PRESSURE BIOSCIENCES INC
Form 10KSB
April 22, 2005

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UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-KSB

(Mark One)

ý **Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

For the fiscal year ended December 31, 2004, or

or

o **Transition Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934**

For the transition period from to
Commission file number 000-21615

PRESSURE BIOSCIENCES, INC.

(formerly BOSTON BIOMEDICA, INC.)

(Name of Small Business Issuer in its Charter)

Massachusetts (State or Other Jurisdiction of Incorporation or Organization)	**04-2652826** (I.R.S. Employer Identification No.)
321 Manley Street, **West Bridgewater, Massachusetts** (Address of Principal Executive Offices)	**02379-1040** (zip code)

(508) 580-1818
(Issuer's telephone number)

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

Securities registered pursuant to Section 12(g) of the Act:
Common Stock, par value $.01 per share
Preferred Share Purchase Rights

Check whether the issuer: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the past 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 ý No o

Check if disclosure of delinquent filers pursuant to Item 405 of Regulation S-B is not contained in this form, and no disclosure will 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-KSB or any amendment to this Form 10-KSB. ý

Pressure BioSciences Inc.'s revenues for the most recent fiscal year ended 2004 were $412,616.

The aggregate market value of the voting and non-voting common stock held by non-affiliates of the registrant at February 28, 2005 was $6,384,513, based on the closing price of the common stock as quoted on the Nasdaq National Market. As of February 28, 2005, there were 2,424,189 shares of the registrant's common stock outstanding.

Documents Incorporated by Reference

Part III of this Form 10-KSB incorporates information by reference from the issuer's definitive proxy statement which will be filed no later than 120 days after the end of the fiscal year covered by this report.

Transitional Small Business Disclosure Format (check one): Yes o No ý

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Introductory Comment

Throughout this Annual Report on Form 10-KSB, the terms "we," "us," "our," and "our company" refer to Pressure BioSciences, Inc., a Massachusetts corporation formerly known as Boston Biomedica, Inc., and, unless the context indicates otherwise, also includes our wholly-owned subsidiaries.

PART I

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-KSB contains 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. In some cases, forward-looking statements are identified by terms such as "may", "will", "should", "could", "would", "expects", "plans", "anticipates", "believes", "estimates", "projects", "predicts", "potential", and similar expressions intended to identify forward-looking statements. Such statements include, without limitation, statements regarding:

- our plans and expectations with respect to our pressure cycling technology operations;
- market acceptance and the potential for commercial success of our PCT products;
- our belief that we have sufficient liquidity to finance operations through March 2006;
- the expected recovery and value of the loan receivable plus accrued interest from our President and Chief Executive Officer;
- the amount of any claims for indemnification made or to be made by SeraCare Life Sciences ("SeraCare") under the Asset Purchase Agreement between us, BBI Biotech Research Laboratories and SeraCare;
- the amount of cash necessary to operate our business;
- our ability to raise additional capital when and if needed;
- general economic conditions; and
- the anticipated future financial performance and business operations of our company.

These forward-looking statements are only predictions and involve known and unknown risks, uncertainties, and other factors that may cause our actual results, levels of activity, performance, or achievements to be materially different from any future results, levels of activity, performance, or achievements expressed or implied by such forward-looking statements. Also, these forward-looking statements represent our estimates and assumptions only as of the date of this report. Except as otherwise required by law, we expressly disclaim any obligation or undertaking to release publicly any updates or revisions to any forward-looking statement contained in the report to reflect any change in our expectations or any change in events, conditions, or circumstances on which any of our forward-looking statements are based. Factors that could cause or contribute to differences in our future financial results include those discussed in the risk factors set forth in Item 6 of this report as well as those discussed elsewhere in this report. We qualify all of our forward-looking statements by these cautionary statements.

ITEM 1. DESCRIPTION OF BUSINESS.

General

Our current business operations consist of research, development and commercialization of products utilizing our patented pressure cycling technology ("PCT"), a novel platform technology for

the control of bio-molecular interactions. Our pressure cycling technology uses an instrument that is capable of cycling pressure between low and high levels at controlled temperatures to rapidly and repeatedly control the interactions of bio-molecules. PCT utilizes our Barocycler instrument and disposable PULSE Tubes to release nucleic acids and proteins from plant and animal cells and tissues, as well as other organisms that are not easily disrupted by standard chemical and physical methods.

Nucleic acid is a general term that includes DNA (deoxyribonucleic acid) and RNA (ribonucleic acid). Together, DNA and RNA constitute the genetic material of all living things including bacteria, viruses, plants, and animals. Genetic material or genes are the basic unit of heredity, and are thus responsible for the characteristics of an organism. In general, an organism uses DNA to make RNA and RNA to make protein. Proteins are the building blocks of life. To fully understand the characteristics of an organism, whether as simple as bacteria, or as complex as a human, scientists must examine its nucleic acids and proteins. To do this, scientists must first release the nucleic acids from the organism's cells so that the nucleic acids can be studied. In addition, scientists must also be able to obtain proteins from tissues to understand how the protein functions in the organism. The study of nucleic acids and proteins is called genomics and proteomics, respectively. It is important for scientists to have a method to release nucleic acids and proteins from cells and tissues in sufficient quantity and quality to study and test these molecules. Pressure cycling technology is one such method. Once nucleic acids and proteins are released by PCT, scientists can then use the released material in a broad range of applications, such as identifying disease-causing bacteria/viruses; understanding the genomic and/or proteomic indications of disease susceptibility, progression, and cure; and the response of an animal (including humans) to drug therapy.

