HARVARD BIOSCIENCE INC
Form 10-K
March 16, 2011
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

x **Annual report pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**
For the fiscal year ended December 31, 2010

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 x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. YES ¨ NO x

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. YES x NO ¨

Indicate by check mark 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 x
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 x

The aggregate market value of 23,837,845 shares of voting stock held by non-affiliates of the Registrant as of June 30, 2010 was approximately $84,862,728 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 10, 2011, there were 28,388,638 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 2011 Annual Meeting of Stockholders (the Proxy Statement), to be filed within 120 days after the end of the Registrant s fiscal year, 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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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 11 of this Annual Report on Form 10-K. You should carefully review all of these factors, as well as other risks described in our public filings, and you should be aware that there may be other factors, including factors of which we are not currently aware, that could cause these differences. Also, these forward-looking statements represent our estimates and assumptions only as of the date of this report. We may not update these forward-looking statements, even though our situation may change in the future, unless we have obligations under the federal securities laws to update and disclose material developments related to previously disclosed information.

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 and regenerative medicine. 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 additional 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 22 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

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electrophoresis products, UVM plate readers and the BTX-MOS 96 well electroporation system. Recently we have developed novel devices to advance the emerging field of regenerative medicine. We currently have three marketed products, the InBreath hollow organ bioreactor, the LB2 Solid Organ Bioreactor and the PHD Ultra Nanomite stem cell therapy injection system. These products are currently available for research use only unless use on humans is approved in accordance with hospital ethics committee protocols.

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 the 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.

In addition to driving growth in our core life science research tool markets, we have been investing to create new products to address what we believe is a long term growth opportunity in the emerging field of regenerative medicine. Regenerative medicine is the use of stem cells to repair damaged organs and to grow organs outside the body for transplant. Our strategy is not to become a therapeutics company but instead to provide tools to researchers and clinicians in the field of regenerative medicine. These new tools currently fall into two main categories: bioreactors for growing tissue and organs outside the body; and injectors for stem cell therapy. These new tools we are creating are being built on our existing technologies such as our market leading Harvard Apparatus precision syringe pumps and market leading Hugo Sachs isolated organ systems.

Our first regenerative medicine tool, the InBreadth hollow organ bioreactor, was used to perform the world s first human transplant of a regenerated bronchus. Dr. Paolo Macchiarini et al reported this success in The Lancet, a leading general medicine journal and speciality journals in oncology, neurology and infectious diseases, in November 2008. We have licensed this product from Dr. Macchiarini s team, and worked to make it a commercial device. During the second and the third quarters of 2010, we took orders for this product, making it what we believe is the world s first commercially available bioreactor that has been used to perform a human transplant of a regenerated organ. We believe it marks an important milestone in the development of the regenerative medicine field as the tools evolve from concepts to commercial quality products.

During the first half of 2010, one of our collaborators, Dr. Harald Ott at Massachusetts General Hospital (MGH) succeeded in regenerating a lung and subsequently transplanting it into a rat. In collaboration with Dr. Ott and MGH, we designed and developed a novel bioreactor, now called the LB2 solid organ bioreactor, that was used to grow the lung. The work was published online in Nature Medicine in July 2010. The bioreactor used by Dr. Ott was a modified version of one of our market leading Hugo Sachs isolated organ systems.

In addition to the bioreactors described above, we also have started the development of a clinical version of one of our market leading Harvard Apparatus research syringe pumps. The research version of this pump is called the PDH Ultra Nanomite stem cell therapy injection system. We anticipate that this pump will be used to inject cells into damaged tissue in cell therapy. During 2010, the U.S. Food and Drug Administration announced its intention to focus greater attention on the safety, particularly of the user interface, for clinical infusion pumps. We expect to submit this pump to the regulatory agencies in 2011 for approval.

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 and regenerative medicine. We refer to these two segments as our core Life Science Research Tools division (LSRT) and our Regenerative Medicine Device division (RMD)

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Our LSRT 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 RMD strategy is to leverage our existing technologies to provide tools to researchers and clinicians in the emerging field of regenerative medicine.

Our Products

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

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, Coulbourn and Warner Instruments brand names. The individual sales prices of these products are mostly 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 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.

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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, our 2007 acquisition of Panlab s.l., and our 2010 acquisition of Coulbourn Instruments, LLC.

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. In May 2010, we introduced the Pump 11 Elite which was a major upgrade to our best selling Pump 11 product line and in October 2010, we launched the new KDS 100 Legato. 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 and Coulbourn Instruments in August 2010.

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 of 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 that electroporation does not require chemicals that can interfere with or change cell function. In 2004, we launched our BTX MOS 96 well electroporation system, which greatly increased the throughput of this otherwise essentially manual technique.

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Distributed Products

In addition to our proprietary manufactured products, we sell through our catalogs many products that are made by other manufacturers. Distributed products accounted for approximately 34% of our revenues for the year ended December 31, 2010. 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.

Molecular Biology

We primarily sell these products through our distributors, including GE Healthcare, under their brand names. These products are mainly scientific instruments such as spectrophotometers and plate readers that analyze light to detect and quantify a wide range of molecular and cellular processes or apparatus such as gel electrophoresis units. The instrumentation products are typically sold for 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 our 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 expanded 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. We sell a wide range of spectrophotometers under the names UltroSpec, NovaSpec, Libra, Biowave and Lightwave. Our Biochrom subsidiary manufactures these products, and we sell them primarily 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 including absorbance readers and luminescence readers. Our Biochrom subsidiary manufactures these products, and we sell them primarily 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.

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

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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 Ltd. 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 agreement 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 greatly 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 universities and government laboratories, including the U.S. National Institute of Health, or NIH and pharmaceutical and biotechnology companies. 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 10% of our revenues for the year ended December 31, 2010 compared to 12% of our revenues for the year ended December 31, 2009. We have several thousand customers worldwide and no other customer accounted for more than 5% of our revenues for such periods. Our September 2009 acquisition of Denville expanded our U.S. field sales capabilities and provided access to the laboratory consumables market.

Sales and Marketing

For the year ended December 31, 2010, 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 33% of our revenues; revenues from direct sales to end-users through our direct sales force represented approximately 24% of our total revenues; and revenues from sales of our products through distributors represented approximately 43% of our revenues.

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Direct Sales

We periodically produce and mail a Harvard Apparatus full-line catalog, most recently issued 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 reputation as a leading producer 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 catalog products 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 10%, 12% and 15% of our revenues for the years ended December 31, 2010, 2009 and 2008, 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. 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.

