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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, 2009

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 001-33957

HARVARD BIOSCIENCE, INC.

(Exact Name of Registrant as Specified in Its Charter)

Delaware	**04-3306140**
(State or other jurisdiction of Incorporation or organization)	(I.R.S. Employer Identification No.)

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:

Title of each class	**Name of each exchange on which registered**
Common Stock, $0.01 par value	**The NASDAQ Stock Market LLC**
Preferred Stock Purchase Rights	

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

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

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 whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). ☐ YES ☐ NO

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. ☒

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

Large accelerated filer ☐		Accelerated filer ☒
Non-accelerated filer ☐	(Do not check if a smaller reporting company)	Smaller reporting company ☐

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 24,271,475 shares of voting stock held by non-affiliates of the Registrant as of June 30, 2009 was approximately $95,872,326 based on the closing sales price of the Registrant's Common Stock, par value $0.01 per share ("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 affiliates. This determination of affiliate status is not a determination for other purposes.

At March 1, 2010, there were 29,584,436 shares of the Registrant's Common Stock issued and outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Company's definitive Proxy Statement in connection with the 2010 Annual Meeting of Stockholders (the "Proxy Statement"), to be held on May 27, 2010, are incorporated by reference into Part III of this Form 10-K. Except with respect to information specifically incorporated by reference in this Form 10-K, the Proxy Statement is not deemed to be filed as part hereof.

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HARVARD BIOSCIENCE, INC.

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ANNUAL REPORT ON FORM 10-K
FOR THE YEAR ENDED DECEMBER 31, 2009

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 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 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," "seek," "expects," "plans," "aim," "anticipates," "believes," "estimates," "projects," "predicts," "intends," "strategy," "potential," "new," "goal" 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 8 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.

PART I

Item 1. *Business.*

Overview

Harvard Bioscience, Inc., a Delaware corporation, is a global developer, manufacturer and marketer of a broad range of specialized products, primarily apparatus and scientific instruments, used to advance 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 primarily through our 850 page catalog (and various other specialty catalogs), our website, through distributors, including GE Healthcare, Thermo Fisher Scientific Inc. and VWR, and via our field sales organization. We have sales and manufacturing operations in the United States, the United Kingdom, Germany and Spain and sales facilities in France and Canada.

Our History

Our business began in 1901 under the name Harvard Apparatus and has grown over the years with the development and evolution of modern life science tools. Our early inventions included 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 20 business or product line acquisitions related to our continuing operations and internally developed many new product lines including: new generation Harvard Apparatus syringe pumps, PHD Ultra series of syringe pumps, advanced Inspira ventilators, GeneQuant DNA/RNA/protein calculators, Ultrospec spectrophotometers, our microliter spectrophotometer, 2D electrophoresis products, 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 had been such that this business did not meet our expectations and on our decision to focus our resources on the 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. In November 2007, we completed the sale of the assets of our Genomic Solutions Division and the stock of our Belgian subsidiary, Maia Scientific, both part of our Capital Equipment Business Segment. In September 2008, we completed the sale of assets of our Union Biometrica Division including our German subsidiary, Union Biometrica GmbH, representing at that time the remaining portion of our Capital Equipment Business Segment.

Unless otherwise indicated, the discussion of our business and our products is focused on 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;
- Having relatively inexpensive products reduces the volatility associated with expensive capital equipment; and
- Focusing on niche markets reduces head-to-head competition with the major instrument companies.

We seek to grow this range of products through a combination of organic growth driven by internal development of new products, direct marketing, distribution channel expansion 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 testing and molecular biology and liquid handling.

ADMET Testing

The goal of ADMET testing 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, Hugo Sachs Elektronik, Panlab 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 SYGNIS Pharma AG) and today we manufacture 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 testing 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 and our 2007 acquisition of Panlab s.l. (“Panlab”).

Toxicology—Precision Infusion Pumps and Behavioral Products

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. In May 2009, we introduced the new Harvard Apparatus PHD Ultra series of syringe pumps and in October 2009, we launched the new KDS Legato 200. We also design and manufacture behavioral products used in neuroscience, cardiology, psychological and respiratory studies to evaluate the effects of situational stimuli, drugs and nutritional infusions on motor and sensory, activity and learning and test behavior. We expanded our behavioral product offerings with the acquisition of Panlab in October 2007.

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 International Market Supply, Ltd. in 2001.

Electroporation Products

Our BTX brand includes 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 greatly increase the throughput of this otherwise essentially manual technique.

Distributed Products

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 two percent of our revenues for the year ended December 31, 2009. Distributed products accounted for approximately 24% of our revenues for the year ended December 31, 2009. 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 many of our proprietary manufactured products are 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 reach these researchers.

Molecular Biology and Liquid Handling

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 prices ranging from $5,000 to $10,000. The apparatus products typically sell for less than $5,000.

We expanded our molecular biology product offerings with the September 2009 acquisition of Denville Scientific, Inc. (“Denville”), a distributor of molecular biology laboratory consumables, with a strong focus on liquid handling consumables utilized in research laboratories. Denville’s field sales force sells these primarily Denville branded products to end users in universities and other research laboratories. This acquisition expands our field sales capabilities and provides access to the laboratory consumables market, which is currently estimated to be an approximately $1 billion market.

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. Microliter spectrophotometry is a technique used to measure extremely small sample sizes. 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, Biowave and Lightwave. Our Biochrom subsidiary manufactures these products, and we primarily sell them through our distribution arrangements 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 GeneQuant name. 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 distributors under our Asys Hitech brand name. In June 2006, we expanded our multi-well plate reader offerings with the purchase of selected assets of Anthos Labtec Instruments GmbH (“Anthos”), a subsidiary of Beckman Coulter, Inc. 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 Biochrom’s U.S. direct sales force and through distributors internationally.

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. We primarily market these products, and we sell them under distributor brand names as well as our own Asys Hitech name.

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. Approximately half of Hoefer revenues come from a distribution partnership with GE Healthcare. Hoefer also markets its products through other distributors and through a catalog/web distribution channel under the Hoefer name. We expanded our presence in this market with the acquisition of Denville in September 2009.

Consumables

Our offering of molecular biology laboratory consumables with a liquid handling focus consists primarily of such products as pipettes, pipette tips, autoradiography film, gloves, thermal cycler accessories and reagents, which we sell through our field sales force in the U.S. We dramatically expanded our presence in this market with the acquisition of Denville in September 2009.

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. and Johnson & Johnson.

We conduct direct sales in the United States, the United Kingdom, Germany, France, Spain and Canada. We sell primarily through distributors in other countries. Aggregate sales to our largest customer, GE Healthcare, a distributor with end-users similar to ours, accounted for approximately 12% of our revenues for the year ended December 31, 2009 compared to 15% of our revenues for the year ended December 31, 2008. We have several thousand customers worldwide and no other customer accounted for more than 6% of our revenues for such periods. Our acquisition in September 2009 of Denville expands our U.S. field sales capabilities and provides access to the laboratory consumables market.

Sales and Marketing

For the year ended December 31, 2009, revenues from direct sales to end-users through our Harvard Apparatus catalog (and various other specialty catalogs) and the electronic version of our catalog on our website represented approximately 30% of our revenues; revenues from direct sales to end-users through our direct sales force represented approximately 22% of our total revenues; and revenues from sales of our products through distributors represented approximately 48% of our revenues.

Direct Sales

We periodically produce and mail a Harvard Apparatus full line catalog, most recently launched in March 2010, which contains approximately 11,000 products on 850 pages and is printed in varying quantities ranging from 50,000 to 100,000 copies. The latest 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, 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, we use distributors.

Distributors

GE Healthcare is our largest distributor, accounting for 12%, 15% and 17% of our revenues for the years ended December 31, 2009, 2008 and 2007, respectively.

Historically, GE Healthcare has been our primary distributor, marketer and seller of a significant portion of our spectrophotometer and DNA/RNA calculator product lines of our Biochrom subsidiary. In April 2008, our Biochrom subsidiary entered into a new distribution agreement with GE Healthcare. This distribution agreement between Biochrom and GE Healthcare is a continuation of a long standing relationship between the companies. Under the terms of the agreement, GE Healthcare will serve as the exclusive, worldwide (except Canada) distributor, marketer and seller of a significant portion of the spectrophotometer and DNA/RNA calculator product lines sold by Biochrom, including the microliter spectrophotomer to which GE Healthcare has exclusive access on a worldwide basis including Canada.

The term of the agreement expires December 31, 2012, may be extended by GE Healthcare for additional one-year periods and may be terminated by either party upon one year advance written notice after March 27, 2009. Additionally, upon breach of certain terms of the agreement by either party, the agreement may be terminated with a 60-day notice period.

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 upon certain circumstances. 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, Warner, BTX, KD Scientific, Asys Hitech, Anthos, Panlab 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 that we have acquired that had distributors in place at the time of our acquisition, we use distributors.

Backlog

Our order backlog was approximately $7.4 million as of December 31, 2009 and 2008, respectively. 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 that address growth opportunities within the life science research process, particularly for application in the areas of ADMET testing and molecular biology and liquid handling. We are also working to develop new products aimed at long term opportunities in the emerging field of regenerative medicine.

Our research and development expenditures were approximately $4.4 million, $4.0 million and $3.7 million in 2009, 2008 and 2007, respectively. The increase in research and development expenses during 2009 was primarily due to increased development efforts at our Harvard Apparatus business related to the 2009 introduction of the PHD Ultra series of syringe pumps and the KDS Legato 200 pump and at Biochrom related to the spectroscopy business. We anticipate that we will continue to make investments in research and development activities 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 collaborations, 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 to address research scientists' changing needs.

Manufacturing

We manufacture and test the majority of our products in our principal manufacturing facilities located in the United States, the United Kingdom, Spain 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 expertise, 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 primarily involve assembly and testing activities. We manufacture syringe pumps, ventilators, cell injectors, molecular sample preparation products and electroporation products 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. We manufacture spectrophotometers, amino acid analysis systems, low-volume, high-throughput liquid dispensers and our plate readers in our Cambridge, England facility. We manufacture our surgery and anesthesia related products and physiology-teaching products in Edenbridge, England. We manufacture our complete organ testing systems in March-Hugstetten, Germany. Our electrophoresis products are manufactured at our San Francisco, California facility. Behavioral science products are manufactured in our Barcelona, Spain facility.

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, as being 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 testing and molecular biology. In the ADMET testing area, we compete with, among others, Amaxa GmbH, Becton, Dickinson and Company, Eppendorf AG, Kent Scientific Corporation, Razel Scientific Instruments, Inc. and Ugo Basile. In the molecular biology products area, we compete with, among others, Beckman Coulter, Inc., Bio-Rad Laboratories, Inc., Eppendorf AG, Invitrogen Corporation, MDS Analytical Technologies, PerkinElmer, Inc. and Thermo Fisher Scientific Inc.

Seasonality

Our business is generally not seasonal, however, sales and earnings in our third quarter are usually flat to down sequentially primarily because there are a large number of holidays and vacations during the quarter, especially in Europe. Our fourth quarter sales and earnings are often the highest in the fiscal year compared to the other three quarters, primarily because many of our customers tend to spend budgeted money before their own fiscal year ends.

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. 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 be issued 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 advantageous to us, or acceptable 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 current products are not subject to pre-market approval by the United States Food and Drug Administration (“FDA”) for use on human clinical patients. As we continue to develop new products for regenerative medicine applications, we expect that we will seek approvals from the FDA for certain such products for use in clinical applications. In addition, we believe we are currently in compliance with all relevant environmental laws.

Employees

As of December 31, 2009, we employed 348 employees, of which 331 are full-time and 17 are part-time. Geographical residence information for these employees is summarized in the table below:

	As of December 31, 2009
United States	181
United Kingdom	102
Spain	42
Germany	14
Canada	6
France	3
Total	348

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 decision to divest this business was based on the fact that market conditions for the Capital Equipment Business segment had been such that this business did not meet our expectations and on our decision to focus our resources on the 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.

In November 2007, we completed the sale of the assets of our Genomic Solutions Division and the stock of our Belgian subsidiary, MAIA Scientific, both of which were part of our Capital Equipment Business Segment, to Digilab, Inc.

In September 2008, we completed the sale of assets of our Union Biometrica Division including our German subsidiary, Union Biometrica GmbH, representing at that time the remaining portion of our Capital Equipment Business Segment, to UBIO Acquisition Company. The purchase price paid by UBIO Acquisition Company under the terms of the Asset Purchase Agreement consisted of $1 in cash, the assumption of certain liabilities, plus additional consideration in the form of an earn-out based on the revenue generated by the acquired business as it is conducted by UBIO Acquisition Company over a five-year post-transaction period in an amount equal to (i) 5% of the revenue generated up to and including $6,000,000 and (ii) 8% of the revenue generated above $6,000,000 each year. Any earn-out amounts will be evidenced by interest-bearing promissory notes due on September 30, 2013 or at an earlier date based on certain triggering events. During 2008, we recorded a loss on sale of the Union Biometrica business of $3.3 million. There was no value ascribed to the contingent consideration from the earn-out agreement, as realization is uncertain. During 2009, we recorded a gain of $0.1 million in our discontinued operations reflecting an adjustment of our estimated net costs associated with the divestiture of our Union Biometrica Division.

Geographic Area

Financial information regarding geographic areas in which we operate is provided in Note 17 of the “Notes to Consolidated Financial Statements,” which are included elsewhere in this report.

Available Information and Website

Our website address 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.***

As previously discussed, our actual results could differ materially from our forward-looking statements. Our business faces a variety of risks. These risks include those described below and may include additional risks and uncertainties not presently known to us or that we currently deem immaterial. If any of the events or circumstances described in the following risk factors occur our business operations, performance and financial condition could be adversely affected and the trading price of our common stock could decline. These risk factors should be read in conjunction with the other information in this 2009 Form 10-K.

The ongoing economic downturn and continued uncertainty in the financial markets and other adverse changes in general conditions may exacerbate certain risks affecting our business.

The current global financial crisis that began in 2008 has caused disruption in the financial markets, including severely diminished liquidity and credit availability. While these conditions have not impaired our ability to access credit markets to date, there can be no assurance that these conditions will not adversely affect our ability to do so in the future, particularly if there is further deterioration in the world financial markets and major economies.

As our business has grown, we have become increasingly subject to the risks arising from adverse changes in domestic and global economic conditions. Continued concerns about credit markets, consumer confidence, economic conditions, volatile corporate profits and reduced capital spending could continue to negatively impact demand for our products. If economic growth in the U.S. and other countries continues to be slow and does not improve, customers may delay purchasing of our products. The on-going tightening of credit in financial markets may adversely affect the ability of our customers and suppliers to obtain financing, which could result in a decrease in, or deferrals or cancellations of, the sale of our products. If global economic and market conditions, or economic conditions in the United States, remain uncertain or persist, spread, or deteriorate further, we may experience a material adverse effect on our business, operating results and financial condition. Unstable economic, political and social conditions make it difficult for our customers, our suppliers and us to accurately forecast and plan future business activities. If such conditions persist, our business, financial condition and results of operations could suffer. We cannot project the extent of the impact of the economic environment on our industry or us.

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

Our quarterly revenues will likely be affected by various factors, including the 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.

The failure of any banking institution in which we deposit our funds or the failure of such banking institution to provide services in the current economic environment could have a material adverse effect on our results of operations, financial condition or access to borrowings.

We deposit our cash and cash equivalents with a number of financial institutions around the world. Should some or all of these financial institutions fail or otherwise be unable to timely perform requested services, we would likely have a limited ability to quickly access our cash deposited with such institutions. If we are unable to quickly access such funds, we may need to increase our use of our existing credit lines or access more expensive

credit, if available. If we are unable to access some or all of our cash on deposit, either temporarily or permanently, or if we access existing or additional credit or are unable to access additional credit, it could have a negative impact on our operations, including our reported net income, or our financial position, or both.

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. We may incur significant expenditures in anticipation of an acquisition that is never realized.

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. Most recently, we completed the acquisition of Denville Scientific, Inc. in September 2009. 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.

We have been actively engaged in acquiring and divesting companies. As a result, we may be the subject of lawsuits from either the acquiring company's stockholders, an acquired company's previous stockholders, the divested company's stockholders or our current stockholders.

We may be the subject of lawsuits from either the acquiring company's stockholders, an acquired company's previous stockholders, the divested company's stockholders or our current stockholders. These lawsuits could result from the actions of the acquisition or divestiture target prior to the date of the acquisition or divestiture, from the acquisition or divestiture transaction itself or from actions after the acquisition or divestiture. 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.

Attractive acquisition opportunities may not be available to us in the future.

We will consider the acquisition of other businesses. However, we may not have the opportunity to make suitable acquisitions on favorable terms in the future, which could negatively impact the growth of our business. In order to pursue such opportunities, we may require significant additional financing, which may not be available to us on favorable terms, if at all. We expect that our competitors, many of which have significantly greater resources than we do, will compete with us to acquire compatible businesses. This competition could increase prices for acquisitions that we would likely pursue.

If our goodwill or intangible assets become impaired, we may be required to record a significant charge to earnings.

Under accounting principles generally accepted in the United States, we review our intangible assets for impairment when events or changes in circumstances indicate the carrying value may not be recoverable.

Goodwill is required to be tested for impairment at least annually. Factors that may be considered a change in circumstances indicating that the carrying value of our goodwill or other intangible assets may not be recoverable include a decline in our stock price and market capitalization, future cash flows, and slower growth rates in our industry. We may be required to record a significant charge to earnings in our financial statements during the period in which any impairment of our goodwill or other intangible assets is determined, resulting in an impact on our results of operations.

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

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 the provisions of Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASU") 360, "*Property, Plant and Equipment*" (formerly Statement of Financial Accounting Standards (SFAS) No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*. In accordance with FASB ASU 350, "*Intangibles-Goodwill and Other*" (formerly 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 FASB ASU 360 and FASB ASU 350, which could have an adverse effect on net income for the period in which the write off occurs. At December 31, 2009, our continuing operations had goodwill and intangible assets of $54.5 million, or 51%, of our total assets.

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

We prepare our consolidated financial statements in accordance with accounting principles generally accepted in the United States of America ("GAAP"). These principles are subject to interpretation by the SEC and various bodies formed to interpret and create appropriate accounting principles. New accounting pronouncements and varying interpretations of accounting pronouncements have occurred and may occur in the future. A change in these principles can have a significant effect on our reported results and may even retroactively affect previously reported transactions. These new accounting pronouncements may adversely affect our reported financial results.

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 38. If our estimates are incorrect, our future financial operating results and financial condition could be adversely affected. Additionally, our acquisition of Denville requires that a final contingent payment be made to the seller in 2010. To the extent that the final payment differs from our estimate of that payment, included in the Company's balance sheet as of December 31, 2009, our 2010 results of operations could be significantly impacted.

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 52% of total revenues for 2009. We anticipate that revenue from international operations will continue to represent a substantial portion of our revenues in the foreseeable future. In addition, a number of our manufacturing facilities and suppliers are located outside the United States. A global economic slowdown could have a negative effect on various foreign markets in which we operate. Accordingly, our future results could be harmed by a variety of factors, including:

- Ÿ the impact of recessions and other economic conditions in economies, including Europe in particular, outside the United States,
- Ÿ disruptions of capital and trading markets,

- Ÿ inability to collect accounts receivable,
- Ÿ limitations on repatriations of funds,
- Ÿ potentially negative consequences from changes in tax laws affecting the ability to expatriate profits,
- Ÿ difficulty in staffing and managing widespread operations, unfavorable labor regulations applicable to European operations, such as severance and the unenforceability of non-competition agreements in the European Union, and
- Ÿ other factors beyond our control, including terrorism, acts of war, natural disasters and diseases.

We are also subject to the risks of fluctuating foreign exchange rates, which could have a materially adverse effect on the sales price of our products in foreign markets, as well as the costs and expenses of our foreign subsidiaries. Generally, we do not use forward exchange contracts to hedge our foreign currency exposure. However, in order to mitigate the impact of changes in foreign currency exchange rates, we used derivative financial instruments (or "foreign currency contracts") to hedge the foreign currency effects on the value of certain loans between subsidiaries and do not designate these derivative instruments as accounting hedges.

Currency exchange rate fluctuations may have a negative impact on our reported earnings.

Approximately 48% of our business from continuing operations during 2009 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 translation and 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.

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.

We may incur additional restructuring costs or not realize the expected benefits of our initiatives to reduce operating expenses.

During the quarter ended March 31, 2008, we committed to an ongoing initiative to consolidate business functions to reduce operating expenses. Our actions in 2008 were related to the separation of our electrophoresis product lines from our spectrophotometer and plate reader product lines. As part of these initiatives, we made changes in management, completed the consolidation of the Hoefer electrophoresis administrative and marketing operations from San Francisco, California to the headquarters of the Harvard Apparatus subsidiary in Holliston, Massachusetts and consolidated the activities of our Asys Hitech subsidiary in Austria to our Biochrom subsidiary's facility located in Cambridge, UK.

During the quarter ended March 31, 2009, the management of Harvard Bioscience initiated a plan to relocate the Scie-Plas operation to Hoefer's San Francisco, California facility and exit its general fabrication business as part of its ongoing business improvement initiative.