We believe that our patented and proprietary pressure cycling technology employs a unique approach that has the potential for broad applications in a number of established and emerging fields, including genomics, proteomics, drug discovery and development, protein purification, pathogen inactivation, immunodiagnostics, food safety, and DNA sequencing. We also believe that this technology can be applied to a wide range of commercial applications.

To date, we have applied PCT to the area of sample preparation for genomics and proteomics. We have also developed scientific collaborations with leading laboratories and academic institutions in the United States, which we expect will remain ongoing into 2005 and beyond. We further expect that the data generated by our collaborators will be publicly released in scientific publications and presentations, and that these collaborators are primary candidates to purchase our PCT products. We have investigated the use of PCT for the inactivation of pathogens in human blood plasma, therapeutics, and diagnostic reagents and we have demonstrated the technical feasibility of applying PCT to immunodiagnostics, protein purification, pathogen inactivation, food safety, and DNA sequencing.

As of December 31, 2004, we have invested approximately $12.0 million in the development of our pressure cycling technology since 1997, with the funds coming from both internal and public sources. To date, we have received seven Small Business Innovative Research ("SBIR") grants from the National Institutes of Health ("NIH") totaling approximately $2,000,000 (including two SBIR Phase II grants each in excess of $750,000) to develop PCT in the areas of microbial inactivation, sample processing, and Mycobacterium tuberculosis sample preparation. Most recently, in May 2004 we were awarded a $150,000 SBIR Phase I grant to study the use of PCT in applications to combat bio-terrorism.

Pressure BioSciences was incorporated in the Commonwealth of Massachusetts in August 1978 and commenced significant operations in 1986. Our principal executive offices are located at 321 Manley Street, West Bridgewater, MA 02379 and our telephone number is (508) 580-1818. We also maintain a web site at www.pressurebiosciences.com. The information on our web site is not, and you must not consider such information to be, a part of this filing.

Business Developments

During the past three years our operations have changed dramatically. We were engaged primarily in the business of providing products and services to help ensure the accuracy of laboratory test results for infectious diseases such as AIDS and viral hepatitis. Our core operations consisted of our BBI Diagnostics and BBI Biotech business units. These two business units, which collectively represented approximately 97% of our revenues for fiscal 2003 and 2004, are collectively referred to herein as the "BBI Core Businesses". Our BBI Diagnostics business unit developed, manufactured, marketed and sold quality control products used to monitor and measure the performance of infectious disease test kits. Our BBI Biotech business unit, which was operated through BBI Biotech Research Laboratories, Inc. (now known as PBI Biotech Research Laboratories, Inc.), one of our wholly owned subsidiaries, performed research and development support for quality control products and specialty reagents, molecular and cellular biology services, blood and tissue processing, repository services, clinical trials for domestic and foreign test kits and device manufacturers, and contract research for the National Institutes of Health (NIH). Our other business units included our PCT business unit and our laboratory instrumentation business unit operated through our wholly owned subsidiary, PBI Source Scientific, Inc. (formerly known as BBI Source Scientific, Inc.), which designed, developed, manufactured and marketed laboratory instruments, primarily consisting of readers and washers and other small medical devices used in hospitals and clinics and in research, environmental and wine and food testing laboratories.

In 2002 and 2003, we continued to pursue a strategy of using our scientific capabilities in microbiology, immunology, virology, and molecular biology in an attempt to (1) expand the end-user market for our quality control products, especially the molecular testing market, (2) develop new products and services, (3) enhance our technical leadership, and (4) capitalize on complementary business operations. During these years, we also continued to expend significant resources on the research and development of our pressure cycling technology products. As a result of these efforts, in September 2002, we released for sale the Barocycler NEP2017 instrument and disposable PULSE Tubes, our first manufactured products which utilize our patented pressure cycling technology. These efforts, however, diverted a significant amount of our attention and resources away from our BBI Core Businesses. We recognized that to further develop and grow our BBI Core Businesses, while at the same time contributing sufficient resources to further develop and commercialize our pressure cycling technology products and services, we would need to raise additional capital or seek other strategic alternatives.

After extensive review and consideration of our strategic direction, our Board of Directors determined to focus solely on our pressure cycling technology operations. To that end, we pursued the sale of our BBI Core Businesses and our laboratory instrumentation business unit.

In June 2004, we transferred certain assets and liabilities of our PBI Source Scientific, Inc. subsidiary to a newly formed limited liability company known as Source Scientific, LLC. At the time of the transfer we owned 100% of the ownership interests of Source Scientific, LLC. We subsequently sold 70% of our ownership interests of Source Scientific, LLC to Mr. Richard Henson and Mr. Bruce A. Sargeant pursuant to a purchase agreement (the "Source Scientific Agreement"). As a result of the sale of 70% of our ownership interests, Mr. Henson and Mr. Sargeant each own 35% and we own the remaining 30% of Source Scientific, LLC. Under the Source Scientific Agreement, we received notes receivable in the aggregate amount of $900,000 (the "Notes") payable at the end of three years bearing 8% interest. The Source Scientific Agreement provides for discounts on the Notes in the event of an early payoff. As part of the Source Scientific Agreement, Source Scientific, LLC agreed to provide engineering, manufacturing, and other related services for PBI's PCT products until September 30, 2005. The Source Scientific Agreement also offers Mr. Henson and Mr. Sargeant the opportunity to purchase PBI's 30% ownership interest in Source Scientific, LLC until May 31, 2007 at an escalating

premium (10-50%) over PBI's initial ownership value, provided that they have first paid off the Notes in their entirety.

