management finalized the purchase price allocation for the Hoefer acquisition. The final aggregate purchase price of this acquisition was allocated to tangible and intangible assets acquired based on their fair values as follows:

	(in thousands)
Tangible assets	\$2,418
Liabilities assumed	(136)
Net assets acquired	<u>2,282</u>
Goodwill and intangible assets:	
Existing technology	314
Distribution agreements / customer relationships	1,653
Goodwill	1,109
Other indefinite lived intangibles (trade name)	27
Total goodwill and intangible assets	<u>3,103</u>
Cash paid for acquisition	<u>\$5,385</u>

During 2003 and 2004, a total of approximately \$0.3 million of fair value adjustments related to acquired backlog and inventory was expensed through cost of product revenues for orders that were sold since the date of the acquisition.

BTX

On January 31, 2003, the Company acquired substantially all of the assets of the BTX division of Genetronics Biomedical Corporation (BTX) for \$4.0 million in cash (including \$0.3 million in acquisition related costs) and the assumption of \$0.2 million of liabilities. The results of operations have been included in the consolidated financial statements since the date of acquisition. BTX designs, develops, manufactures and distributes electroporation products.

During 2003, the Company completed the valuation of BTX's assets and liabilities acquired and a final purchase price allocation was prepared and is included as part of these consolidated financial statements. The purchase price, which has been allocated on the basis of fair value of assets acquired and liabilities assumed at the date of acquisition, resulted in the following allocation:

	(in thousands)
Tangible assets	\$1,437
Liabilities assumed	(229)
Net assets acquired	<u>1,208</u>
Goodwill and intangible assets:	
Existing technology	1,678
Goodwill	1,083
Other indefinite lived intangibles (trade name)	32
Total goodwill and intangible assets	<u>2,793</u>
Cash paid for acquisition	<u>\$4,001</u>

During 2003, we also acquired BioRobotics Ltd and GeneMachines, which are included in our discontinued operations.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

7. Discontinued Operations

In July 2005, we announced plans to divest our Capital Equipment Business segment. The decision to divest this business was based on the fact that market conditions for the Capital Equipment Business segment have been such that this business has not met our expectations and the decision to focus our resources on our Apparatus and Instrumentation Business segment. As a result, we began reporting our Capital Equipment Business segment as a discontinued operation in the third quarter of 2005. The Company currently anticipates it will dispose of the Capital Equipment Business segment in a single transaction prior to the end of the third quarter of 2006.

Prior to being classified as a discontinued operation, during the second quarter of 2005, the asset groups that comprise the Company's Capital Equipment Business segment experienced a significant decrease in revenues and operating profit margins. As a result, with the assistance of third party independent appraisers the Company re-evaluated the long-lived assets associated with these asset groups in accordance with SFAS No. 144 and determined that certain intangible assets within these asset groups were impaired as of June 30, 2005. The Company used an income approach to determine the fair values. The Company recorded abandonment and impairment charges within the Capital Equipment Business segment totaling approximately \$8.1 million for long-lived assets during the second quarter of 2005. These abandonment and impairment charges have been classified within discontinued operations for the year ended December 31, 2005.

Also, as a result of the significant decrease in revenues and operating profit margins experienced by the Capital Equipment Business segment during the second quarter, in accordance with SFAS No. 142, the Company, with the assistance of third party independent appraisers, re-evaluated the goodwill associated with the Genomic Solutions and Union Biometrica reporting units for impairment as of June 30, 2005. As a result of this goodwill impairment testing, the Company recorded impairment charges within the Capital Equipment Business segment of approximately \$9.3 million for goodwill during the second quarter of 2005. The Company used a combination of an income approach and a market approach to determine the fair value. These impairment charges have been classified within discontinued operations for the year ended December 31, 2005.

During the fourth quarter of 2005, with the assistance of third party independent appraisers, the Company performed its annual impairment testing on the goodwill included in the disposal group in accordance with SFAS No. 142. In addition, due to the fact that the disposal group did not meet its forecasts and expectations set forth by the Company, it re-evaluated the fair value of the disposal group in accordance with SFAS No. 144. As a result, an additional goodwill impairment charge of approximately \$7.9 million and a write-down of long-lived assets of approximately \$3.4 million were recorded during the fourth quarter of 2005. The Company used a combination of an income approach and a market approach to determine the fair value of the disposal group.

During 2004, the Company announced restructuring activities within the Capital Equipment Business segment at its Genomic Solutions subsidiary related to the closure of a manufacturing facility and realignment of its cost structure. Total restructuring charges for 2004 were approximately \$0.4 million. During 2005, the Company expanded this plan to include the closure of another manufacturing facility and to discontinue certain product lines due to product rationalization decisions made during the second quarter. Total restructuring charges during 2005 for the Genomic Solutions subsidiary were \$4.0 million. These charges related primarily to the write-off of inventory for rationalized products of \$3.5 million, severance costs of \$0.2 million, facility closure costs of \$0.2 million and other costs of \$0.1 million. In

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

addition, we recorded charges of approximately \$0.2 million related to a decision to consolidate our Union Biometrica US manufacturing facility into our Holliston, MA facility. As of December 31, 2005, there were no remaining restructuring liabilities.

Operating results from our Capital Equipment Business segment were as follows:

	<u>December 31,</u>		
	<u>2005</u>	<u>2004</u>	<u>2003</u>
	(in thousands)		
Total revenues	\$ 22,101	\$27,976	\$35,117
Cost of product revenues	14,596	13,335	16,381
Pretax (loss) income	(38,891)	(3,837)	1,076
Income tax	(773)	(1,648)	435
Net income (loss)	(38,118)	(2,189)	641

Assets and liabilities of our Capital Equipment Business segment were as follows:

	<u>December 31,</u>	
	<u>2005</u>	<u>2004</u>
	(in thousands)	
Assets		
Cash and cash equivalents	\$ 2,139	\$ 1,672
Accounts receivable, net	5,569	8,487
Inventories	9,793	15,416
Other assets	1,741	1,452
Long-lived assets	4,702	36,827
Total assets	<u>\$23,944</u>	<u>\$63,854</u>
Liabilities		
Total liabilities	<u>\$ 4,889</u>	<u>\$ 7,835</u>

8. Goodwill and Other Intangible Assets

On January 1, 2002, the Company adopted SFAS No. 142. As a result of the adoption, goodwill and other indefinite-lived intangible assets are no longer being amortized, but are subject to annual impairment reviews, or more frequently, if events or circumstances indicate there may be an impairment.

As of December 31, 2005, the Company completed its annual goodwill impairment tests and concluded there was no impairment to goodwill included in its continuing operations. See Note 7—Discontinued Operations for a discussion of abandonment, impairment and write-down charges taken during 2005 on our discontinued operations.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Intangible assets consist of the following:

	As of December 31,				Weighted Average Life (a)
	2005		2004		
	Gross	Accumulated Amortization	Gross	Accumulated Amortization	
	(in thousands)				
Amortizable intangible assets (b):					
Existing technology	\$10,453	\$ (3,405)	\$29,631	\$ (7,584)	8.1 years
Tradename	920	(373)	1,680	(493)	9.0 years
Distribution agreement/customer relationships	4,753	(1,201)	4,753	(591)	7.6 years
Patents	9	(3)	9	(2)	10.3 years
Total amortizable intangible assets	<u>\$16,135</u>	<u>\$ (4,982)</u>	<u>\$36,073</u>	<u>\$ (8,670)</u>	
Unamortizable intangible assets (c):					
Goodwill			\$41,083		
Other indefinite lived intangible assets	1,022		1,452		
Total goodwill and other indefinite lived intangible assets	<u>\$21,074</u>		<u>\$42,535</u>		
Total intangible assets	<u>\$37,209</u>		<u>\$78,608</u>		

- (a) Weighted average life is as of December 31, 2005.
- (b) As of December 31, 2005, approximately \$2.4 million of amortizable intangible assets were included in assets of discontinued operations—held for sale. See Note 7—Discontinued Operations.
- (c) As of December 31, 2005, approximately \$2.4 million of goodwill and non-amortizable intangible assets were included in assets of discontinued operations—held for sale. See Note 7—Discontinued Operations.

The changes in the carrying amount of goodwill for the years ended December 31, 2005 and 2004 are as follows:

Balance at December 31, 2003	\$ 35,789
Goodwill acquired during the year	3,777
Adjustment to purchase price allocations of prior year acquisitions	715
Effect of change in foreign currencies	802
Balance at December 31, 2004	<u>41,083</u>
Impairments	(17,203)
Reclassified to discontinued operations	(2,193)
Effect of change in foreign currencies and other	(1,635)
Balance at December 31, 2005	<u>\$ 20,052</u>

Intangible asset amortization expense for the years ended December 31, 2005, 2004, and 2003 was \$1.7 million, \$1.6 million and \$0.9 million, respectively. Amortization expense of existing amortizable intangible assets is estimated to be \$1.6 million for the years ending December 31, 2006, 2007 and 2008, \$1.3 million for the year ended December 31, 2009 and \$1.1 million for the year ended December 31, 2010.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

9. Long-Term Debt

Long-term debt consists of the following:

	December 31,	
	2005	2004
	(in thousands)	
Notes payable	\$ 8,500	\$ 16,500
Capital lease obligations (Note 10)	21	40
	\$ 8,521	\$ 16,540
Less: current installments	(21)	(20)
Total	\$ 8,500	\$ 16,520

On November 21, 2003, we entered into a \$20 million revolving credit facility with Brown Brothers Harriman and Company (the "bank"). The credit facility expires on January 1, 2007 and bears an interest rate equal to the bank's base rate, which at December 31, 2005 was equal to the prime rate of 7.25%. The credit facility contains covenants relating to net income, debt service coverage and cash flow coverage. The Company is currently in compliance with such covenants. The credit facility requires the Company to seek approval from the bank prior to any acquisition where the purchase price will exceed \$10 million in stock or \$6 million in cash. Additionally, under the current terms of our existing credit facility, we will be required to obtain consent from our lenders upon the sale of our Capital Equipment Business segment. We are assessed a .25% fee on the unused portion of the credit facility. As of December 31, 2005, there was \$8.5 million outstanding under the credit facility, a decrease of approximately \$8.0 million from \$16.5 million as of December 31, 2004. As of December 31, 2005, we had available borrowing capacity under our revolving credit facility of \$11.5 million, but were limited to borrowing approximately \$9.8 million by the revolving credit facility's covenants.