We may incur additional restructuring costs and we may not be able to realize fully the expected benefits of these initiatives. See Note 9 to our consolidated financial statements—Restructuring and Other Exit Costs.

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, Thomas McNaughton, or any of the managerial, technical or scientific staff may significantly delay or prevent the achievement of product development and other business objectives. 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.

We may be unsuccessful in developing new products for existing markets.

Our strategy includes developing new products to drive organic growth in our businesses. We may be unsuccessful developing new products that will be well received in existing markets. The products we develop may have less market demand than we anticipate or the demand may be at substantially lower prices than we anticipate. Our competitors may develop new products or technologies that diminish demand for our new products. Our customers may receive decreased funding levels, which may cause their demand for our products to decrease. Our efforts to develop new intellectual property and new products may be costly. Substantial failure in our new product development program could have a material impact on our results of operation and our financial condition.

We may be unsuccessful in launching new products or expanding product offerings in the field of regenerative medicine.

We recently announced the launch of our new ORGANIZER Series Model 100 “In Breath” bioreactor, which is our first product in the field of regenerative medicine. We also announced that we intend to develop a series of products to address what we believe is a long-term growth opportunity in the field of regenerative medicine. Although we believe the field of regenerative medicine presents long-term opportunities for the Company, we may be unsuccessful in identifying and pursuing such opportunities. We may be unsuccessful in introducing new products in the field of regenerative medicine, expanding current product offerings and commercializing new technologies. In addition, there may be a lack of demand in the present or in the future for the products that we introduce in the field of regenerative medicine. We may be required to obtain regulatory approvals, including FDA approvals, for our products in the field of regenerative medicine and there is no assurance that we will be able to successfully obtain such approvals on a timely basis or at all.

The current size and the anticipated size of the regenerative medicine market may be smaller than what we currently believe. In addition, the existence and size of the opportunities that we believe are currently, or may in the future be, available to the Company may not exist or develop. We may experience competition from many competitors, some of whom may have greater resources or better products or technologies than we do. Our customers may experience decreased demand for our products and research funding levels from endowments at our university customers may decrease. Finally, we will need to acquire, develop and protect our intellectual property, which may involve significant costs, and operate without infringing on the intellectual property of others. Any failure in our pursuit of opportunities in the field of regenerative medicine could have a material impact on our financial condition and results of operations.

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 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 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 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 change as new technologies are developed and introduced in the marketplace. We may have difficulty in keeping abreast of the 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.

Our $20.0 million credit facility contains certain financial and negative covenants, the breach of which may adversely affect our financial condition.

We have a $20.0 million revolving credit loan agreement with Bank of America, as agent, and Bank of America and Brown Brothers Harriman & Co as lenders. As of December 31, 2009 and 2008, we had borrowings of $13.3 million and no borrowings, respectively, under the credit facility. The credit facility includes covenants relating to income, debt coverage and cash flow and minimum working capital requirements. The credit facility also contains limitations on our ability to incur additional indebtedness and requires lender approval for acquisitions funded with cash, promissory notes and/or other consideration in excess of $6.0 million and for acquisitions funded solely with equity in excess of $10.0 million. 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 $20.0 million facility may become immediately due and payable. This immediate payment may negatively impact our financial condition.

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 sufficient capital on favorable terms and on a timely basis (if at all) could seriously harm our business, 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. In addition, our revolving credit loan agreement with Bank of America, as agent, and Bank of America and Brown Brothers Harriman & Co as lenders, contains limitations on our ability to incur additional indebtedness and requires lender approval for acquisitions funded with cash, promissory notes and/or other consideration in excess of $6.0 million and for acquisitions funded solely with equity in excess of $10.0 million. If future financing is not available or is not available on acceptable terms, we may have to alter our operations or change our business strategy. We cannot assure you that the capital required to fund operations or our acquisition strategy will be available in the future.

If GE Healthcare (formerly Amersham Biosciences) terminates its distribution agreements with us, fails to renew such agreements 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 2009, approximately 12% of our revenues were generated through two distribution agreements with GE Healthcare.

In April 2008, our Biochrom subsidiary entered into a new distribution agreement with GE Healthcare. This distribution agreement between Biochrom and GE Healthcare, formerly Amersham Biosciences, is a continuation of a long standing relationship between the companies. Under the terms of the agreement, GE Healthcare will serve as the exclusive, worldwide (except Canada) distributor, marketer and seller of a significant portion of the spectrophotometer and DNA/RNA calculator product lines sold by Biochrom, including the microliter spectrophotometer to which GE Healthcare has exclusive access to on a worldwide basis including Canada. We are restricted from allowing another person or entity to distribute, market and sell into the life sciences market the products that Biochrom makes specifically for GE Healthcare. 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. In addition, our inability to enter into a new agreement with GE Healthcare for product distribution could materially impede the growth of our business and our ability to generate sufficient revenue. The term of the agreement expires December 31, 2012, may be extended by GE Healthcare for additional one-year periods and may be

terminated by either party upon one year advance written notice after March 27, 2009. Additionally, upon breach of certain terms of the agreement by either party, the agreement may be terminated with a 60-day notice period.

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 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 under certain circumstances. 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.

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. 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 be able to obtain these agreements in all circumstances in part due to local regulations. 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 should they occur. 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.

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 is largely dependent on raising capital to fund its operations. 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.

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.

Some of our products may be used in areas of research involving cloning, stem cells, human tissue and 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. Government authorities may regulate or prohibit any of these activities. Additionally, the public may disfavor or reject these activities.

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 tasks that are more productive.

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:

- Ÿ volatility of the financial markets,
- Ÿ uncertainty regarding the prospects of the domestic and foreign economies,
- Ÿ technological innovations by competitors or in competing technologies,
- Ÿ revenues and operating results fluctuating or failing to meet the expectations of management, securities analysts, or investors in any quarter,
- Ÿ comments of securities analysts and mistakes by or misinterpretation of comments from analysts, downward revisions in securities analysts' estimates or management guidance,
- Ÿ investment banks and securities analysts may themselves be subject to lawsuits that may adversely affect the perception of the market,
- Ÿ conditions or trends in the biotechnology and pharmaceutical industries,
- Ÿ announcements of significant acquisitions or financings or changes in strategic partnerships,
- Ÿ non-compliance with the internal control standards pursuant to the Sarbanes-Oxley Act of 2002, and
- Ÿ a decrease in the demand for our common stock.

In addition, public stock markets have experienced extreme price and trading volatility. The stock market and the NASDAQ Global 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 further 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, of our charter and bylaws and our Shareholder Rights Plan 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. In February 2008, our Board of Directors adopted a Shareholder Rights Plan that could make it more difficult for a third party to acquire, or could discourage a third party from acquiring, the Company or a large block of our common stock. A third party that acquires 20% or more of our common stock (an "acquiring person") could suffer substantial dilution of its ownership interest under the terms of the Shareholder Rights Plan through the issuance of common stock to all shareholders other than the acquiring person. 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 Global Market, an active trading market for the shares may not be sustained.

Any issuance of preferred stock in the future 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 to holders of our common stock 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.

As a public company, we have and will continue to incur significant legal, accounting and other expenses.

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

None.

Item 2. ***Properties.***

The Company's eight principal facilities incorporate manufacturing, development, sales and marketing, and administration functions. Our facilities consist of:

- Ÿ a leased 52,370 square foot facility in Holliston, Massachusetts, which is our corporate headquarters,
- Ÿ a leased 28,000 square foot facility in Cambridge, England,
- Ÿ a leased 20,853 square foot facility in Barcelona, Spain,
- Ÿ a leased 22,600 square foot facility in San Francisco, California,
- Ÿ a leased 17,436 square foot facility in South Plainfield, New Jersey,
- Ÿ an owned 15,500 square foot facility in Edenbridge, England,
- Ÿ a leased 12,031 square foot facility in March-Hugstetten, Germany, and
- Ÿ a leased 7,500 square foot facility in Hamden, Connecticut.

We also lease additional facilities for sales and administrative support in Les Ulix, France, St. Augustin, Germany and Montreal, Canada and warehouse space in Cambridge, England.

We sublease 15,000 square feet of space of our Holliston, Massachusetts facility.

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. ***(Removed and Reserved)***

Item 4.A. ***Executive Officers of the Registrant***

The following table shows information about our executive officers as of December 31, 2009.

Name	Age	Position
Chane Graziano	71	Chief Executive Officer and Chairman of the Board of Directors
David Green	45	President and Director
Thomas McNaughton	49	Chief Financial Officer and Treasurer
Susan Luscinski	53	Chief Operating Officer

Chane Graziano has served as the Company's Chief Executive Officer and Chairman of the Board of Directors of the Company since March 1996. Prior to joining the Company, 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 46 years experience in the laboratory products and analytical instruments industry. Mr. Graziano serves on the Board of Directors of Nova Holdings LLC and certain of its subsidiaries, including Nova Ventures Corporation, and Advion BioSciences, Inc.

David Green has served as the Company's President and a member of the Board of Directors of the Company since March 1996. Prior to joining the Company, 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 currently serves on the Board of Directors of the Harvard Business School Healthcare Industry Alumni Association, the Advisory Board of the Harvard Business School Student Healthcare Club and on the Executive Advisory Board of The University of Massachusetts Lowell Nanomanufacturing Center. 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.

Thomas McNaughton has served as our Chief Financial Officer and Treasurer since November 14, 2008. Prior to joining Harvard Bioscience, Mr. McNaughton provided, from January 2008 to September 2008 financial consulting services, primarily to an angel-investing group and a silicon manufacturing start-up. From 2005 to 2007, Mr. McNaughton served as Vice President Finance and Chief Financial Officer for Tivoli Audio, LLC, a venture capital-backed global manufacturer of premium audio systems. Prior to joining Tivoli Audio, LLC, from 1990 to 2005, Mr. McNaughton served in various managerial positions in the areas of financial reporting, treasury, investor relations, and acquisitions within Cabot Corporation, a global manufacturer of fine particulate products, and served from 2002 to 2005 as Finance Director, Chief Financial Officer of Cabot Supermetals, a $350 million Cabot division that provides high purity tantalum and niobium products to the electronics and semiconductor industries. Mr. McNaughton practiced from 1982 to 1990 as a Certified Public Accountant in the audit services group of Deloitte & Touche, LLP. Mr. McNaughton holds a B.S. in accounting and finance from Babson College. Mr. McNaughton is a certified public accountant.

Susan Luscinski has served as our Chief Operating Officer since August 2004 and served as our Principal Accounting Officer from May 2008 through November 2008. 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.

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 Global 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 Global Market for the quarterly periods indicated.

Year Ended December 31, 2009	High	Low
First Quarter	$3.18	$2.38
Second Quarter	$4.00	$2.55
Third Quarter	$4.31	$3.29
Fourth Quarter	$4.28	$3.26

Year Ended December 31, 2008	High	Low
First Quarter	$5.14	$3.85
Second Quarter	$5.19	$4.49
Third Quarter	$5.12	$4.01
Fourth Quarter	$4.58	$1.70

On February 26, 2010, the closing sale price of our common stock on the NASDAQ Global Market was $3.49 per share. There were 201 holders of record of our common stock as of February 26, 2010. We believe that the number of beneficial owners of our common stock at that date was substantially greater.

Stock Repurchase Program

On December 6, 2007, the Board of Directors authorized the repurchase by the Company of up to $10 million of its common stock in the open market or through privately negotiated transactions over 24 months. Under the program, shares could be repurchased from time to time and in such amounts as market conditions warranted, subject to regulatory considerations and any applicable contractual restrictions. On November 3, 2009, the Board of Directors extended this program for an additional year.

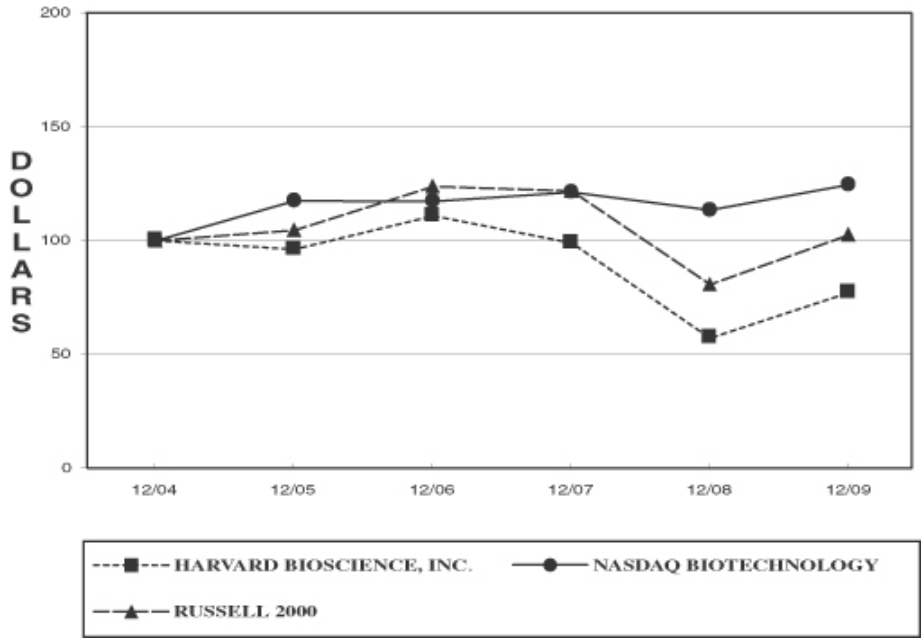
During the life of the program, we have repurchased in the open market 1,702,888 shares of common stock at an aggregate cost of $5.0 million, including commissions under the stock repurchase program. There were no purchases by the Company of the Company's common stock during the three months ended December 31, 2009.

Dividend Policy

We have never declared or paid cash dividends on our common stock in the past and do not intend to pay cash dividends on our common stock 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 our Board of Directors deems relevant.

Stockholder Return Performance Graph

The following graph provides a comparison of the cumulative total stockholder return on the Company's Common Stock from December 31, 2004 to December 31, 2009 with the cumulative return of the Russell 2000 Index and the Nasdaq Biotechnology Index over the same period. The five-year cumulative return assumes an initial investment of $100 in the Company's Common Stock and in each index on December 31, 2004. The total return for the Company's Common Stock and the indices used assumes the reinvestment of all dividends.



	12/04	12/05	12/06	12/07	12/08	12/09
Harvard Bioscience, Inc.	$ 100.00	$ 96.11	$ 110.80	$ 98.92	$ 57.24	$ 77.11
Russell 2000	$ 100.00	$ 104.55	$ 123.76	$ 121.82	$ 80.66	$ 102.58
NASDAQ Biotechnology	$ 100.00	$ 117.54	$ 117.37	$ 121.37	$ 113.41	$ 124.58

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

	For The Years Ended December 31,				
	2009	2008	2007	2006	2005
	(in thousands, except per share data)				
Statement of Operations Data:					
Revenues	$85,772	$88,049	$83,407	$76,181	$ 67,431
Cost of product revenues(1)	44,089	45,893	43,161	38,094	34,156
Gross profit	41,683	42,156	40,246	38,087	33,275
Operating expenses(1)	33,628	33,677	30,713	29,397	25,351
Operating income	8,055	8,479	9,533	8,690	7,924
Other income (expense), net	1,757	(829)	35	(294)	(784)
Income from continuing operations before income taxes	9,812	7,650	9,568	8,396	7,140
Income taxes	2,673	2,240	1,970	1,775	899
Income from continuing operations	7,139	5,410	7,598	6,621	6,241
Discontinued operations(1)(2)					
Income (loss) from discontinued operations, net of tax	94	(457)	(5,864)	(8,962)	(38,118)
Loss on disposition of discontinued operations, net of tax	—	(3,280)	(3,088)	—	—
Total gain (loss) from discontinued operations, net of tax	94	(3,737)	(8,952)	(8,962)	(38,118)
Net income (loss)	$ 7,233	$ 1,673	$ (1,354)	$ (2,341)	$ (31,877)
Income (loss) per share:					
Basic earnings per common share from continuing operations	$ 0.24	$ 0.18	$ 0.25	$ 0.22	$ 0.20
Discontinued operations	0.00	(0.12)	(0.29)	(0.29)	(1.25)
Basic earnings (loss) per common share	$ 0.24	$ 0.05	$ (0.04)	$ (0.08)	$ (1.05)
Diluted earnings per common share from continuing operations	$ 0.24	$ 0.17	$ 0.24	$ 0.21	$ 0.20
Discontinued operations	0.00	(0.12)	(0.29)	(0.29)	(1.24)
Diluted earnings (loss) per common share	$ 0.24	$ 0.05	$ (0.04)	$ (0.08)	$ (1.04)
Weighted average common shares:					
Basic	29,649	30,882	30,646	30,519	30,442
Diluted	29,946	31,354	31,405	31,148	30,781

	As of December 31,				
	2009	2008	2007	2006	2005
	(in thousands)				
Balance Sheet Data:					
Cash and cash equivalents	$ 16,588	$13,698	$17,889	$ 9,357	$ 7,632
Working capital	35,941	32,249	37,970	38,601	42,400
Total assets(3)	107,231	81,271	98,853	93,228	92,035
Long-term debt, net of current portion	13,308	59	5,578	3,000	8,500
Stockholders' equity(3)	75,257	66,718	74,137	71,883	68,416

(1) On January 1, 2006, we adopted FASB ASC 718, "*Compensation—Stock Compensation*" (formerly SFAS No. 123 (revised 2004), *Share-Based Payment*, ("SFAS No.123(R)"), which requires us to recognize compensation expense for all share-based payment awards made to employees and directors including employee stock options and employee stock purchases related to the Employee Stock Purchase Plan ("employee stock purchases"). We adopted FASB ASC 718 using the modified prospective transition method, which required the application of the accounting standard as of January 1, 2006, the first day of our fiscal year 2006. In accordance with the modified prospective transition method, our consolidated financial statements for prior periods have not been restated to reflect, and do not include, the impact of FASB ASC 718.

Stock-based compensation expense recognized under FASB ASC 718 for the years ended December 31, 2009, 2008, 2007 and 2006 was $2.5 million, $2.0 million, $2.4 million and $2.1 million, respectively, which consisted of stock-based compensation expense related to employee stock options and the employee stock purchase plan, as applicable, and was recorded as a component of cost of product revenues, operating expenses and discontinued operations, net of tax.

(2) 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 had been such that this business did not meet our expectations and on our 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. During the year ended December 31, 2006, we utilized a market approach and re-evaluated the fair value less costs to sell of the assets that comprise the Capital Equipment Business segment. Based on this evaluation, we recorded additional asset impairment charges of approximately $3.9 million.

During the year ended December 31, 2007, we utilized a market approach and re-evaluated the fair value less costs to sell of the assets that comprise the Capital Equipment Business segment. Based on our evaluation, additional asset impairment charges of approximately $2.9 million were recorded during 2007.

In November 2007, we completed the sale of the assets of our Genomic Solutions Division and the stock of our Belgian subsidiary, MAIA Scientific, both of which were part of our Capital Equipment Business Segment, to Digilab, Inc. The purchase price paid by Digilab under the terms of the Asset Purchase Agreement consisted of $1,000,000 in cash plus additional consideration in the form of an earn-out based on 20% of the revenue generated by the acquired business as it is conducted by Digilab over a three-year period post-transaction. Any earn-out amounts will be evidenced by interest bearing promissory notes due on November 30, 2012. During the fourth quarter of 2007, we recorded a loss on this sale of $3.1 million. There was no value ascribed to the contingent consideration from the earn-out agreement, as realization is uncertain.

On September 30, 2008, we completed the sale of assets of our Union Biometrica Division including its German subsidiary, Union Biometrica GmbH, representing at that time the remaining portion of our Capital Equipment Business Segment, to UBIO Acquisition Company. The purchase price paid by UBIO Acquisition Company under the terms of the Asset Purchase Agreement consisted of $1 in cash, the assumption of certain liabilities, plus additional consideration in the form of an earn-out based on the revenue generated by the acquired business as it is conducted by UBIO Acquisition Company over a five-year post-transaction period in an amount equal to (i) 5% of the revenue generated up to and including $6,000,000 and (ii) 8% of the revenue generated above $6,000,000 each year. Any earn-out amounts will be evidenced by interest-bearing promissory notes due on September 30, 2013 or at an earlier date based on certain triggering events. During 2008, we recorded a loss on sale of the Union Biometrica business of $3.3 million. There was no value ascribed to the contingent consideration from the earn-out agreement, as realization is uncertain.

During 2009, we recorded a gain of $0.1 million in our discontinued operations reflecting an adjustment of our estimated net costs associated with the divestiture of our Union Biometrica Division.

The operating results of the Capital Equipment Business segment and the asset impairment charges described above are classified under the caption "Discontinued Operations."

(3) In September 2006, the FASB issued FASB ASC 715-20, "*Compensation—Retirement Benefits, Defined Benefit Plans*" (formerly SFAS No. 158, *Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans-an amendment of FASB Statements No. 87, 88, 106 and 132(R)*). This statement requires balance sheet recognition of the overfunded or underfunded status of pension and postretirement benefit plans. Under FASB ASC 715-20, actuarial gains and losses, prior service costs or credits, and any remaining transition assets or obligations that have not been recognized under previous accounting standards must be recognized in other accumulated comprehensive income, net of tax effects, until they are amortized as a component of net periodic benefit cost. The requirement to recognize the funded status of a benefit plan and the disclosure requirements in FASB ASC 715-20 were effective as of the end of the first fiscal year ending after December 15, 2006. We adopted FASB ASC 715-20 effective December 31, 2006.