In September 2004, we completed the sale of substantially all of the assets and selected liabilities of our BBI Diagnostics and BBI Biotech divisions to SeraCare pursuant to an Asset Purchase Agreement dated April 16, 2004, as amended (the "Asset Purchase Agreement"), for a purchase price of $30 million in cash of which $27.5 million was paid at the closing and the remaining $2.5 million was deposited in escrow pursuant to an escrow agreement expiring in March 2006. The assets sold included all accounts and notes receivable, contract rights, owned and leased real property, fixtures and equipment, inventory, intellectual property and books and records that relate to the BBI Core Businesses. The assets sold also included the owned real property located at 375 West Street, West Bridgewater, MA. We retained all of our assets not relating to the BBI Core Businesses, including: all assets relating to our pressure cycling technology activities; intercompany receivables and payables; a $1.0 million loan receivable plus accrued interest from Richard T. Schumacher, our President and Chief Executive Officer and a director; our passive stock ownership interest in Panacos Pharmaceuticals, Inc. (now V.I. Technologies); our 30% ownership interest in Source Scientific, LLC, the newly formed limited liability company which purchased substantially all of the assets of BBI's Source Scientific business unit; promissory notes in the aggregate principal amount of $900,000 from the principals of Source Scientific, LLC; and all of our cash and cash equivalents. In connection with the sale to SeraCare in September 2004, we changed our legal name to Pressure BioSciences, Inc.

In November 2004, in accordance with the terms of the Asset Purchase Agreement, SeraCare delivered the closing balance sheet, which reflected a deficiency of approximately $3.1 million when compared to the target net asset value of $8.5 million. We objected to certain calculations in the closing balance sheet, including, without limitation, SeraCare's calculation of accounts receivable and inventory. In December 2004, we settled our dispute with SeraCare concerning the collectibility of accounts receivable sold to SeraCare in connection with the Asset Purchase Agreement. We agreed that, solely for purposes of settling our dispute with SeraCare, $412,192 of accounts receivable would be deemed past due, therefore resulting in an adjustment to the purchase price requiring us to pay SeraCare that amount. We also agreed that the $412,192 deficiency would be released from the $2.5 million held in escrow; thereby leaving approximately $2.1 million remaining in escrow. In February 2005, we further agreed with SeraCare to settle our remaining differences relating to the closing balance sheet, including the calculation of inventory, by releasing to SeraCare an additional $1,000,000 from the escrow account. Additionally, the parties released all claims they may have had against the other with respect to the closing balance sheet and certain other representations and warranties contained in the Asset Purchase Agreement relating to the closing balance sheet items. Following the release of the escrow funds, approximately $1.1 million remains in escrow until March 2006 to secure our continuing indemnification obligations for breaches of representations and warranties, covenants or other agreements that remain in accordance with the terms of the Asset Purchase Agreement. The combined effect of these two settlements relating to the closing balance sheet resulted in a $1,412,192 reduction in the purchase price and a corresponding reduction in the gain on sale.

Following the sale of our BBI Core Businesses and our laboratory instrumentation business, our operations consist primarily of our PCT operations.

Recent Business Developments

On February 11, 2005, we completed an issuer tender offer and purchased from stockholders 5,210,001 shares of our common stock for an aggregate purchase price of $16.3 million, which included 761,275 shares issued upon exercise of stock options. As a result of the completion of the tender offer, immediately following payment for the tendered shares, we had 2,424,189 shares of common stock outstanding. As a result of the number of shares that were tendered and accepted for purchase in the tender offer, we did not comply with the continued listing requirements of the Nasdaq National Market

because we did not meet the $10 million stockholders' equity requirement pursuant to Rule 4450(a)(3) of the Nasdaq Marketplace Rules. After reviewing the listing requirements of the Nasdaq SmallCap Market, we applied to voluntarily move from the Nasdaq National Market to the Nasdaq SmallCap Market. On March 24, 2005, the staff of the Nasdaq Listing Qualifications Department notified us that it approved our application to transfer the listing of our common stock from the Nasdaq National Market to the Nasdaq SmallCap Market. Our common stock commenced trading on the Nasdaq SmallCap Market under its current trading symbol "PBIO" on March 30, 2005.

Effective April 11, 2005, Steven E. Hebert was elected to serve as our Vice President Finance, Chief Financial Officer and Assistant Treasurer. Mr. Hebert served as a part-time financial consultant to us since October 2004. From 1998 to 2003, Mr. Hebert served as the Vice President and Corporate Controller for Brooks Automation, Inc., a NASDAQ listed company and provider of factory and tool automation software, hardware, and integration services to the semiconductor industry. His positions at Brooks Automation included serving as Corporate Controller from December 1998 to May 2002 and Vice President, Interim Chief Financial Officer and Corporate Controller from September 2002 to February 2003.

Company Products and Services

During the course of the development of our technology, we designed and developed three generations of proprietary instrumentation products that utilize our pressure cycling technology. The first generation instrument was used to establish and demonstrate the feasibility of our technology. The second generation instrument enabled rapid cycling between ambient and inhibitory pressures at selected temperature levels, and has been useful in genomic/proteomic sample preparation work as well as in pathogen inactivation studies. The third generation instrument permits the exchange of fluids while maintaining inhibitory conditions. This instrument has been useful in generating data in the area of protein purification. Our proprietary instrumentation has been designed to reliably establish the suitability and effectiveness of PCT for a number of applications in the life sciences.