The debt repayment schedule, excluding capital lease payments, is as follows:

	(in thousands)
2006	\$ —
2007	8,500
Total	\$ 8,500

10. Leases

The Company leases automobiles and equipment under various leases that are classified as capital leases. The carrying value of automobiles and equipment under capital leases at December 31, 2005 and 2004 was approximately \$81,000 and \$129,000 respectively, which is net of \$162,000 and \$156,000, respectively, of accumulated depreciation.

The Company has noncancelable operating leases for office and warehouse space expiring at various dates through 2015. Rent expense, which is recorded on a straight-line basis, was approximately \$1.4 million for the years ended December 31, 2005 and 2004, respectively, and was \$1.1 million for the year ended December 31, 2003.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Future minimum lease payments for both capital and operating leases, with initial or remaining terms in excess of one year at December 31, 2005, are as follows:

	<u>Capital Leases</u>	<u>Operating Leases</u>
	(in thousands)	
2006	\$21	\$1,376
2007	—	1,329
2008	—	1,187
2009	—	514
2010	—	299
Thereafter	—	797
Net minimum lease payments	<u>\$21</u>	<u>\$5,502</u>
Less: interest	—	
Present value of net minimum lease payments	<u>\$21</u>	

11. Accrued Expenses

Accrued expenses consist of:

	<u>December 31,</u>	
	<u>2005</u>	<u>2004</u>
	(in thousands)	
Accrued compensation and payroll	\$1,080	\$ 797
Accrued legal and professional fees	1,057	1,409
Warranty costs	231	760
Other	717	1,836
Total	<u>\$3,085</u>	<u>\$4,802</u>

As of December 31, 2005, approximately \$1.9 million of accrued expenses were included in liabilities of discontinued operations—held for sale. See Note 7—Discontinued Operations.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

12. Income Taxes

Income tax expense (benefit) attributable to income from continuing operations for the years ended December 31, 2005, 2004 and 2003 consisted of:

	<u>Years ended December 31,</u>		
	<u>2005</u>	<u>2004</u>	<u>2003</u>
	(in thousands)		
Current income tax expense (benefit):			
Federal and state	\$ (420)	\$ 1,211	\$ 358
Foreign	1,586	2,016	1,941
	<u>\$ 1,166</u>	<u>\$ 3,227</u>	<u>\$ 2,299</u>
Deferred income tax (benefit) expense:			
Federal and state	\$ (265)	\$ 194	\$ 357
Foreign	(2)	(306)	(114)
	<u>\$ (267)</u>	<u>\$ (112)</u>	<u>\$ 243</u>
Total income tax expense	<u>\$ 899</u>	<u>\$ 3,115</u>	<u>\$ 2,542</u>

Income tax expense for the periods ended December 31, 2005, 2004 and 2003 differed from the amount computed by applying the U.S. federal income tax rate of 34% to pre-tax continuing operations income as a result of the following:

	<u>Years ended December 31,</u>		
	<u>2005</u>	<u>2004</u>	<u>2003</u>
	(in thousands)		
Computed "expected" income tax expense	\$ 2,428	\$ 2,595	\$ 2,092
Increase in income taxes resulting from:			
Permanent differences, net	661	280	828
Foreign tax rate and regulation differential	(69)	320	4
State income taxes, net of federal income tax benefit	(488)	132	38
Foreign withholding taxes.	189	—	—
Impact of discontinued operations.	(1,571)	—	—
Stock compensation expense in excess of allowable tax benefits on exercise of options	—	50	168
Federal tax expense differential from prior year tax	—	11	83
Tax credits	(495)	(165)	(357)
Reversal of previously accrued taxes.	—	(546)	—
Change in valuation allowance allocated to income tax expense	433	561	(220)
Other.	(189)	(123)	(94)
Total income tax expense	<u>\$ 899</u>	<u>\$ 3,115</u>	<u>\$ 2,542</u>

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Income tax expense is based on the following pre-tax continuing operations income (loss) for the years ended December 31, 2005, 2004 and 2003:

	<u>Years ended December 31.</u>		
	<u>2005</u>	<u>2004</u>	<u>2003</u>
	(in thousands)		
Domestic	\$ 8,482	\$ 4,654	\$ 486
Foreign	(1,342)	2,979	5,675
	<u>\$ 7,140</u>	<u>\$ 7,633</u>	<u>\$ 6,161</u>

The tax effects of temporary differences that give rise to significant components of the deferred tax assets and deferred tax liabilities from continuing operations at December 31, 2005 and 2004 are as follows:

	<u>Years ended December 31.</u>	
	<u>2005</u>	<u>2004</u>
	(in thousands)	
Deferred tax assets:		
Accounts receivable.	\$ 23	\$ 72
Inventory	621	1,270
Operating loss and credit carryforwards	2,258	13,327
Accrued expenses.	220	122
Goodwill and other intangibles	—	637
Property, plant and equipment.	—	22
Minimum pension liability	277	250
Other accrued liabilities.	803	2,076
Total gross deferred assets	4,202	17,776
Less: valuation allowance	(1,304)	(10,402)
Deferred tax assets	<u>\$ 2,898</u>	<u>\$ 7,374</u>
Deferred tax liabilities:		
Property, plant and equipment	\$ 165	\$ 404
Intangible assets	2,014	6,907
Other accrued liabilities	571	265
Total deferred tax liabilities	<u>2,750</u>	<u>7,576</u>
Net deferred tax asset/(liability).	<u>\$ 148</u>	<u>\$ (202)</u>

As of December 31, 2005, gross deferred tax assets held by our Capital Equipment Business segment were approximately \$14.3 million, and primarily consisted of operating loss and credit carryforwards, offset by valuation allowances of approximately \$14.2 million. These deferred tax assets and offsetting valuation allowances are included in assets of discontinued operations—held for sale. See Note 7—Discontinued Operations.

The amount recorded as gross deferred tax assets as of December 31, 2005 and December 31, 2004 represents the amount of tax benefits of existing deductible temporary differences or carryforwards that are more likely than not to be realized through the generation of sufficient future taxable income within the carryforward period. Due to the operating results of the Capital Equipment Business segment the Company concluded that a full valuation allowance was needed to offset most United States deferred tax

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

assets, net of deferred tax liabilities except deferred tax liabilities related to indefinite lived intangible assets.

At December 31, 2005, including our discontinued operations, the Company had federal and state net operating loss carryforwards available to offset future taxable income of approximately \$43.6 million. The operating loss carryforwards will begin to expire in 2006. Furthermore, the Company had foreign operating loss carryforwards to offset future taxable income of approximately \$5.0 million which begin to expire in 2006. The Company, including our discontinued operations, also had federal and state general business and minimum tax credit carryforwards available to reduce future federal and state regular income taxes of approximately \$1.6 million which begin to expire in 2010. Utilization of the net operating losses and tax credits may be subject to an annual limitation imposed by change in ownership provisions of Section 382 of the Internal Revenue Code and similar state provisions. As mentioned above most net operating losses and credit carryforwards have full valuation allowances set up against them.

In accordance with SFAS No. 109, *Accounting for Income Taxes*, the accounting for the tax benefits of acquired deductible temporary differences which are not recognized at the acquisition date because a valuation allowance may be established and recognized subsequent to the acquisitions, will be applied first to reduce to zero, any goodwill and other noncurrent intangible assets related to the acquisitions. Any remaining tax benefits would be recognized as reduction of income tax expense. If the Company concludes in a subsequent period, that a valuation allowance is required for previously recognized tax benefits from acquisitions, the establishment or reestablishment of that valuation allowance would be recognized as income tax expense attributable to income from continuing operations, not as an increase in goodwill related to the acquisition. The Company's deferred tax liability relates significantly to the financial statement and tax carrying basis amount of certain acquired identifiable intangible assets.

Including discontinued operations, total valuation allowances for deferred tax assets as of December 31, 2005 was \$15.4 million of which \$5.6 million was charged against income tax expense while \$9.8 million was charged against acquisition goodwill. The total valuation allowance increased by \$5.0 million during the year ending December 31, 2005 due to the Company's assessment under SFAS 109 that certain deferred tax assets do not meet the "more likely than not" standard of realization prior to expiration. If the deferred tax assets for which valuation allowances have been established are fully realized, \$1.7 million will reduce intangible assets and the balance will reduce future income tax expense.

Undistributed earnings of the Company's foreign subsidiaries, including discontinued operations, amounted to approximately \$10.0 million, \$20.3 million and \$18.5 million at December 31, 2005, 2004 and 2003, respectively. The Company's policy is that its undistributed foreign earnings are indefinitely reinvested and, accordingly, no related provision for U.S. federal and state income taxes has been provided. On October 22, 2004, the American Jobs Creation Act of 2004 (the "Act") was signed into law. The Act creates a one time incentive for U.S. corporations to repatriate undistributed earnings from their international subsidiaries by providing an 85% dividends received deduction for certain international earnings. The deduction is available to corporations during the tax year that includes October 22, 2004 or in the immediately subsequent year. Upon distribution of undistributed earnings of the Company's foreign subsidiaries in the form of dividends or otherwise, the Company is subject to both U.S. income taxes (less foreign tax credits) and withholding taxes in the various foreign countries on those earnings. The Company repatriated \$5.1 million under the Act during 2005 at a tax cost of approximately \$0.2 million.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

13. Employee Benefit Plans

The Company sponsors profit sharing retirement plans for its U.S. employees, which includes employee savings plans established under Section 401(k) of the U.S. Internal Revenue Code (the "401(k) Plan"). The 401(k) plans cover substantially all full-time employees who meet certain eligibility requirements. Contributions to the profit sharing retirement plans are at the discretion of management. For the years ended December 31, 2005, 2004 and 2003, the Company contributed approximately \$281,000, \$268,000 and \$166,000, respectively, to the plans.

Certain of the Company's subsidiaries in the United Kingdom (UK), Harvard Apparatus Limited and Biochrom Limited maintain contributory, defined benefit pension plans for substantially all of their employees.