The incremental effect in our consolidated balance sheet of applying FASB ASC 715-20 as of December 31, 2006 is reflected in the following table:

	Before Application of SFAS No. 158	Adjustments Increase (Decrease)	After Application of SFAS No. 158
		(in thousands)	
Deferred income tax assets	$ 10	$ 685	$ 695
Total assets	92,543	685	93,228
Other liabilities—non-current	36	2,283	2,319
Total liabilities	19,062	2,283	21,345
Accumulated other comprehensive income	7,772	(1,598)	6,174
Total stockholders' equity	73,481	(1,598)	71,883

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 8 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

Our strategy focuses on creating value through combining tuckunder acquisitions with organic growth and operational improvements. We believe that this strategy has been successful and that our 2009 performance demonstrated the robustness of this strategy even during a major recession.

Our 2009 revenues were $85.8 million, which represented a decrease of $2.3 million, or 2.6%. A strengthened U.S. dollar during 2009 had a $4.8 million, or 5.4%, negative effect on the translation of our foreign revenues compared with 2008. Organic growth in our core businesses was down 5.8% in 2009 compared with

2008, due in large part to the global economic recession. However, during September 2009, we acquired Denville, which contributed $7.6 million, or 8.6%, to our 2009 revenues. The Denville acquisition more than offset the economic recession's effect on our core businesses' revenues, and offset more than half of the negative effect from the U.S. dollar's strengthening. As a result, our 2009 revenues were down only 2.6% compared with our record 2008 level.

In spite of the general economic recession, we continued to make key investments in new product development projects aimed at bringing new generations of certain important products to market in 2010. We also made operational improvements by moving the manufacturing operations of our Scie-Plas subsidiary to our Hoefer subsidiary's San Francisco, California location. We expect this to provide manufacturing efficiencies going forward.

Our current plan for Denville is to continue to operate it as a separate subsidiary within our molecular biology group. We will continue to seek to implement its successful growth strategy of expanding the product line, adding to the sales force and building the Denville brand name. We expect that Denville will be a significant contributor to our organic growth going forward.

Denville's products are mostly consumable products, such as pipette tips and reagents used in popular molecular biology applications in almost every life science laboratory. Denville's products address an approximately $1 billion market and, hence we believe, provide a good growth opportunity. However, despite the large market size, the average order size is very low, typically under $500. We believe the low average order size makes the business relatively predictable and Denville does not have the volatility of a capital equipment business. The Denville business continued its organic growth in 2009, even during a major recession.

We expect the main drivers of organic growth in 2010 to be expanding our distribution channels and new product introductions. Despite the recession, during 2009 we maintained our investments in adding field sales people in both the Harvard Apparatus and Biochrom businesses and in introducing new products. In 2009, we launched two new syringe pump products, the KDS Legato 200 and the Harvard Apparatus PHD Ultra. Together we believe they significantly improve the performance and ease of use of our syringe pump product line. We are working on additional new products that we expect will be launched over the next several quarters.

We continue to pursue our tuckunder acquisition strategy.

In short, while we faced challenging business conditions in 2009 and a significant foreign exchange headwind, we believe that through execution of our strategy of organic growth, tuck under acquisitions and operational improvements that we will be able to strengthen the company and position ourselves well for when the economy recovers. While we expect the initiatives discussed above to positively impact our business, the success of these initiatives is subject to a number of factors, including fluctuations in foreign exchange rates, the current economic and financial crisis and its impact on our customers and our ability to obtain credit on terms favorable to us, the competitiveness of our new products, the strength of our intellectual property underlying these products, the success of our marketing efforts and those of our distributors and the other factors described under the heading "Item 1A. Risk Factors".

Generally, our management evaluates the financial performance of our operations before the effects of stock compensation expense, restructuring charges, certain one-time items 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 our operating metrics 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.

Financing

During 2003, we entered into a $20.0 million credit facility with Brown Brothers Harriman & Co. On December 1, 2006, we amended the terms of the credit facility extending the maturity date from January 1, 2007 to December 1, 2009.

On August 7, 2009, we entered into an amended and restated $20.0 million revolving credit loan agreement with Bank of America, as agent, and Bank of America and Brown Brothers Harriman & Co as lenders. The amended and restated revolving credit facility will mature on August 7, 2012. Borrowings under the credit facility bear interest at the London Interbank Offered Rate ("LIBOR") plus 4.0%. The facility includes covenants relating to income, debt coverage and cash flow, as well as minimum working capital requirements. The credit facility also contains limitations on our ability to incur additional indebtedness and requires lender approval for acquisitions funded with cash, promissory notes and/or other consideration in excess of $6.0 million and for acquisitions funded solely with equity in excess of $10.0 million.

At December 31, 2009, we had $13.3 million outstanding under our credit facility with Bank of America and Brown Brothers Harriman & Co.

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.

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

	2009	% of Revenue	2008	% of Revenue	2007	% of Revenue
			($ in thousands)			
Total revenues	$85,772		$88,049		$83,407	
Cost of product revenues	$44,089	51.4%	$45,893	52.1%	$43,161	51.7%
Sales and marketing expenses	$11,763	13.7%	$10,970	12.5%	$10,352	12.4%
General & administrative expenses	$15,109	17.6%	$15,134	17.2%	$14,829	17.8%
Research & development expenses	$ 4,396	5.1%	$ 4,048	4.6%	$ 3,708	4.4%

Revenues. We generate revenues by selling apparatus, instruments, devices and consumables through our catalog, our distributors, our direct sales force and our website. For products primarily priced under $10,000, we typically distribute a new, comprehensive catalog every one to three years, 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 distribute catalog supplements that promote selected areas of our catalog or new products to targeted subsets of our customer base. Future editions of our comprehensive catalog and our catalog supplements will be timed at least in part with the incidence of new product introductions. 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 2010, with approximately 850 pages, 11,000 products and approximately 65,000 copies printed. Revenues from direct sales to end users, derived through our catalog and the electronic version of our catalog on our website, represented approximately 30% of our revenues for the years ended December 31, 2009 and 2008.

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, 2009 and 2008, approximately 48% and 54%, respectively, of our revenues were derived from sales to distributors.

For the year ended December 31, 2009, approximately 76% of our revenues were derived from products we manufacture; approximately 15% 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 and 9% were

derived from distributed products sold under our brand names. For the year ended December 31, 2008, approximately 85% of our revenues were derived from products we manufacture and approximately 15% 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, 2009 and 2008, approximately 52% and 60%, respectively, of our revenues were derived from sales made by our non-U.S. operations. A large portion of our international sales during these periods consisted of sales to GE Healthcare, 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 primarily 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 a higher cost of product revenues as a percent of revenue 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.

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 catalogs, supplements 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 concentrate on key accounts or promote certain product lines.

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, facility costs, investor relations, insurance and provision for doubtful accounts.

Research and development expenses. Research and development expense consists primarily of salaries and related expenses for personnel and spending 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 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 for existing markets. Additionally, we are working to develop new products aimed at long term opportunities in the emerging field of regenerative medicine.

Stock compensation expenses. Stock-based compensation expense recognized under FASB ASC 718 for the year ended December 31, 2009 was $2.5 million. Stock-based compensation expense recognized under FASB ASC 718 for the year ended December 31, 2008 was $2.0 million and $9,000 in our continuing operations and discontinued operations, respectively. Stock-based compensation expense recognized under FASB ASC 718 for the year ended December 31, 2007 was $2.3 million and $0.1 million in our continuing operations and discontinued operations, respectively. This stock-based compensation expense was related to employee stock options and the employee stock purchase plan and was recorded as a component of cost of product revenues, sales and marketing expenses, general and administrative expenses, research and development expenses and discontinued operations.

Results of Operations

Year Ended December 31, 2009 Compared to Year Ended December 31, 2008

Revenues.

Revenues decreased $2.3 million, or 2.6%, to $85.8 million for the year ended December 31, 2009 compared to $88.0 million for the same period in 2008. Our recently acquired Denville subsidiary contributed approximately $7.6 million in revenues. The effect of a strengthened U.S. dollar decreased the Company's revenues for the year ended December 31, 2009 by $4.8 million, or 5.4%, compared with the same period in 2008.

Cost of product revenues.

Cost of product revenues decreased $1.8 million, or 3.9%, to $44.1 million for the year ended December 31, 2009 compared with $45.9 million for the year ended December 31, 2008. The decrease in cost of product revenues was primarily due to lower sales volumes, a $2.7 million currency effect and cost reductions in the Company's Biochrom and Electrophoresis groups, partially offset by $4.7 million attributable to our recently acquired Denville subsidiary. Gross profit as a percentage of revenues increased to 48.6% for the year ended December 31, 2009 compared with 47.9% for the same period in 2008. The increase in gross profit as a percentage of revenues was primarily due to the effect of the Company's initiatives to improve operating results.

Sales and marketing expenses.

Sales and marketing expenses increased $0.8 million, or 7.2%, to $11.8 million for the year ended December 31, 2009 compared with $11.0 million for the year ended December 31, 2008. This increase was primarily due to $1.3 million attributable to our recently acquired Denville subsidiary, partially offset by a $0.5 million favorable impact of currency exchange rates.

General and administrative expenses.

General and administrative expenses were $15.1 million for each of the years ended December 31, 2009 and 2008. On a year-to-year basis, general and administrative expenses reflected an increase of $0.5 million in stock compensation expense and $0.3 million of expenses related to our Denville subsidiary acquisition, partially offset by a $0.5 million favorable impact of currency exchange rates and $0.1 million decrease in bonus expense.

Research and development expenses.

Research and development expenses were $4.4 million for the year ended December 31, 2009 compared with $4.0 million for the year ended December 31, 2008. Excluding a $0.3 million decrease from currency effect, research and development expenses increased 16.1% for the year ended December 31, 2009 from the prior year. The increase in research and development expenses was primarily due to increased development efforts at our Harvard Apparatus business related to the 2009 introduction of the PHD series of syringe pumps and the KDS Legato 200 pump and at Biochrom related to the spectroscopy business.

Amortization of intangible assets.

Amortization of intangibles was $1.8 million and $2.0 million for the years ended December 31, 2009 and 2008, respectively.

Other income (expense), net.

Other income (expense), net, was $1.8 million income and $0.8 million expense for the years ended December 31, 2009 and 2008, respectively. Included in other income, net for the year ended December 31, 2009 was a $2.6 million gain from adjustment of contingent consideration related to our Denville acquisition and $0.3 million of direct acquisition costs. Other, net for the year ended December 31, 2008 included the effect of $0.5

million in costs related to an asset write-off and $0.3 million of costs related to acquisition initiatives during 2008. Net interest expense was $0.2 million for the year ended December 31, 2009 compared to net interest expense of $17,000 for the year ended December 31, 2008., The increase in net interest expense was primarily the result of higher average long-term debt balances during 2009 compared to 2008 due to the Denville acquisition. Other income, net, also included foreign exchange losses of $0.3 million for the year ended December 31, 2009 compared to foreign exchange gains of $60,000 for the year ended December 31, 2008. The 2009 exchange losses were primarily the result of currency fluctuations on foreign cash balances and intercompany transactions between our subsidiaries.

Income taxes.

Income tax expense from continuing operations was approximately $2.7 million and $2.2 million for the years ended December 31, 2009 and 2008, respectively. The effective income tax rate for continuing operations was 27.2% for the year ended December 31, 2009, compared with 29.3% for the same period of 2008. The difference between our effective tax rate and the US statutory tax rate is principally attributable to changes in our valuation allowance, foreign tax rate differential and increased research and development tax credits. If we did not have valuation allowances or if some or all of the valuation allowances were reversed, there would be an impact on our effective tax rate.

Restructuring

During the quarter ended March 31, 2009, the management of Harvard Bioscience initiated a plan to relocate the Scie-Plas operation to Hoefer's San Francisco, California facility and exit its general fabrication business as part of its ongoing business improvement initiative. During the quarter ended June 30, 2009, Biochrom's management initiated a plan to improve Biochrom's manufacturing margins.

During the year ended December 31, 2009, we recorded restructuring charges in our Scie-Plas, Biochrom and Hoefer businesses related to the 2009 restructuring plan of approximately $0.7 million. These charges were comprised of $0.3 million in severance payments, $0.2 million in inventory impairment charges related to the discontinuance of certain product lines (included in cost of product revenues) and $0.2 million in various other costs.

During the quarter ended March 31, 2008, the management of Harvard Bioscience committed to an ongoing initiative to consolidate business functions to reduce operating expenses. Our actions in 2008 were related to the separation of our electrophoresis product lines from our spectrophotometer and plate reader product lines. As part of these initiatives we made changes in management, completed the consolidation of the Hoefer electrophoresis administrative and marketing operations from San Francisco, California to the headquarters of the Harvard Apparatus business in Holliston, Massachusetts and consolidated the activities of our Asys Hitech subsidiary in Austria to the Company's Biochrom subsidiary's facility located in Cambridge UK. The combined costs of these activities recorded in the year ended December 31, 2008 were $1.8 million.

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 had been such that this business did not meet our expectations and on our decision to focus our resources on the 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. In November 2007, we completed the sale of the assets of our Genomic Solutions Division and the stock of our Belgian subsidiary, MAIA Scientific, both of which were part of our Capital Equipment Business Segment, to Digilab, Inc.

In September 2008, we completed the sale of assets of our Union Biometrica Division including our German subsidiary, Union Biometrica GmbH, representing at that time the remaining portion of our Capital Equipment Business Segment. Accordingly, unless otherwise indicated, the discussion of our business is focused on our

continuing operations, which constitute our Apparatus and Instrumentation businesses. During 2009, we recorded a gain of $0.1 million in our discontinued operations reflecting an adjustment of our estimated net costs associated with the divestiture of our Union Biometrica Division.

Year Ended December 31, 2008 Compared to Year Ended December 31, 2007

Revenues.

Revenues increased $4.6 million, or 5.6%, to $88.0 million for the year ended December 31, 2008 compared to $83.4 million for the same period in 2007. The Company's Panlab subsidiary, acquired during the fourth quarter of 2007, accounted for a $6.8 million increase in revenues. A strengthening of the U.S. dollar during 2008 had a $3.0 million negative impact on revenues during the year. Excluding the effect of currency rate changes, the Company's Harvard Apparatus business reported a slight revenue decrease (less than 1%), and the Biochrom business reported 3% organic growth compared with 2007. Biochrom's organic growth came primarily from sales of its new microliter spectrophotometer product.

Cost of product revenues.

Cost of product revenues increased $2.7 million, or 6.3%, to $45.9 million for the year ended December 31, 2008 from $43.2 million for the year ended December 31, 2007. The Company's Panlab subsidiary was acquired in the fourth quarter of 2007, and only that quarter's operating results were included in the Company's results in 2007. Therefore, Panlab accounted for a $4.4 million increase in cost of product revenues during 2008. At Biochrom, the additional production costs of its organic sales growth were in large part offset by cost savings derived from consolidating the Asys manufacturing operation into Biochrom's site. The effects of a strengthened U.S. dollar reduced 2008 cost of product revenues by $1.9 million compared with 2007. Gross profit as a percentage of revenues decreased to 47.9% for the year ended December 31, 2008 compared with 48.3% for the same period in 2007. The decrease in gross profit as a percentage of revenues was primarily due to certain inventory write-downs related to our consolidation plan. The Panlab business, acquired in October 2007, has lower than average gross margins than the Company's consolidated average but the effect of Panlab's lower margins on the Company's overall gross margin was offset by improved mix across our other businesses. See Note 9 of our consolidated financial statements—Restructuring and Other Exit Costs.

Sales and marketing expenses.

Sales and marketing expenses increased $0.6 million, or 6.0%, to $11.0 million for the year ended December 31, 2008 compared to $10.4 million for the year ended December 31, 2007. The inclusion of a full year of sales and marketing costs at our Panlab subsidiary caused an increase of $0.8 million in 2008. That increase was partially offset by the effects of changes in currency exchange rates, which reduced sales and marketing expenses by $0.1 million in 2008 compared with 2007.

General and administrative expenses.

General and administrative expenses increased $0.3 million, or 2.0%, to $15.1 million for the year ended December 31, 2008 compared with $14.8 million for the year ended December 31, 2007. The inclusion of a full year's results of our Panlab subsidiary caused an increase in general and administrative expenses of $0.6 million in 2008. Additionally, the implementation of the Company's shareholder rights plan during 2008 cost $0.1 million. Those increases were partially offset by the effects of changes in currency exchange rates, which reduced general and administrative expenses by $0.3 million in 2008 compared with 2007.

Research and development expenses.

Research and development expenses were $4.0 million, an increase of $0.3 million for the year ended December 31, 2008 compared to $3.7 million for the year ended December 31, 2007. The increase in research and development expenses was primarily due to expenses of $0.5 million at Panlab, partially offset by the effects of currency rate changes.

Amortization of intangible assets.

Amortization of intangibles was $2.0 million and $1.8 million for the years ended December 31, 2008 and 2007, respectively.

Other income (expense), net.

Other expense, net, was $0.8 million for the year ended December 31, 2008 compared to other income net of $35,000 for the year ended December 31, 2007. Included in other expense, net for the year ended December 31, 2008 was $0.5 million in costs related to an asset write-off and $0.3 million related to acquisition initiatives in 2008. Included in other income, net for the year ended December 31, 2007 was $30,000 of costs related to acquisition initiatives. Net interest expense was $17,000 and $0.3 million for the years ended December 31, 2008 and 2007, respectively. The decrease in net interest expense was primarily the result of lower average long-term debt balances during 2008 compared to 2007. Other income, net, also included foreign exchange gains of $0.1 million and $45,000 for the years ended December 31, 2008 and 2007, respectively. These exchange gains were primarily the result of currency fluctuations on intercompany transactions between our subsidiaries.

Income taxes.

Income tax expense from continuing operations was approximately $2.2 million and $2.0 million for the years ended December 31, 2008 and 2007, respectively. The effective income tax rate for continuing operations was 29.3% for the year ended December 31, 2008, compared with 20.6% for the same period of 2007. The difference between our effective tax rate and the US statutory tax rate is principally attributable to foreign tax rate differential and changes in our valuation allowance.

Restructuring

During the quarter ended March 31, 2008, the management of Harvard Bioscience committed to an ongoing initiative to consolidate business functions to reduce operating expenses. Our recent actions have been related to the separation of our electrophoresis product lines from our spectrophotometer and plate reader product lines. As part of these initiatives, we have made changes in management, completed the consolidation of the Hoefer electrophoresis administrative and marketing operations from San Francisco, California to the headquarters of the Harvard Apparatus subsidiary in Holliston, Massachusetts and consolidated the activities of our Asys Hitech subsidiary in Austria to the Company’s Biochrom subsidiary’s facility located in Cambridge, UK.

During the year ended December 31, 2008, we recorded restructuring charges of approximately $1.8 million. These charges were comprised of $1.0 million in severance payments, $0.3 million in inventory impairment charges related to the discontinuance of certain product lines (included in cost of product revenues), $0.1 million in facility closure costs and $0.4 million in various other costs.

Discontinued Operations

In July 2005, we announced plans to divest our Capital Equipment Business segment. The decision to divest this business based on the fact that market conditions for the Capital Equipment Business were such that this business had not met our 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.

In November 2007, we completed the sale of the assets of our Genomic Solutions Division and the stock of our Belgian subsidiary, MAIA Scientific, both of which were part of our Capital Equipment Business Segment, to Digilab, Inc. The purchase price paid by Digilab under the terms of the Asset Purchase Agreement consisted of $1,000,000 in cash plus additional consideration in the form of an earn-out based on 20% of the revenue generated by the acquired business as it is conducted by Digilab over a three-year period post-transaction. Any earn-out amounts will be evidenced by interest bearing promissory notes due on November 30, 2012. During the

fourth quarter of 2007, we recorded a loss on this sale of $3.1 million. There was no value ascribed to the contingent consideration from the earn-out agreement, as realization is uncertain. The COPAS flow cytometry product line held by our Union Biometrica US and German subsidiaries was not included in this sale.

On September 30, 2008, we completed the sale of assets of our Union Biometrica Division including its German subsidiary, Union Biometrica GmbH, representing at that time the remaining portion of our Capital Equipment Business Segment, to UBIO Acquisition Company. The purchase price paid by UBIO Acquisition Company under the terms of the Asset Purchase Agreement consisted of $1 in cash, the assumption of certain liabilities, plus additional consideration in the form of an earn-out based on the revenue generated by the acquired business as it is conducted by UBIO Acquisition Company over a five-year post-transaction period in an amount equal to (i) 5% of the revenue generated up to and including $6,000,000 and (ii) 8% of the revenue generated above $6,000,000 each year. Any earn-out amounts will be evidenced by interest-bearing promissory notes due on September 30, 2013 or at an earlier date based on certain triggering events. During 2008, we recorded a loss on sale of the Union Biometrica business of $3.3 million. There was no value ascribed to the contingent consideration from the earn-out agreement, as realization is uncertain.