In September 2002, we released for sale our first commercial PCT instrument, the Barocycler NEP 2017. This floor model instrument is designed as a front-end sample preparation tool for genomic and proteomic systems. The NEP 2017 can process as many as six samples in five minutes, is computer controlled, and the temperature/cycles/pressure parameters can be customized to enhance the extraction process, maximize yields, and maintain the integrity of bio-molecules released during processing. In 2002, we also released for sale PULSE Tubes, which are single-use, disposable processing and storage tubes that work in conjunction with the Barocycler NEP 2017. Sales of these products have been extremely limited. To date we have leased one and sold two pressure cycling technology systems ("PCT Sample Preparation System") and a limited number of PULSE Tubes, and have generated approximately $169,000 of product revenue. We believe the following factors have contributed to our slower than expected sales volume: (1) the initial selling price of the Barocycler , (2) the limited amount of research data available demonstrating its capabilities and potential, (3) the absence of a strong sales and marketing management team, (4) the absence of a strong promotional campaign after the commercial release of the Barocycler NEP 2017, (5) the inability to execute our sales plan as a result of financial constraints, (6) current US economic conditions and uncertainties which negatively affected capital spending on laboratory instruments, (7) the financial condition of our company during 2003 and 2004, and (8) the focus of our resources on other projects, including the sale of selected assets and liabilities of our laboratory instrumentation business unit and the BBI Core Businesses, processes that began in October 2002 and were completed in June and September 2004, respectively.

To address the limited sales volume associated with the Barocycler NEP 2017, we recently completed the development of a less expensive and smaller, bench top version of the Barocycler , the NEP 3229, which we believe may facilitate an easier and quicker purchase decision by potential customers. We have also generated additional research data to support our sales efforts. The bench top

version of the Barocycler NEP 3229 is compact enough to fit on a normal laboratory workbench, inside a six-foot laminar flow hood, or on the shelf of a standard laboratory cold room, is capable of processing up to three samples simultaneously, and uses the same PULSE Tubes as the NEP 2017. The NEP 3229 has an external chiller hook-up, automatic fill and dispense valves, and a microprocessor with an easy-to-use keypad. We believe that the new bench top Barocycler will fill an immediate and growing need in the genomics and proteomics sample preparation market for a smaller, more affordable, lower throughput instrument that can provide the quality, reproducibility, and safety of the NEP 2017 PCT Sample Preparation System. The NEP 3229 was released for commercial sale in March 2005.

Our services reflect NIH grants revenues associated with developing technology in the area or pressure cycling sample technology. To date, we have received seven SBIR grants from the NIH totaling approximately $2,000,000 (including two SBIR Phase II grants each in excess of $750,000) to develop PCT in the areas of microbial inactivation, sample processing, and Mycobacterium tuberculosis sample preparation. Most recently, in May 2004 we were awarded a $150,000 SBIR Phase I grant to study the use of PCT in applications to combat bio-terrorism. We have recently submitted proposals for three additional SBIR research grants and intend to continue to submit proposals to obtain grants in the future.

Research and Development

Our research and development activities are focused on maximizing the commercial opportunities of our pressure cycling technology in two distinct areas: (1) continued development of core competency in existing PCT applications, with significant focus in genomic and proteomic sample preparation, and (2) basic research to expand the applicability of PCT into new areas. We believe that continued investment in research and development is essential to our strategy of developing additional applications for PCT, and in developing additional protocols, uses, and instrumentation for existing applications. We also believe that additional investment in research and development is essential for filing additional patent claims, demonstrating commercial proof-of-concept, and in developing our proprietary technology and capabilities.

In view of the platform nature of PCT, we elected to initially focus our internal research and development capabilities in the important and rapidly growing market of genomic and proteomic sample preparation, including the design, development, and market release of instrumentation, protocols, reagents, and PULSE Tubes. We chose to focus on this application because we believe it is an area that: (1) has a large and immediate need for better technology and in which we believe we can achieve our best gross margins, (2) is comprised mostly of research laboratories and thus subject to minimal governmental regulation, (3) is the least technically challenging for the development of our products, thus allowing us to get products to the market faster, (4) is compatible with our technical core competency, and (5) currently has our strongest patent protection.

We plan to further develop and exploit our technology platform and apply it to a number of areas of the life sciences through internal efforts, scientific collaborations with leaders in the field, and through our strategic alliances and partnerships with third parties. More specifically, we plan to develop and commercialize our enabling, platform technology in protein purification, pathogen inactivation, immunodiagnostics, food safety, and DNA sequencing. As described above, we perform research and development services for the NIH to develop technology in the area or pressure cycling sample technology, including in the areas of microbial inactivation, sample processing and Mycobacterium tuberculosis sample preparation.

As of December 31, 2004, we have invested approximately $12.0 million in the development of our pressure cycling technology since 1997, with the funds coming from both internal and public sources.

Our research and development expenses for our pressure cycling technology operations were $419,936 and $621,825 for December 31, 2004 and 2003, respectively.

Sales and Marketing

We intend to promote our products through advertisements in both scientific journals and industry magazines. We also plan to attend several national and regional industry expositions each year at which we plan to present data, demonstrate our products, and unveil our new instrumentation releases. We believe that industry acceptance of PCT and its many applications will depend to some extent on scientific publications and presentations made by independent experts in the life sciences field. Consequently, we expect to support the development of data by independent leaders in the field with strategic collaborative studies and research agreements between Pressure BioSciences and such recognized leaders. To help ensure the success of this marketing program and to support the sales team, assuming we have available funds, we expect to hire experienced capital equipment product managers and sales representatives, as well as technical and customer services personnel. If we are unable to engage and retain qualified managers, sales or customer services personnel, we may be unable to successfully implement our business plan, maintain our current product and service initiatives and successfully deliver new products and services in the future.

To increase market awareness of our products, we plan to place units in selected strategic customer sites for a trial period, which will provide potential customers with the opportunity to develop and collect independent and objective data and statistical information. We believe that we will be able to generate sales of our products from these customers after the customer experiences the performance, reliability, and safety of the technology provided by the product. After the trial period, it is our expectation that a number of customers will either purchase or lease our PCT products.