The components of the Company's pension expense follows:

	<u>Years ended December 31,</u>		
	<u>2005</u>	<u>2004</u>	<u>2003</u>
	(in thousands)		
Components of net periodic benefit cost:			
Service cost	\$ 428	\$ 395	\$ 349
Interest cost	727	627	502
Expected return on plan assets	(694)	(669)	(556)
Net amortization loss	183	125	143
Net periodic benefit cost	<u>\$ 644</u>	<u>\$ 478</u>	<u>\$ 438</u>

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The measurement date is December 31 for the Company's plans. The funded status of the Company's defined benefit pension plans and the amount recognized in the consolidated balance sheets at December 31, 2005 and 2004 follows:

	<u>December 31,</u>	
	<u>2005</u>	<u>2004</u>
	(in thousands)	
Change in benefit obligation:		
Balance at beginning of year	\$14,369	\$11,055
Service cost	428	395
Interest cost	727	627
Participants' contributions	143	156
Actuarial loss	897	1,659
Benefits paid	(216)	(447)
Currency translation adjustment	(1,583)	924
Balance at end of year	<u>\$14,765</u>	<u>\$14,369</u>
Change in fair value of plan assets:		
Balance at beginning of year	\$10,859	\$ 9,144
Actual return on plan assets	1,719	826
Participants' contributions	143	156
Employer contributions	462	484
Benefits paid	(216)	(447)
Expenses paid	(27)	(26)
Currency translation adjustment	(1,227)	722
Balance at end of year	<u>\$11,713</u>	<u>\$10,859</u>
	<u>December 31,</u>	
	<u>2005</u>	<u>2004</u>
	(in thousands)	
Funded status	\$ (3,052)	\$ (3,510)
Unrecognized net loss	3,231	3,901
Net amount recognized	<u>\$ 179</u>	<u>\$ 391</u>

The accumulated benefit obligation for all defined benefit pension plans was \$12.4 million and \$11.2 million as of December 31, 2005 and 2004, respectively.

The amounts recognized in the consolidated balance sheets consist of:

	<u>December 31,</u>	
	<u>2005</u>	<u>2004</u>
	(in thousands)	
Prepaid benefit cost	\$ 179	\$ 391
Minimum pension liability	(888)	(833)
Accumulated other comprehensive loss	621	583
Deferred tax asset	267	250
Net amount recognized	<u>\$ 179</u>	<u>\$ 391</u>

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The weighted average assumptions used in determining the net pension cost for the Company's plans follows:

	<u>Years ended December 31.</u>		
	<u>2005</u>	<u>2004</u>	<u>2003</u>
	(in thousands)		
Discount rate	4.70%	5.30%	5.50%
Expected return on assets	6.50%	6.90%	7.20%
Rate of compensation increase	3.85%	3.90%	3.75%

Our mix of pension plan investments among asset classes also affects the long-term expected rate of return on plan assets. Our current target asset mix used in determining the expected return is 60% equities and 40% fixed income securities, including an insurance policy. As of December 31, 2005, our actual asset mix approximated our target mix. Differences between actual and expected returns are recognized in the calculation of net periodic pension (income)/cost over the average remaining expected future working lifetime, which is approximately twelve years, of active plan participants. With the current base of our assets, a 0.5% increase/decrease in the asset return assumption would decrease/increase our annual pension expense by approximately \$68,000.

The discount rate assumptions used for pension accounting reflect the prevailing rates available on high-quality, fixed-income debt instruments with terms that match the average expected duration of our defined benefit pension plan obligations. We use the Merrill Lynch Sterling Market AA-rated long-term U.K. corporate bonds, which match the average duration of our pension plan liability of approximately 15 years. With the current base of assets in our pension plans, a 0.1% increase/decrease in the discount rate assumption would decrease/increase our annual pension expense by approximately \$28,000.

The Company expects to contribute approximately \$0.5 million to its pension plans during 2006.

Plans with accumulated benefit obligation in excess of plan assets:

	<u>December 31.</u>	
	<u>2005</u>	<u>2004</u>
	(in thousands)	
Projected benefit obligation	\$10,498	\$10,437
Accumulated benefit obligation	9,635	8,699
Fair value of plan assets	8,754	7,866

	<u>Years Ended</u> <u>December 31.</u>	
	<u>2005</u>	<u>2004</u>
	(in thousands)	
Increase in minimum pension liability included in other comprehensive income	\$54	\$154

14. Commitments and Contingent Liabilities

From time to time, we may be involved in various claims and legal proceedings arising in the ordinary course of business. We are not currently a party to any such claims or proceedings.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

15. Stock Compensation Plans

Employee Stock Purchase Plan

In 2000, the Company approved a stock purchase plan allowing employees to purchase the Company's common stock at 85% of the lesser of beginning and ending fair market value at six month intervals. Under this plan, 500,000 shares of common stock are authorized for issuance of which 189,811 shares were issued as of December 31, 2005.

Stock Option Plans

1996 Stock Option and Grant Plan

In 1996, the Company adopted the 1996 Stock Option and Grant Plan (the "1996 Stock Plan") pursuant to which the Company's Board of Directors could grant stock options to employees, directors and consultants. The 1996 Stock Plan authorized grants of options to purchase 4,072,480 shares of authorized but unissued stock. In 2000, the 1996 Stock Plan was replaced by the 2000 Stock Option and Incentive Plan. As of December 31, 2005, there were 243,658 options outstanding under the 1996 Stock Plan.

2000 Stock Option and Incentive Plan

In 2000, the Company adopted the 2000 Stock Option and Incentive Plan (the "2000 Stock Plan") and together with the 1996 Stock Plan (the "Stock Plans") pursuant to which the Company's Board of Directors can grant stock options to employees, directors and consultants. The 2000 Stock Plan authorized grants of options to purchase up to 3,750,000 shares of authorized but unissued stock. Under the 2000 Stock Plan, the number of authorized options is increased each June 30 and December 30 in an amount equal to 15% of the common stock issued in the six month periods. As of December 31, 2005, the 2000 Stock Plan authorizes grants of options to purchase 4,867,675 shares of authorized but unissued stock. As of December 31, 2005, there were 4,037,624 options outstanding and 354,138 available for grant under the 2000 Stock Plan.

Through December 31, 2005 and 2004, 5,700,177 and 5,264,177 incentive stock options and 3,844,368 and 3,596,868 non-qualified stock options, respectively, were granted to employees, directors and consultants under the Stock Plans. Generally, both the incentive stock options and the non-qualified stock options become fully vested over a four-year period, with one-quarter of the options vesting on each of the first four anniversaries of the grant date.

Stock compensation expense resulting from stock option grants to employees represents the difference between the fair market value and the exercise price of the stock options on the grant date for those options considered fixed awards. Stock compensation is amortized as a charge to operations using an accelerated vesting method in accordance with FASB Interpretation No. 28, *Accounting for Stock Appreciation Rights and Other Variable Stock Option or Award Plans*, which results in decreasing compensation expense from the date of the stock option grant until the vesting dates.

During the years ended December 31, 2005, 2004 and 2003, 683,500, 1,605,000 and 1,315,000 stock options, respectively, were granted to employees at exercise prices equal to or greater than fair market value of the Company's common stock on the date of grant. During the year ended December 31, 2001, 42,766 stock options were granted to employees at an exercise price of \$1.87 and 9,855 stock options at an exercise price of \$1.05, which was estimated to be less than the fair market value of the Company's common stock on the date of grant. During the year ended December 31, 2000, 1,140,466 stock options

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

were granted to employees at an exercise price of \$1.05, which was estimated to be less than the fair market value of the Company's common stock on the date of grant. Accordingly, for the years ended December 31, 2005, 2004 and 2003, compensation expense of \$0, \$28,302 and \$519,480, respectively, was recognized on these stock option grants.

During 2004, the Company modified the terms of stock options granted to certain employees of Warner Instruments and Genomic Solutions whose vesting was accelerated pursuant to separation agreements entered into as part of the restructuring of operations at Warner Instruments and Genomic Solutions. The Company recognized compensation expense of \$123,227 in connection with the modification equal to the difference between the fair market value of the Company's common stock on the date of modification and the exercise price.

The following is a summary of stock option activity:

	Options Outstanding	Weighted Average Exercise Price
Balance at December 31, 2002	1,802,807	\$ 5.19
Options granted	1,315,000	3.19
Options exercised	(47,089)	1.39
Options forfeited	(156,319)	0.01
Options expired	(8,060)	0.01
Balance at December 31, 2003	2,906,339	\$ 4.42
Options granted	1,605,000	7.44
Options exercised	(203,099)	3.30
Options forfeited	(340,069)	4.84
Balance at December 31, 2004	3,968,171	\$ 5.66
Options granted	683,500	3.06
Options exercised	(48,139)	2.35
Options forfeited	(322,250)	5.53
Balance at December 31, 2005	<u>4,281,282</u>	\$ 5.29

The weighted average fair value of options granted during 2005, 2004 and 2003 was \$2.09, \$4.89 and \$2.26, respectively.

The following is a summary of information relating to stock options outstanding at December 31, 2005:

Range of Exercise Price	Options Outstanding			Options Exercisable	
	Number Outstanding at December 31, 2005	Weighted Average Remaining Contractual Life in Years	Weighted Average Exercise Price	Shares Exercisable at December 31, 2005	Weighted Average Exercise Price
\$ 0.01-2.99	789,932	7.46	\$ 2.36	313,432	\$ 1.42
\$ 3.00-3.99	1,186,100	7.65	\$ 3.22	488,350	\$ 3.24
\$ 4.00-6.99	358,250	8.16	\$ 4.50	134,416	\$ 4.56
\$ 7.00-7.99	1,645,000	7.25	\$ 7.74	792,000	\$ 7.59
\$ 8.00-10.60	302,000	7.40	\$ 8.74	141,333	\$ 8.67
\$ 0.01-10.60	<u>4,281,282</u>	7.49	\$ 5.29	<u>1,869,531</u>	\$ 5.28

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

16. Segment and Related Information

During the quarter ended June 30, 2005, the Company realigned its lines of business into two business segments, the Apparatus and Instrumentation Business segment and the Capital Equipment Business segment. Corporate costs of \$4.7 million, \$4.2 million and \$3.5 million for the years ended December 31, 2005, 2004 and 2003, respectively, are included in general and administrative expenses and \$0.8 million for the year ended December 31, 2003 was included in other income (expense), net from our continuing operations and are not allocated for purposes of segment reporting or reporting discontinued operations. The Company had previously operated in a single segment.