The loss from discontinued operations, net of tax, excluding the loss on sale was $0.5 million for the year ended December 31, 2008. The loss from discontinued operations, net of tax for the year ended December 31, 2008 includes the operating results of our former Union Biometrica US and German subsidiaries. The loss from discontinued operations, net of tax, excluding the loss on sale was $5.9 million for the year ended December 31, 2007. The loss from discontinued operations, net of tax for the year ended December 31, 2007 includes the operating results from our former Genomic Solutions Division, MAIA Scientific subsidiary and our Union Biometrica US and German subsidiaries.

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, working capital and capital expenditures.

In our consolidated statements of cash flows, we have elected to combine the cash flows from both continuing and discontinued operations within each category, as allowed by FASB ASC 230 *"Statement of Cash Flows"* (formerly SFAS No. 95, *"Statement of Cash Flows"*). Unless specifically noted otherwise, our discussion of our cash flows below refers to combined cash flows from both continuing and discontinued operations.

We ended 2009 with cash and cash equivalents of $16.6 million compared to cash and cash equivalents of at December 31, 2008 of $13.7 million. As of December 31, 2009 and 2008, the Company had $13.3 million and no borrowings, respectively, outstanding under its credit facility. The borrowings under the credit facility were related to our recent acquisition of Denville. The Company's Panlab subsidiary had $10,000 and $1.4 million in bank debt outstanding at December 31, 2009 and 2008, respectively.

Overview of Cash Flows for the years ended December 31,

	2009	2008 (in thousands)	2007
Cash flows from operations:			
Net income (loss)	$ 7,233	$ 1,673	$ (1,354)
Changes in assets and liabilities	5,206	(1,564)	2,349
Other adjustments to operating cash flows	4,070	9,093	11,060
Net cash provided by operating activities	16,509	9,202	12,055
Investing activities:			
Acquisitions and divestitures	(20,764)	(752)	(5,089)
Other investing activities	(1,536)	(1,876)	(1,463)
Net cash used in investing activities	(22,300)	(2,628)	(6,552)
Financing activities:			
Proceeds (repayments) of debt, net	11,918	(6,270)	2,308
Other financing activities	(2,133)	(1,685)	722
Net cash provided by (used in) financing activities	9,785	(7,955)	3,030
Effect of exchange rate changes on cash	(1,104)	(3,125)	(80)
Increase (decrease) in cash and cash equivalents	$ 2,890	$(4,506)	$ 8,453

Our operating activities generated cash of $16.5 million for the year ended December 31, 2009 compared to $9.2 million for the year ended December 31, 2008. The increase in cash flows from operations was primarily due to changes in working capital year to year, particularly due to improvement in the collection period for accounts receivable.

Our investing activities used cash of $22.3 million in the year ended December 31, 2009. In September 2009, we acquired Denville Scientific, Inc.. At the time of the transaction's closing, the aggregate purchase price was estimated to be $25.3 million, or approximately six times Denville's estimated 2009 operating profit, subject to certain adjustments. Based on actual 2009 results for Denville, we recorded a $2.6 million pre-tax gain from the change in fair value of the contingent consideration in our fourth quarter 2009 consolidated financial statements. The Denville purchase agreement requires us to make the acquisition in three cash payments. We made the first two cash payments during 2009, totaling $20.8 million. We anticipate that we will make the final Denville payment of approximately $1.9 million in the second quarter of 2010, and that we will fund that payment from cash on hand, borrowings under our credit facility, or both. During 2009, capital expenditures totaled $1.4 million and catalog costs were $0.2 million. We expect to make approximately $1.2 million of capital expenditures during 2010. During the year ended December 31, 2008, our investing activities used cash of $2.6 million. Capital expenditures totaled $1.3 million and catalog costs totaled $0.6 million, reflecting the publication and distribution of a 900-page Harvard Apparatus catalog in 2008. Additionally, we spent $0.8 million in the disposition of a discontinued business in 2008.

Our financing activities have historically consisted of borrowings and repayments under a revolving credit facility, long-term debt, the issuance of preferred stock and common stock, including the common stock issued in our initial public offering, and repurchases of our common stock under our stock repurchase program. During the year ended December 31, 2009, financing activities provided cash of $9.8 million. We increased our debt by $11.9 million, net of repayments during the year totaling $5.0 million, and ended the year with $13.3 million of borrowings under our credit facility. The 2009 borrowings under our credit facility related to our acquisition of Denville Scientific. During 2009, we repurchased in the open market approximately 0.8 million shares of our common stock at a cost of $2.4 million, including commissions, and we received $0.3 million in proceeds from the exercise of stock options and employee stock plan purchases. During 2008, financing activities used $8.0 million cash. During 2008, we made net repayments of debt of $6.3 million, we repurchased in the open market approximately 0.9 million shares of our common stock at a cost of $2.6 million, including commissions, and we received $0.9 million in proceeds from the exercise of stock options and employee stock plan purchases.

Borrowing Arrangements

During 2003, we entered into a $20.0 million credit facility with Brown Brothers Harriman & Co. On December 1, 2006, we amended the terms of the credit facility extending the maturity date from January 1, 2007 to December 1, 2009.

On August 7, 2009, we entered into an amended and restated $20.0 million revolving credit loan agreement with Bank of America, as agent, and Bank of America and Brown Brothers Harriman & Co as lenders. The amended and restated revolving credit facility will mature on August 7, 2012. Borrowings under the credit facility bear interest at LIBOR plus 4.0%. The facility includes covenants relating to income, debt coverage and cash flow, as well as minimum working capital requirements. The credit facility also contains limitations on our ability to incur additional indebtedness and requires lender approval for acquisitions funded with cash, promissory notes and/or other consideration in excess of $6.0 million and for acquisitions funded solely with equity in excess of $10.0 million.

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.

Off-Balance Sheet Arrangements

We generally do not use special purpose entities or other off-balance sheet financing arrangements. However, at December 31, 2009 we had in place five currency swap contracts with notional amounts totaling $5.5 million. These contracts were used to hedge currency exposures of intercompany loans. These currency swap contracts were settled in January 2010 when the related intercompany loans were repaid.

Contractual Obligations

The following schedule represents our contractual obligations for our continuing operations, excluding interest, as of December 31, 2009.

	Total	2010	2011	2012	2013	2014	2015 and Beyond
				(in thousands)			
Bank credit facility and notes payable	$ 13,310	$ 10	$ —	$ 13,300	$ —	$ —	$ —
Operating leases	3,914	1,610	986	762	368	120	68
Contingent consideration payable	1,913	1,913	—	—	—	—	—
Capital leases, including imputed interest	11	3	3	3	2	—	—
Total	$ 19,148	$ 3,536	$ 989	$ 14,065	$ 370	$ 120	$ 68

The Company had a liability at December 31, 2009 of $0.5 million for uncertain tax positions taken in an income tax return. The Company does not know the ultimate resolution of these uncertain tax positions and as such, does not know the ultimate timing of payments related to this liability. Accordingly, this amount is not included in the above table.

Critical Accounting Policies

We believe that our critical accounting policies are as follows:

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

Revenue recognition. We follow the provisions of FASB ASC 605, "*Revenue Recognition*" (formerly SEC Staff Accounting Bulletin ("SAB") No. 101, *Revenue Recognition in the Financial Statements*, as amended by SAB No. 104, *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. 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 the provisions of FASB ASC 605-20, "*Revenue Recognition—Services"* (formerly 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 the provisions of FASB ASC 605-45-45, "*Revenue Recognition—Principal Agent Considerations"* (formerly 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. Historically, product returns and warranty costs have not been significant, and 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. Historically, such credit losses have not been significant, and 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 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 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 FASB ASC 740, "*Income Taxes*" (formerly 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 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. Significant management judgment is required in determining any valuation allowance recorded against deferred tax assets and liabilities. Due to the operating results of our discontinued operations, our cumulative loss position, uncertainty surrounding our forecasts and our investment in regenerative medicine, we concluded that a full valuation allowance was needed to offset most United States deferred tax assets, net of deferred tax liabilities except deferred tax liabilities related to indefinite lived intangible assets. 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. Should our judgment change about the previously mentioned items, we may reverse some or all of the valuation allowances. Such reversal would be recorded as an income tax benefit in the consolidated statement of operations in the period that utilization of deferred tax assets is determined to be more likely than not.

We assess tax positions taken on tax returns, including recognition of potential interest and penalties, in accordance with the recognition thresholds and measurement attributes outlined in FASB ASC 740, (formerly FASB Interpretation (FIN) No. 48, *Accounting for Uncertainty in Income Taxes—an interpretation of FAS 109)*. Interest and penalties recognized, if any, would be classified as a component of income tax expense.

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 customer relationships, trademarks, brand names 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 16% 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 16% to 40%, reflect 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 long-lived and intangible assets and goodwill. In accordance with the provisions of FASB ASC 360, "*Property, Plant and Equipment*" (formerly 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, we recognize 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 the provisions of FASB ASC 205-20, "*Discontinued Operations*" (formerly EITF Issue No. 87-24, *Allocation of Interest to Discontinued Operations)*, we elected not to allocate interest of our consolidated debt to discontinued operations.

Goodwill and Other Intangible Assets FASB ASC 350, "*Intangibles-Goodwill and Others"* (formerly SFAS No. 142, *Goodwill and Other Intangible Assets*) addresses financial accounting and reporting for acquired goodwill and other intangible assets. Among other things, FASB ASC 350 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 our reporting units with their carrying amount. If the carrying amount exceeds its fair value, we are 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 were to exceed the fair value of the asset we would write down the unamortizable intangible asset to fair value. See Note 7—Discontinued Operations, for a discussion of abandonment and impairment charges taken during 2008 within our discontinued operations.

At December 31, 2009, the market capitalization of the Company's common shares was $105.6 million and the carrying value of net assets was $75.3 million. We reconciled our fair value calculations to our overall market capitalization to help determine the reasonableness of our assumptions. We concluded that none of the Company's goodwill was impaired.

Stock-based compensation We account for share-based payment awards in accordance with the provisions of FASB ASC 718, "*Compensation—Stock Compensation"* (formerly SFAS No. 123*)*, which requires us to recognize compensation expense for all share-based payment awards made to employees and directors including employee stock options and employee stock purchases related to the Employee Stock Purchase Plan ("employee stock purchases").

FASB ASC 718 requires companies to estimate the fair value of stock-based payment awards on the date of grant using an option-pricing model. The value of the portion of the award that is ultimately expected to vest is recognized as expense over the requisite service periods in our consolidated statement of operations. Stock-based compensation expense has been reduced for estimated forfeitures. FASB ASC 718 requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

We value stock-based payment awards at grant date using the Black-Scholes option-pricing model ("Black-Scholes model"). Our determination of fair value of stock-based payment awards on the date of grant using an option-pricing model is affected by our stock price as well as assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to our expected stock price volatility over the term of the awards and actual and projected employee stock option exercise behaviors.

Stock-based compensation expense recognized under FASB ASC 718 for the years ended December 31, 2009, 2008 and 2007 was $2.5 million, $2.0 million and $2.3 million, respectively, which consisted of stock-based compensation expense related to employee stock options and the employee stock purchase plan.

We record stock compensation expense on a straight-line basis over the requisite service period for all awards granted.

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 British pound sterling and the Euro.

During 2009, the U.S. dollar's strengthening in relation to those currencies resulted in an adverse translation effect on our consolidated revenue and earnings growth. Changes in foreign currency exchange rates resulted in a decrease in revenues of $4.8 million and expenses of $4.0 million (net $0.8 million).

During 2008, the U.S. dollar strengthened against these currencies resulting in decreased consolidated revenue and earnings growth. Changes in foreign currency exchange rates resulted in a decrease in revenues of $3.0 million and expenses of $2.6 million (net $0.4 million) during 2008.

During 2007, the U.S. dollar weakened against these currencies resulting in increased consolidated revenue and earnings growth. Changes in foreign currency exchange rates resulted in an increase in revenues of $3.0 million and expenses of $2.5 million (net $0.5 million) during 2007.

The gain associated with the translation of foreign equity into U.S. dollars was approximately $2.2 million compared to a loss associated with the translation of foreign equity into U.S. dollars of approximately $8.9 million during the years ended December 31, 2009 and 2008, respectively. In addition, currency fluctuations resulted in approximately $0.3 million in foreign currency losses during the year ended December 31, 2009 and $60,000 and $45,000 in foreign currency gains during the years ended December 31, 2008 and 2007, respectively.

The U.S. dollar was weaker on December 31, 2009 against the British pound and the Euro compared with the rates at December 31, 2008. The weaker U.S. dollar has caused our foreign net assets to translate to a greater value, stated in U.S. dollars, which has a positive effect on the Company's Accumulated Other Comprehensive

Income, a component of Stockholders' Equity. At December 31, 2009, the Company's Stockholders' Equity was higher by $2.2 million as compared to the value at December 31, 2008, due to the translation of foreign net assets based on a weaker dollar.

Since December 31, 2008, the U.S. dollar depreciated approximately 9% against the British pound and depreciated 3% against the Euro. Approximately 48% of the Company's revenues are derived from business transacted in British pounds or Euros. If the U.S. dollar remains at current rates or strengthens against the British pound and Euro, the Company's earnings and cash flows, stated in U.S. dollars, will be affected negatively.

As of December 31, 2009 and 2008, the Company had $13.3 million and no borrowings, respectively, outstanding under its credit facility. The borrowings under the credit facility were related to our recent acquisition of Denville Scientific. In addition, as of December 31, 2009, our Panlab subsidiary held notes payable of $10,000 denominated in Euros. These Eurocurrency borrowings are sensitive to changes in currency exchange rates.

In order to mitigate the impact of changes in foreign currency exchange rates, during the year ended December 31, 2009 we used derivative financial instruments (or "foreign currency contracts") to hedge the foreign currency effects on the value of certain loans between subsidiaries and do not designate these derivative instruments as accounting hedges.

Recently Issued Accounting Pronouncements

In June 2008, the Financial Accounting Standards Board ("FASB") issued guidance now codified as FASB Accounting Standards Codification ("ASC") 260, "*Earnings per Share*" (formerly FASB Staff Position ("FSP") EITF 03-6-1, "*Determining Whether Instruments Granted in Share-Based Payment Transactions Are Participating Securities")*. Under FASB ASC 260, unvested share-based payment awards that contain rights to receive non-forfeitable dividends (whether paid or unpaid) are participating securities, and should be included in the two-class method of computing earnings per share. The adoption of this guidance did not have a material impact on the Company's consolidated results of operations or financial position.

In March 2008, the FASB issued guidance now codified as FASB ASC 815, "*Derivatives and Hedging*" (formerly Statement of Financial Accounting Standards ("SFAS") No. 161, "*Disclosures about Derivative Instruments and Hedging Activities, an Amendment of FASB No. 133*"). FASB ASC 815 is intended to improve transparency in financial reporting by requiring enhanced disclosures of an entity's derivative instruments and hedging activities and their effects on the entity's financial position, financial performance and cash flows. The disclosure requirements apply to all derivative instruments within the scope of FASB ASC 815. The standard also applies to non-derivative hedging instruments and all hedged items designated and qualifying under FASB ASC 815. Since this guidance requires only additional disclosures concerning derivatives and hedging activities, the adoption did not affect our consolidated results of operations or financial position.

In April 2009, the FASB issued guidance now codified as FASB ASC 820, "*Fair Value Measurements and Disclosures*" (formerly FSP SFAS 157-4, "*Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly*"). FASB ASC 820 provides additional guidance on factors to consider in estimating fair value when there has been a significant decrease in market activity for a financial asset. This guidance is effective for interim and annual periods ending after June 15, 2009. The adoption of this guidance did not have a material impact on the Company's consolidated results of operations or financial position.

In April 2009, the FASB issued guidance now codified as FASB ASC 825, "*Financial Instruments*" (formerly FASB Staff Position 107-1, "*Interim Disclosures about Fair Value of Financial Instruments*"). FASB ASC 825 requires disclosures about fair value of financial instruments for interim reporting periods of publicly traded companies as well as in annual financial statements. This standard also requires those disclosures in summarized financial information at interim reporting periods beginning after March 15, 2009. The adoption of this guidance did not have a material impact on the Company's consolidated results of operations or financial position.

In June 2009, the FASB issued guidance now codified as FASB ASC 105, "*Generally Accepted Accounting Principles*" (formerly SFAS No. 168, "*The FASB Accounting Standards Codification and the Hierarchy of Generally Accepted Accounting Principles*"). FASB ASC 105 establishes the FASB ASC as the single source of authoritative nongovernmental U.S. GAAP. The standard is effective for interim and annual periods ending after September 15, 2009. We adopted the provisions of the standard on September 30, 2009. The adoption of this guidance did not have a material impact on the Company's consolidated results of operations or financial position.

In June 2009, the FASB issued guidance now codified as FASB ASC 860, "*Transfers and Servicing*" (formerly SFAS No. 166, "*Accounting for Transfers of Financial Assets*"). FASB ASC 860 requires more information about transfers of financial assets and where companies have continuing exposure to the risk related to transferred financial assets. It eliminates the concept of a qualifying special purpose entity, changes the requirements for derecognizing financial assets, and requires additional disclosure. This standard is effective for interim and annual periods ending after November 15, 2009. We adopted this standard on January 1, 2009. The adoption of this guidance did not have a material impact on the Company's consolidated results of operations or financial position.

In June 2009, the FASB issued guidance now codified as FASB ASC 810, "*Consolidation*", regarding the consolidation of variable interest entities (formerly SFAS No. 167, "*Amendments to FASB Interpretation No. 46(R)*"). ASC 810 is intended to improve financial reporting by providing additional guidance to companies involved with variable interest entities and by requiring additional disclosures about a company's involvement in variable interest entities. This standard is effective for interim and annual periods ending after November 15, 2009. We adopted this standard on January 1, 2009. The adoption of this guidance did not have a material impact on the Company's consolidated results of operations or financial position.

In August 2009, the FASB issued Accounting Standards Update ("ASU") No. 2009-05, "*Fair Value Measurements and Disclosures (Topic 820)—Measuring Liabilities at Fair Value*". This ASU provides clarification for the fair value measurement of liabilities in circumstances in which a quoted price in an active market for an identical liability is not available. This update is effective for interim periods beginning after August 28, 2009. We adopted the provisions of the standard on October 1, 2009. The adoption of this guidance did not have a material impact on the Company's consolidated results of operations or financial position.

In October 2009, the FASB issued ASU No. 2009-13—"*Revenue Recognition (Topic 605): Multiple-Deliverable Revenue Arrangements"* (formerly EITF Issue No. 08-1). This ASU establishes the accounting and reporting guidance for arrangements including multiple revenue-generating activities. This ASU provides amendments to the criteria for separating deliverables, and measuring and allocating arrangement consideration to one or more units of accounting. The amendments in this ASU also establish a selling price hierarchy for determining the selling price of a deliverable. Significantly enhanced disclosures are also required to provide information about a vendor's multiple-deliverable revenue arrangements, including information about the nature and terms, significant deliverables, and its performance within arrangements. The amendments also require providing information about the significant judgments made and changes to those judgments and about how the application of the relative selling-price method affects the timing or amount of revenue recognition. The amendments in this ASU are effective prospectively for revenue arrangements entered into or materially modified in the fiscal years beginning on or after June 15, 2010. Early application is permitted. We have not determined the effect, if any, that the adoption of this guidance will have on our consolidated results of operations or financial position.

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 our products in research centers in the United States, the United Kingdom, Germany and Spain. We sell our products globally through our catalogs, 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 have affected, and may from time to time in the future affect, our operating results. In order to mitigate the impact of changes in foreign currency exchange rates, we use derivative financial instruments (or "foreign currency contracts") to hedge the foreign currency effects on the value of certain loans between subsidiaries and do not designate these derivative instruments as accounting hedges.

We are exposed to market risk from changes in interest rates primarily through our financing activities. As of December 31, 2009, we had $13.3 million outstanding under our revolving credit facility, which bears interest at LIBOR plus 4.0%. At December 31, 2009, the interest rate on this debt was 4.23%. 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, 2009 over the next twelve months is quantified and summarized as follows:

If compared to the rate as of December 31, 2009	Interest Expense Increase (in thousands)
Interest rates increase by 1.0%	$ 133
Interest rates increase by 2.0%	$ 266

In addition, as of December 31, 2009 and 2008, our Panlab subsidiary held notes payable of $10,000 and $1.4 million, respectively, denominated in Euros. These Eurocurrency borrowings are sensitive to changes in currency exchange rates. A 10% appreciation in the U.S. dollar relative to the Euro at year-end 2009 currency exchange rates would have resulted in an increase in the cumulative translation adjustments on our balance sheet of $1,000 relating to the notes held by our Panlab subsidiary.

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.***

This Report includes the certifications of our Chief Executive Officer and Chief Financial Officer required by Rule 13a-14 of the Securities Exchange Act of 1934 (the "Exchange Act"). See Exhibits 31.1 and 31.2. This Item 9A includes information concerning the controls and control evaluations referred to in those certifications.

(a) Evaluation of Disclosure Controls and Procedures

Disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) are designed to ensure that information required to be disclosed in reports filed or submitted under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms and that such information is accumulated and communicated to management, including the Chief Executive Officer and the Chief Financial Officer, to allow timely decisions regarding required disclosures.