GE Healthcare made sufficient purchases during 2010 to earn exclusivity to the technology used in our microvolume spectrophotometer. GE Healthcare had a contractual right to earn such exclusivity for the term of its distribution agreement by purchasing a specified minimum quantity of that product in 2010. GE Healthcare does not have any contractual minimum purchase obligation in 2011 and beyond for that product. Based on information provided by them, we believe that they had a high level of inventory of this product at December 31, 2010 and consequently sales of this product to them may be significantly lower in 2011 than in 2010. This product accounted for approximately 4.5%, 3.6% and 5.0% of our revenues for the year ended December 31, 2010, 2009, and 2008, respectively. We have developed a plan with them to promote sales of this product and have also developed strategies to increase sales of other products to offset the potentially lower sales of this product in 2011. In addition, we continuously monitor our cost structure in relation to revenue expectations and are evaluating our options in this regard.

The term of the agreement expires December 31, 2012, and may be extended by GE Healthcare for additional one-year periods and may be terminated by either party upon one year advance written notice. 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 had 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, Coulbourn and SciePlas branded products in certain areas of the world and for certain product lines.

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Backlog

Our order backlog was approximately $5.4 million as of December 31, 2010 and $7.4 million as of December 31, 2009. 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 $4.7 million, $4.4 million and $4.0 million in 2010, 2009 and 2008, respectively. The increase in research and development expenses during 2010 was primarily due to increased spending in our regenerative medicine initiative and new product development efforts in our Biochrom business. This increase was partially offset by reduced spending in our Harvard Apparatus base 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. Our 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 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 our Edenbridge, England facility. We manufacture our complete organ testing systems and bioreactors in March-Hugstetten, Germany. Our electrophoresis products are manufactured at our San Francisco, California facility. Behavioral science products are manufactured in our Barcelona, Spain and Whitehall, Pennsylvania facilities.

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 and regenerative medicine. Many of our competitors have greater financial, operational, sales and

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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 organizations engaged in life science research and regenerative medicine. 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, Danaher Corporation, Bio-Rad Laboratories, Inc., Eppendorf AG, Life Technologies 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 or down 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. In 2010, we filed two major patents in the field of regenerative medicine, the first covering 61 claims for our stem cell therapy injectors and the second for 338 claims for bioreactors for organ growth.

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 than 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. As a result 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

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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. We expect the first such application to be for a clinical syringe pump which will be the platform for cell injector products. We plan to file applications with the FDA and other regulatory agencies for the clinical syringe pump by the end of 2011. In addition, we believe we are currently in compliance with all relevant environmental laws.

Employees

As of December 31, 2010, we employed 389 employees, of which 368 are full-time and 21 are part-time. Geographical residence information for these employees is summarized in the table below:

	As of December 31, 2010
United States	227
United Kingdom	99
Spain	37
Germany	16
Canada	7
France	3
Total	389

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

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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. There has been no value ascribed to the contingent consideration from the earn-out agreement, even though certain promissory notes were issued by Digilab, as realization is uncertain.

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 each year 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 the sale of the Union Biometrica business of $3.3 million. There has been no value ascribed to the contingent consideration from the earn-out agreement, even though certain promissory notes were issued by UBIO Acquisition Company, 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 2010 Form 10-K.

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

The global financial crisis that began in 2008 has caused disruption in the financial markets, including somewhat diminished liquidity and credit availability. We are unable to predict the strength and duration of an economic recovery. 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.

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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 purchases 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, 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 also 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.

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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. Recently, we completed the acquisition of Denville Scientific, Inc. in September 2009 and Coulbourn Instruments in August 2010. 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 an acquiring company s stockholders, an acquired company s previous stockholders, a divested company s stockholders or our current stockholders.

We may be the subject of lawsuits from either an acquiring company s stockholders, an acquired company s previous stockholders, a divested company s stockholders or our current stockholders. Such 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, which could adversely affect 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* . In accordance with FASB ASU 350, *Intangibles-Goodwill and Other* , 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, 2010, our continuing operations had goodwill and intangible assets of $56.6 million, or 45%, of our total assets.

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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 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.

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 41% of total revenues for 2010. 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:

- the impact of recessions and other economic conditions in economies, including Europe in particular, outside the United States,
- disruptions of capital and trading markets,
- inability to collect accounts receivable,
- limitations on repatriations of funds,
- potentially negative consequences from changes in tax laws affecting the ability to expatriate profits,
- 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,
- other factors beyond our control, including terrorism, political unrest, acts of war, natural disasters and diseases,
- unexpected changes in regulatory requirements, and
- interruption to transportation flows for delivery of parts to us and finished goods to our customers.

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.

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

Approximately 38% of our business during 2010 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 our management team, 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, we 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 September 30, 2010, we developed a plan to streamline our operations at Panlab, our Harvard Apparatus business in Spain. The plan included workforce reduction in all functions of the organization and was carried out during that quarter.

During the quarter ended December 31, 2010, we developed a plan to reduce operating expenses at our Biochrom U.K. subsidiary. The plan included workforce reduction in all functions of the organization, inventory impairment charges and other charges and was carried out during that quarter.

We may incur additional restructuring costs and we may not be able to fully realize 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

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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, the New York metropolitan area, London and Cambridge, England, 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. 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 announced the launch of our In Breath bioreactor, which was our first product in the field of regenerative medicine. This was used to perform the world s first human transplant of a regenerated bronchus. Dr. Paolo Macchiarini et al reported this success in The Lancet, a leading general medicine journal and speciality journals in oncology, neurology and infectious, diseases, in November 2008. The InBreath bioreactor is now commercially available. In 2010, our Harvard Apparatus / Hugo Sachs Elektronik business collaborated with Dr. Harald Ott and Massachusetts General Hospital to design and manufacture a novel bioreactor that was used to grow a functional lung that was transplanted into a rat. The research was published online in Nature Medicine on July 13, 2010. In addition to developing bioreactors, we are also developing a stem cell therapy injector based on our market leading Harvard Apparatus research syringe pump technology. We expect to submit this injector to the FDA in 2011 for approval for clinical use on patients. 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 currently are, 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.

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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,

companies developing life science or drug discovery technologies, and

companies developing regenerative medicine 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.

Rising commodity and precious metals costs could adversely impact our profitability.

Raw material commodities such as resins, and precious metal commodities such as platinum are subject to wide price variations. Increases in the costs and availability of these commodities and the costs of energy, transportation and other necessary services may adversely affect our profit margins if we are unable to pass along any higher costs in the form of price increases or otherwise achieve cost efficiencies such as in manufacturing and distribution.

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, 2010 and 2009, we had borrowings of

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$18.0 million and $13.3 million, 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.

We have distribution agreements with GE Healthcare in two of our businesses. We believe our relationship with GE Healthcare is good. However, 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 2010, approximately 10% of the Company s revenues were generated through our 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, 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

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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. 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 be accepted and patents might not be issued, 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 could 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.