During the quarter ended September 30, 2005, the Company announced plans to divest its Capital Equipment Business segment. The decision to divest this business segment was based on the fact that market conditions for the Capital Equipment Business have been such that this business has not met the Company's expectations and the decision to focus Company resources on the Apparatus and Instrumentation Business segment. As a result, we began reporting the Capital Equipment Business segment as a discontinued operation in the third quarter of 2005. See Note 7—Discontinued Operations.

The following tables summarize selected financial information of the Company's continuing operations by geographic location:

Revenues by geographic area consist of the following:

	<u>Years ended December 31.</u>		
	<u>2005</u>	<u>2004</u>	<u>2003</u>
	(in thousands)		
United States	\$31,321	\$31,540	\$19,037
United Kingdom	25,248	24,809	24,996
Rest of the world	10,862	8,396	7,991
	<u>\$67,431</u>	<u>\$64,745</u>	<u>\$52,024</u>

Tangible long-lived assets by geographic area consist of the following:

	<u>December 31.</u>	
	<u>2005</u>	<u>2004</u>
	(in thousands)	
United States	\$2,169	\$3,537
United Kingdom	1,734	2,823
Rest of the world	80	783
	<u>\$3,983</u>	<u>\$7,143</u>

As of December 31, 2005, tangible long-lived assets held by our Capital Equipment Business segment of \$1.2 million were included in assets of discontinued operations—held for sale. See Note 7—Discontinued Operations.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Net assets by geographic area consist of the following:

	December 31,	
	2005	2004
	(in thousands)	
United States	\$45,290	\$ 68,331
United Kingdom	20,004	27,603
Rest of the world	3,122	8,423
	\$68,416	\$104,357

17. Allowance for Doubtful Accounts

Allowance for doubtful accounts is based on the Company's assessment of the collectibility of customer accounts. A rollforward of allowance for doubtful accounts is as follows:

	Beginning Balance	Beginning Balance Reclassified to Discontinued Operations(a)	Charged to Bad Debt Expense	Write-offs Charged to Allowance	Ending Balance
	(in thousands)				
Year ended December 31, 2003	\$ 144	—	325	(52)	\$ 417
Year ended December 31, 2004	\$ 417	—	443	(7)	\$ 853
Year ended December 31, 2005	\$ 853	(459)	9	(56)	\$ 347

(a) As of December 31, 2005, the allowance for doubtful accounts of our Capital Equipment Business segment of \$1.1 million was included in assets of discontinued operations—held for sale. See Note 7—Discontinued Operations.

18. Warranties

A rollforward of product warranties is as follows:

	Beginning Balance	Beginning Balance Reclassified to Discontinued Operations(a)	Payments	Additions(b)	Ending Balance
	(in thousands)				
Year ended December 31, 2003	\$ 689	—	(885)	1,189	\$ 993
Year ended December 31, 2004	\$ 993	—	(841)	608	\$ 760
Year ended December 31, 2005	\$ 760	(545)	(250)	272	\$ 237

(a) As of December 31, 2005, warranty liabilities of our Capital Equipment Business segment of \$0.4 million were included in liabilities of discontinued operations. See Note 7—Discontinued Operations.

(b) Includes additions of acquired companies.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

19. Supplemental Cash Flow Information

	<u>Years ended December 31,</u>		
	<u>2005</u>	<u>2004</u>	<u>2003</u>
	(in thousands)		
Cash paid for acquisitions, net of cash acquired:			
Net assets acquired or liabilities assumed	\$ —	\$ (1,869)	\$ 5,127
Goodwill and intangible assets	—	8,951	16,022
Cash paid for acquisitions, net of cash acquired	<u>\$ —</u>	<u>\$ 7,082</u>	<u>\$ 21,149</u>

20. Supplemental Statement of Stockholders' Equity Information

	<u>As of December 31,</u>	
	<u>2005</u>	<u>2004</u>
	(in thousands)	
Cumulative Balances Included in Other Comprehensive Income:		
Cumulative translation adjustment	\$ 2,913	\$ 6,067
Cumulative translation adjustment on investment type loans, net of tax of \$380 and \$850, respectively	886	1,983
Minimum pension liability, net of tax of \$267 and \$250, respectively	(621)	(583)
Balance	<u>\$ 3,178</u>	<u>\$ 7,467</u>

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

21. Quarterly Financial Information (Unaudited)

During the fourth quarter of 2005, management became aware of an error in the previously reported results of operations for the second quarter of 2005. As a result of a decrease in revenues and operating profit margins in the Capital Equipment Business segment, the Company determined, during the second quarter of 2005, that a portion of its gross deferred tax assets did not meet the "more likely than not" standard for realization as outlined in SFAS No. 109, *Accounting for Income Taxes*. However, the Company incorrectly recognized \$3.5 million of income tax expense to increase the valuation allowance above the amount required. The Company has restated the following unaudited quarterly financial information for the second quarter of 2005 to correct this error.

As discussed in note 7, the Company has decided to divest its Capital Equipment Business segment. Accordingly, the results of operations of this business segment have been reported as discontinued operations in the unaudited quarterly financial information set forth below.

Statement of Operations Data:

<u>2005</u>	<u>First Quarter</u>	<u>Second Quarter Previously Reported</u>	<u>Second Quarter As Restated</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>	<u>Fiscal Year</u>
	(in thousands, except per share data)					
Revenues	\$ 16,135	\$ 16,277	\$ 16,277	\$ 17,179	\$ 17,840	\$ 67,431
Cost of product revenues	8,477	8,283	8,283	8,674	8,722	34,156
Gross profit	7,658	7,994	7,994	8,505	9,118	33,275
Sales and marketing expenses	2,050	2,041	2,041	1,865	2,154	8,110
General and administrative expenses	2,794	3,316	3,316	3,167	3,350	12,627
Research and development expenses	870	704	704	676	700	2,950
Amortization of goodwill and other intangibles	424	418	418	413	409	1,664
Total operating expenses	6,138	6,479	6,479	6,121	6,613	25,351
Operating income	1,520	1,515	1,515	2,384	2,505	7,924
Other income (expense), net	(150)	(242)	(242)	(234)	(158)	(784)
Income from continuing operations before income taxes	1,370	1,273	1,273	2,150	2,347	7,140
Income taxes	485	3,488	318	60	36	899
Income (loss) from continuing operations	885	(2,215)	955	2,090	2,311	6,241
Discontinued operations, net of tax	(683)	(25,164)	(24,671)	(1,429)	(11,335)	(38,118)
Net income (loss)	<u>\$ 202</u>	<u>\$ (27,379)</u>	<u>\$ (23,716)</u>	<u>\$ 661</u>	<u>\$ (9,024)</u>	<u>\$ (31,877)</u>
Income (loss) per share:						
Basic earnings per common share from continuing operations	\$ 0.03	\$ (0.07)	\$ 0.03	\$ 0.07	\$ 0.08	\$ 0.20
Discontinued operations	(0.02)	(0.83)	(0.81)	(0.05)	(0.37)	(1.25)
Basic earnings (loss) per common share	<u>\$ 0.01</u>	<u>\$ (0.90)</u>	<u>\$ (0.78)</u>	<u>\$ 0.02</u>	<u>\$ (0.30)</u>	<u>\$ (1.05)</u>
Diluted earnings per common share from continuing operations	\$ 0.03	\$ (0.07)	\$ 0.03	\$ 0.07	\$ 0.07	\$ 0.20
Discontinued operations	(0.02)	(0.83)	(0.80)	(0.05)	(0.37)	(1.24)
Diluted earnings (loss) per common share	<u>\$ 0.01</u>	<u>\$ (0.90)</u>	<u>\$ (0.77)</u>	<u>\$ 0.02</u>	<u>\$ (0.29)</u>	<u>\$ (1.04)</u>
Weighted average common shares:						
Basic	30,413	30,432	30,432	30,461	30,462	30,442
Diluted	<u>30,893</u>	<u>30,432</u>	<u>30,710</u>	<u>30,661</u>	<u>30,863</u>	<u>30,781</u>

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Statement of Operations Data:

<u>2004</u>	<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>	<u>Fiscal Year</u>
	(in thousands, except per share data)				
Revenues	\$ 15,186	\$ 15,626	\$ 16,506	\$ 17,427	\$ 64,745
Cost of product revenues	7,788	7,950	8,702	8,872	33,312
Gross profit	7,398	7,676	7,804	8,555	31,433
Sales and marketing expenses	1,854	1,839	1,750	2,121	7,564
General and administrative expenses	2,463	2,616	2,698	3,145	10,922
Research and development expenses	625	696	785	875	2,981
Amortization of goodwill and other intangibles	432	591	142	417	1,582
Total operating expenses	5,374	5,742	5,375	6,558	23,049
Operating income (loss)	2,024	1,934	2,429	1,997	8,384
Other income (expense), net	(232)	(174)	(165)	(180)	(751)
Income (loss) from continuing operations before income taxes	1,792	1,760	2,264	1,817	7,633
Income taxes	729	680	923	783	3,115
Income (loss) from continuing operations	1,063	1,080	1,341	1,034	4,518
Discontinued operations, net of tax	(1,115)	(781)	(384)	91	(2,189)
Net income (loss)	<u>\$ (52)</u>	<u>\$ 299</u>	<u>\$ 957</u>	<u>\$ 1,125</u>	<u>\$ 2,329</u>
Income (loss) per share:					
Basic earnings per common share from continuing operations	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.15
Discontinued operations	(0.04)	(0.03)	(0.01)	0.00	(0.07)
Basic earnings (loss) per common share	<u>\$ (0.00)</u>	<u>\$ 0.01</u>	<u>\$ 0.03</u>	<u>\$ 0.04</u>	<u>\$ 0.08</u>
Diluted earnings per common share from continuing operations	\$ 0.03	\$ 0.04	\$ 0.04	\$ 0.04	\$ 0.15
Discontinued operations	\$ (0.03)	\$ (0.03)	(0.01)	0.00	(0.08)
Diluted earnings (loss) per common share	<u>\$ 0.00</u>	<u>\$ 0.01</u>	<u>\$ 0.03</u>	<u>\$ 0.04</u>	<u>\$ 0.07</u>
Weighted average common shares:					
Basic	30,164	30,243	30,313	30,356	30,269
Diluted	<u>31,570</u>	<u>31,163</u>	<u>30,831</u>	<u>30,853</u>	<u>31,103</u>

SIGNATURES

Pursuant to the requirements of Section 13 and 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.