In connection with the preparation of this Report, our management, under the supervision and with the participation of our Chief Executive Officer and Chief Financial Officer, conducted an evaluation of the

effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2009. Our disclosure controls and procedures are designed to provide reasonable assurance 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 SEC's rules and forms, 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, in providing reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosures, and is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms.

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

The Company's management, under the supervision of the Chief Executive Officer and the Chief Financial Officer, is responsible for establishing and maintaining an adequate system of internal control over financial reporting. Internal control over financial reporting (as defined in Rules 13a-15(f) and 15d(f) under the Exchange Act) 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 in the United States of America ("GAAP").

A company's internal control over financial reporting includes those policies and procedures that (a) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company; (b) provide reasonable assurance that transactions are recorded as necessary to permit preparation of consolidated financial statements in accordance with GAAP, (c) provide reasonable assurance that receipts and expenditures are being made only in accordance with appropriate authorization of management and the board of directors, and (d) 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 connection with the preparation of this report, management of the Company conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2009 based on the criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). As a result of that evaluation, management has concluded that our internal control over financial reporting was effective as of December 31, 2009. The Company acquired Denville Scientific, Inc. ("Denville") on September 2, 2009, and management excluded from its assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2009, Denville's internal control over financial reporting associated with assets of $26,432,383 million and total revenue of $7,556,000 generated by Denville that were included in the Company's consolidated financial statements as of and for the year ended December 31, 2009.

The effectiveness of our internal control over financial reporting as of December 31, 2009 has also been audited by KPMG LLP, our independent registered public accounting firm, as stated in their report, which is included below in Item 9A(d).

(c) Changes in Internal Controls Over Financial Reporting

Our management, with the participation of the Chief Executive Officer and the Chief Financial Officer, has evaluated whether any change in our internal control over financial reporting occurred during the fourth quarter

ended December 31, 2009. Based on that evaluation, management concluded that there were no changes in the Company's internal controls over financial reporting during the quarter ended December 31, 2009 that have materially affected, 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 Harvard Bioscience, Inc. and subsidiaries' internal control over financial reporting as of December 31, 2009, based on criteria established in *Internal Control—Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Harvard Bioscience, Inc. and subsidiaries' management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying "Management's Annual Report on Internal Control Over Financial Reporting." Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

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

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

In our opinion, Harvard Bioscience, Inc. and subsidiaries' maintained, in all material respects, effective internal control over financial reporting as of December 31, 2009, based on criteria established in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Harvard Bioscience, Inc. acquired Denville Scientific, Inc. ("Denville") during 2009, and management excluded from its assessment of the effectiveness of Harvard Bioscience, Inc. and subsidiaries' internal control over financial reporting as of December 31, 2009, Denville's internal control over financial reporting associated with total assets of $26,432,383 and total revenues of $7,556,000 included in the consolidated financial statements of Harvard Bioscience, Inc. and subsidiaries' as of and for the year ended December 31, 2009. Our audit of internal control over financial reporting of Harvard Bioscience, Inc. and subsidiaries also excluded an evaluation of the internal control over financial reporting of Denville.

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. as of December 31, 2009 and 2008,

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, 2009, and our report dated March 11, 2010 expressed an unqualified opinion on those consolidated financial statements.

/s/ KPMG LLP

Boston, Massachusetts
March 11, 2010

Item 9B. ***Other Information.***

None.

PART III

Item 10. ***Directors, Executive Officers and Corporate Governance.***

Incorporated by reference to the Company's definitive Proxy Statement filed pursuant to Regulation 14A, in connection with the 2010 Annual Meeting of Stockholders. Information concerning executive officers of the Company is included in Part I of this Annual Report on Form 10-K as Item 4.A. and incorporated herein by reference.

Item 11. ***Executive Compensation.***

Incorporated by reference to the Company's definitive Proxy Statement filed pursuant to Regulation 14A, in connection with the Company's 2010 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 Company's 2010 Annual Meeting of Stockholders.

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

Incorporated by reference to the Company's definitive Proxy Statement filed pursuant to Regulation 14A, in connection with the Company's 2010 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 Company's 2010 Annual Meeting of Stockholders.

PART IV

Item 15. ***Exhibits, Financial Statement Schedules.***

(a) Documents Filed. The following documents are filed as part of this Annual Report on Form 10-K or incorporated by reference as indicated:

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

2. Exhibits and Exhibit Index. See the Exhibit Index included as the last part of this Annual Report on Form 10-K, which is incorporated herein by reference.

INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

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, 2009 and 2008, 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, 2009. 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, 2009 and 2008, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2009, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Harvard Bioscience, Inc. and subsidiaries' internal control over financial reporting as of December 31, 2009, 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 11, 2010 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

/s/ KPMG LLP

Boston, Massachusetts
March 11, 2010

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

Consolidated Balance Sheets
(In thousands except share and per share data)

	December 31, 2009	December 31, 2008
Assets		
Current assets:		
Cash and cash equivalents	$ 16,588	$ 13,698
Accounts receivable, net of allowance for doubtful accounts of $403 and $295, respectively	14,383	15,086
Inventories	14,406	11,901
Deferred income tax assets—current	573	306
Other receivables and other assets	2,249	2,473
Total current assets	48,199	43,464
Property, plant and equipment, net	3,545	3,221
Deferred income tax assets—non-current	318	238
Amortizable intangible assets, net	21,104	8,955
Goodwill	32,108	23,536
Other indefinite lived intangible assets	1,301	1,291
Other assets	656	566
Total assets	$ 107,231	$ 81,271
Liabilities and Stockholders' Equity		
Current liabilities:		
Notes payable	$ 13	$ 1,361
Accounts payable	4,856	4,665
Deferred revenue	434	589
Accrued income taxes payable	369	427
Accrued expenses	3,680	4,006
Other liabilities—current	2,906	167
Total current liabilities	12,258	11,215
Long-term debt, less current installments	13,308	59
Deferred income tax liabilities—non-current	2,037	1,216
Other liabilities—non-current	4,371	2,063
Total liabilities	31,974	14,553
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; 35,948,108 and 35,787,279 shares issued and 29,584,436 and 30,235,479 shares outstanding, respectively	360	358
Additional paid-in-capital	184,856	182,073
Accumulated deficit	(102,457)	(109,690)
Accumulated other comprehensive income	(1,834)	(2,759)
Treasury stock at cost, 6,363,672 and 5,551,800 common shares, respectively	(5,668)	(3,264)
Total stockholders' equity	75,257	66,718
Total liabilities and stockholders' equity	$ 107,231	$ 81,271

See accompanying notes to consolidated financial statements.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

Consolidated Statements of Operations
(In thousands except per share data)

	Years Ended December 31,		
	2009	2008	2007
Revenues	$85,772	$88,049	$83,407
Cost of product revenues	44,089	45,893	43,161
Gross profit	41,683	42,156	40,246
Sales and marketing expenses	11,763	10,970	10,352
General and administrative expenses	15,109	15,134	14,829
Research and development expenses	4,396	4,048	3,708
Restructuring charges	516	1,559	—
Amortization of intangible assets	1,844	1,966	1,824
Total operating expenses	33,628	33,677	30,713
Operating income	8,055	8,479	9,533
Other income (expense):			
Gain from adjustment of acquisition contingencies	2,600	—	—
Foreign exchange	(302)	60	45
Interest expense	(277)	(389)	(365)
Interest income	29	372	317
Other, net	(293)	(872)	38
Other income (expense), net	1,757	(829)	35
Income from continuing operations before income taxes	9,812	7,650	9,568
Income taxes	2,673	2,240	1,970
Income from continuing operations	7,139	5,410	7,598
Discontinued operations			
Income (loss) from discontinued operations, net of tax	94	(457)	(5,864)
Loss on disposition of discontinued operations, net of tax	—	(3,280)	(3,088)
Total income (loss) from discontinued operations, net of tax	94	(3,737)	(8,952)
Net income (loss)	$ 7,233	$ 1,673	$ (1,354)
Income (loss) per share:			
Basic earnings per common share from continuing operations	$ 0.24	$ 0.18	$ 0.25
Discontinued operations	0.00	(0.12)	(0.29)
Basic income (loss) per common share	$ 0.24	$ 0.05	$ (0.04)
Diluted earnings per common share from continuing operations	$ 0.24	$ 0.17	$ 0.24
Discontinued operations	0.00	(0.12)	(0.29)
Diluted income (loss) per common share	$ 0.24	$ 0.05	$ (0.04)
Weighted average common shares:			
Basic	29,649	30,882	30,646
Diluted	29,946	31,354	31,405

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, 2009, 2008 and 2007
(In thousands)

	Number of Shares Issued	Common Stock	Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income (Loss)	Treasury Stock	Total Stockholders' Equity
Balance at December 31, 2006	35,223	$ 352	$176,034	$ (110,009)	$ 6,174	$ (668)	$ 71,883
Stock option exercises	263	3	609	—	—	—	612
Stock purchase plan	27	—	110	—	—	—	110
Stock compensation expense	—	—	2,400	—	—	—	2,400
Comprehensive income:							
Net loss	—	—	—	(1,354)	—	—	(1,354)
Changes in defined benefit pension plans	—	—	—	—	707	—	707
Translation adjustments	—	—	—	—	(221)	—	(221)
Total comprehensive loss	—	—	—	—	—	—	(868)
Balance at December 31, 2007	35,513	$ 355	$179,153	$ (111,363)	$ 6,660	$ (668)	$ 74,137
Stock option exercises	248	3	835	—	—	—	838
Stock purchase plan	26	—	73	—	—	—	73
Stock compensation expense	—	—	2,012	—	—	—	2,012
Purchases of treasury stock	—	—	—	—	—	(2,596)	(2,596)
Comprehensive income:							
Net income	—	—	—	1,673	—	—	1,673
Changes in defined benefit pension plans	—	—	—	—	(568)	—	(568)
Translation adjustments	—	—	—	—	(8,851)	—	(8,851)
Total comprehensive loss	—	—	—	—	—	—	(7,746)
Balance at December 31, 2008	35,787	$ 358	$182,073	$ (109,690)	$ (2,759)	$(3,264)	$ 66,718
Stock option exercises	123	1	170	—	—	—	171
Stock purchase plan	38	1	99	—	—	—	100
Stock compensation expense	—	—	2,514	—	—	—	2,514
Purchases of treasury stock	—	—	—	—	—	(2,404)	(2,404)
Comprehensive income:							
Net income	—	—	—	7,233	—	—	7,233
Changes in defined benefit pension plans	—	—	—	—	(1,255)	—	(1,255)
Translation adjustments	—	—	—	—	2,180	—	2,180
Total comprehensive income	—	—	—	—	—	—	8,158
Balance at December 31, 2009	35,948	$ 360	$184,856	$ (102,457)	$ (1,834)	$(5,668)	$ 75,257

See accompanying notes to consolidated financial statements.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

Consolidated Statements of Cash Flows
(In thousands)

	Years ended December 31,		
	2009	2008	2007
Cash flows from operating activities:			
Net income (loss)	$ 7,233	$ 1,673	$ (1,354)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Stock compensation expense	2,514	2,012	2,400
Depreciation	1,204	1,077	1,468
Gain from adjustment of acquisition contingencies	(2,600)	—	—
Loss on disposal of discontinued operations	—	3,280	3,088
Abandonment and impairment of assets	—	—	2,878
Non-cash restructuring charges	230	552	—
Amortization of catalog costs	348	249	160
Loss on disposal of property, plant and equipment	12	586	32
Provision for allowance for doubtful accounts	(7)	53	(338)
Amortization of intangible assets	1,844	2,019	1,824
Amortization of deferred financing costs	56	22	22
Deferred income taxes	469	(757)	(474)
Changes in operating assets and liabilities, net of effects of acquisitions:			
(Increase) decrease in accounts receivable	3,233	(391)	2,238
(Increase) decrease in inventories	(41)	511	(950)
(Increase) decrease in other receivables and other assets	1,102	(232)	60
Increase (decrease) in trade accounts payable	(1,024)	(478)	(83)
Increase (decrease) in accrued income taxes payable	(338)	(375)	667
Increase (decrease) in accrued expenses	213	(2,078)	313
Increase (decrease) in deferred revenue	(162)	35	252
Increase (decrease) in other liabilities	2,223	1,444	(148)
Net cash provided by operating activities	16,509	9,202	12,055
Cash flows from investing activities:			
Additions to property, plant and equipment	(1,376)	(1,308)	(1,452)
Additions to catalog costs	(164)	(568)	(11)
Proceeds from sales of property, plant and equipment	4	—	—
Disposition of discontinued operations	—	(752)	295
Acquisitions, net of cash acquired	(20,764)	—	(5,384)
Net cash used in investing activities	(22,300)	(2,628)	(6,552)
Cash flows from financing activities:			
Repayments of short-term debt	(1,308)	—	(166)
Net proceeds from issuance of debt	16,900	1,650	12,281
Repayments of debt	(3,674)	(7,920)	(9,807)
Purchases of treasury stock	(2,404)	(2,596)	—
Net proceeds from issuance of common stock	271	911	722
Net cash provided by (used in) financing activities	9,785	(7,955)	3,030
Effect of exchange rate changes on cash	(1,104)	(3,125)	(80)
Increase (decrease) in cash and cash equivalents	2,890	(4,506)	8,453
Cash and cash equivalents at the beginning of period	13,698	18,204	9,751
Cash and cash equivalents at the end of period	$ 16,588	$13,698	$18,204
Supplemental disclosures of cash flow information:			
Cash paid for interest	$ 114	$ 374	$ 362
Cash paid for income taxes	$ 1,920	$ 2,686	$ 2,268

Note: The above statements of cash flows include both continuing and discontinued operations. On September 30, 2008, the Company sold the remaining portion of its Capital Equipment Business segment. Cash and cash equivalents include $16,588 and $13,698 held by continuing operations as of December 31, 2009 and 2008, respectively, and $17,889 held by continuing operations and $315 held by discontinued operations as of December 31, 2007.

See accompanying notes to consolidated financial statements.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Organization

Harvard Bioscience, Inc. and subsidiaries (collectively, “Harvard Bioscience,” “the Company,” “our” or “we”) is a global developer, distributor, manufacturer and marketer of a broad range of specialized products, primarily apparatus and scientific instruments, used to advance 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 primarily through our 850 page catalog (and various other specialty catalogs), our website, through distributors, including GE Healthcare, Thermo Fisher Scientific, Inc. and VWR, and via our field sales organization. We have sales and manufacturing operations in the United States, the United Kingdom, Germany and Spain 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 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, income 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. On an ongoing basis, we review our estimates based upon currently available information. Actual results could differ materially from those estimates.

(c) Reclassifications

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

(d) Cash and Cash Equivalents

For purposes of the consolidated balance sheets and statements of cash flows, we consider 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 our assessment of the collectibility of customer accounts. We regularly review 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

We value our 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. We regularly review inventory quantities on hand and record 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.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(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 and software	3-7 years
Furniture and fixtures	5-10 years
Automobiles	3-6 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, when applicable.

(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 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

The functional currency of our foreign subsidiaries is generally their local currency. All assets and liabilities of our foreign subsidiaries are translated at exchange rates in effect at period-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. The effects of the exchange rate fluctuations on certain short-term classified debt between the Company and a foreign subsidiary and between subsidiaries are also included in net income.

In order to mitigate the impact of changes in foreign currency exchange rates, during the year ended December 31, 2009 we used derivative financial instruments (or "foreign currency contracts") to hedge the foreign currency effects on the value of certain loans between subsidiaries and do not designate these derivative instruments as accounting hedges.

(k) 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 earnings per share is similar to the computation of basic earnings 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. Since we are reporting discontinued operations, we used income from continuing operations as the control number in determining whether those potential dilutive securities are dilutive or antidilutive.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

(l) Comprehensive Income (Loss)

We follow the provisions of Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") 220, "*Comprehensive Income*" (formerly Statement of Financial Accounting Standards (SFAS) No. 130, *Reporting Comprehensive Income)*. FASB ASC 220 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. We have chosen to disclose comprehensive income (loss), which encompasses net income (loss), foreign currency translation adjustments, the underfunded status of our pension plans, net of tax, and pension minimum additional liability adjustments, net of tax, in the consolidated statements of stockholders' equity and comprehensive income (loss).

As of December 31, 2009, accumulated other comprehensive income consisted of cumulative foreign currency translation adjustments of $0.9 million and, in accordance with FASB ASC 715-20, "*Compensation—Retirement Benefits, Defined Benefit Plans*" (formerly SFAS No. 158, *Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans-an amendment of FASB Statements No. 87, 88, 106 and 132(R))*, $(2.7) million to reflect the under-funded status of the Company's pension plans net of tax. As of December 31, 2008, accumulated other comprehensive income consisted of cumulative foreign currency translation adjustments of $(1.3) million and $(1.5) million to reflect the underfunded status of our pension plans, net of tax.

(m) Revenue Recognition

We follow the provisions of FASB ASC 605, "*Revenue Recognition*" (formerly SEC Staff Accounting Bulletin ("SAB") No. 101, *Revenue Recognition in the Financial Statements*, as amended by SAB No. 104, *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. 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 the provisions of FASB ASC 605-20, "*Revenue Recognition—Services"* (formerly 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 the provisions of FASB ASC 605-45-45, "*Revenue Recognition—Principal Agent Considerations"* (formerly 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.

(n) 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, 2009, 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.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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 FASB ASC 350, *"Intangibles—Goodwill and Other"* (formerly SFAS No. 142, *Goodwill and Other Intangible Assets)*.

The goodwill impairment test is a two-step process. The first step of the impairment analysis compares the Company's fair value to its carrying value to determine if there is any indication of impairment. Step two of the analysis compares the implied fair value of goodwill to its carrying amount in a manner similar to a purchase price allocation for business combination. If the carrying amount of goodwill exceeds its implied fair value, an impairment loss is recognized equal to that excess. For unamortizable intangible assets if the carrying amount exceeds the fair value of the asset, we would write-down the unamortizable intangible asset to fair value.

Management performed a goodwill impairment test at December 31, 2009 in accordance with FASB ASC 350. We calculated the estimated fair value of each of the Company's reporting units as at December 31, 2009. Management arrived at the estimated fair values by preparing discounted cash flow analyses using updated financial projections of the reporting units' estimated future operating results and discounted to present value using appropriate discount rates. At December 31, 2009, the market capitalization of the Company's common shares was $105.6 million and the carrying value of net assets was $75.3 million. We reconciled our fair value calculations to our overall market capitalization to help determine the reasonableness of our assumptions. We concluded that none of the Company's goodwill was impaired.

(o) Impairment or Disposal of Long-Lived Assets

We assess the recoverability of our long-lived assets that are held for use, such as property, plant and equipment and amortizable intangible assets in accordance with FASB ASC 360, "*Property, Plant and Equipment"* (formerly 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 impairment charge is recognized by the amount by which the carrying amount of the asset or asset group exceeds its estimated 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, we would recognize 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 sheets 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 consolidated balance sheets. Operating results for all periods are presented as discontinued operations, net of tax. In accordance with the provisions of with the provisions of FASB ASC 205-20, "*Discontinued Operations*" (formerly EITF Issue No. 87-24, *Allocation of Interest to Discontinued Operations)*, we elected not to allocate interest of our consolidated debt to discontinued operations.

(p) Fair Value of Financial Instruments

The carrying value of our cash and cash equivalents, trade accounts receivable and trade accounts payable and short-term debt 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 our current borrowing rate for similar debt instruments of comparable maturity.

(q) Stock-based Compensation

We account for share-based payment awards in accordance with the provisions of FASB ASC 718, "*Compensation—Stock Compensation*" (formerly SFAS No. 123 (revised 2004), *Share-Based Payment)*, which requires us to recognize compensation expense for all share-based payment awards made to employees and directors including employee stock options and employee stock purchases related to the Employee Stock Purchase Plan ("employee stock purchases").

Stock-based compensation expense recognized is based on the value of the portion of stock-based payment awards that is ultimately expected to vest and has been reduced for estimated forfeitures. We value stock-based payment awards at grant date using the Black-Scholes option-pricing model ("Black-Scholes model"). Our determination of fair value of stock-based payment awards on the date of grant using an option-pricing model is affected by our stock price as well as assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to our expected stock price volatility over the term of the awards and actual and projected employee stock option exercise behaviors.

Stock-based compensation expense recognized under FASB ASC 718 for the years ended December 31, 2009, 2008 and 2007 was $2.5 million, $2.0 million and $2.4 million, respectively, and consisted of stock-based compensation expense related to employee stock options and the employee stock purchase plan, as applicable, and was recorded as a component of cost of product revenues, sales and marketing expenses, general and administrative expenses, research and development expenses and discontinued operations, net of tax.

(r) Recently Issued Accounting Pronouncements

In June 2008, the Financial Accounting Standards Board ("FASB") issued guidance now codified as FASB Accounting Standards Codification ("ASC") 260, "*Earnings per Share*" (formerly FASB Staff Position ("FSP") EITF 03-6-1, "*Determining Whether Instruments Granted in Share-Based Payment Transactions Are Participating Securities")*. Under FASB ASC 260, unvested share-based payment awards that contain rights to receive non-forfeitable dividends (whether paid or unpaid) are participating securities, and should be included in the two-class method of computing earnings per share. The adoption of this guidance did not have a material impact on the Company's consolidated results of operations or financial position.