Our 2002 merger with Genomic Solutions may fail to qualify as a reorganization for federal income tax purposes, resulting in the recognition of taxable gain or loss in respect of our treatment of the merger as a taxable sale.

Both we and Genomic Solutions intended the merger to qualify as a reorganization within the meaning of Section 368(a) of the Internal Revenue Code of 1986, as amended. Although the Internal Revenue Service, or

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IRS, has not provided a ruling on the matter, Genomic Solutions obtained a legal opinion from its tax counsel that the merger constitutes a non-taxable reorganization for federal income tax purposes. This opinion does not bind the IRS or prevent the IRS from adopting a contrary position. If the merger fails to qualify as a non-taxable reorganization, the merger would be treated as a deemed taxable sale of assets by Genomic Solutions for an amount equal to the merger consideration received by Genomic Solutions stockholders plus any liabilities assumed by us. As successor to Genomic Solutions, we would be liable for any tax incurred by Genomic Solutions as a result of this deemed asset sale. If we were to be liable for any such tax, it could have a material adverse effect on our financial condition.

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 being rejected and no patents being issued.

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,

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which could result in reduced revenues for those companies. If pharmaceutical or biotechnology 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. A potential decrease in the level of governmental spending allocated to scientific and medical research 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:

- volatility of the financial markets,
- uncertainty regarding the prospects of the domestic and foreign economies,
- technological innovations by competitors or in competing technologies,
- revenues and operating results fluctuating or failing to meet the expectations of management, securities analysts, or investors in any quarter,
- comments of securities analysts and mistakes by or misinterpretation of comments from analysts, downward revisions in securities analysts estimates or management guidance,
- investment banks and securities analysts becoming subject to lawsuits that may adversely affect the perception of the market,

conditions or trends in the biotechnology and pharmaceutical industries,

announcements of significant acquisitions or financings or changes in strategic partnerships,

non-compliance with the internal control standards pursuant to the Sarbanes-Oxley Act of 2002, and

a decrease in the demand for our common stock.

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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 which could negatively affect the price for our common stock, an investors ability to buy or sell our common stock and the listing thereof.

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 nine principal facilities incorporate manufacturing, development, sales and marketing, and administration functions. Our facilities consist of:

- a leased 61,570 square foot facility in Holliston, Massachusetts, which is our corporate headquarters,

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a leased 28,000 square foot facility in Cambridge, England,

a leased 20,853 square foot facility in Barcelona, Spain,

a leased 20,938 square foot facility in San Francisco, California,

a leased 17,436 square foot facility in South Plainfield, New Jersey,

an owned 15,500 square foot facility in Edenbridge, England,

a leased 12,031 square foot facility in March-Hugstetten, Germany,

a leased 7,500 square foot facility in Hamden, Connecticut, and

a leased 23,000 square foot facility in Whitehall, Pennsylvania

We also lease additional facilities for sales and administrative support in Les Ulis, 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.

We believe our current facilities are adequate for our needs for the foreseeable future.

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 significant claims or proceedings .

Item 4. ***(Removed and Reserved)***

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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.

Fiscal Year Ended December 31, 2010	**High**	**Low**
First Quarter	$ 4.10	$ 3.22
Second Quarter	$ 4.50	$ 3.27
Third Quarter	$ 3.92	$ 3.22
Fourth Quarter	$ 4.10	$ 3.71

Fiscal 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

On March 10, 2011, the closing sale price of our common stock on the NASDAQ Global Market was $4.24 per share. There were 215 holders of record of our common stock as of March 10, 2011. 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 2008, 2009 and 2010, we repurchased in the open market 3,084,723 shares of common stock at an aggregate cost of $10.0 million, including commissions under the stock repurchase program. The 2010 share repurchases were made during the second and third quarters, and completed the Company s $10.0 million stock repurchase program.

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.

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Stockholder Return Performance Graph

This performance graph shall not be deemed filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the Exchange Act), or incorporated by reference into any filing of Harvard Bioscience under the Securities Act of 1933, as amended, or the Exchange Act, except as shall be expressly set forth by specific reference in such filing.

The following graph provides a comparison of the cumulative total stockholder return on the Company s Common Stock from December 31, 2005 to December 31, 2010 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, 2010. The total return for the Company s Common Stock and the indices used assumes the reinvestment of all dividends.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among Harvard Bioscience, Inc., the Russell 2000 Index

and the NASDAQ Biotechnology Index

* $100 invested on 12/31/05 in stock or index, including reinvestment of dividends.

Fiscal year ending December 31.

	12/05	12/06	12/07	12/08	12/09	12/10
Harvard Bioscience, Inc.	100.00	115.28	102.92	59.55	80.22	91.69
Russell 2000	100.00	118.37	116.51	77.15	98.11	124.46
NASDAQ Biotechnology	100.00	99.71	103.09	96.34	106.49	114.80

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

	For The Years Ended December 31,				
	2010	2009	2008	2007	2006
	(in thousands, except per share data)				
Statement of Operations Data:					
Revenues	$ 108,179	$ 85,772	$ 88,049	$ 83,407	$ 76,181
Cost of product revenues	56,402	44,089	45,893	43,161	38,094
Gross profit	51,777	41,683	42,156	40,246	38,087
Operating expenses	41,559	33,628	33,677	30,713	29,397
Operating income	10,218	8,055	8,479	9,533	8,690
Other income (expense), net	(655)	1,757	(829)	35	(294)
Income from continuing operations before income taxes	9,563	9,812	7,650	9,568	8,396
Income tax (benefit) expense	(9,452)	2,673	2,240	1,970	1,775
Income from continuing operations	19,015	7,139	5,410	7,598	6,621
Discontinued operations(1)					
Income (loss) from discontinued operations, net of tax		94	(457)	(5,864)	(8,962)
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)
Net income (loss)	$ 19,015	$ 7,233	$ 1,673	$ (1,354)	$ (2,341)
Income (loss) per share:					
Basic earnings per common share from continuing operations	$ 0.66	$ 0.24	$ 0.18	$ 0.25	$ 0.22
Discontinued operations		0.00	(0.12)	(0.29)	(0.29)
Basic earnings (loss) per common share	$ 0.66	$ 0.24	$ 0.05	$ (0.04)	$ (0.08)
Diluted earnings per common share from continuing operations	$ 0.65	$ 0.24	$ 0.17	$ 0.24	$ 0.21
Discontinued operations		0.00	(0.12)	(0.29)	(0.29)
Diluted earnings (loss) per common share	$ 0.65	$ 0.24	$ 0.05	$ (0.04)	$ (0.08)
Weighted average common shares:					
Basic	28,967	29,649	30,882	30,646	30,519
Diluted	29,405	29,946	31,354	31,405	31,148

	As of December 31,				
	2010	2009	2008	2007	2006
	(in thousands)				
Balance Sheet Data:					
Cash and cash equivalents	$ 19,704	$ 16,588	$ 13,698	$ 17,889	$ 9,357
Working capital	47,270	35,941	32,249	37,970	38,601
Total assets	124,797	107,231	81,271	98,853	93,228
Long-term debt, net of current portion	18,009	13,308	59	5,578	3,000
Stockholders equity	90,248	75,257	66,718	74,137	71,883

(1) During the quarter ended September 30, 2005, we announced plans to divest our Capital Equipment Business segment. The decision to divest this business segment was based on the fact that market conditions

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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 each year 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.