HARVARD BIOSCIENCE, INC.

Date: March 16, 2006

By: /s/ CHANE GRAZIANO
Chane Graziano
Chief Executive Officer

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

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ CHANE GRAZIANO</u> Chane Graziano	Chief Executive Officer and Director (Principal Executive Officer)	March 16, 2006
<u>/s/ BRYCE CHICOYNE</u> Bryce Chicoyne	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 16, 2006
<u>/s/ DAVID GREEN</u> David Green	President and Director	March 16, 2006
<u>/s/ ROBERT DISHMAN</u> Robert Dishman	Director	March 16, 2006
<u>/s/ NEAL J. HARTE</u> Neal J. Harte	Director	March 16, 2006
<u>/s/ JOHN F. KENNEDY</u> John F. Kennedy	Director	March 16, 2006
<u>/s/ EARL R. LEWIS</u> Earl R. Lewis	Director	March 16, 2006

EXHIBIT INDEX

The following exhibits are filed as part of this report. Where such filing is made by incorporation by reference to a previously filed document, such document is identified.

- (2)2.1 Agreement and Plan of Merger by and among Harvard Bioscience, Inc., HAG Acq. Corp. and Genomic Solutions, Inc., dated as of July 17, 2002.
 - (8)2.2 Asset Purchase Agreement, dated as of February 28, 2003, by and among Genomic Solutions, Inc. and Genomic Instrumentation Services, Inc. d/b/a GeneMachines.
 - (9)2.3 Asset Purchase Agreement, dated as of September 19, 2003, by and among Genomic Solutions Acquisitions Limited, BioRobotics Limited, BioRobotics Group Limited and Matrix Technologies Corporation.
 - (12)2.4 Stock Purchase Agreement, dated as of March 3, 2004, by and among Harvard Bioscience, Inc., a Delaware Corporation, KD Scientific, Inc., a Massachusetts Corporation, and Ken Dunne.
 - (1)3.1 Second Amended and Restated Certificate of Incorporation of Harvard Bioscience, Inc
 - (1)3.2 Amended and Restated By-laws of Harvard Bioscience, Inc
 - (1)4.1 Specimen certificate for shares of Common Stock, \$0.01 par value, of Harvard Bioscience, Inc.
 - (1)4.2 Amended and Restated Securityholders' Agreement dated as of March 2, 1999 by and among Harvard Apparatus, Inc., Pioneer Partnership II, Pioneer Capital Corp., First New England Capital, L.P. and Citizens Capital, Inc. and Chane Graziano and David Green.
 - (1)10.1 Harvard Apparatus, Inc. 1996 Stock Option and Grant Plan.
 - (1)10.2 Harvard Bioscience, Inc. 2000 Stock Option and Incentive Plan.
 - (1)10.3 Harvard Bioscience, Inc. Employee Stock Purchase Plan.
 - + (3)10.4 Distribution Agreement dated August 1, 2001 by and between Biochrom Limited and Amersham Pharmacia Biotech UK Limited.
 - (1)10.5 Employment Agreement between Harvard Bioscience, Inc. and Chane Graziano.
 - (1)10.6 Employment Agreement between Harvard Bioscience, Inc. and David Green.
 - (1)10.7 Form of Director Indemnification Agreement.
 - (1)10.8 Lease of Unit 22 Phase I Cambridge Science Park, Milton Road, Cambridge dated March 3, 1999 between The Master Fellows and Scholars of Trinity College Cambridge, Biochrom Limited and Harvard Apparatus, Inc.
 - (4)10.9 Lease between Genomic Solutions Inc. and Highland Industrial Properties, L.L.C., dated August 7, 1997
 - (5)10.10 Fourth Addendum to Lease between Genomic Solutions Inc. and Highland Industrial Properties, L.L.C., dated May 17, 2000
 - (6)10.11 Fifth Addendum to Lease between Genomic Solutions Inc. and Highland Industrial Properties, L.L.C., dated September 10, 2001
 - (6)10.12 Lease between Cartesian Technologies, Inc. and Airport Industrial Complex, dated February 5, 2002
 - (7)10.13 Lease between Genomic Solutions Inc. and County Road Properties, dated March 8, 2003 and First Addendum thereto, dated March 10, 2003
 - (11)10.14 Revolving Credit Loan Agreement, dated as of November 21, 2003, by and among Harvard Bioscience, Inc., the Lenders that are signatories thereto and Brown Brothers Harriman & Co.
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- + (11)10.15 Distribution Agreement, dated as of November 24, 2003, among Hoefer, Inc., Harvard Bioscience, Inc. and Amersham Biosciences Corp.
- (11)10.16 Lease, dated February 23, 2004, by and between William Cash Forman and Hoefer, Inc.
- + (10)10.17 Trademark License Agreement, dated December 9, 2002, by and between Harvard Bioscience, Inc. and President and Fellows of Harvard College.
- (13)10.18 Form of Incentive Stock Option Agreement Executive Officers
- (13)10.19 Form of Non-Qualified Stock Option Agreement Executive Officers
- (13)10.20 Form of Non-Qualified Stock Option Agreement Non-Employee Board of Directors
- (14)10.21 Harvard Bioscience, Inc. 2005 Corporate Bonus Plan
- (15)10.22 Executive Officer Compensation Arrangements (2005 Salaries)
- (16)10.23 Form of Employment Agreement with Susan M. Luscinski and Bryce Chicoyne (and summary of significant terms for each Employment Agreement)
- (16)10.24 Letter Agreement between Union Biometrika, Inc. and David Strack dated December 16, 2005
- (17)10.25 Lease Agreement Between Seven October Hill, LLC and Harvard Bioscience, Inc. dated December 30, 2005
- 10.26 Director Compensation Arrangements
- 10.27 Form of Incentive Stock Option Agreement Executive Officers (2006 version)
- 10.28 Form of Non-Qualified Stock Option Agreement Executive Officers (2006 version)
- 10.29 Form of Non-Qualified Stock Option Agreement Non-Employee Board of Directors (2006 version)
- 21.1 Subsidiaries of the Registrant.
- 23.1 Consent of KPMG LLP.
- 31.1 Certification of Chief Financial Officer of Harvard Bioscience, Inc., pursuant to Rules 13a-15(e) and 15d-15(e), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2 Certification of Chief Executive Officer of Harvard Bioscience, Inc., pursuant to Rules 13a-15(e) and 15d-15(e), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32.1* Certification of Chief Financial Officer of Harvard Bioscience, Inc., pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 32.2* Certification of Chief Executive Officer of Harvard Bioscience, Inc., pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.

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- (1) Previously filed as an exhibit to the Company's Registration Statement on Form S-1 (File No. 333-45996) and incorporated by reference thereto.
 - (2) Previously filed as an exhibit to the Company's Registration Statement on Form S-4 (File No. 333-98927) and incorporated by reference thereto.
 - (3) Previously filed as an exhibit to the Company's Annual Report on Form 10-K (filed April 1, 2002) and incorporated by reference thereto.
 - (4) Previously filed as an exhibit to Genomic Solutions Inc.'s Registration Statement on Form S-1, as amended (File No. 333-30246) and incorporated by reference thereto.
 - (5) Previously filed as an exhibit to Genomic Solutions Inc.'s Annual Report on Form 10-K (filed April 2, 2001) and incorporated by reference thereto.
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- (6) Previously filed as an exhibit to Genomic Solutions Inc.'s Annual Report of Form 10-K (filed April 1, 2002) and incorporated by reference thereto.
 - (7) Previously filed as an exhibit to the Company's Annual Report of Form 10-K (filed March 31, 2003) and incorporated by reference thereto.
 - (8) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed March 3, 2003) and incorporated by reference thereto.
 - (9) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed October 2, 2003) and incorporated by reference thereto.
 - (10) Previously filed as an exhibit to the Company's Quarterly Report on Form 10-Q (filed May 15, 2003) and incorporated by reference thereto.
 - (11) Previously filed as an exhibit to the Company's Annual Report on Form 10-K (filed March 15, 2004) and incorporated by reference thereto.
 - (12) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed March 18, 2004) and incorporated by reference thereto.
 - (13) Previously filed as an exhibit to the Company's Quarterly Report on Form 10-Q (filed November 9, 2004) and incorporated by reference thereto.
 - (14) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed June 1, 2005) and incorporated by reference thereto.
 - (15) Previously filed as an exhibit to the Company's Quarterly on Form 10-Q (filed August 9, 2005) and incorporated by reference thereto.
 - (16) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed December 21, 2005) and incorporated by reference thereto.
 - (17) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed January 4, 2006) and incorporated by reference thereto.
- + Certain portions of this document have been granted confidential treatment by the Securities and Exchange Commission (the "Commission").
- * This certification shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, or otherwise subject to the liability of that section, nor shall it be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.

The Company will furnish to stockholders a copy of any exhibit without charge upon written request.

2005 Director Compensation Arrangements

The following summarizes the compensation arrangements established between Harvard Bioscience, Inc. (the "Company") and its directors through verbal agreements effective from May 19, 2005 through February 28, 2006:

Each non-employee Director will be entitled to receive a non-qualified stock option to purchase 25,000 shares of common stock vesting annually over three years and granted on the fifth business day following his or her initial election to the Board and an annual retainer consisting of (a) \$12,000 paid in four equal quarterly installments and (b) a non-qualified stock option to purchase 2,500 shares of common stock vesting annually over three years and granted on the fifth business day following each annual stockholders meeting. Each non-employee Director member of the Audit Committee will be entitled to receive an additional annual retainer of \$6,000 paid in four equal quarterly installments and an option to purchase 2,500 shares of common stock vesting annually over three years and granted on the fifth business day following each annual stockholders meeting. Each non-employee Director member of the Compensation Committee will be entitled to receive an additional annual retainer of \$2,000 paid in four equal quarterly installments. In addition, non-employee Directors are reimbursed for their expenses incurred in connection with attending Board and committee meetings.