Customers

We believe that our patented and proprietary pressure cycling technology employs a unique approach that has the potential for broad applications in a number of established and emerging fields, including genomics, proteomics, drug discovery and development, protein purification, pathogen inactivation, immunodiagnostics, food safety, and DNA sequencing. We also believe that this technology can be applied to a wide range of commercial applications. As described above, however, we have had limited sales of our PCT products and services due to a number of factors, including, among others, the initial selling price of the Barocycler , the limited amount of research data available demonstrating its capabilities and potential, the absence of a strong sales and marketing team, our inability to execute our sales plan as a result of financial constraints and other factors affecting capital spending on laboratory instruments. To date we have leased one and sold two pressure cycling technology systems and a limited number of PULSE Tubes. We do not have long-term contracts with our customers for PCT products, which are generally sold pursuant to purchase orders for specific purchases. We also offer our customers an option to lease our products.

Manufacturing and Operations

In June 2004, we transferred certain assets and liabilities of our PBI Source Scientific, Inc. subsidiary to a newly formed limited liability company known as Source Scientific, LLC. At the time of the transfer we owned 100% of the ownership interests of Source Scientific, LLC. We subsequently sold 70% of our ownership interests of Source Scientific, LLC to Mr. Richard Henson and Mr. Bruce A. Sargeant pursuant to a purchase agreement (the "Source Scientific Agreement"). As a result of the sale of 70% of our ownership interests, Mr. Henson and Mr. Sargent each own 35% and we own the remaining 30% of Source Scientific, LLC. In connection with the Source Scientific Agreement, Source Scientific, LLC has agreed to provide us with engineering, manufacturing, and other related services for our pressure cycling technology products. Under this agreement, we have agreed to pay Source Scientific, LLC not less than an average of $25,000 per month for design, development and manufacturing services for our pressure cycling technology products through September 30, 2005.

Competition

We believe we will be subject to two significant sources of competition.

First, companies that have existing technologies for the extraction of nucleic acids and proteins from "hard-to-lyse" cells and tissues, including methods such as mortar and pestle, sonication, rotor-stator homogenization, French press, bead beating, freezer milling, enzymatic digestion, and chemical dissolution. We believe that there are a number of significant issues related to the use of these methods, including: complexity, sample containment, cross-contamination, shearing of biomolecules of interest, limited applicability to different sample types, ease-of-use, non-reproducibility, and cost. We believe that the PCT Sample Preparation System offers a number of major advantages over these methods, including labor reduction, temperature control, precision, reproducibility, versatility, efficiency, simplicity, and safety. Many of our competitors have greater capital resources, research and development staff and facilities, and more experience in genomics and proteomics sample preparation, protein purification, pathogen inactivation, immunodiagnostics, and DNA sequencing. To compete, we must be able to demonstrate to potential customers that our products provide improved performance and capabilities.

Second, there currently exist a number of companies that offer competitive sample extraction combined with purification technologies to the life sciences industry. However, we believe that no other company has a system with the desirable features of the Barocycler instrument and the PULSE Tube and the capability of processing such a wide a variety of "hard-to-lyse " samples. Furthermore, to our knowledge, there is no system presently available other than the PCT Sample Preparation System that has shown the potential to release high molecular weight protein complexes for proteomic studies.

We believe that our PCT Sample Preparation System is a novel and enabling system for genomic and proteomic sample preparation. As such, many users of current manual techniques will need to accept a "paradigm shift" to change to our technology. We are also aware that the cost of the PCT Sample Preparation System is significantly greater than the cost of many of the manual techniques currently employed. Consequently, we plan to focus our sales efforts on those product attributes that we believe will be most important and appealing to potential customers namely versatility, reproducibility, and safety.

A number of organizations have greater financial and technical capabilities than we have for protein purification, pathogen inactivation, immunodiagnostics and DNA sequencing. To compensate, we plan to develop our products in these fields through collaboration and strategic partnership with organizations already in these fields, using their technical expertise and market experience to help us realize the commercial potential of PCT.

Intellectual Property

We believe that protection of our patents and intellectual property is essential to our business. Our practice is to file patent applications to protect technology, inventions, and improvements to inventions that are important to business development. We also rely on trade secrets, know-how, and technological innovations to develop and maintain our potential competitive position. To date, we have been granted thirteen United States patents, three European patents and one Australian patent. Our failure to obtain adequate patent protection may adversely affect our ability to enter into, or affect the terms of, any arrangement for the marketing or sale of any of our PCT products. It may also allow our competitors to duplicate our products without our permission and without compensation.

Employees

We currently have six employees, consisting of Mr. Richard T. Schumacher, our President and Chief Executive Officer, Steven E. Hebert, our Vice President of Finance and Chief Financial Officer, a marketing and sales executive, and three research and development employees. We believe we have assembled a strong scientific and technical team that has considerable skill and understanding relating to both the mechanisms underlying the biophysical effects of pressure on bio-molecules, as well as the

design and development of PCT instrumentation and consumables. We believe this team, in collaboration with colleagues at collaborator sites, customer sites, and other research laboratories, has advanced our understanding of the potential application of our PCT technology in several significant areas in the life sciences field. However, our ultimate success will be dependent on our ability to market and sell our PCT products. We believe that we need to hire additional sales personnel. Depending on the availability of funds, we expect to hire sales personnel in 2005. Because of our limited staff and the knowledge and background necessary to successfully develop, market, and sell our pressure cycling technology products and services, we believe that our future success is dependent upon the continued services of Mr. Schumacher and our ability to engage and retain qualified sales and financial personnel.

ITEM 2. DESCRIPTION OF PROPERTY.

Our corporate offices are currently located at 321 Manley Street, West Bridgewater, Massachusetts 02379. We are leasing this space on a month to month basis as a tenant-at-will.