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

Forward-Looking Statements

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

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Overview

Our strategy focuses on creating value through combining tuckunder acquisitions with organic growth and operational improvements.

Our 2010 revenues were $108.2 million, which represented an increase of $22.4 million, or 26.1%. A strengthened U.S. dollar during 2010 had a $1.3 million, or 1.5%, negative effect on the translation of our foreign revenues compared with 2009. Organic growth in our core businesses was 6.1% in 2010 compared with 2009. We acquired Denville Scientific in September 2009 and Coulbourn Instruments in August 2010, which contributed incremental revenue of $18.5 million, or 21.5%, to our 2010 revenues. Denville has been accretive to our earnings per share since the acquisition. We intend to continue to pursue our tuckunder acquisition strategy.

The main drivers of our organic revenue growth in 2010 were a general strengthening in our markets, new product development and the expansion of our sales force. During the second quarter of 2010, we launched Pump 11 Elite which is a major upgrade to our best selling Pump 11 product line, as it incorporates a color touch screen user interface, methods storage and programming without a separate computer and USB connectivity. In October 2010, we launched KDS 100 Legato. We believe that the new KDS pump will bring similar improvements to the KD Scientific product line as the new Pump 11 Elite brings to the Harvard Apparatus line. We currently expect these new products to contribute to the organic growth at Harvard Apparatus, especially in the United States.

During the second quarter of 2010, we also launched what we believe is a major upgrade and expansion of our spectrophotometer product line at our Biochrom business. Spectrophotometry is our second biggest overall product line after syringe pumps. Spectrophotometry is the core of the Biochrom product line and this new product platform provides both improvements to the technical specifications, such as accuracy and reproducibility, as well as ease of use by adding a color touch screen user interface. In addition to our traditional strength in single beam spectrophotometers, we will now be adding dual beam instruments (which are inherently more accurate than single beam instruments) and variable bandwidth instruments, which provide significant extra flexibility to the user. With these new products, we intend to access a larger segment of the entire spectrophotometer market. We believe that these new products will help to drive our organic growth during 2011 and beyond.

In addition to driving growth in our core research markets, we invested in 2010 to create new products to address what we believe is a long term growth opportunity in the emerging field of regenerative medicine. Regenerative medicine is using stem cells to repair damaged organs and to grow organs outside the body for transplant. The US Department of Health and Human Services has projected that the US market for regenerative medicine may be $100 billion in the coming years. The government s estimate appears to include the value of all regenerative medicine protocols and therapies, including potential cost savings versus current methodologies. Our strategy is not to become a therapeutics company but instead to provide tools to researchers and clinicians in the field of regenerative medicine. These new tools currently fall into two main categories: bioreactors for growing tissue and organs outside the body, and injectors for stem cell therapy. These new tools we are creating are being built on our existing technologies such as our market leading Harvard Apparatus precision syringe pumps and Hugo Sachs isolated organ systems.

Our first bioreactor is a product that was used to perform the world s first human transplant of a regenerated bronchus. Dr. Paolo Macchiarini et al reported this success in The Lancet, a leading general medicine journal and speciality journals in oncology, neurology and infectious diseases, in November 2008. During the second and the third quarters of 2010, we took orders for this product, making it what we believe is the world s first commercially available bioreactor that has been used to perform a human transplant of a regenerated organ. We believe it marks an important milestone in the development of the regenerative medicine field as the tools evolve from concepts to commercial products.

During the first half of 2010, one of our collaborators, Dr. Harald Ott at Massachusetts General Hospital (MGH) succeeded in regenerating a lung and subsequently transplanting it into a rat. In collaboration with Dr. Ott and MGH, we designed and developed a novel bioreactor that was used to grow the lung. The work was published online in Nature Medicine in July 2010. The bioreactor used by Dr. Ott was a modified version of one of our market leading Hugo Sachs isolated organ systems.

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In addition to the bioreactors described above, we also have started the development of a clinical version of one of our Harvard Apparatus research syringe pumps. We anticipate that this pump will be used to inject cells into damaged tissue in cell therapy. The U.S. Food and Drug Administration has recently announced its intention to focus greater attention on the safety, particularly of the user interface, for clinical infusion pumps. We are still evaluating the effect of these new requirements and it is possible that complying with them will delay the submission of the new product for U.S. approval. However, we currently still anticipate launching our first clinical product during 2011.

We believe that through execution of our strategy of organic growth, tuckunder acquisitions and operational improvements we will be able to strengthen the Company and position ourselves well as 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 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 regenerative medicine 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

In 2003, we entered into a $20.0 million credit facility with Brown Brothers Harriman & Co. 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, 2010, we had $18.0 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 thereof.

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

	2010	% of Revenue	2009	% of Revenue	2008	% of Revenue
			($ in thousands)			
Total revenues	$ 108,179		$ 85,772		$ 88,049	
Cost of product revenues	$ 56,402	52.1%	$ 44,089	51.4%	$ 45,893	52.1%
Sales and marketing expenses	$ 16,345	15.1%	$ 11,763	13.7%	$ 10,970	12.5%
General & administrative expenses.	$ 17,643	16.3%	$ 15,109	17.6%	$ 15,134	17.2%
Research & development expenses	$ 4,709	4.4%	$ 4,396	5.1%	$ 4,048	4.6%

Revenues. We generate revenues by selling apparatus, instruments, devices and consumables through our catalogs, 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

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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 issued 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 33% and 30% of our revenues for the years ended December 31, 2010 and 2009, respectively.

Products sold under brand names of distributors, including GE Healthcare, are typically priced in the range of $5,000-$15,000. They are mainly scientific instruments like spectrophotometers and plate readers that analyze light to detect and quantify a 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, 2010 and 2009, approximately 43% and 48%, respectively, of our revenues were derived from sales to distributors.

For the year ended December 31, 2010, approximately 66% of our revenues were derived from products we manufacture; approximately 11% 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 approximately 23% were derived from distributed products sold under our brand names. For the year ended December 31, 2009, approximately 76% 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 and 9% were derived from distributed products sold under our brand names.