The following summarizes the compensation arrangements established between the Company and its directors through verbal agreements effective as of February 28, 2006:

Each non-employee Director will be entitled to receive a non-qualified stock option to purchase 25,000 shares of our common stock vesting annually over three years and granted on the fifth business day following his or her initial election to the Board and an annual retainer consisting of (a) \$12,000 paid in four equal quarterly installments and (b) a non-qualified stock option to purchase 2,500 shares of our common stock vesting annually over three years and granted on the fifth business day following each annual stockholders meeting. Each non-employee Director member of the Audit Committee will be entitled to receive an additional annual retainer of \$6,000 paid in four equal quarterly installments and an option to purchase 2,500 shares of our common stock vesting annually over three years and granted on the fifth business day following each annual stockholders meeting. Each non-employee Director member of the Compensation Committee will be entitled to receive an additional annual retainer of \$2,000 paid in four equal quarterly installments. Each non-employee member of the Governance Committee is entitled to receive an additional annual retainer of \$2,000 paid in four equal quarterly installments. Each Committee Chairman is entitled to receive an additional annual retainer of \$2,000 paid in four equal quarterly installments. In addition, non-employee Directors are reimbursed for their expenses incurred in connection with attending Board and committee meetings.

INCENTIVE STOCK OPTION TO PURCHASE SHARES OF COMMON
STOCK UNDER THE HARVARD BIOSCIENCE, INC.
2000 STOCK OPTION AND INCENTIVE PLAN

Shares

(Option Issuance Date)

Pursuant to the Harvard Bioscience, Inc. 2000 Stock Option and Incentive Plan (the "Plan"), Harvard Bioscience, Inc., a Delaware corporation (including its successors, the "Company"), hereby grants to _____ (the "Optionee") an option to purchase (the "Option") prior to the tenth (10th) anniversary of the date hereof (the "Expiration Date"), at an exercise price per share of \$ _____ all or any of _____ shares of Common Stock, \$.01 par value, of the Company (the "Shares"), subject to the terms and conditions set forth herein and in the Plan (the "Agreement"). This Option is intended to be an Incentive Stock Option granted under the Plan.

1. **Vesting Schedule.** No portion of this Option may be exercised until such portion shall have vested. Except as set forth below and subject to the terms and conditions set forth below, this Option shall be vested and exercisable with respect to the following number of Shares on the dates indicated:

Cumulative Number of Shares Exercisable	Vesting Date
(25%)	_____
(50%)	_____
(75%)	_____
(100%)	_____

Once vested, this Option shall continue to be exercisable at any time or times prior to the close of business on the Expiration Date, subject to the provisions hereof and of the Plan.

2. **Manner of Exercise.** The Optionee may exercise the Option only in the following manner: From time to time prior to the Expiration Date, the Optionee may give written notice to the Company of any election to purchase some or all of the vested Shares purchasable at the time of such notice. Said notice shall specify the number of vested Shares to be purchased and shall be accompanied by payment therefor in cash, certified check, bank check or wire transfer, in U.S. funds, payable to the order of the Company in an amount equal to the purchase price of such Shares, or with the consent of the Board of Directors of the Company or a designated committee thereof (collectively, the "Board") (i) by delivery to the Company of shares of its Common Stock (including shares of Common Stock to be acquired upon exercise of this Option in a "net exercise" of this Option) having a fair market value equal to the purchase



price of such Shares, (ii) by delivery to the Company of a promissory note, in form and substance acceptable to the Board, in principal amount equal to the purchase price of such Shares, or (iii) any combination of the above.

The delivery of certificates representing the Shares will be contingent upon the Company's receipt from the Optionee of full payment for the Shares, as set forth above and any agreement, statement or other evidence that the Company may require to satisfy itself that the issuance of Stock to be purchased pursuant to the exercise of Options under the Plan and any subsequent resale of the shares of Stock will be in compliance with the applicable laws and regulations.

Certificates for the shares of Stock purchased upon exercise of this Option shall be issued and delivered to the Optionee upon compliance, to the satisfaction of the Administrator, with all requirements under the applicable laws or regulations in connection with such issuance and with the requirements hereof and of the Plan. The determination of the Administrator as to such compliance shall be final and binding on the Optionee. The Optionee shall not be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Stock subject to this Option unless and until this Option shall have been exercised pursuant to the terms hereof, the Company shall have issued and delivered the shares to the Optionee, and the Optionee's name shall have been entered as the stockholder of record on the books of the Company. Thereupon, the Optionee shall have full voting, dividend and other ownership rights with respect to such shares of Stock.

The minimum number of shares with respect to which this Option may be exercised at any one time shall be 100 shares, unless the number of shares with respect to which this Option is being exercised is the total number of shares subject to exercise under this Option at the time.

3. Termination of Employment or Death of Optionee. The Option, as to any Shares not theretofore purchased, shall terminate on the earlier of the Expiration Date or 30 days after the Optionee is no longer employed by the Company or a Subsidiary (as defined in the Plan); provided, however, that if such termination of employment results from (i) the Optionee's death or disability, the Option may be exercised as to vested Shares as of the date of such termination of employment within three (3) months thereafter (but in no event later than the Expiration Date) by the Optionee's executors, administrators, personal representatives, or any person or persons to whom the Option may be transferred by will or by the laws of descent and distribution, but only to the extent that the Optionee was entitled to exercise the Option at the time of such termination of Optionee's employment or (ii) the Optionee's termination for Cause (as defined below), the Option (as to all vested and unvested Shares) shall immediately terminate and be of no further force or effect. Following the termination of the Optionee's employment and prior to the termination of the Option, unless otherwise determined by the Administrator, the Option may only be exercised as to vested Shares as of the date of the termination of the Optionee's employment. The Option does not confer upon the Optionee any right with respect to continuation of employment by the Company, nor shall it interfere with any right of the

Company to terminate such employment at any time or any employee's "employee-at-will" status.

"Cause" as such term relates to the termination of any person means the occurrence of one or more of the following: (i) such person is convicted of, pleads guilty to, or confesses to any felony or any act of fraud, misappropriation or embezzlement, (ii) such person engages in a fraudulent act to the material damage or prejudice of the Company or any Subsidiary or in conduct or activities materially damaging to the property, business or reputation of the Company or any Subsidiary, (iii) any material act or omission by such person involving malfeasance or negligence in the performance of such person's duties to the Company or any Subsidiary to the material detriment of the Company or any Subsidiary, which has not been corrected by such person within 30 days after written notice from the Company of any such act or omission, (iv) failure by such person to comply in any material respect with the terms of his employment agreement, if any, or any written policies or directives of the Board, which has not been corrected by such person within 30 days after written notice from the Company of such failure, or (v) material breach by such person of his noncompetition agreement with the Company, if any.

4. Shares. The Shares that are the subject of the Option are shares of the Common Stock, \$.01 par value, of the Company as constituted on the date of the Option, subject to adjustment as provided in Section 3 of the Plan.

5. Effect of Certain Transactions. If (i) the Company is merged into or consolidated with another corporation and the Company is not the surviving corporation, (ii) one or more corporations are merged into the Company which continues as the surviving corporation and the stockholders of the Company immediately prior to the transaction own less than a majority of its outstanding Common Stock immediately after the transaction, or shares of Common Stock of the Company are converted into cash, securities or property other than shares of Common Stock of the Company, or (iii) the Company is liquidated, dissolved, or sells or otherwise disposes of all or substantially all of its assets to another entity while any portion of the Option remains unexercised and unexpired, then in any of such transactions the Board may, in its sole discretion, take one or more of the following actions:

(a) The Compensation Committee of the Board (the "Committee") may cancel the Option as of the effective date of any such transaction, provided that notice of such cancellation shall be given to the Optionee at least 15 days prior to the effective date of such transaction, and the Optionee shall have the right to exercise so much of the Option as is exercisable during said 15-day period, including Options which become exercisable due to acceleration of vesting, if any, by the Board;

(b) The Committee may (i) cancel the Option as to unvested Shares as of the effective date of the transaction and (ii) provide for the repurchase of unexercised Options as to vested Shares as of the effective date of such transaction by the Company on the effective date of such transaction for the same cash, securities or other property received with respect to each outstanding Share in the transaction by the stockholders of the Company, less the exercise price of the Option;

(c) The Committee may provide for the voluntary exchange of the Option on the effective date of such transaction for an option or other rights granted by a successor corporation on terms reasonably acceptable to the Optionee; or

(d) The Committee may provide that after the effective date of such transaction, the Optionee shall be entitled upon exercise of the Option as to any vested Shares to receive in lieu of each Share purchasable under the Option the same cash, securities or other property received with respect each outstanding Share in the transaction by the stockholders of the Company.

Upon the consummation of a Sale Event (as defined in the Plan) or occurrence of a Change of Control (as defined in the Plan), in either case, following the grant date of the Option, the Option shall become fully vested and exercisable with respect to all of the Shares as of the effective time of the Sale Event or the occurrence of the Change of Control, respectively.

6. Status of the Option. This Option is intended to qualify as an “incentive stock option” under Section 422 of the Internal Revenue Code of 1986, as amended (the “Code”), but the Company does not represent or warrant that this Option qualifies as such. The Optionee should consult with his or her own tax advisors regarding the tax effects of this Option and the requirements necessary to obtain favorable income tax treatment under Section 422 of the Code, including, but not limited to, holding period requirements. To the extent any portion of this Option does not so qualify as an “incentive stock option,” such portion shall be deemed to be a non-qualified stock option. If the Optionee intends to dispose or does dispose (whether by sale, gift, transfer or otherwise) of any Shares within the one year period beginning on the date after the transfer of such shares to him or her, or within the two year period beginning on the day after the grant of this Option, he or she will so notify the Company within 30 days after such disposition.