We also currently occupy, through payment of monthly rent charges, office and laboratory facilities in Gaithersburg, Maryland in the former BBI Biotech facility pursuant to an agreement with SeraCare Life Sciences, Inc. Our agreement with SeraCare permits us to occupy approximately 1000 square feet of laboratory space and 500 square feet of office space until September 14, 2005, unless SeraCare gives notice to PBI on or before March 14, 2005 to vacate the premises prior to that date. On February 23, 2005, we received notification from SeraCare requesting that we vacate the premises in the Gaithersburg facility on or before May 14, 2005. We are currently assessing our available options for office and laboratory space in Maryland and believe we will be able to find suitable alternative space.

ITEM 3. LEGAL PROCEEDINGS.

We are not currently involved in any legal proceedings.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS.

We held a Special Meeting in Lieu of Annual Meeting of Stockholders on December 30, 2004 (the "Meeting"). A total of 4,997,000 shares, or 73%, of our common stock issued, outstanding and entitled to vote as of the record date, were represented in person or by proxy, at the Meeting. At the Meeting, one proposal was acted upon. The result of the proposal was as follows:

1. Messrs. J. Donald Payne and P. Thomas Vogel were elected as Class II Directors of Pressure BioSciences, to serve as such until the 2007 Annual Meeting of Stockholders and until their successors have been duly elected and qualified, with 4,935,726 shares voting in favor and 61,274 votes withheld for Mr. Payne, and 4,935,726 shares voting in favor and 61,274 votes withheld for Mr. Vogel.

The terms of office of Richard T. Schumacher, Kevin W. Quinlan, Dr. Calvin A. Saravis and R. Wayne Fritzche continued immediately after the Meeting.

PART II

ITEM 5. MARKET FOR COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND SMALL BUSINESS ISSUER PURCHASES OF EQUITY SECURITIES.

Our common stock, par value $0.01 per share, was traded on the Nasdaq National Market from October 1996 through March 29, 2005. On March 30, 2005, we transferred the listing of our common stock from the Nasdaq National Market to the Nasdaq SmallCap Market. Our common stock commenced trading on the Nasdaq SmallCap Market on March 30, 2005 under the current trading symbol "PBIO".

The following table sets forth, for the periods indicated, the high and low sales price per share of common stock, as reported by the Nasdaq National Market.

	Common Stock Price	
Fiscal Year Ended December 31, 2003	**High**	**Low**
First Quarter	$ 3.00	$ 1.69
Second Quarter	$ 3.80	$ 2.02
Third Quarter	$ 3.16	$ 2.51
Fourth Quarter	$ 3.04	$ 2.30
Fiscal Year Ended December 31, 2004	**High**	**Low**
First Quarter	$ 3.00	$ 2.25
Second Quarter	$ 3.76	$ 2.53
Third Quarter	$ 3.41	$ 2.90
Fourth Quarter	$ 3.42	$ 2.79

As of February 28, 2005, there were 20,000,000 shares of common stock authorized of which 2,424,189 shares were issued and outstanding, held of record by approximately 103 stockholders and beneficially held by 1,875 stockholders.

We have never declared or paid any cash dividends on our common stock and do not plan to pay any cash dividends in the foreseeable future. We intend to retain any earnings to finance future growth.

Recent Sales of Unregistered Securities

During the quarter and year ended December 31, 2004, we did not sell any securities that were not registered under the Securities Act of 1933, as amended.

Repurchases by Pressure BioSciences

During the quarter and year ended December 31, 2004, we did not repurchase any shares of our Common Stock on our own behalf or for any affiliated purchaser.

On December 27, 2004, we commenced an issuer tender offer to purchase up to 5,500,000 shares of our common stock. We offered to purchase these shares at a purchase price of $3.50 per share, net to the seller in cash, without interest. The tender offer was completed on February 11, 2005, and no further purchases will be made pursuant to the terms of the tender offer. The following table below sets forth the results of our issuer tender offer.

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs
	5,210,001(1)	$ 3.50	5,210,001	0

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs
December 27, 2004 through February 11, 2005				

(1) Includes 761,275 shares that were issued upon exercise of stock options.

ITEM 6. MANAGEMENT'S DISCUSSION AND ANALYSIS OR PLAN OF OPERATION.

Overview

Following the closing of the sale of the assets and selected liabilities of BBI Diagnostics and BBI Biotech to SeraCare Life Sciences on September 14, 2004, the transfer of certain assets and liabilities of PBI Source Scientific, Inc. to Source Scientific, LLC and subsequent sale of 70% of our ownership interests of Source Scientific, LLC in June 2004, our operations now consist primarily of our pressure cycling technology (PCT) business. The results of operations discussed herein focus on the PCT business activities and the corporate functions associated with being a public company. Operating results of PBI Source Scientific, Inc., excluding any PCT related activities, together with Source Scientific, LLC, are reported as "Other operating credits and charges" hereunder. The operating results of our BBI Diagnostics and BBI Biotech divisions prior to their sale on September 14, 2004, together with the results of the discontinued operations of our clinical laboratory testing services segment (sold in February, 2001), are reported as "Discontinued Operations" hereunder. Certain amounts included in the prior period's financial statements have been reclassified to conform to the current period's presentation.

Our pressure cycling technology uses an instrument that is capable of cycling pressure between low and high levels at controlled temperatures to rapidly and repeatedly control the interactions of biomolecules. PCT utilizes our Barocycler instrument and disposable PULSE Tubes to release nucleic acids and proteins from plant/animal cells and tissues, as well as other organisms that are not easily disrupted by standard chemical and physical methods. We believe that our patented and proprietary pressure cycling technology employs a unique approach that has the potential for broad applications in a number of established and emerging fields, including genomics, proteomics, drug discovery and development, protein purification, pathogen inactivation, immunodiagnostics, food safety, and DNA sequencing.