For the years ended December 31, 2010 and 2009, approximately 41% and 52%, respectively, of our revenues were derived from sales made by our non-U.S. operations. The decrease in the percentage of revenues derived from sales made by our non-U.S. operations is due to the acquisition of Denville Scientific in August 2009. In 2010, this acquisition increased our proportion of sales by U.S. operations when compared with our proportion of sales by non-U.S. operations as almost all of Denville s sales were to U.S. customers.

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

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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 years ended December 31, 2010 and 2009 was $2.8 million and $2.5 million, respectively. 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. The stock-based compensation expense was related to employee stock options, restricted stock units, 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, 2010 Compared to Year Ended December 31, 2009

Revenues.

Revenues increased $22.4 million, or 26.1%, to $108.2 million for the year ended December 31, 2010 compared to $85.8 million for the same period in 2009. Our Denville Scientific and Coulbourn Instruments subsidiaries contributed approximately $18.5 million to the revenue increase for the year ended December 31, 2010. The effect of a stronger U.S. dollar decreased the Company s revenues by $1.3 million, or 1.5%, compared with the same period in 2009. Adjusting for the effects of foreign currency fluctuation and acquisitions, revenues were up $5.2 million, or 6.1% year-to-year and reflected organic growth across our Harvard Apparatus and Biochrom businesses.

Cost of product revenues.

Cost of product revenues increased $12.3 million, or 27.9%, to $56.4 million for the year ended December 31, 2010 compared with $44.1 million for the year ended December 31, 2009. The increase in cost of product revenues included $11.6 million, or 26.3%, attributable to our Denville Scientific and Coulbourn Instruments acquisitions. A stronger U.S. dollar caused a $0.7 million favorable currency effect on cost of product revenues for the year ended December 31, 2010, compared with the same period in 2009. Adjusting for the effect of foreign currency fluctuation and excluding the effect of acquisitions, cost of product revenues were up $1.4 million, or 3.6%, year-to-year and reflected organic growth in our Harvard Apparatus and Biochrom businesses. Gross profit as a percentage of revenues decreased to 47.9% for the year ended December 31, 2010 compared with 48.6% for the same period in 2009. The decrease in gross profit as a percentage of revenues was primarily due to the impact of Denville Scientific, which because it does not manufacture its products, has lower gross margins than our overall average margin. Gross margin as a percentage of revenues, excluding Denville,

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was 51.0% for the year ended December 31, 2010, and 49.7% for the year ended December 31, 2009. The year-to-year increase reflected the effects of ongoing operational improvement initiatives, greater sales volume and a more favorable sales mix during 2010.

Sales and marketing expenses.

Sales and marketing expenses increased $4.5 million, or 39.0%, to $16.3 million for the year ended December 31, 2010 compared with $11.8 million for the year ended December 31, 2009. This increase included $3.6 million due to our acquisitions of Denville Scientific and Coulbourn Instruments subsidiaries and reflected increased sales and marketing efforts across our businesses.

General and administrative expenses.

General and administrative expenses increased $2.5 million, or 16.8% to $17.6 million for the year ended December 31, 2010 compared with $15.1 million for the year ended December 31, 2009. The year-to-year increase included $0.7 million of expenses at our Denville Scientific and Coulbourn Instruments subsidiaries, a $0.2 million increase in stock compensation expense, a $1.0 million increase in bonus expense, and a $0.6 million increase in other general and administrative areas.

Research and development expenses.

Research and development expenses increased $0.3 million, or 7.1% to $4.7 million for the year ended December 31, 2010 compared with $4.4 million for the year ended December 31, 2009. The increase in research and development expenses was primarily due to increased spending in the regenerative medicine device business and new product development efforts in our Biochrom business, partially offset by lower spending in our Harvard Apparatus business.

Amortization of intangible assets.

Amortization of intangibles was $2.4 million and $1.8 million for the years ended December 31, 2010 and 2009, respectively. The year-to-year increase in the amortization expense was primarily due to the acquisition of Denville Scientific in September 2009 which included amortization expenses for part of the year in 2009 compared with a full year of expense in 2010.

Other income (expense), net.

Other income (expense), net was $0.7 million expense and $1.8 million income for the years ended December 31, 2010 and 2009, respectively. Net interest expense was $0.7 million for the year ended December 31, 2010 compared to $0.3 million for the year ended December 31, 2009. The increase in the net interest expense was primarily due to higher average debt balances in 2010 compared to 2009. Other income (expense), net also included $0.4 million and $2.6 million for the years ended December 31, 2010 and 2009, respectively, from the gain from adjustment of contingent consideration related to our Denville Scientific acquisition.

Income taxes.

Income tax (benefit) expense from continuing operations was approximately $9.5 million benefit and $2.7 million expense for the years ended December 31, 2010 and 2009, respectively. The effective income tax rate for continuing operations was 98.8% benefit for the year ended December 31, 2010, compared with 27.2% expense for the same period of 2009. The difference between our effective tax rate and the US statutory tax rate is principally attributable to changes in our valuation allowance, foreign tax differential, and increased research and development tax credits. The change in the valuation allowance included an $11.3 million benefit from the reversal of valuation allowances on certain deferred income tax assets during the third quarter of 2010. This conclusion was based, in part, on our achieving sustained profitability and projections of positive future earnings in the U.S.

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Restructuring

During the quarter ended September 30, 2010, we developed a plan to streamline our operations at Panlab, our Harvard Apparatus business in Spain. The plan included workforce reduction in all functions of the organization. During the third quarter of 2010, we recorded restructuring expenses of approximately $0.3 million, representing severance payments to employees. No charges have been incurred beyond the third quarter of 2010.

During the quarter ended December 31, 2010, we developed a plan to reduce operating expenses at our Biochrom U.K. subsidiary. During the fourth quarter of 2010, we recorded restructuring expenses of approximately $0.3 million. The charges were comprised of $0.1 million in severance payments, $0.1 million in inventory impairment charges (included in cost of product revenues), and $0.1 million in various other costs.

During the quarter ended March 31, 2009, we developed a plan to relocate the Scie-Plas operation to Hoefer s San Francisco location and exit the Scie-Plas general fabrication business as part of our ongoing business improvement initiative.

During the quarter ended June 30, 2009 we 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 certain product lines (included in cost of product revenues) and $0.2 million in various other costs.

During the quarter ended March 31, 2008, we committed to a number of actions as part of our 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 with and into our 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 life science research tools and regenerative medicine device 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, 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 our revenues for the year ended December 31, 2009 by $4.8 million, or 5.4%, compared with the same period in 2008.