7. Transferability. This Agreement is personal to the Optionee, is non-assignable and is not transferable in any manner, by operation of law or otherwise, other than by will or the laws of descent and distribution. This Option is exercisable, during the Optionee’s lifetime, only by the Optionee, and thereafter, only by the Optionee’s legal representative or legatee.

8. Miscellaneous. Notices hereunder shall be mailed or delivered to the Company as principal place of business, 84 October Hill Road, Holliston, MA 01746 and shall be mailed or delivered to the Optionee at the address set forth below, or in either case at such other address as one party may subsequently furnish to the other party in writing.

Harvard Bioscience, Inc.

By: _____
Name: Bryce Chicoyne
Title: Chief Financial Officer

The foregoing Option is hereby acceptable and its terms and conditions are hereby agreed to.

Dated: _____

Address

Social Security Number

NONQUALIFIED STOCK OPTION TO PURCHASE SHARES OF COMMON
STOCK UNDER THE HARVARD BIOSCIENCE, INC.
2000 STOCK OPTION AND INCENTIVE PLAN

Shares

(Option Issuance Date)

Pursuant to the Harvard Bioscience, Inc. 2000 Stock Option and Incentive Plan (the "Plan"), Harvard Bioscience, Inc., a Delaware corporation (including its successors, the "Company"), hereby grants to _____ (the "Optionee") an option to purchase (the "Option") prior to the tenth (10th) anniversary of the date hereof (the "Expiration Date"), at an exercise price per share of \$ _____ all or any of _____ shares of Common Stock, \$.01 par value, of the Company (the "Shares"), subject to the terms and conditions set forth herein and in the Plan (the "Agreement"). This Option is intended to be a Nonqualified Stock Option granted under the Plan.

1. **Vesting Schedule.** No portion of this Option may be exercised until such portion shall have vested. Except as set forth below and subject to the terms and conditions set forth below, this Option shall be vested and exercisable with respect to the following number of Shares on the dates indicated:

Cumulative Number of Shares Exercisable	Vesting Date
(25%)	
(50%)	
(75%)	
(100%)	

Once vested, this Option shall continue to be exercisable at any time or times prior to the close of business on the Expiration Date, subject to the provisions hereof and of the Plan.

2. **Manner of Exercise.** The Optionee may exercise the Option only in the following manner: From time to time prior to the Expiration Date, the Optionee may give written notice to the Company of any election to purchase some or all of the vested Shares purchasable at the time of such notice. Said notice shall specify the number of vested Shares to be purchased and shall be accompanied by payment therefor in cash, certified check, bank check or wire transfer, in U.S. funds, payable to the order of the Company in an amount equal to the purchase

price of such Shares, or with the consent of the Board of Directors of the Company or a designated committee thereof (collectively, the "Board") (i) by delivery to the Company of shares of its Common Stock (including shares of Common Stock to be acquired upon exercise of this Option in a "net exercise" of this Option) having a fair market value equal to the purchase price of such Shares, (ii) by delivery to the Company of a promissory note, in form and substance acceptable to the Board, in principal amount equal to the purchase price of such Shares, or (iii) any combination of the above.

The delivery of certificates representing the Shares will be contingent upon the Company's receipt from the Optionee of full payment for the Shares, as set forth above and any agreement, statement or other evidence that the Company may require to satisfy itself that the issuance of Stock to be purchased pursuant to the exercise of Options under the Plan and any subsequent resale of the shares of Stock will be in compliance with the applicable laws and regulations.

Certificates for the shares of Stock purchased upon exercise of this Option shall be issued and delivered to the Optionee upon compliance, to the satisfaction of the Administrator, with all requirements under the applicable laws or regulations in connection with such issuance and with the requirements hereof and of the Plan. The determination of the Administrator as to such compliance shall be final and binding on the Optionee. The Optionee shall not be deemed to be the holder of, or to have any of the rights of a holder with respect to, any shares of Stock subject to this Option unless and until this Option shall have been exercised pursuant to the terms hereof, the Company shall have issued and delivered the shares to the Optionee, and the Optionee's name shall have been entered as the stockholder of record on the books of the Company. Thereupon, the Optionee shall have full voting, dividend and other ownership rights with respect to such shares of Stock.

The minimum number of shares with respect to which this Option may be exercised at any one time shall be 100 shares, unless the number of shares with respect to which this Option is being exercised is the total number of shares subject to exercise under this Option at the time.

3. Termination of Employment or Death of Optionee. The Option, as to any Shares not theretofore purchased, shall terminate on the earlier of the Expiration Date or 30 days after the Optionee is no longer employed by the Company or a Subsidiary (as defined in the Plan); provided, however, that if such termination of employment results from (i) the Optionee's death or disability, the Option may be exercised as to vested Shares as of the date of such termination of employment within three (3) months thereafter (but in no event later than the Expiration Date) by the Optionee's executors, administrators, personal representatives, or any person or persons to whom the Option may be transferred by will or by the laws of descent and distribution, but only to the extent that the Optionee was entitled to exercise the Option at the time of such termination of Optionee's employment or (ii) the Optionee's termination for Cause (as defined below), the Option (as to all vested and unvested Shares) shall immediately terminate and be of no further force or effect. Following the termination of the Optionee's employment and prior to the termination of the Option, unless otherwise determined by the Administrator, the Option may only be exercised as to vested Shares as of the date of the termination of the Optionee's employment. The Option does not confer upon the Optionee any right with respect to continuation of employment by the Company, nor shall it interfere with any right of the

Company to terminate such employment at any time or any employee's "employee-at-will" status.

"Cause" as such term relates to the termination of any person means the occurrence of one or more of the following: (i) such person is convicted of, pleads guilty to, or confesses to any felony or any act of fraud, misappropriation or embezzlement, (ii) such person engages in a fraudulent act to the material damage or prejudice of the Company or any Subsidiary or in conduct or activities materially damaging to the property, business or reputation of the Company or any Subsidiary, (iii) any material act or omission by such person involving malfeasance or negligence in the performance of such person's duties to the Company or any Subsidiary to the material detriment of the Company or any Subsidiary, which has not been corrected by such person within 30 days after written notice from the Company of any such act or omission, (iv) failure by such person to comply in any material respect with the terms of his employment agreement, if any, or any written policies or directives of the Board, which has not been corrected by such person within 30 days after written notice from the Company of such failure, or (v) material breach by such person of his noncompetition agreement with the Company, if any.

4. Shares. The Shares that are the subject of the Option are shares of the Common Stock, \$.01 par value, of the Company as constituted on the date of the Option, subject to adjustment as provided in Section 3 of the Plan.

5. Effect of Certain Transactions. If (i) the Company is merged into or consolidated with another corporation and the Company is not the surviving corporation, (ii) one or more corporations are merged into the Company which continues as the surviving corporation and the stockholders of the Company immediately prior to the transaction own less than a majority of its outstanding Common Stock immediately after the transaction, or shares of Common Stock of the Company are converted into cash, securities or property other than shares of Common Stock of the Company, or (iii) the Company is liquidated, dissolved, or sells or otherwise disposes of all or substantially all of its assets to another entity while any portion of the Option remains unexercised and unexpired, then in any of such transactions the Board may, in its sole discretion, take one or more of the following actions:

(a) The Compensation Committee of the Board (the "Committee") may cancel the Option as of the effective date of any such transaction, provided that notice of such cancellation shall be given to the Optionee at least 15 days prior to the effective date of such transaction, and the Optionee shall have the right to exercise so much of the Option as is exercisable during said 15-day period, including Options which become exercisable due to acceleration of vesting, if any, by the Board;

(b) The Committee may (i) cancel the Option as to unvested Shares as of the effective date of the transaction and (ii) provide for the repurchase of unexercised Options as to vested Shares as of the effective date of such transaction by the Company on the effective date of such transaction for the same cash, securities or other property received with respect to each outstanding Share in the transaction by the stockholders of the Company, less the exercise price of the Option;

(c) The Committee may provide for the voluntary exchange of the Option on the effective date of such transaction for an option or other rights granted by a successor corporation on terms reasonably acceptable to the Optionee; or

(d) The Committee may provide that after the effective date of such transaction, the Optionee shall be entitled upon exercise of the Option as to any vested Shares to receive in lieu of each Share purchasable under the Option the same cash, securities or other property received with respect each outstanding Share in the transaction by the stockholders of the Company.

Upon the consummation of a Sale Event (as defined in the Plan) or occurrence of a Change of Control (as defined in the Plan), in either case, following the grant date of the Option, the Option shall become fully vested and exercisable with respect to all of the Shares as of the effective time of the Sale Event or the occurrence of the Change of Control, respectively.

6. Transferability. This Agreement is personal to the Optionee, is non-assignable and is not transferable in any manner, by operation of law or otherwise, other than by will or the laws of descent and distribution. This Option is exercisable, during the Optionees's lifetime, only by the Optionee, and thereafter, only by the Optionee's legal representative or legatee.

7. Miscellaneous. Notices hereunder shall be mailed or delivered to the Company's principal place of business, 84 October Hill Rd., Holliston, MA 01746 and shall be mailed or delivered to the Optionee at the address set forth below, or in either case at such other address as one party may subsequently furnish to the other party in writing.

Harvard Bioscience, Inc.

By: _____
Name: Bryce Chicoyne
Title: Chief Financial Officer

The foregoing Option is hereby acceptable and its terms and conditions are hereby agreed to.

Dated: _____

Address

Social Security Number

**NON-QUALIFIED STOCK OPTION AGREEMENT
FOR NON-EMPLOYEE DIRECTORS**

**UNDER THE HARVARD BIOSCIENCE, INC.
2000 STOCK OPTION AND INCENTIVE PLAN**

Name of Optionee:

No. of Option Shares:

Option Exercise Price per Share:

Grant Date:

Expiration Date:

Pursuant to the Harvard Bioscience, Inc., 2000 Stock Option and Incentive Plan (the "Plan") as amended through the date hereof, Harvard Bioscience, Inc., (the "Company") hereby grants to the Optionee named above, who is a Director of the Company but is not an employee of the Company, an option (the "Stock Option") to purchase on or prior to the Expiration Date specified above all or part of the number of shares of Common Stock, par value \$.01 per share (the "Stock") of the Company specified above at the Option Exercise Price per Share specified above subject to the terms and conditions set forth herein and in the Plan.