In March 2008, the FASB issued guidance now codified as FASB ASC 815, "*Derivatives and Hedging*" (formerly Statement of Financial Accounting Standards ("SFAS") No. 161, "*Disclosures about Derivative Instruments and Hedging Activities, an Amendment of FASB No. 133*"). FASB ASC 815 is intended to improve transparency in financial reporting by requiring enhanced disclosures of an entity's derivative instruments and hedging activities and their effects on the entity's financial position, financial performance and cash flows. The disclosure requirements apply to all derivative instruments within the scope of FASB ASC 815. The standard also applies to non-derivative hedging instruments and all hedged items designated and qualifying under FASB ASC 815. Since this guidance requires only additional disclosures concerning derivatives and hedging activities, the adoption did not affect our consolidated results of operations or financial position.

In April 2009, the FASB issued guidance now codified as FASB ASC 820, "*Fair Value Measurements and Disclosures*" (formerly FSP SFAS 157-4, "*Determining Fair Value When the Volume and Level of Activity for the Asset or Liability Have Significantly Decreased and Identifying Transactions That Are Not Orderly*"). FASB ASC 820 provides additional guidance on factors to consider in estimating fair value when there has been a significant decrease in market activity for a financial asset. This guidance is effective for interim and annual

periods ending after June 15, 2009. The adoption of this guidance did not have a material impact on the Company's consolidated results of operations or financial position.

In April 2009, the FASB issued guidance now codified as FASB ASC 825, "*Financial Instruments*" (formerly FASB Staff Position 107-1, "*Interim Disclosures about Fair Value of Financial Instruments*"). FASB ASC 825 requires disclosures about fair value of financial instruments for interim reporting periods of publicly traded companies as well as in annual financial statements. This standard also requires those disclosures in summarized financial information at interim reporting periods beginning after March 15, 2009. The adoption of this guidance did not have a material impact on the Company's consolidated results of operations or financial position.

In June 2009, the FASB issued guidance now codified as FASB ASC 105, "*Generally Accepted Accounting Principles*" (formerly SFAS No. 168, "*The FASB Accounting Standards Codification and the Hierarchy of Generally Accepted Accounting Principles*"). FASB ASC 105 establishes the FASB ASC as the single source of authoritative nongovernmental U.S. GAAP. The standard is effective for interim and annual periods ending after September 15, 2009. We adopted the provisions of the standard on September 30, 2009. The adoption of this guidance did not have a material impact on the Company's consolidated results of operations or financial position.

In June 2009, the FASB issued guidance now codified as FASB ASC 860, "*Transfers and Servicing*" (formerly SFAS No. 166, "*Accounting for Transfers of Financial Assets*"). FASB ASC 860 requires more information about transfers of financial assets and where companies have continuing exposure to the risk related to transferred financial assets. It eliminates the concept of a qualifying special purpose entity, changes the requirements for derecognizing financial assets, and requires additional disclosure. This standard is effective for interim and annual periods ending after November 15, 2009. We adopted this standard on January 1, 2009. The adoption of this guidance did not have a material impact on the Company's consolidated results of operations or financial position.

In June 2009, the FASB issued guidance now codified as FASB ASC 810, "*Consolidation*", regarding the consolidation of variable interest entities (formerly SFAS No. 167, "*Amendments to FASB Interpretation No. 46(R)*"). ASC 810 is intended to improve financial reporting by providing additional guidance to companies involved with variable interest entities and by requiring additional disclosures about a company's involvement in variable interest entities. This standard is effective for interim and annual periods ending after November 15, 2009. We adopted this standard on January 1, 2009. The adoption of this guidance did not have a material impact on the Company's consolidated results of operations or financial position.

In August 2009, the FASB issued Accounting Standards Update ("ASU") No. 2009-05, "*Fair Value Measurements and Disclosures (Topic 820)—Measuring Liabilities at Fair Value*". This ASU provides clarification for the fair value measurement of liabilities in circumstances in which a quoted price in an active market for an identical liability is not available. This update is effective for interim periods beginning after August 28, 2009. We adopted the provisions of the standard on October 1, 2009. The adoption of this guidance did not have a material impact on the Company's consolidated results of operations or financial position.

In October 2009, the FASB issued ASU No. 2009-13—"*Revenue Recognition (Topic 605): Multiple-Deliverable Revenue Arrangements"* (formerly EITF Issue No. 08-1). This ASU establishes the accounting and reporting guidance for arrangements including multiple revenue-generating activities. This ASU provides amendments to the criteria for separating deliverables, and measuring and allocating arrangement consideration to one or more units of accounting. The amendments in this ASU also establish a selling price hierarchy for determining the selling price of a deliverable. Significantly enhanced disclosures are also required to provide information about a vendor's multiple-deliverable revenue arrangements, including information about the nature and terms, significant deliverables, and its performance within arrangements. The amendments also require

providing information about the significant judgments made and changes to those judgments and about how the application of the relative selling-price method affects the timing or amount of revenue recognition. The amendments in this ASU are effective prospectively for revenue arrangements entered into or materially modified in the fiscal years beginning on or after June 15, 2010. Early application is permitted. We have not determined the effect, if any, that the adoption of this guidance will have on our consolidated results of operations or financial position.

3. Concentrations

One commercial customer accounted for 12%, 15% and 17% of revenues for the years ended December 31, 2009, 2008 and 2007, respectively. We have two agreements with this commercial customer. At December 31, 2009, one customer accounted for 20% of net accounts receivable and at December 31, 2008, one customer accounted for 14% 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, 2009, 2008 and 2007.

4. Inventories

Inventories consist of the following:

	December 31,	
	2009	2008
	(in thousands)	
Finished goods	$ 7,116	$ 3,971
Work in process	559	772
Raw materials	6,731	7,158
	$14,406	$ 11,901

5. Property, Plant and Equipment

Property, plant and equipment consists of the following:

	December 31,	
	2009	2008
	(in thousands)	
Land, buildings and leasehold improvements	$ 2,717	$ 2,521
Machinery and equipment	4,808	4,353
Computer equipment and software	3,940	3,380
Furniture and fixtures	892	792
Automobiles	345	324
	12,702	$11,370
Less: accumulated depreciation	(9,157)	(8,149)
Property, plant and equipment, net	$ 3,545	$ 3,221

6. Acquisitions

Our continuing operations have completed two acquisitions since January 1, 2007.

Denville Scientific, Inc.

On September 2, 2009, the Company through its newly formed wholly-owned subsidiary, DAC Acquisition Holding, Inc., acquired substantially all of the assets of Denville Scientific, Inc. (“Denville”), a Delaware

corporation with its principal offices in New Jersey. The aggregate purchase price was estimated to be approximately $25.3 million, or approximately six times Denville's estimated fiscal year 2009 operating profit, subject to certain adjustments. As of December 31, 2009, based on Denville's financial results for 2009, we recorded a $2.6 million pre-tax gain from change in fair value of the contingent consideration in our consolidated financial statements.

The purchase price payable by the Company under the terms of the Asset Purchase Agreement consisted of approximately $12.8 million in cash paid on September 2, 2009, plus additional cash consideration payable in two post-closing contingent payments. We paid the first post-closing payment of approximately $8.0 million during the fourth quarter of 2009 and we anticipate the final payment of approximately $1.9 million will be paid in the second quarter of 2010. The payments made for the acquisition at closing and during the fourth quarter of 2009 were funded with available cash on hand and borrowings under the Company's credit facility. The Company expects to fund the final installment of the purchase price from its existing cash balances and its credit facility, as well.

Denville is a supplier of molecular biology products, with a focus on liquid handling consumables utilized in research laboratories. We believe that the acquisition of Denville Scientific will bring to Harvard Bioscience a well-established business with an excellent organic growth history, an extensive field sales organization throughout the United States and a significant consumables business.

Consideration for the acquisition comprised the following:

	(in thousands)
Cash	$ 20,764
Contingent consideration	1,913
Gain from change in fair value of contingent consideration	2,600
Total	$ 25,277

The balance of the contingent consideration of approximately $1.9 million is recorded in other current liabilities in our consolidated balance sheet.

Direct acquisition costs related to Denville, recorded in other expense, net in our consolidated statement of operations, were $0.3 million for the year ended December 31, 2009.

With the assistance of an external valuation company, management has completed the valuation of Denville's assets and liabilities acquired and a final purchase price allocation was prepared and included as part of these consolidated financial statements. The purchase price, which has been allocated based on fair market value of assets acquired and liabilities assumed at the date of acquisition, resulted in the following allocation:

	(in thousands)
Tangible assets	$ 5,032
Liabilities assumed	(1,202)
Notes payable and other debt assumed	(12)
Net assets assumed	3,818
Goodwill and intangible assets:	
Goodwill	7,710
Customer relationships	10,139
Trade name	3,203
Non-compete agreements	407
Total goodwill and intangible assets	21,459
Acquisition purchase price	$ 25,277

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

We expect all of the acquired goodwill of $5.1 million to be amortizable for federal income tax purposes based on the estimated contingent consideration that will be paid.

The amounts of Denville's revenue and earnings included in the consolidated statement of operations from September 2, 2009 through December 31, 2009 are $7.6 million and $2.2 million, respectively. The Denville earnings included a $1.5 million gain, net of tax, from the change in fair value of the contingent consideration related to the acquisition.

The following consolidated pro forma information is based on the assumption that the acquisition occurred on January 1, 2008. Accordingly, the historical results have been adjusted to reflect amortization expense and interest costs that would have been recognized on such a pro forma basis. The unaudited pro forma information is presented for comparative purposes only and is not necessarily indicative of the financial position or results of operations which would have been reported had we completed the acquisition during these periods or which might be reported in the future.

	Year Ended December 31,	
	2009	2008
	(in thousands)	
Pro Forma		
Revenues	$ 101,338	$ 107,397
Net income	$ 8,664	$ 2,238

The 2009 pro forma net income shown in the table above includes a $1.5 million gain, net of tax, from the revaluation of contingent consideration associated with the Denville acquisition.

Panlab s.l.

On October 11, 2007, we acquired all issued and outstanding shares of Panlab s.l. ("Panlab"), of Barcelona, Spain, a distributor, manufacturer and developer of products and software for life science researchers primarily in the neuroscience research market, for a purchase price of approximately $5.4 million (including acquisition costs of $0.5 million). The acquisition was funded by proceeds from our $20.0 million credit facility with Brown Brothers Harriman. The results of operations of Panlab since the date of acquisition have been included in our consolidated financial statements.

During 2008, we completed the valuation of Panlab'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 market value of assets acquired and liabilities assumed at the date of acquisition, resulted in the following allocation:

	(in thousands)
Tangible assets	$ 3,705
Liabilities assumed	(1,892)
Notes payable and other debt assumed	(2,348)
Net liabilities assumed	(535)
Goodwill and intangible assets:	
Goodwill	3,815
Other indefinite lived intangibles	239
Distribution agreements / customer relationships	2,525
Existing technology	233
Non-compete agreements	9
Deferred tax liabilities	(902)
Total goodwill and intangible assets	5,919
Cash paid for acquisition, net of cash acquired	$ 5,384

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 were such that this business had not met expectations and the decision to focus resources on the 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.

During the year ended December 31, 2007, we utilized a market approach and re-evaluated the fair value less costs to sell of the assets that comprise the Capital Equipment Business segment. Based on management's evaluation, additional asset impairment charges of approximately $2.9 million were recorded during 2007. The loss from discontinued operations, net of tax, excluding the impairment charge was approximately $3.0 million. The loss from discontinued operations, net of tax for the year ended December 31, 2007included the operating results of our former Genomic Solutions Division, MAIA Scientific subsidiary, and Union Biometrica US and German subsidiaries.

In November 2007, we completed the sale of the assets of our Genomic Solutions Division and the stock of our Belgian subsidiary, MAIA Scientific, both of which were part of our Capital Equipment Business Segment, to Digilab, Inc. The purchase price paid by Digilab under the terms of the Asset Purchase Agreement consisted of $1,000,000 in cash plus additional consideration in the form of an earn-out based on 20% of the revenue generated by the acquired business as it is conducted by Digilab over a three-year period post-transaction. Any earn-out amounts will be evidenced by interest bearing promissory notes due on November 30, 2012. During the fourth quarter of 2007, we recorded a loss on this sale of $3.1 million. There was no value ascribed to the contingent consideration from the earn-out agreement, as realization is uncertain. The COPAS flow cytometry product line held by our Union Biometrica US and German subsidiaries was not included in this sale.

On September 30, 2008, we completed the sale of assets of our Union Biometrica Division including its German subsidiary, Union Biometrica GmbH, representing at that time the remaining portion of our Capital Equipment Business Segment, to UBIO Acquisition Company. The purchase price paid by UBIO Acquisition Company under the terms of the Asset Purchase Agreement consisted of $1 in cash, the assumption of certain liabilities, plus additional consideration in the form of an earn-out based on the revenue generated by the acquired business as it is conducted by UBIO Acquisition Company over a five-year post-transaction period in an amount equal to (i) 5% of the revenue generated up to and including $6,000,000 and (ii) 8% of the revenue generated above $6,000,000 each year. Any earn-out amounts will be evidenced by interest-bearing promissory notes due on September 30, 2013 or at an earlier date based on certain triggering events. During 2008, we recorded a loss on sale of the Union Biometrica business of $3.3 million. There was no value ascribed to the contingent consideration from the earn-out agreement, as realization is uncertain.

The loss from discontinued operations, net of tax, excluding the loss on sale was $0.5 million for the year ended December 31, 2008. The loss from discontinued operations, net of tax for the year ended December 31, 2008 includes the operating results of our former Union Biometrica US and German subsidiaries.

During 2009, we recorded a gain of $0.1 million in our discontinued operations reflecting an adjustment of our estimated net costs associated with the divestiture of our Union Biometrica Division.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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

	Years Ended December 31,	
	2009	2008
	(in thousands)	
Total revenues	$ —	$ 1,536
Pretax gain (loss)	94	(457)
Income tax (benefit) expense	—	—
Gain (loss) from discontinued operations, net of tax	94	(457)
Loss on disposition of discontinued operations, net of tax	—	(3,280)
Total gain (loss) from discontinued operations, net of tax	$ 94	$ (3,737)

8. Goodwill and Other Intangible Assets

Goodwill and other indefinite-lived intangible assets are subject to impairment reviews annually, or more frequently, if events or circumstances indicate there may be impairment.

As of December 31, 2009, we completed our 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 and impairment charges taken during 2008 and 2007 within our discontinued operations. Intangible assets consist of the following:

	December 31,				
	2009		2008		
	Gross	Accumulated Amortization	Gross	Accumulated Amortization	Weighted Average Life(a)
	(in thousands)				
Amortizable intangible assets:					
Existing technology	$11,234	$ (7,525)	$10,780	$ (6,224)	5.3 years
Tradename	4,123	(689)	920	(557)	13.8 years
Distribution agreement/customer relationships	17,884	(3,927)	7,272	(3,240)	13.1 years
Patents	9	(5)	9	(5)	6.3 years
Total amortizable intangible assets	$33,250	$ (12,146)	$18,981	$ (10,026)	
Unamortizable intangible assets:					
Goodwill	$32,108		$23,536		
Other indefinite lived intangible assets	1,301		1,291		
Total goodwill and other indefinite lived intangible assets	$33,409		$24,827		
Total intangible assets	$66,659		$43,808		

(a) Weighted average life is as of December 31, 2009.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The changes in the carrying amount of goodwill for the years ended December 31, 2009 and 2008 are as follows:

	(in thousands)
Balance at December 31, 2007	$ 27,646
Adjustment to purchase price allocations of prior year acquisition	(567)
Effect of change in foreign currencies	(3,543)
Balance at December 31, 2008	$ 23,536
Goodwill acquired during the year	7,710
Effect of change in foreign currencies	862
Balance at December 31, 2009	$ 32,108

Intangible asset amortization expense was $1.8 million, $2.0 million and $1.8 million for the years ended December 31, 2009, 2008 and 2007, respectively. Amortization expense of existing amortizable intangible assets is estimated to be $2.4 million for the years ended December 31, 2010 and 2011, $2.1 million for the year ended December 31, 2012, $1.9 million for the year ended December 31, 2013 and $1.8 million for the year ended December 31, 2014.

9. Restructuring and Other Exit Costs

2008 Restructuring Plan

During the quarter ended March 31, 2008, the management of Harvard Bioscience committed to an ongoing initiative to consolidate business functions to reduce operating expenses. Our actions in 2008 were related to the separation of our electrophoresis product lines from our spectrophotometer and plate reader product lines. As part of these initiatives, we made changes in management, completed the consolidation of the Hoefer electrophoresis administrative and marketing operations from San Francisco, California to the headquarters of the Harvard Apparatus business in Holliston, Massachusetts and consolidated the activities of our Asys Hitech subsidiary in Austria to our Biochrom subsidiary's facility located in Cambridge, UK.

During 2009, no additional restructuring charges were recorded relating to the 2008 restructuring. During the year ended December 31, 2008, we recorded restructuring charges of approximately $1.8 million. These charges were comprised of $1.0 million in severance payments, $0.3 million in inventory impairment charges related to the discontinuance of certain product lines (included in cost of product revenues), $0.2 million in facility closure costs and $0.4 million in various other costs.

Activity and liability balances related to these restructuring charges in connection with the 2008 Restructuring Plan were as follows:

	Severance and Related	Inventory	Facility Closure Costs	Other	Total
			(in thousands)		
Restructuring charges	$ 971	$ 250	$ 150	$ 441	$ 1,812
Cash payments	(947)	—	(141)	(285)	(1,373)
Non-cash charges	—	(250)	—	(124)	(374)
Currency translation	(12)	—	(9)	(13)	(34)
Restructuring balance at December 31, 2008	$ 12	$ —	$ —	$ 19	$ 31
Restructuring charges	(7)	—	—	(9)	(16)
Cash payments	(5)	—	—	(11)	(16)
Currency translation		—	—	1	1
Restructuring balance at December 31, 2009	$ —	$ —	$ —	$ —	$ —

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

2009 Restructuring Plan

During the quarter ended March 31, 2009, the management of Harvard Bioscience initiated a plan to relocate the Scie-Plas operation to Hoefer's San Francisco, California facility and exit its general fabrication business as part of its ongoing business improvement initiative. During the quarter ended June 30, 2009, Biochrom's management initiated a plan to improve Biochrom's manufacturing margins.

During the year ended December 31, 2009, we recorded restructuring charges in our Scie-Plas, Biochrom and Hoefer businesses related to the 2009 restructuring plan of approximately $0.7 million. These charges were comprised of $0.3 million in severance payments, $0.2 million in inventory impairment charges related to the discontinuance of certain product lines (included in cost of product revenues) and $0.2 million in various other costs.

Activity and liability balances related to these restructuring charges in connection with the 2009 Restructuring Plan were as follows:

	Severance and Related	Inventory	Facility Closure Costs	Other	Total
			(in thousands)		
Restructuring charges	$ 326	$ 163	$ 14	$188	$ 691
Cash payments	(323)	(4)	(14)	(88)	(429)
Non-cash charges	—	(159)	—	(88)	(247)
Currency translation	(3)	—	—	(2)	(5)
Restructuring balance at December 31, 2009	$ —	$ —	$ —	$ 10	$ 10

We anticipate the remaining payments related to the 2009 Restructuring Plan will occur during the first quarter of 2010.

Aggregate restructuring charges relating to the 2009 Restructuring Plan and the 2008 Restructuring Plan were as follows:

	Years Ended December 31,	
	2009	2008
	(in thousands)	
Restructuring charges	$675	$1,812

10. Long-Term Debt

Long-term debt consists of the following:

	December 31,	
	2009	2008
	(in thousands)	
Long-term debt	$13,300	$ —
Notes payable (Panlab s.l.)	10	1,420
Capital lease obligations (See Note 11)	11	—
	$13,321	$ 1,420
Less: current installments	(13)	(1,361)
Long-term debt	$13,308	$ 59

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

During 2003, we entered into a $20.0 million credit facility with Brown Brothers Harriman & Co. On December 1, 2006, we amended the terms of the credit facility extending the maturity date from January 1, 2007 to December 1, 2009.

On August 7, 2009, we entered into an amended and restated $20.0 million revolving credit loan agreement with Bank of America, as agent, and Bank of America and Brown Brothers Harriman & Co as lenders. The amended and restated revolving credit facility will mature on August 7, 2012. Borrowings under the credit facility bear interest at the London Interbank Offered Rate ("LIBOR") plus 4.0%. The amended and restated facility includes covenants relating to income, debt coverage and cash flow, as well as minimum working capital requirements. The credit facility also contains limitations on our ability to incur additional indebtedness and requires lender approval for acquisitions funded with cash, promissory notes and/or other consideration in excess of $6.0 million and for acquisitions funded solely with equity in excess of $10.0 million.

As of December 31, 2009 and 2008, we had $13.3 million and no borrowings, respectively, outstanding under our credit facility. The borrowings under the credit facility were related to our recent acquisition of Denville Scientific. As of December 31, 2009, we were in compliance with all financial covenants contained in the credit facility; we were not subject to any borrowing restrictions under the financial covenants and had available borrowing capacity under our revolving credit facility of $6.7 million.