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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 our 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 tour 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.

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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, we 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, we committed to a number of actions as part of our 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 with and into our 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 life science research tools and regenerative medicine device 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.

Liquidity and Capital Resources

Historically, we have financed our business through cash provided by operating activities, the issuance of common stock and preferred stock, and bank borrowings. Our liquidity requirements have arisen primarily from investing activities, including funding of acquisitions, and other capital expenditures.

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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* . Unless specifically noted otherwise, our discussion of our cash flows below refers to combined cash flows from both continuing and discontinued operations.

We ended 2010 with cash and cash equivalents of $19.7 million compared to cash and cash equivalents of at December 31, 2009 of $16.6 million. As of December 31, 2010 and 2009, we had $18.0 million and $13.3 million of borrowings, respectively, outstanding under our credit facility. The borrowings under the credit facility were related to our recent acquisitions of Denville Scientific in September 2009 and Coulbourn Instruments in August 2010 and to our stock repurchase activity.

Overview of Cash Flows for the years ended December 31,

	2010	2009	2008
		(in thousands)	
Cash flows from operations:			
Net income	$ 19,015	$ 7,233	$ 1,673
Changes in assets and liabilities	(1,237)	5,206	(1,564)
Other adjustments to operating cash flows	(5,485)	4,070	9,093
Net cash provided by operating activities	12,293	16,509	9,202
Investing activities:			
Acquisitions and divestitures	(7,115)	(20,764)	(752)
Other investing activities	(1,231)	(1,536)	(1,876)
Net cash used in investing activities	(8,346)	(22,300)	(2,628)
Financing activities:			
Proceeds (repayments) of debt, net	4,687	11,918	(6,270)
Other financing activities	(4,718)	(2,133)	(1,685)
Net cash (used in) provided by financing activities	(31)	9,785	(7,955)
Effect of exchange rate changes on cash	(800)	(1,104)	(3,125)
Increase (decrease) in cash and cash equivalents	$ 3,116	$ 2,890	$ (4,506)

Our operating activities generated cash of $12.3 million for the year ended December 31, 2010 compared to $16.5 million for the year ended December 31, 2009. The decrease in cash flows from operations was primarily due to changes in working capital balances year to year.

Our investing activities used cash of $8.3 million in the year ended December 31, 2010. Investing activities during both 2009 and 2010 included acquisitions, purchases of property, plant and equipment and expenditures for our catalogs. In August 2010, we acquired Coulbourn Instruments for approximately $4.6 million. In December 2010, we signed a license agreement with Cellectis that grants us the worldwide exclusive right to manufacture and sell, for research use, the full line of Cyto Pulse electroporation-based instruments. Pursuant to the terms of the agreement, we paid $1.0 million in December 2010 with the remaining $0.3 million payable in 2011. These acquisitions were funded from our existing cash balances and borrowings under our credit facility. During 2009, we acquired Denville Scientific for approximately $22.3 million. The Denville purchase agreement required us to make the acquisition in three cash payments. We made the first cash payment of approximately $12.8 million in the third quarter of 2009 and the second cash payment of approximately $8.0 million in the fourth quarter of 2009. During the second quarter of 2010 we made the final payment of approximately $1.5 million which is included in Acquisition, net of cash acquired under investing activities. During 2010, catalog costs were $0.4 million, reflecting the publication and distribution of an 850-page Harvard Apparatus catalog. We spent $0.8 million during 2010 on capital expenditures. We expect to make approximately $1.3 million of capital expenditures during 2011. During the year ended December 31, 2009, our investing activities used cash of $22.3 million which included the first and the second cash payments of $12.8 million and $8.0 million, respectively, related to the acquisition of Denville Scientific. Capital expenditures totaled $1.4 million and catalog costs totaled $0.2 million in 2009.

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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, 2010, financing activities used cash of $31,000. We increased our debt by $4.7 million net of repayments, and ended the year with $18.0 million of borrowings under our credit facility. The increase in the borrowings under the credit facility during the year is related to our acquisition of Coulbourn Instruments in August 2010, final payment of the Denville Scientific subsidiary acquisition, and our stock repurchase activity. During 2010, we repurchased in the open market approximately 1.4 million shares of our common stock at a cost of $5.0 million, including commissions, and we received $0.3 million in proceeds from the exercise of stock options and employee stock plan purchases. During 2009, financing activities provided $9.8 million of cash. We increased our debt by $11.9 million net of repayments, 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.

Borrowing Arrangements

In 2003, we entered into a $20.0 million credit facility with Brown Brothers Harriman & Co. 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. In 2010, we did not enter into any currency swap contracts.

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Contractual Obligations

The following schedule represents our contractual obligations for our continuing operations, excluding interest, as of December 31, 2010.

	Total	2011	2012	2013	2014	2015	2016 and Beyond
			(in thousands)				
Bank credit facility and notes payable	$ 18,013	$ 4	$ 18,009	$	$	$	$
Operating leases	5,903	1,535	1,385	991	707	573	712
Capital leases, including imputed interest	1	1					
Total	$ 23,917	$ 1,540	$ 19,394	$ 991	$ 707	$ 573	$ 712

We had a liability at December 31, 2010 and 2009 of $0.7 million and $0.5 million, respectively, for uncertain tax positions taken in an income tax return. We do 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.

We have an underfunded pension liability of $2.7 million, net of tax, each for the years ended December 31, 2010 and 2009 which is recognized as part of the accumulated other comprehensive income in the consolidated balance sheets. Since we do not know the ultimate timing of payments related to this liability, this amount has not been included in the above table.

Critical Accounting Policies

We believe that our critical accounting policies are as follows:

revenue recognition;

accounting for income taxes;

inventory;

valuation of identifiable intangible assets in business combinations;

valuation of long-lived and intangible assets and goodwill; and

stock-based compensation.

Revenue recognition. We follow the provisions of FASB ASC 605, *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. Revenues on these products are recognized when the additional services have been performed. 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* .

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* , 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

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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 that reflects 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* , we must establish a valuation allowance. If a valuation allowance is established, increased or decreased in a period, generally we allocate the related income tax expense or benefit to income from continuing operations in the consolidated statement of operations.

Management s judgment and estimates are required in determining our income tax provision, deferred tax assets and liabilities and any valuation allowance recorded against deferred tax assets. We 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.

During the year ending December 31, 2010, we concluded that it is more likely than not that a majority of our U.S. deferred tax assets will be realized through future taxable income. This conclusion was based, in part, on our achieving sustained profitability and projections of positive future earnings in the U.S. Therefore, we released a significant portion of the valuation allowances related to these deferred tax assets. The release of the above mentioned valuation allowances resulted in an income tax benefit of $11.3 million, which was recorded as a discrete item during the year ending December 31, 2010. The remaining valuation allowance of $2.7 million relates to deferred tax assets in certain foreign and state jurisdictions.