1. Vesting. No portion of the Stock Option may be exercised until this Stock Option shall have vested. Except as set forth below, this Stock Option shall be vested and exercisable as to _____ shares on the first anniversary of the Grant Date, vested and exercisable as to _____ shares on the second anniversary of the Grant Date and vested and exercisable as to _____ shares on the third anniversary of the Grant Date.

In the event of the termination of the Optionee's service as a director of the Company because of Disability (as defined below) or death, this Stock Option shall become immediately vested and exercisable in full, whether or not vested and exercisable at such time. Once vested, this Stock Option shall continue to be exercisable at any time or times prior to the close of business on the Expiration Date, subject to the provisions hereof and of the Plan. The term "Disability" shall mean that condition described in Section 22(e)(3) of the Internal Revenue Code of 1986, as amended (the "Code"). In the event of a dispute, the determination of Disability will be made by the Administrator (as defined in Section 2(a) of the Plan) in good faith and with the advice of a physician competent in the area to which such Disability relates.

Upon the consummation of a Sale Event (as defined in the Plan) or occurrence of a Change of Control (as defined in the Plan), in either case, following the grant date of this Stock Option, this Stock Option shall become fully vested and exercisable with respect to all of the

Option Shares as of the effective time of the Sale Event or the occurrence of the Change of Control, respectively.

2. Exercise of Stock Option.

(a) The Optionee may exercise this Option only in the following manner: from time to time on or prior to the Expiration Date of this Option, the Optionee may give written notice to the Company of his or her election to purchase some or all of the vested Option Shares purchasable at the time of such notice. This notice shall specify the number of Option Shares to be purchased.

Payment of the purchase price for the Option Shares may be made by one or more of the following methods: (i) in cash, by certified or bank check or other instrument acceptable to the Administrator; (ii) in the form of shares of Stock that are not then subject to restrictions under any Company plan and that have been held by the Optionee for at least six months; (iii) by the Optionee delivering to the Company a properly executed exercise notice together with irrevocable instructions to a broker to promptly deliver to the Company cash or a check payable and acceptable to the Company to pay the option purchase price, provided that in the event the Optionee chooses to pay the option purchase price as so provided, the Optionee and the broker shall comply with such procedures and enter into such agreements of indemnity and other agreements as the Administrator shall prescribe as a condition of such payment procedure; or (iv) a combination of (i), (ii) and (iii) above. Payment instruments will be received subject to collection.

The delivery of certificates representing the Option Shares will be contingent upon the Company's receipt from the Optionee of full payment for the Option Shares, as set forth above and any agreement, statement or other evidence that the Company may require to satisfy itself that the issuance of Stock to be purchased pursuant to the exercise of Options under the Plan and any subsequent resale of the shares of Stock will be in compliance with applicable laws and regulations.

(b) Certificates for shares of Stock purchased upon exercise of this Stock Option shall be issued and delivered to the Optionee upon compliance to the satisfaction of the Administrator with all requirements under applicable laws or regulations in connection with such issuance and with the requirements hereof and of the Plan. The determination of the Administrator as to such compliance shall be final and binding on the Optionee. The Optionee shall not be deemed to be the holder of the shares subject to this Stock Option, or to have any of the rights of a holder, unless and until this Stock Option shall have been exercised pursuant to the terms hereof, the Company shall have issued and delivered the shares to the Optionee, and the Optionee's name shall have been entered as the stockholder of record on the books of the Company. Thereupon, the Optionee shall have full voting, dividend and other ownership rights with respect to such shares of Stock.

(c) Notwithstanding any other provision hereof or of the Plan, no portion of this Stock Option shall be exercisable after the Expiration Date hereof.

3. Termination as Director. If the Optionee ceases to be a Director of the Company, the period within which to exercise the Stock Option may be subject to earlier termination as set forth below.

(a) Termination by Reason of Death. If the Optionee ceases to be a Director by reason of death, any Stock Option held by the Optionee may be exercised by his or her legal representative or legatee for a period of twelve (12) months from the date of death or until the Expiration Date, if earlier.

(b) Other Termination. If the Optionee ceases to be a Director for any reason other than death, any Stock Option held by the Optionee may be exercised to the extent exercisable on the date Optionee ceases to be a Director for a period of three (3) months from the date of termination or until the Expiration Date, if earlier.

4. Incorporation of Plan. Notwithstanding anything herein to the contrary, this Stock Option shall be subject to and governed by all the terms and conditions of the Plan. Capitalized terms in this Agreement shall have the meaning specified in the Plan, unless a different meaning is specified herein.

5. Transferability. This Agreement is personal to the Optionee, is non-assignable and is not transferable in any manner, by operation of law or otherwise, other than by will or the laws of descent and distribution. This Stock Option is exercisable, during the Optionee's lifetime, only the Optionee, and thereafter, only by the Optionee's legal representative or legatee.

6. Miscellaneous

(a) Notice hereunder shall be given to the Company at its principal place of business, and shall be given to the Optionee at the address set forth below, or in either case at such other address as one party subsequently furnish to the other party in writing.

(b) This Stock Option does not confer upon the Optionee any rights with respect to continuance as a Director.

(c) Pursuant to Section 15 of the Plan, the Administrator may at any time amend or cancel any outstanding portion of this Stock Option, but no such action may be taken which adversely affects the Optionee's rights under this Agreement without the Optionee's consent.

HARVARD BIOSCIENCE, INC.

By: _____

Name: Bryce Chicoyne
Title: Chief Financial Officer

The foregoing Agreement is hereby accepted and the terms and conditions thereof hereby agreed to by the undersigned.

Dated: _____

Optionee's Signature

Optionee's name and address:

Subsidiaries of the Registrant

HBIO Securities Corp. (United States)
Harvard Apparatus FSC, Inc. (U.S. Virgin Islands)
Warner Instruments LLC (United States)
Union Biometrica, Inc. (United States)
Harvard Apparatus, Ltd. (United Kingdom)
Harvard Apparatus, SARL (France)
Biochrom Ltd. (United Kingdom)
Scie-Plas Ltd. (United Kingdom)
Asys Hitech GmbH (Austria)
Hugo Sachs Elektronik Harvard Apparatus GmbH (Germany)
Union Biometrica GmbH (Germany)
Maia Scientific NV (Belgium)
Ealing Scientific Ltd. Canada (doing business as Harvard Apparatus, Canada) (Canada)
Genomic Solutions, Inc. (United States)
Cartesian Technology, Inc. (United States)
Genomic Solutions, Ltd. (United Kingdom)
Genomic Solutions Canada Inc. (United States)
Genomic Solutions (CDN), Inc. (Canada)
Hoefer, Inc. (United States)
KDS, Inc. (United States)

EXHIBIT 23.1

Consent of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders
Harvard Bioscience, Inc. and subsidiaries:

We consent to the incorporation by reference in registration statements Nos. 333-53848 and 333-104544 on Form S-8 of Harvard Bioscience, Inc. and subsidiaries of our report dated March 16, 2006, with respect to the consolidated balance sheets of Harvard Bioscience, Inc. as of December 31, 2005 and 2004, and the related consolidated statements of operations, stockholders' equity and comprehensive income (loss), and cash flows for each of the years in the three-year period ended December 31, 2005, and our report dated March 16, 2006 with respect to management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2005 and the effectiveness of internal control over financial reporting as of December 31, 2005, which reports appear in the December 31, 2005 annual report on Form 10-K of Harvard Bioscience, Inc.

Boston, Massachusetts
March 16, 2006

/s/ KPMG LLP

EXHIBIT 31.1

Certification

I, Bryce Chicoyne, certify that:

1. I have reviewed this annual report on Form 10-K of Harvard Bioscience, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the consolidated financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e), and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 16, 2006

/s/ BRYCE CHICOYNE

Bryce Chicoyne
Chief Financial Officer

Certification

I, Chane Graziano, certify that:

1. I have reviewed this annual report on Form 10-K of Harvard Bioscience, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the consolidated financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e), and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonable likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 16, 2006

/s/ CHANE GRAZIANO

Chane Graziano
Chief Executive Officer

EXHIBIT 32.1

**CERTIFICATION OF PERIODIC FINANCIAL REPORT
PURSUANT TO 18 U.S.C. SECTION 1350**

The undersigned officer of Harvard Bioscience, Inc. (the "Company") hereby certifies that the Company's annual report on Form 10-K for the year ended December 31, 2005 to which this certification is being furnished as an exhibit (the "Report"), as filed with the Securities and Exchange Commission on the date hereof, fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company. This certification is provided solely pursuant to 18 U.S.C. Section 1350 and Item 601(b)(32) of Regulation S-K ("Item 601(b)(32)") promulgated under the Securities Act of 1933, as amended (the "Securities Act"), and the Exchange Act. In accordance with clause (ii) of Item 601(b)(32), this certification (A) shall not be deemed "filed" for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and (B) shall not be deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act, except to the extent that the Company specifically incorporates it by reference.

Date: March 16, 2006

/s/ BRYCE CHICOYNE

Name: Bryce Chicoyne

Title: Chief Financial Officer

EXHIBIT 32.2

**CERTIFICATION OF PERIODIC FINANCIAL REPORT
PURSUANT TO 18 U.S.C. SECTION 1350**

The undersigned officer of Harvard Bioscience, Inc. (the "Company") hereby certifies that the Company's annual report on Form 10-K for the year ended December 31, 2005 to which this certification is being furnished as an exhibit (the "Report"), as filed with the Securities and Exchange Commission on the date hereof, fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company. This certification is provided solely pursuant to 18 U.S.C. Section 1350 and Item 601(b)(32) of Regulation S-K ("Item 601(b)(32)") promulgated under the Securities Act of 1933, as amended (the "Securities Act"), and the Exchange Act. In accordance with clause (ii) of Item 601(b)(32), this certification (A) shall not be deemed "filed" for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, and (B) shall not be deemed to be incorporated by reference into any filing under the Securities Act or the Exchange Act, except to the extent that the Company specifically incorporates it by reference.

Date: March 16, 2006

/s/ CHANE GRAZIANO _____

Name: Chane Graziano

Title: Chief Executive Officer