In connection with our acquisition of Panlab, we assumed several working capital lines of credit totaling $2.3 million. As of December 31, 2009, Panlab's borrowings were $10,000 denominated in Euros under one line of credit. The payment terms are generally one year; however, the lines have historically renewed annually. There are no material financial covenants associated with this line of credit.

The debt repayment schedule is as follows:

	(in thousands)
2010	$ 10
2011	—
2012	13,300
Total	$ 13,310

11. Leases

Historically, we have leased automobiles and equipment under various leases, which were classified as capital leases. As of December 31, 2009, the carrying value of equipment under capital leases was approximately $11,000, which is net of accumulated depreciation of approximately $5,100. As of December 31, 2008, we did not have any capital leases.

We have 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 $1.8 million, $1.6 million and $1.7 million for the years ended December 31, 2009, 2008 and 2007, respectively.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Future minimum lease payments for operating leases, with initial or remaining terms in excess of one year at December 31, 2009, for our continuing and discontinued operations are as follows:

	Operating Leases
	(in thousands)
2010	$ 1,610
2011	986
2012	762
2013	368
2014	120
Thereafter	68
Net minimum lease payments	$ 3,914

12. Accrued Expenses Accrued expenses consist of:

	December 31,	
	2009	2008
	(in thousands)	
Accrued compensation and payroll	$1,263	$1,432
Accrued legal and professional fees	1,053	695
Warranty costs	162	186
Other	1,202	1,693
Total	$3,680	$4,006

13. Income Taxes

Income tax expense (benefit) attributable to income from continuing operations for the years ended December 31, 2009, 2008 and 2007 consisted of:

	Years ended December 31,		
	2009	2008	2007
		(in thousands)	
Current income tax expense (benefit):			
Federal and state	$ 82	$ (29)	$ (19)
Foreign	1,666	2,362	2,337
	$1,748	$2,333	$2,318
Deferred income tax expense (benefit):			
Federal and state	$1,164	$ (76)	$ (22)
Foreign	(239)	(17)	(326)
	$ 925	$ (93)	$ (348)
Total income tax expense	$2,673	$2,240	$1,970

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Income tax expense for the periods ended December 31, 2009, 2008 and 2007 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:

	Years ended December 31,		
	2009	2008	2007
		(in thousands)	
Computed "expected" income tax expense	$3,336	$ 2,601	$ 3,253
Increase (decrease) in income taxes resulting from:			
Permanent differences, net	(97)	67	193
Foreign tax rate and regulation differential	(312)	(308)	(167)
State income taxes, net of federal income tax benefit	54	10	(13)
Foreign withholding taxes	—	—	61
Impact of discontinued operations	32	(1,200)	(5,464)
Non-deductible stock compensation expense	133	11	35
Federal tax expense differential from prior year tax	(232)	9	(182)
Tax credits	(257)	(145)	(433)
Change in valuation allowance allocated to income tax expense	(125)	1,222	4,976
Other	141	(27)	(289)
Total income tax expense	$2,673	$ 2,240	$ 1,970

Income tax expense is based on the following pre-tax continuing operations income for the years ended December 31, 2009, 2008 and 2007:

	Years ended December 31,		
	2009	2008	2007
		(in thousands)	
Domestic	$3,361	$ 760	$1,536
Foreign	6,451	6,890	8,032
Total	$9,812	$7,650	$9,568

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

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, 2009 and 2008 are as follows:

	2009	2008
	(in thousands)	
Deferred tax assets:		
Accounts receivable	$ 22	$ 13
Inventory	678	562
Operating loss and credit carryforwards	13,758	16,144
Property, plant and equipment	98	86
Accrued expenses	243	132
Pension liabilities	1,072	567
Other accrued liabilities	4,315	3,230
Total gross deferred assets	20,186	20,734
Less: valuation allowance	(17,006)	(17,987)
Deferred tax assets	$ 3,180	$ 2,747
Deferred tax liabilities:		
Intangible assets	$ 4,105	$ 3,153
Other accrued liabilities	223	266
Total deferred tax liabilities	4,328	3,419
Net deferred tax liability	$ (1,148)	$ (672)

As of December 31 2007, gross deferred tax assets held by our discontinued operations were approximately $3.2 million and primarily consisted of operating loss and credit carryforwards, offset by valuation allowances of approximately $3.0 million. These deferred tax assets and offsetting valuation allowances are included in assets of discontinued operations—held for sale for the year ended December 31, 2007. See Note 7—Discontinued Operations. During the year ending December 31, 2008 and 2007, the assets that comprised our discontinued operations were sold in the form of an asset sale. As a result, the Capital Equipment Business segment retained certain tax attributes. The remaining attributes and related valuation allowance on the portion of our discontinued operations that were sold, were moved to continuing operations at December 31, 2008 and 2007.

The amounts recorded as gross deferred tax assets as of December 31, 2009 and 2008 represent 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. Significant management judgment is required in determining any valuation allowance recorded against deferred tax assets and liabilities. Due to the operating results of our discontinued operations, our cumulative loss position, uncertainty surrounding our forecasts and our investment in regenerative medicine, we concluded that a full valuation allowance was needed to offset most United States deferred tax assets, net of deferred tax liabilities except deferred tax liabilities related to indefinite lived intangible assets. Should our judgment change about the previously mentioned items, we may reverse some or all of the valuation allowances. Such reversal would be recorded as an income tax benefit in the consolidated statement of operations in the period that utilization of deferred tax assets is determined to be more likely than not. We also provide valuation allowances for net deferred tax assets in several foreign jurisdictions.

At December 31, 2009, we had federal and state net operating loss carryforwards available to offset future taxable income of approximately $38.0 million. The operating loss carryforwards will begin to expire in 2010. Furthermore, we had foreign operating loss carryforwards to offset future taxable income of approximately $6.1 million, which begin to expire in 2012. The Company also had federal and state general business and minimum

tax credit carryforwards available to reduce future federal and state regular income taxes of approximately $5.2 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 loss and credit carryforwards have full valuation allowances set up against them.

Total valuation allowances for deferred tax assets as of December 31, 2009 were $17.0 million. Undistributed earnings of our foreign subsidiaries, including discontinued operations, amounted to approximately $30.4 million, $25.4 million and $16.0 million at December 31, 2009, 2008 and 2007, respectively. Our policy is that our undistributed foreign earnings are indefinitely reinvested and, accordingly, no related provision for U.S federal and state income taxes has been provided. It is impracticable to estimate the total tax liability, if any, which would be created by the future distribution of these earnings. Effective January 1, 2007, the Company adopted FASB Interpretation (FIN) No. 48, an interpretation that clarified the accounting for uncertainties in income taxes recognized in a company's financial statements in accordance with SFAS No. 109. At that time, we did not record any liabilities for uncertainties related to our tax positions. At December 31, 2008, the Company had recorded no liabilities related to FIN No. 48. During the year ended December 31, 2009 the company filed a final tax return for its Genomic Solutions, Ltd. subsidiary. The return was for the year ending December 31, 2007 and included the activity related to the sale of the business. Certain positions were taken related to the sale of the business which management believes qualify as uncertain tax positions under FIN No. 48 accounting guidelines. As such, we recorded an uncertain tax liability in the amount of $0.5 million related to the above mentioned positions. If the liability is recognized, it would decrease the effective tax rate in the period in which each of the benefits is recognized. No interest or penalties were recorded on this liability due to the date of the return filing. If interest and penalties had been recorded, they would be classified as a component of income taxes as mentioned in our critical accounting policies. A reconciliation of uncertain tax liabilities is as follows:

	Year ended December 31, 2009 (in thousands)
Balance as of January 1	$ —
Additions based on tax positions of prior years	504
Balance at December 31	$ 504

The Company or one of its subsidiaries files income tax returns in the U.S. federal jurisdiction, and various states and foreign jurisdictions. With few exceptions, the Company is no longer subject to income tax examinations by tax authorities for years before 2005. We are not currently under audit by any major tax jurisdiction.

14. 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 each of the years ended December 31, 2009, 2008 and 2007, we contributed approximately $0.3 million to the plans.

Certain of our subsidiaries in the United Kingdom (UK), Harvard Apparatus Limited and Biochrom Limited maintain contributory, defined benefit or defined contribution pension plans for substantially all of their employees. Effective December 31, 2006, we adopted FASB ASC 715-20. The provisions of FASB ASC 715-20 require that the funded status of our pension plans be recognized in its balance sheet. FASB ASC 715-20 does not change the measurement or income statement recognition of these plans, although it does require that plan assets and benefit obligations be measured as of the balance sheet date. We have historically measured the plan assets and benefit obligations as of the balance sheet date.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The components of our pension expense follows:

	Years ended December 31,		
	2009	2008	2007
		(in thousands)	
Components of net periodic benefit cost:			
Service cost	$ 140	$ 225	$ 394
Interest cost	768	802	906
Expected return on plan assets	(577)	(800)	(970)
Net amortization loss	77	27	60
Net periodic benefit cost	$ 408	$ 254	$ 390

The measurement date is December 31 for these plans. The funded status of our defined benefit pension plans and the amount recognized in the consolidated balance sheets at December 31, 2009 and 2008 is as follows:

	December 31,	
	2009	2008
	(in thousands)	
Change in benefit obligation:		
Balance at beginning of year	$10,554	$15,139
Service cost	124	225
Interest cost	784	802
Participants' contributions	74	92
Actuarial (gain) loss	2,239	(1,364)
Benefits paid	(317)	(452)
Currency translation adjustment	1,011	(3,888)
Balance at end of year	$14,469	$10,554
Change in fair value of plan assets:		
Balance at beginning of year	$ 8,528	$13,902
Actual (loss) return on plan assets	1,242	(2,082)
Participants' contributions	74	92
Employer contributions	370	366
Benefits paid	(317)	(452)
Currency translation adjustment	802	(3,298)
Balance at end of year	$10,699	$ 8,528

	December 31,	
	2009	2008
	(in thousands)	
Funded status	$(3,770)	$(2,026)
Unrecognized net loss	N/A	N/A
Net amount recognized	$(3,770)	$(2,026)

The accumulated benefit obligation for all defined benefit pension plans was $13.7 million and $10.2 million at December 31, 2009 and 2008, respectively.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The amounts recognized in the consolidated balance sheets consist of:

	December 31,	
	2009	2008
	(in thousands)	
Deferred income tax assets	$ 1,056	$ 567
Other liabilities	(3,770)	(2,026)
Net amount recognized	$(2,714)	$(1,459)

The amounts recognized in accumulated other comprehensive income, net of tax consist of:

	December 31,	
	2009	2008
	(in thousands)	
Underfunded status of pension plans	$(2,714)	$(1,459)
Net amount recognized	$(2,714)	$(1,459)

The weighted average assumptions used in determining the net pension cost for these plans follows:

	Years ended December 31,		
	2009	2008	2007
Discount rate	5.70%	6.87%	5.81%
Expected return on assets	5.83%	6.26%	6.75%
Rate of compensation increase	4.00%	4.02%	4.31%

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 iBoxx AA 15yr+ index, 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 $65,000.

The Company's mix of pension plan investments among asset classes also affects the long-term expected rate of return on plan assets. The Company's current target asset mix used in determining the expected return is 75% equities and 25% fixed income securities, including an insurance contract. As of December 31, 2009, the Company's actual asset mix approximated its 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 16 years, of active plan participants. With the current base of assets, a 0.5% increase/decrease in the asset return assumption would decrease/increase the annual pension expense by approximately $56,000.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

The fair value and asset allocations of the Company's pension benefits as of December 31, 2009 and 2008 measurement dates were as follows:

	December 31,			
	2009		2008	
	($ in thousands)			
Asset category:				
Equity securities	$ 8,364	78%	$5,279	62%
Debt securities	2,154	20%	1,420	17%
Insurance contract	—	—	1,182	14%
Other	181	2%	647	7%
Total	$10,699	100%	$8,528	100%

Financial reporting standards define a fair value hierarchy that consists of three levels. The fair values of the plan assets by fair value hierarchy level as of December 31, 2009 and 2008 is as follows:

	December 31,	
	2009	2008
	(in thousands)	
Quoted Prices in Active Markets for Identical Assets (Level 1)	$ 181	$ 647
Significant Other Observable Inputs (Level 2)	10,518	7,881
Significant Other Unobservable Inputs (Level 3)	—	—
Total	$10,699	$8,528

Level 1 assets consist of cash and cash equivalents held in the pension plans at December 31, 2009. The Level 2 assets primarily consist of investments in private investment funds that are valued using the net asset values provided by the trust or fund. Although these funds are not traded in an active market with quoted prices, the investments underlying the net asset value are based on quoted prices. There are no investments in Level 3 assets.

We expect to contribute approximately $0.5 million to our pension plans during 2010.

The benefits expected to be paid from the pension plans are $0.3 million in 2010 and $0.4 million in each of the years of 2011, 2012, 2013 and 2014. The expected benefits to be paid in the five years from 2015—2019 are $3.6 million. The expected benefits are based on the same assumptions used to measure the Company's benefit obligation at December 31, 2009 and include estimated future employee service.

15. 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.

16. Capital Stock

Common Stock

On February 5, 2008, our Board of Directors adopted a Shareholder Rights Plan and declared a dividend distribution of one preferred stock purchase right for each outstanding share of the Company's common stock to shareholders of record as of the close of business on February 6, 2008. Initially, these rights will not be exercisable and will trade with the shares of the Company's common stock. Under the Shareholder Rights Plan, the rights generally will become exercisable if a person becomes an "acquiring person" by acquiring 20% or

more of the common stock of the Company or if a person commences a tender offer that could result in that person owning 20% or more of the common stock of the Company. If a person becomes an acquiring person, each holder of a right (other than the acquiring person) would be entitled to purchase, at the then-current exercise price, such number of shares of preferred stock which are equivalent to shares of the Company's common stock having a value of twice the exercise price of the right. If the Company is acquired in a merger or other business combination transaction after any such event, each holder of a right would then be entitled to purchase, at the then-current exercise price, shares of the acquiring company's common stock having a value of twice the exercise price of the right.

Stock Repurchase Program

On December 6, 2007, the Board of Directors authorized the repurchase by the Company of up to $10 million of its common stock in the open market or through privately negotiated transactions over 24 months. Under the program, shares could be repurchased from time to time and in such amounts as market conditions warranted, subject to regulatory considerations and any applicable contractual restrictions. During the year ended December 31, 2009, we repurchased in the open market 811,872 shares of common stock at an aggregate cost of $2.4 million, including commissions under the stock repurchase program. During the year ended December 31, 2008, we repurchased in the open market 891,016 shares of common stock at an aggregate cost of $2.6 million, including commissions, under the stock repurchase program. On November 3, 2009, the Board of Directors extended the repurchase program for an additional year.

Repurchased shares have been recorded as treasury stock and will be held until the Company's Board of Directors designates that these shares be retired or used for other purposes.

Employee Stock Purchase Plan

In 2000, we approved a stock purchase plan. Under this plan, participating employees can authorize the Company to withhold a portion of their base pay during consecutive six-month payment periods for the purchase of shares of the Company's common stock. At the conclusion of the period, participating employees can purchase shares of the Company's common stock at 85% of the lower of the fair market value of the Company's common stock at the beginning or end of the period. Shares are issued under the plan for the six-month periods ending June 30 and December 31. Under this plan, 500,000 shares of common stock are authorized for issuance of which 309,494 shares were issued as of December 31, 2009. During the years ended December 31, 2009 and 2008, we issued 37,808 shares and 25,824 shares, respectively, under the Employee Stock Purchase Plan.

We account for share-based payment awards in accordance with the provisions of FASB ASC 718, which requires us to recognize compensation expense for all share-based payment awards made to employees and directors including employee stock options and employee stock purchases related to the Employee Stock Purchase Plan ("employee stock purchases"). We adopted FASB ASC 718 using the modified prospective transition method, which requires the application of the accounting standard as of January 1, 2006, the first day of our fiscal year 2006. Stock-based compensation expense recognized under FASB ASC 718 for the years ended December 31, 2009, 2008, and 2007was $2.5 million, $2.0 million, and $2.4 million, respectively, which consisted of stock-based compensation expense related to employee stock options and the employee stock purchase plan.

FASB ASC 718 requires companies to estimate the fair value of stock-based payment awards on the date of grant using an option-pricing model. The value of the portion of the award that is ultimately expected to vest is recognized as expense over the requisite service periods in our consolidated statement of operations. Under the intrinsic value method, no stock-based compensation expense was recognized in our consolidated statement of operations when the exercise price of our stock options granted to employees and directors equaled or exceeded the fair market value of the underlying stock at the date of grant.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Stock-based compensation expense recognized is based on the value of the portion of stock-based payment awards that is ultimately expected to vest. Stock-based compensation expense recognized includes compensation expense for stock-based payment awards granted prior to, but not yet vested as of January 1, 2006, based on the grant date fair value estimated in accordance with the pro forma information disclosure required under previous accounting guidance, and compensation expense for the stock-based payment awards granted subsequent to December 31, 2005 based on the grant date fair value estimated in accordance with the provisions of FASB ASC 718. Stock-based compensation expense has been reduced for estimated forfeitures. FASB ASC 718 requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

Upon adoption of FASB ASC 718, we elected to retain our method of valuation for stock-based payment awards granted beginning in 2006 using the Black-Scholes option-pricing model ("Black-Scholes model") which was also previously used for our pro forma information disclosure required under previous accounting guidance. Our determination of fair value of stock-based payment awards on the date of grant using an option-pricing model is affected by our stock price as well as assumptions regarding a number of highly complex and subjective variables. These variables include, but are not limited to our expected stock price volatility over the term of the awards and actual and projected employee stock option exercise behaviors. We record stock compensation expense on a straight-line basis over the requisite service period for all awards granted since the adoption of FASB ASC 718 on January 1, 2006.

Stock Option Plans

1996 Stock Option and Grant Plan

In 1996, we 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 common stock. In 2000, the 1996 Stock Plan was replaced by the 2000 Stock Option and Incentive Plan. As of December 31, 2009, there were options to purchase 25,135 shares outstanding under the 1996 Stock Plan. During the years ended December 31, 2009 and 2008, no shares were issued under the 1996 Stock Plan.

Second Amended and Restated 2000 Stock Option and Incentive Plan

The Second Amended and Restated 2000 Stock Option and Incentive Plan (the "2000 Plan" and, together with the 1996 Stock Plan, the "Stock Plans") permits the Company to make grants of incentive stock options, non-qualified stock options, stock appreciation rights, deferred stock awards, restricted stock awards, unrestricted stock awards, performance shares and dividend equivalent rights. We currently have reserved 9,367,675 shares of common stock for the issuance of awards under the 2000 Plan. As of December 31, 2009, there were options to purchase 7,477,100 shares outstanding and 946,729 shares available for grant under the 2000 Plan.

Through December 31, 2009 and 2008, incentive stock options to purchase 7,449,608 and 6,775,484 shares and non-qualified stock options to purchase 7,521,937 and 6,254,061 shares, respectively, had been granted to employees and directors under the Stock Plans. Generally, both the incentive stock options and 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.

During the years ended December 31, 2009, 2008 and 2007, 1,942,000, 1,158,000 and 1,137,000, respectively, were granted to employees and directors at exercise prices equal to or greater than fair market value of the Company's common stock on the date of grant.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Distribution and Dilutive Effect of Options

The following table illustrates the dilution resulting from the grant of options and exercise of options, which is referred to as the grant dilution and exercise dilution, respectively, during the periods described below.

	Years Ended December 31,		
	2009	2008	2007
Shares of common stock outstanding	29,584,436	30,235,479	30,851,896
Granted	1,942,000	1,158,000	1,137,000
Canceled / forfeited	(42,502)	(970,836)	(333,562)
Net options granted	1,899,498	187,164	803,438
Grant dilution(1)	6.42%	0.62%	2.60%
Exercised	123,021	248,775	262,468
Exercise dilution(2)	0.42%	0.82%	0.85%

(1) The percentage for grant dilution is computed based on net options granted as a percentage of shares of common stock outstanding.

(2) The percentage for exercise dilution is computed based on net options exercised as a percentage of shares of common stock outstanding.

Basic earnings per share is based upon net income (loss) divided by the number of weighted average common shares outstanding during the period. The calculation of diluted earnings per share assumes conversion of stock options into common stock using the treasury method. The weighted average number of shares used to compute basic and diluted earnings per share consists of the following:

	Years Ended December 31,		
	2009	2008	2007
Basic	29,648,523	30,881,611	30,645,696
Effect of assumed conversion of employee and director stock options	297,199	472,781	759,235
Diluted	29,945,722	31,404,931	31,404,931

Excluded from the calculation of the diluted earnings per common share in the above table are options to purchase approximately 5,246,212, 3,870,546 and 3,739,455 shares of common stock for years ended December 31, 2009, 2008 and 2007, respectively, as the impact of these shares would be anti-dilutive.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

General Option Information

The following is a summary of stock option activity:

	Options Available for Grant	Options Outstanding	Weighted Average Exercise Price
Balance at December 31, 2006	1,336,829	5,246,399	$ 5.09
Options granted	(1,137,000)	1,137,000	5.41
Options exercised	—	(262,468)	2.33
Options cancelled / forfeited	333,562	(333,562)	5.71
Balance at December 31, 2007	533,391	5,787,369	$ 5.24
Approved by shareholders	2,500,000	—	—
Options granted	(1,158,000)	1,158,000	3.19
Options exercised	—	(248,775)	3.38
Options cancelled / forfeited	970,836	(970,836)	5.83
Balance at December 31, 2008	2,846,227	5,725,758	$ 4.81
Options granted	(1,942,000)	1,942,000	3.21
Options exercised	—	(123,021)	1.40
Options cancelled / forfeited	42,502	(42,502)	5.03
Balance at December 31, 2009	946,729	7,502,235	$ 4.45

Our policy is to issue stock available from our registered but unissued stock pool through our transfer agent to satisfy stock option exercises.