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. 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

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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 13% 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 13% 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. In accordance with the provisions of FASB ASC 360, *Property, Plant and Equipment* , 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* , we elected not to allocate interest of our consolidated debt to discontinued operations. As at December 31, 2010, there are no assets held for sale by the Company.

Goodwill and Other Intangible Assets. FASB ASC 350, *Intangibles-Goodwill and Others* 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

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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.

The results of our test for goodwill impairment showed that the estimated fair values of our reporting units exceeded their carrying values and none of our reporting units were considered to be at risk of failing step one of the impairment test. At December 31, 2010, the market capitalization of our common shares was $115.5 million and the carrying value of net assets was $90.2 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 our 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*, which requires us to recognize compensation expense for all share-based payment awards made to employees and directors including employee stock options, restricted stock units and employee stock purchases (employee stock purchases) related to the Employee Stock Purchase Plan (ESPP). We issue new shares upon stock option exercises, upon the vesting of restricted stock units and under our ESPP.

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, except restricted stock 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.

The fair value of restricted stock units are based on the market price of our common stock on the date of grant and are recorded as compensation expense ratably over the applicable service period, which is generally four years. Unvested restricted stock units are forfeited in the event of termination of employment or engagement with the Company.

Stock-based compensation expense recognized under FASB ASC 718 for the years ended December 31, 2010, 2009 and 2008 was $2.8 million, $2.5 million and $2.0 million, respectively, which consisted of stock-based compensation expense related to employee stock options, the employee stock purchase plan and restricted stock units issued for the first time in 2010.

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 2010, 2009 and 2008, 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 negative effect on revenues of $1.3 million, $4.8 million, and $3.0 million for 2010, 2009 and

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2008, respectively, and positive effects on expenses of $1.0 million, $4.0 million and $2.6 million for 2010, 2009, and 2008 respectively (net $0.3 million, $0.8 million, and $0.4 million for 2010, 2009, and 2008 respectively).

The loss associated with the translation of foreign equity into U.S. dollars was approximately $2.1 million compared to a gain associated with the translation of foreign equity into U.S. dollars of approximately $2.2 million during the years ended December 31, 2010 and 2009, respectively. In addition, currency fluctuations resulted in approximately $0.1 million and $0.3 million in foreign currency losses during the years ended December 31, 2010 and 2009, respectively and $60,000 in foreign currency gain during the year ended December 31, 2008, respectively.

The U.S. dollar was stronger on December 31, 2010 against the British pound and the Euro compared with the rates at December 31, 2009. The stronger U.S. dollar has caused our foreign net assets to translate to a lower value, stated in U.S. dollars, which has a negative effect on our Accumulated Other Comprehensive Income, a component of Stockholders Equity. At December 31, 2010, our Stockholders Equity was lower by $2.1 million as compared to the value at December 31, 2009, due to the translation of foreign net assets based on a stronger dollar.

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 our Accumulated Other Comprehensive Income, a component of Stockholders Equity. At December 31, 2009, our 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, 2010, the U.S. dollar appreciated approximately 3% against the British pound and 8% against the Euro. Approximately 38% of our revenues are derived from business transacted in British pounds or Euros. If the U.S. dollar strengthens against the British pound and Euro, our earnings and cash flows, stated in U.S. dollars, will be affected negatively.

As of December 31, 2010 and 2009, we had $18.0 million and $13.3 million, respectively, outstanding under our credit facility. The borrowings under the credit facility were related to our acquisitions of Denville Scientific in September 2010 and Coulbourn Instruments in August 2010 and the share repurchase program.

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. These contracts were settled in January 2010 when the related intercompany loans were repaid. During the year ended December 31, 2010, we did not enter in any hedging activity.

Recently Issued Accounting Pronouncements

In October 2009, the FASB issued Accounting Standard Update (ASU) No. 2009-13 *Revenue Recognition (Topic 605): Multiple-Deliverable Revenue Arrangements.* 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 believe adoption of this new guidance will not have a material impact on our consolidated results of operations or financial position.

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In January 2010, the FASB issued Accounting Standards Update No. 2010-06, *Improving Disclosures about Fair Value Measurements (Topic 820) Fair Value Measurements and Disclosures* (ASU 2010-06), to add additional disclosures about the different classes of assets and liabilities measured at fair value, the valuation techniques and inputs used, the activity in Level 3 fair value measurements, and the settlements relating to Level 3 measurements. The provisions of this update will be effective for us in fiscal years beginning after December 15, 2010, and for the interim periods within fiscal years with early adoption permitted. We believe the adoption of this new guidance will not have a material impact on our consolidated results of operations or financial position.

In December 2010, the FASB issued Accounting Standards Update No. 2010-28, *Intangibles: Goodwill and Other (Topic 350) When to perform Step 2 of the Goodwill Impairment Test for Reporting Units with Zero or negative carrying amounts (ASU 2010-28)*. The amendments in this ASU modifies Step 1 of the goodwill impairment test for reporting units with zero or negative carrying amounts. For those reporting units, the entity is required to perform Step 2 of the goodwill impairment test if it is more likely than not that a goodwill impairment exists. The provisions of this update will be effective for us in fiscal years beginning after December 15, 2010, and for the interim periods within fiscal years with early adoption permitted. We believe the adoption of this new guidance will not have a material impact on our consolidated results of operations or financial position.

In December 2010, the FASB issued Accounting Standards Update No. 2010-29, *Business Combinations (Topic 805): Disclosure of Supplemental Pro Forma Information for Business Combinations (ASU 2010-29)*. This ASU specifies that if a public entity presents comparative financial statements, the entity should disclose revenue and earnings of the combined entity as though the business combination(s) that occurred during the current year had occurred as of the beginning of the comparable prior annual reporting period. This update also expands the supplemental pro forma disclosures under Topic 805 to include a description of the nature and amount of material, nonrecurring pro forma adjustments directly attributable to the business combination included in the reported pro forma revenue and earnings. The provisions of this update will be effective for us in fiscal years beginning after December 15, 2010, with early adoption permitted. We believe the adoption of this new guidance will not have a material impact 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.

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We are exposed to market risk from changes in interest rates primarily through our financing activities. As of December 31, 2010, we had $18.0 million outstanding under our revolving credit facility, which bears interest at LIBOR plus 4.0%. At December 31, 2010, the interest rate on this debt was 4.26%. 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, 2010 over the next twelve months is quantified and summarized as follows:

If compared to the rate as of December 31, 2010	Interest expense increase (in thousands)
Interest rates increase by 1%	180
Interest rates increase by 2%	360

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, 2010. 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

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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, 2010 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, 2010.