To date, we have primarily applied PCT to the area of sample preparation for genomics and proteomics. We have also developed scientific collaborations with several leading laboratories and academic institutions in the United States, which we expect will remain ongoing into 2005 and beyond. We further expect that the data generated by our collaborators will be publicly released in scientific publications and presentations, and that this could have an important impact on future sales of our PCT products. We have investigated the use of PCT for the inactivation of pathogens in human blood plasma, therapeutics, and diagnostic reagents and believe we have demonstrated the technical feasibility of applying PCT to immunodiagnostics, protein purification, pathogen inactivation, food safety, and DNA sequencing. We have obtained thirteen US and four foreign patents containing multiple claims covering the foregoing areas.

As of December 31, 2004, we have invested approximately $12.0 million in the development of our pressure cycling technology since 1997, with the funds coming from both internal and public sources. To date, we have received seven Small Business Innovative Research ("SBIR") grants from the National Institutes of Health ("NIH") aggregating approximately $2,000,000 (including two SBIR Phase II grants each in excess of $750,000) to develop PCT in the areas of microbial inactivation, sample processing, and Mycobacterium sample preparation. Most recently, in May 2004 we were awarded a $150,000 SBIR Phase I grant to study the use of PCT in applications to combat bio-terrorism. We have recently submitted proposals for three additional SBIR research grants and intend to continue to submit proposals to obtain grants in the future.

In September 2002, we released for sale our first commercial PCT instrument, the Barocycler NEP 2017. In 2002, we also released for sale PULSE Tubes, which are single-use, disposable processing and storage tubes that work in conjunction with the Barocycler NEP 2017. Sales of these products have been extremely limited. To date we have leased one and sold two pressure cycling technology systems ("PCT Sample Preparation System") and a limited number of PULSE Tubes. We

believe that sales of our pressure cycling technology products have been adversely affected primarily as a result of the following factors: (1) the initial design and selling price of the Barocycler , (2) the limited amount of research data available demonstrating its capabilities and potential, (3) the absence of a strong sales and marketing management team, (4) the absence of a strong promotional campaign after the commercial release of the Barocycler NEP 2017, (5) the inability to execute our sales plan as a result of financial constraints, (6) current US economic conditions and uncertainties which negatively affected capital spending on laboratory instruments, (7) the financial condition of our company during 2003 and 2004, and (8) the focus of our resources on other projects, including the sale of our BBI Diagnostics, BBI Biotech, and selected assets and liabilities of our laboratory instrumentation business units, a process that began in October 2002 and was completed in September 2004.

To address some of these factors associated with the disappointing sales of the Barocycler NEP 2017, we have developed a less expensive and smaller, bench top version of the Barocycler , the NEP 3229, which we expect will facilitate an easier and quicker purchase decision by potential customers. We have also generated additional research data to support our sales efforts. We believe that the new bench top Barocycler will fill an immediate and growing need in the genomics and proteomics sample preparation market for a smaller, more affordable instrument that still provides the quality, reproducibility, and safety of the NEP 2017 PCT Sample Preparation System. The NEP 3229 was released for commercial sale in early March 2005.

CRITICAL ACCOUNTING POLICIES

To prepare our consolidated financial statements in conformity with generally accepted accounting principles, management is required to make significant estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. In addition, significant estimates were made in determining the gain on the disposition of our discontinued operations including post-closing adjustments, in estimating future cash flows to quantify impairment of assets, in estimates regarding the collectability of accounts receivable, realizability of a loan receivable together with associated accrued interest from our President and Chief Executive Officer and a director including sufficiency of collateral, deferred tax assets, and the net realizable value of our inventory. On an on-going basis, we evaluate our estimates. We base our estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results could differ from the estimates and assumptions used by management.

Revenue Recognition

We recognize revenue in accordance with the Securities and Exchange Commission's Staff Accounting Bulletin No. 103, *Update of Codification of Staff Accounting Bulletins* ("SAB 103") and updated by Staff Accounting Bulletin No. 104, Revenue Recognition ("SAB 104"). Revenue is recognized when realized or earned when all the following criteria have been met: persuasive evidence of an arrangement exists; delivery has occurred and risk of loss has passed; the seller's price to the buyer is fixed or determinable and collectibility is reasonably assured.

Our revenues have been concentrated in the area of governmental grant activity. During the fiscal years 2004 and 2003, the combined revenues from all branches of the National Institutes of Health, a United States Government agency, accounted for 95% and 85% respectively, of total consolidated revenues from our continuing operations. Additional future revenues originating from various branches of the National Institutes of Health is subject to possible future changes in government funding levels.

Revenue from service contracts is earned as the related services are performed. Revenue arrangements where multiple products or services are sold together under one contract are evaluated to determine if each element represents a separate earnings process. In the event that an element of such multiple element arrangement does not represent a separate earnings process, revenue from this element is recognized over the term of the related contract. Services are recognized as revenue upon completion of tests for laboratory services. Revenue from service contracts and research and development contracts is recognized as the service and research and development activities are performed under the terms of the contracts.

Inventory

Inventory is valued at the lower of cost or market. Inventories consist of finished goods and raw materials, and work in process. Certain factors may impact the realizable value of our inventory including, but not limited to, technological changes, market demand, changes in product mix strategy, new product introductions and significant changes to our cost structure. In addition, estimates of reserves are made for obsolescence based on the current product mix on hand and its expected net realizability. If actual market conditions are less favorable or other factors arise that are significantly different than those anticipated by management, additional inventory write-downs or increases in obsolescence reserves may be required. We treat lower of cost or market adjustments and inventory reserves as adjustments to the cost basis of the underlying inventory. Accordingly, favorable changes in market conditions are not recorded to inventory in subsequent periods. In the year 2004, we increased our reserve on inventory related to our Barocycler NEP2017 floor unit due to the sales history of that product.