The following table summarizes information concerning currently outstanding and exercisable options as of December 31, 2009 (Aggregate Intrinsic Value, in thousands):

	Options Outstanding				Options Exercisable		
Range of Exercise Price	Number Outstanding at December 31, 2009	Weighted Average Remaining Contractual Life in Years	Weighted Average Exercise Price	Aggregate Intrinsic Value	Shares Exercisable at December 31, 2009	Weighted Average Exercise Price	Aggregate Intrinsic Value
$1.05-3.16	1,593,253	6.31	$ 2.60	$ 1,544	1,043,235	$ 2.85	$ 753
$3.17-3.48	2,022,000	8.69	$ 3.22	$ 716	250,000	$ 3.47	$ 25
$3.49-4.58	1,331,500	6.72	$ 4.22	—	890,500	$ 4.24	—
$4.59-7.20	1,584,500	6.14	$ 5.81	—	936,255	$ 6.18	—
$7.21-9.17	971,000	3.55	$ 8.15	—	971,000	$ 8.15	—
$1.05-9.17	7,502,253	6.63	$ 4.45	$ 2,260	4,090,990	$ 5.21	$ 778

The aggregate intrinsic value in the preceding table represents the total pre-tax intrinsic value, based on the Company's closing stock price of $3.57 as of December 31, 2009, which would have been received by the option holders had all option holders exercised their options as of that date. The aggregate intrinsic value of options exercised for the year ended December 31, 2009 was approximately $0.3 million. The total number of in-the-money options that were exercisable as of December 31, 2009 was 1,293,235.

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Valuation and Expense Information under Share-Base-Payment Accounting

Stock-based compensation expense related to employee stock options and the employee stock purchase plan for the years ended December 31, 2009, 2008 and 2007 was allocated as follows:

	Years Ended December 31,		
	2009	2008	2007
		(in thousands)	
Cost of sales	$ 61	$ 45	$ 47
Sales and marketing	59	78	112
General and administrative	2,385	1,878	2,171
Research and development	9	2	5
Discontinued operations	—	9	65
Total stock-based compensation	$2,514	$2,012	$2,400

We did not capitalize any stock-based compensation. No significant tax benefit on the stock-based compensation was recorded in the years ended December 31, 2009, 2008 and 2007 since we have established a valuation allowance against net deferred tax assets.

The weighted-average estimated value of employee stock options granted during 2009, 2008 and 2007 was $1.93, $1.64 and $3.65, respectively, using the Black Scholes option-pricing model with the following weighted-average assumptions:

	Years Ended December 31,		
	2009	2008	2007
Volatility	62.85%	59.20%	70.46%
Risk-free interest rate	2.50%	2.40%	4.60%
Expected holding period	6.27 years	5.83 years	6.25 years
Dividend yield	0.00%	0.00%	0.00%

We used historical volatility to calculate our expected volatility as of December 31, 2009. Historical volatility was determined by calculating the mean reversion of the daily adjusted closing stock price. The risk-free interest rate assumption is based upon observed Treasury bill interest rates (risk free) appropriate for the term of the Company's employee stock options. The expected life of employee stock options represents the period of time options are expected to be outstanding and were based on historical experience. The vesting period is generally 4 years and the contractual life is 10 years.

Stock-based compensation expense recognized in the consolidated statement of operations for the years ended December 31, 2009, 2008 and 2007 is based on awards ultimately expected to vest and has been reduced for annualized estimated forfeitures of 4.74%, 5.84% and 4.02%, respectively. Share-based-payment accounting requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Forfeitures were estimated based on historical experience.

17. Segment and Related Information

We operate in one business segment, which is the development, manufacture and marketing of specialized products, primarily apparatus and scientific instruments, used to advance life science research at pharmaceutical and biotechnology companies, universities and government laboratories worldwide. Corporate costs of $6.5 million for the year ended December 31, 2009 and $6.2 million for the years ended December 31, 2008 and 2007, are all included in general and administrative expenses from continuing operations and are not allocated for

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

purposes of segment reporting. Included in corporate costs in 2009, 2008 and 2007 are $1.8 million, $1.5 million and $1.6 million, respectively, of stock compensation expense related to the adoption of FASB ASC 718. See Note 2(q).

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 were such that this business had not met our 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. In November 2007, we completed the sale of the assets of our Genomic Solutions Division and the stock of its Belgian subsidiary, Maia Scientific, both of which were part of our Capital Equipment Business Segment, to Digilab, Inc. On September 30, 2008, we completed the sale of assets of our Union Biometrica Division including its German subsidiary, Union Biometrica GmbH, representing at that time the remaining portion of our Capital Equipment Business Segment, to UBIO Acquisition Company. 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:

	Years ended December 31,		
	2009	2008	2007
	(in thousands)		
United States	$41,237	$34,807	$35,308
United Kingdom	26,961	30,972	29,617
Rest of the world	17,574	22,270	18,482
Total revenues	$85,772	$88,049	$83,407

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

	December 31,	
	2009	2008
	(in thousands)	
United States	$1,693	$1,566
United Kingdom	1,591	1,481
Rest of the world	261	174
Total tangible long-lived assets	$3,545	$3,221

Net assets by geographic area consist of the following:

	December 31,	
	2009	2008
	(in thousands)	
United States	$36,213	$31,589
United Kingdom	23,208	23,451
Rest of the world	15,836	11,678
Total net assets	$75,257	$66,718

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

18. Allowance for Doubtful Accounts

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

	Beginning Balance	Charged to Bad Debt Expense	Charged to Allowance	Ending Balance
		(in thousands)		
Year ended December 31, 2007	$ 364	24	(10)	$ 378
Year ended December 31, 2008	$ 378	16	(99)	$ 295
Year ended December 31, 2009	$ 295	2	106	$ 403

19. Warranties

A rollforward of product warranties is as follows:

	Beginning Balance	Payments	Additions(a)	Ending Balance
		(in thousands)		
Year ended December 31, 2007	$ 179	(226)	286	$ 239
Year ended December 31, 2008	$ 239	(93)	40	$ 186
Year ended December 31, 2009	$ 186	(56)	32	$ 162

(a) Includes additions of acquired companies.

20. Supplemental Cash Flow Information

	Years ended December 31,		
	2009	2008	2007
		(in thousands)	
Cash paid for acquisitions, net of cash acquired:			
Net assets acquired or liabilities assumed	$ 3,818	$—	$ (510)
Goodwill and intangible assets, net of tax	21,459	—	5,919
Less contingent consideration	(1,913)	—	—
Gain from change in fair value of contingent consideration	(2,600)	—	—
Less cash acquired, if any	—	—	(25)
Cash paid for acquisitions, net of cash acquired	$20,764	$—	$5,384

21. Supplemental Statement of Stockholders' Equity Information

	As of December 31,	
	2009	2008
	(in thousands)	
Balances Included in Accumulated Other Comprehensive Income:		
Cumulative translation adjustment	$ 233	$(1,946)
Cumulative translation adjustment on investment type loans, net of tax of $271	646	646
Changes in defined benefit pension plans, net of tax benefit of $1,056 and $567, respectively	(2,713)	(1,459)
Balance	$(1,834)	$(2,759)

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

22. Quarterly Financial Information (unaudited)

Statement of Operations Data:

2009	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Fiscal Year
	(in thousands, except per share data)				
Revenues	$19,072	$18,049	$20,998	$27,653	$85,772
Cost of product revenues	9,662	9,107	10,769	14,551	44,089
Gross profit	9,410	8,942	10,229	13,102	41,683
Sales and marketing expenses	2,372	2,688	2,836	3,867	11,763
General and administrative expenses	3,317	3,552	3,888	4,352	15,109
Research and development expenses	999	1,089	1,074	1,234	4,396
Restructuring	27	422	59	8	516
Amortization of goodwill and other intangibles	344	386	442	672	1,844
Total operating expenses	7,059	8,137	8,299	10,133	33,628
Operating income	2,351	805	1,930	2,969	8,055
Other income (expense), net	91	(458)	(446)	2,570	1,757
Income from continuing operations before income taxes	2,442	347	1,484	5,539	9,812
Income taxes	603	66	163	1,841	2,673
Income from continuing operations	1,839	281	1,321	3,698	7,139
Discontinued operations					
Income from discontinued operations, net of tax	—	—	—	94	94
Net income	$ 1,839	$ 281	$ 1,321	$ 3,792	$ 7,233
Income per share:					
Basic earnings per common share from continuing operations	$ 0.06	$ 0.01	$ 0.04	$ 0.13	$ 0.24
Discontinued operations	—	—	—	—	—
Basic earnings per common share	$ 0.06	$ 0.01	$ 0.04	$ 0.13	$ 0.24
Diluted earnings per common share from continuing operations	$ 0.06	$ 0.01	$ 0.04	$ 0.12	$ 0.24
Discontinued operations	—	—	—	—	—
Diluted earnings per common share	$ 0.06	$ 0.01	$ 0.04	$ 0.12	$ 0.24
Weighted average common shares:					
Basic	30,012	29,602	29,467	29,522	29,649
Diluted	30,120	29,819	29,942	29,904	29,946

HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

Statement of Operations Data:

2008	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Fiscal Year
	(in thousands, except per share data)				
Revenues	$21,959	$23,049	$19,989	$23,052	$88,049
Cost of product revenues	11,628	12,286	10,555	11,424	45,893
Gross profit	10,331	10,763	9,434	11,628	42,156
Sales and marketing expenses	2,841	2,969	2,568	2,592	10,970
General and administrative expenses	3,756	3,795	3,451	4,132	15,134
Research and development expenses	1,081	1,077	1,009	881	4,048
Restructuring	581	943	60	(25)	1,559
Amortization of goodwill and other intangibles	506	505	489	466	1,966
Total operating expenses	8,765	9,289	7,577	8,046	33,677
Operating income	1,566	1,474	1,857	3,582	8,479
Other income (expense), net	195	24	(39)	(1,009)	(829)
Income from continuing operations before income taxes	1,761	1,498	1,818	2,573	7,650
Income taxes	544	445	385	866	2,240
Income from continuing operations	1,217	1,053	1,433	1,707	5,410
Discontinued operations					
Income (loss) from discontinued operations, net of tax	(530)	(373)	77	369	(457)
Loss on disposition of discontinued operations, net of tax	—	(2,886)	(394)	—	(3,280)
Total income (loss) from discontinued operations, net of tax	(530)	(3,259)	(317)	369	(3,737)
Net income (loss)	$ 687	$ (2,206)	$ 1,116	$ 2,076	$ 1,673
Income (loss) per share:					
Basic earnings per common share from continuing operations	$ 0.04	$ 0.03	$ 0.05	$ 0.06	$ 0.18
Discontinued operations	(0.02)	(0.11)	(0.01)	0.01	(0.12)
Basic earnings per common share	$ 0.02	$ (0.07)	$ 0.04	$ 0.07	$ 0.05
Diluted earnings per common share from continuing operations	$ 0.04	$ 0.03	$ 0.05	$ 0.06	$ 0.17
Discontinued operations	(0.02)	(0.10)	(0.01)	0.01	(0.12)
Diluted earnings per common share	$ 0.02	$ (0.07)	$ 0.04	$ 0.07	$ 0.05
Weighted average common shares:					
Basic	30,875	30,971	31,046	30,636	30,882
Diluted	31,445	31,608	31,624	30,745	31,354

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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 11, 2010

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:

Signature	Title	Date
/s/ CHANE GRAZIANO **Chane Graziano**	Chief Executive Officer and Director (Principal Executive Officer)	March 11, 2010
/s/ THOMAS MCNAUGHTON **Thomas McNaughton**	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	March 11, 2010
/s/ DAVID GREEN **David Green**	President and Director	March 11, 2010
/s/ ROBERT DISHMAN **Robert Dishman**	Director	March 11, 2010
/s/ NEAL J. HARTE **Neal J. Harte**	Director	March 11, 2010
/s/ JOHN F. KENNEDY **John F. Kennedy**	Director	March 11, 2010
/s/ EARL R. LEWIS **Earl R. Lewis**	Director	March 11 , 2010
/s/ GEORGE UVEGES **George Uveges**	Director	March 11, 2010

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EXHIBIT INDEX

The following exhibits are filed as part of this Annual Report on Form 10-K. Where such filing is made by incorporation by reference to a previously filed document, such document is identified.

(5)2.1	Asset Purchase Agreement, dated September 30, 2008, by and among Harvard Bioscience, Inc., as Parent, Union Biometrica, Inc., as Seller, and UBIO Acquisition Company, as Buyer
(14)2.3	Asset Purchase Agreement, dated September 2, 2009, by and among Harvard Bioscience, Inc., as Parent, and DAC Acquisition Holding, Inc., as Purchaser, Denville Scientific, Inc., as Seller, and Walter Demsia and Ryan Sharp, as Shareholders.
(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
(2)3.3	Amendment No. 1 to Amended and Restated Bylaws of Harvard Bioscience, Inc. (as adopted October 30, 2007)
(6)3.4	Certificate of Designations, Preferences and Rights of a Series of Preferred Stock of Harvard Bioscience, Inc. classifying and designating the Series A Junior Participating Cumulative Preferred Stock
(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.
(7)4.3	Shareholders Rights Agreement, dated as of February 5, 2008 between Harvard Bioscience, Inc., and Registrar and Transfer Company, as Rights Agent.
(1)10.1	Harvard Apparatus, Inc. 1996 Stock Option and Grant Plan.
(9)10.2	Harvard Bioscience, Inc. Second Amended and Restated 2000 Stock Option and Incentive Plan.
(1)10.3	Harvard Bioscience, Inc. Employee Stock Purchase Plan.
(17)10.4	Amended and Restated Employment Agreement between Harvard Bioscience, Inc. and Chane Graziano, dated December 18, 2008.
(17)10.5	Amended and Restated Employment Agreement between Harvard Bioscience, Inc. and David Green, dated December 18, 2008.
(1)10.6	Form of Director Indemnification Agreement.
(17)10.7	Lease of Unit 22 Phase I Cambridge Science Park, Milton Road, Cambridge dated May 8, 2008 between The Master Fellows and Scholars of Trinity College Cambridge and Biochrom Limited
(17)10.8	Amended and Restated Employment Agreement between Harvard Bioscience, Inc. and Susan Luscinski dated December 18, 2008.
+(4)10.12	Distribution Agreement, dated April 10, 2008, by and between Biochrom Limited and GE Healthcare Biosciences, Corp.
(12)10.13	Lease, dated February 23, 2004, by and between William Cash Forman and Hoefer, Inc.
+(8)10.14	Trademark License Agreement, dated December 9, 2002, by and between Harvard Bioscience, Inc. and President and Fellows of Harvard College.
(10)10.16	Lease Agreement Between Seven October Hill, LLC and Harvard Bioscience, Inc. dated December 30, 2005
(11)10.18	Form of Incentive Stock Option Agreement (Executive Officers)

(11)10.19	Form of Non-Qualified Stock Option Agreement (Executive Officers)
(11)10.20	Form of Non-Qualified Stock Option Agreement (Non-Employee Directors)
(3)10.21	Employment Agreement Between Harvard Bioscience, Inc. and Thomas McNaughton, dated November 14, 2008
(13)10.22	First Amendment to the Harvard Bioscience, Inc. Second Amended and Restated 2000 Stock Option and Incentive Plan
(15)10.23	Amended and Restated Revolving Credit Loan Agreement, dated as of August 7, 2009, by and among Harvard Bioscience, Inc. and the Lenders from time to time party thereto, including Bank of America, N.A. (both in its capacity as "Lender" and in its capacity as "Agent"), and Brown Brothers Harriman & Co.
(16)10.24	Harvard Bioscience, Inc. 2009 Corporate Bonus Plan
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.

(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 Current Report on Form 8-K (filed on November 1, 2007) and incorporated by reference thereto.

(3) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed November 18, 2008) and incorporated by reference thereto.

(4) Previously filed as an exhibit to the Company's Quarterly Report on Form 10-Q/A, as amended (filed February 2009) and incorporated by reference thereto.

(5) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed on October 6, 2008) and incorporated by reference thereto.

(6) Previously filed as an exhibit to the Company's Registration Statement on Form 8-A (filed February 8, 2008) and incorporated by reference thereto.

(7) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed on February 8, 2008) and incorporated by reference thereto.

(8) Previously filed as an exhibit to the Company's Quarterly Report on Form 10-Q (filed May 15, 2003) and incorporated by reference thereto.

(9) Previously filed as Appendix A to the Company's Proxy Statement on Schedule 14A (filed April 16, 2008) and incorporated by reference thereto.

(10) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed January 4, 2006) and incorporated by reference thereto.

(11) Previously filed as an exhibit to the Company's Annual Report on Form 10-K (filed March 16, 2006) and incorporated by reference thereto.

(12) Previously filed as an exhibit to the Company's Annual Report on Form 10-K (filed March 15, 2004)) and incorporated by reference thereto.

(13) Previously filed as an exhibit to the Company's Quarterly Report on Form 10-Q (filed May 7, 2009) and incorporated by reference thereto.

(14) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed September 2, 2009) and incorporated by reference thereto.

(15) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed August 13, 2009) and incorporated by reference thereto.

(16) Previously filed as an exhibit to the Company's Current Report on Form 8-K (filed May 20, 2009) and incorporated by reference thereto.

(17) Previously filed as an exhibit to the Company's Annual Report on Form 10-K (filed March 11, 2009) and incorporated by reference thereto.

+ Certain portions of this document have been granted confidential treatment by the Securities and Exchange Commission (the "Commission").

* Filed herewith.

** 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.

Exhibit 21.1

Subsidiaries of the Registrant

Warner Instruments LLC (United States)
Hoefer, Inc. (United States)
KD Scientific, Inc. (United States)
Biochrom US, Inc. (United States)
Denville Scientific, Inc. (United States)
Cartesian Technologies (United States)
Harvard Apparatus, Ltd. (United Kingdom)
Biochrom Ltd. (United Kingdom)
Scie-Plas Ltd. (United Kingdom)
International Market Supply Limited (UK)
Walden Precision Apparatus Ltd. (UK)
Harvard Apparatus, SARL (France)
Asys Hitech GmbH (Austria)
Hugo Sachs Elektronik Harvard Apparatus GmbH (Germany)
Ealing Scientific Ltd. Canada (doing business as Harvard Apparatus, Canada) (Canada)
Panlab s.l. (Spain)
FKA GSI US, Inc. (formerly Genomic Solutions, Inc.) (United States)
FKA GSI UK LTD. (formerly Genomic Solutions, Ltd.) (United Kingdom)
FKA GSAL LTD. (formerly Genomic Solutions Acquisitions, Ltd.) (United Kingdom)
FKA UBI, Inc. (formerly Union Biometrica, Inc.) (United States)
Genomic Solutions Canada 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 Numbers 333-53848, 333-104544, 333-135418 and 333-151003 on Form S-8 of Harvard Bioscience, Inc. and subsidiaries of our report dated March 11, 2010, with respect to the consolidated balance sheets of Harvard Bioscience, Inc. as of December 31, 2009 and 2008, 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, 2009, and our report dated March 11, 2010 with respect to the effectiveness of internal control over financial reporting as of December 31, 2009, which reports appear in the December 31, 2009 annual report on Form 10-K of Harvard Bioscience, Inc.

Our report dated March 11, 2010, on the effectiveness of internal control over financial reporting contains an explanatory paragraph that states that Harvard Bioscience, Inc. acquired Denville Scientific, Inc. ("Denville") during 2009, and management excluded from its assessment of the effectiveness of Harvard Bioscience, Inc. and subsidiaries' internal control over financial reporting as of December 31, 2009, Denville's internal control over financial reporting associated with total assets of $26,432,383 and total revenues of $7,556,000 included in the consolidated financial statements of Harvard Bioscience, Inc. and subsidiaries as of and for the year ended December 31, 2009. Our audit of internal control over financial reporting of Harvard Bioscience, Inc. and subsidiaries also excluded an evaluation of the internal control over financial reporting of Denville.

/s/ KPMG LLP

Boston, Massachusetts
March 11, 2010

EXHIBIT 31.1

Certification

I, Thomas McNaughton, 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 11, 2010

/s/ THOMAS MCNAUGHTON

Thomas McNaughton
Chief Financial Officer

EXHIBIT 31.2

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 11, 2010

/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 to his knowledge that the Company's annual report on Form 10-K for the year ended December 31, 2009 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 11, 2010

/s/ THOMAS MCNAUGHTON

Name: Thomas McNaughton
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 to his knowledge that the Company's annual report on Form 10-K for the year ended December 31, 2009 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 11, 2010

/s/ CHANE GRAZIANO

Name: Chane Graziano
Title: Chief Executive Officer