The effectiveness of our internal control over financial reporting as of December 31, 2010 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, 2010. 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, 2010 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, 2010, 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.

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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, 2010, based on criteria established in *Internal Control Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Harvard Bioscience, Inc. and subsidiaries as of December 31, 2010 and 2009, and the related consolidated statements of operations, stockholders equity and comprehensive income, and cash flows for each of the years in the three-year period ended December 31, 2010, and our report dated March 16, 2011 expressed an unqualified opinion on those consolidated financial statements.

/s/ KPMG LLP

Boston, Massachusetts

March 16, 2011

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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 Company s 2011 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 2011 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 2011 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 2011 Annual Meeting of Stockholders.

Item 14. ***Principal Accounting Fees and Services.***
Incorporated by reference to the Company s definitive Proxy Statement filed pursuant to Regulation 14A, in connection with the Company s 2011 Annual Meeting of Stockholders.

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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:

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Index to Consolidated Financial Statements	F-1
Report of Independent Registered Public Accounting Firm	F-2
Consolidated Balance Sheets as of December 31, 2010 and 2009	F-3
Consolidated Statements of Operations for the years ended December 31, 2010, 2009 and 2008	F-4
Consolidated Statements of Stockholders Equity and Comprehensive Income (Loss) for the years ended December 31, 2010, 2009 and 2008	F-5
Consolidated Statements of Cash Flows for the years ended December 31, 2010, 2009 and 2008	F-6
Notes to Consolidated Financial Statements	F-7

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.

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HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

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Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders

Harvard Bioscience, Inc. and subsidiaries:

We have audited the accompanying consolidated balance sheets of Harvard Bioscience, Inc. and subsidiaries as of December 31, 2010 and 2009, 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, 2010. 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, 2010 and 2009, and the results of their operations and their cash flows for each of the years in the three-year period ended December 31, 2010, 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), Harvard Bioscience, Inc. and subsidiaries internal control over financial reporting as of December 31, 2010, based on criteria established in *Internal Control Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated March 16, 2011 expressed an unqualified opinion on the effectiveness of the Company s internal control over financial reporting.

/s/ KPMG LLP

Boston, Massachusetts

March 16, 2011

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HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

Consolidated Balance Sheets

(In thousands except share and per share data)

	December 31, 2010	December 31, 2009
Assets		
Current assets:		
Cash and cash equivalents	$ 19,704	$ 16,588
Accounts receivable, net of allowance for doubtful accounts of $273 and $403, respectively	15,440	14,383
Inventories	15,832	14,406
Deferred income tax assets current	5,441	573
Other receivables and other assets	2,149	2,249
Total current assets	58,566	48,199
Property, plant and equipment, net	3,146	3,545
Deferred income tax assets non-current	6,125	318
Amortizable intangible assets, net	21,908	21,104
Goodwill	33,416	32,108
Other indefinite lived intangible assets	1,276	1,301
Other assets	360	656
Total assets	$ 124,797	$ 107,231
Liabilities and Stockholders Equity		
Current liabilities:		
Notes payable	$ 4	$ 13
Accounts payable	4,921	4,856
Deferred revenue	451	434
Accrued income taxes payable	578	369
Accrued expenses	4,693	3,680
Other liabilities current	649	2,906
Total current liabilities	11,296	12,258
Long-term debt, less current installments	18,009	13,308
Deferred income tax liabilities non-current	954	2,037
Other liabilities non-current	4,290	4,371
Total liabilities	34,549	31,974
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; 36,057,974 and 35,948,108 shares issued and 28,312,467 and 29,584,436 shares outstanding, respectively	361	360
Additional paid-in-capital	187,893	184,856
Accumulated deficit	(83,442)	(102,457)
Accumulated other comprehensive loss	(3,896)	(1,834)
Treasury stock at cost, 7,745,507 and 6,363,672 common shares, respectively	(10,668)	(5,668)
Total stockholders equity	90,248	75,257

Total liabilities and stockholders equity	$ 124,797	$ 107,231

See accompanying notes to consolidated financial statements.

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HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

Consolidated Statements of Operations

(In thousands except per share data)

	Years Ended December 31,		
	2010	2009	2008
Revenues	$ 108,179	$ 85,772	$ 88,049
Cost of product revenues	56,402	44,089	45,893
Gross profit	51,777	41,683	42,156
Sales and marketing expenses	16,345	11,763	10,970
General and administrative expenses	17,643	15,109	15,134
Research and development expenses	4,709	4,396	4,048
Restructuring charges	498	516	1,559
Amortization of intangible assets	2,364	1,844	1,966
Total operating expenses	41,559	33,628	33,677
Operating income	10,218	8,055	8,479
Other income (expense):			
Gain from adjustment of acquisition contingencies	429	2,600	
Foreign exchange (expense) income	(89)	(302)	60
Interest expense	(677)	(277)	(389)
Interest income	65	29	372
Other expense, net	(383)	(293)	(872)
Other (expense) income, net	(655)	1,757	(829)
Income from continuing operations before income taxes	9,563	9,812	7,650
Income tax (benefit) expense	(9,452)	2,673	2,240
Income from continuing operations	19,015	7,139	5,410
Discontinued operations			
Income (loss) from discontinued operations, net of tax		94	(457)
Loss on disposition of discontinued operations, net of tax			(3,280)
Total income (loss) from discontinued operations, net of tax		94	(3,737)
Net income	$ 19,015	$ 7,233	$ 1,673
Income (loss) per share:			
Basic earnings per common share from continuing operations	$ 0.66	$ 0.24	$ 0.18
Discontinued operations		0.00	(0.12)
Basic income per common share	$ 0.66	$ 0.24	$ 0.05
Diluted earnings per common share from continuing operations	$ 0.65	$ 0.24	$ 0.17
Discontinued operations		0.00	(0.12)

Diluted income per common share	$ 0.65	$ 0.24	$ 0.05
Weighted average common shares:			
Basic	28,967	29,649	30,882
Diluted	29,405	29,946	31,354

See accompanying notes to consolidated financial statements.

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HARVARD BIOSCIENCE, INC. AND SUBSIDIARIES

Consolidated Statements of Stockholders Equity and

Comprehensive Income (Loss)

Years Ended December 31, 2010, 2009 and 2008

(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, 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, net of tax					(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, net of tax					(1,255)		(1,255)
Translation adjustments					2,180		2,180
Total comprehensive loss							8,158
Balance at December 31, 2009	35,948	$ 360	$ 184,856	$ (102,457)	$ (1,834)	$ (5,668)	$ 75,257
Stock option exercises	58	1	127				128
Stock purchase plan	52		154				