Intangible Assets

We have classified as intangible assets, costs associated with the fair value of certain assets of businesses acquired. Intangible assets relate to the remaining value of acquired patents associated with PCT. The cost of these acquired patents is amortized on a straight-line basis over sixteen years. We annually review our intangible assets for impairment. When impairment is indicated, any excess of carrying value over fair value is recorded as a loss. An impairment analysis of intangible assets as of December 31, 2004 concluded that such assets were not impaired.

Long-Lived Assets and Deferred Costs

In accordance with SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets", if indicators of impairment exist, we assess the recoverability of the affected long-lived assets by determining whether the carrying value of such assets can be recovered through the undiscounted future operating cash flows. If impairment is indicated, we measure the amount of such impairment by comparing the carrying value of the asset to the fair value of the asset and record the impairment as a reduction in the carrying value of the related asset and a charge to operating results. While our current and historical operating losses and cash flow are indicators of impairment, we completed an annual test for impairment at December 31, 2004 and determined that such long-lived assets were not impaired.

Deferred costs included on the balance sheet reflect external legal costs associated with our efforts in our repurchase of shares through our issuer tender offer. These costs will be included in the cost of purchasing the shares and charged to additional paid in capital in the first quarter of 2005.

Deferred Tax Valuation Allowance

A valuation allowance is established if it is more likely than not that all or a portion of the deferred tax asset will not be realized. Accordingly, a valuation allowance was established in 2003 and 2004 for the full amount of the deferred tax asset due to the uncertainty of realization. Although we realized taxable income generated from the sale of assets to SeraCare Life Sciences in September 2004,

management believes that based upon its projection of future taxable income for the foreseeable future, it is more likely than not that we will not be able to realize the benefit of the deferred tax asset at December 31, 2004. The valuation allowance as of January 1, 2004 was $4,475,725. The net change in the valuation allowance during the year ended December 31, 2004 was a decrease of $2,584,738.

Discontinued Operations

On September 14, 2004, we completed the sale of substantially all of the assets and selected liabilities of our BBI Diagnostics and BBI Biotech business units, previously classified as assets and liabilities held for sale as of June 30, 2004, to SeraCare pursuant to the Asset Purchase Agreement, for a purchase price of $30 million in cash of which $27.5 million was paid at the closing and the remaining $2.5 million was deposited in escrow pursuant to an escrow agreement expiring in March 2006. The results of operations relating to assets and selected liabilities sold to SeraCare are reported as discontinued operations in the accompanying financial statements. The purchase price was subject to increase or decrease on a dollar-for-dollar basis if the net asset value (as defined in the Asset Purchase Agreement) of the assets sold as of the closing date was greater or less than $8.5 million.

We recorded a gain on the sale of assets and selected liabilities to SeraCare of $14,567,697 net of taxes related to the sale. The gain on the sale is subject to post closing adjustments, including any adjustments resulting from an increase or decrease of the net asset value of the assets sold to SeraCare. We estimated to utilize approximately $4,680,000 of prior period net operating loss carryforwards, to partially offset the tax effect of this gain.

In November 2004, in accordance with the terms of the Asset Purchase Agreement, SeraCare delivered the closing balance sheet, which reflected a deficiency of approximately $3.1 million when compared to the target net asset value of $8.5 million. We objected to certain calculations in the closing balance sheet, including, without limitation, SeraCare's calculation of accounts receivable and inventory. In December 2004, we settled our dispute with SeraCare concerning the collectibility of accounts receivable sold to SeraCare in connection with the Asset Purchase Agreement. We agreed that, solely for purposes of settling our dispute with SeraCare, $412,192 of accounts receivable would be deemed past due, therefore resulting in an adjustment to the purchase price requiring us to pay SeraCare that amount. We also agreed that the $412,192 deficiency would be released from the $2.5 million held in escrow; thereby leaving approximately $2.1 million remaining in escrow. In February 2005, we further agreed with SeraCare to settle our remaining differences relating to the closing balance sheet, including the calculation of inventory, by releasing to SeraCare an additional $1,000,000 from the escrow account. Additionally, the parties released all claims they may have had against the other with respect to the closing balance sheet and certain other representations and warranties contained in the Asset Purchase Agreement relating to the closing balance sheet items. Following the release of the escrow funds, approximately $1.1 million remains in escrow until March 2006 to secure our continuing indemnification obligations for breaches of representations and warranties, covenants or other agreements that remain in accordance with the terms of the Asset Purchase Agreement. The combined effect of these two settlements relating to the closing balance sheet resulted in a $1,412,192 reduction in the purchase price and a corresponding reduction in the gain on sale. The effect of these settlement agreements with SeraCare has been recorded in the 2004 financial statements. See also Note 3 "Discontinued Operations" to the Consolidated Financial Statements hereunder.

Assets and Liabilities Transferred Under Contractual Arrangements

In June 2004, we transferred certain assets and liabilities of our PBI Source Scientific, Inc. subsidiary to a newly formed limited liability company known as Source Scientific, LLC. At the time of the transfer we owned 100% of the ownership interests of Source Scientific, LLC. We subsequently sold 70% of our ownership interests of Source Scientific, LLC to Mr. Richard Henson and Mr. Bruce A.

Sargeant pursuant to a purchase agreement (the "Source Scientific Agreement"). As a result of the sale of 70% of our ownership interests, Mr. Henson and Mr. Sargeant each own 35% and we own the remaining 30% of Source Scientific, LLC. Under the Source Scientific Agreement, we received notes receivable in the aggregate amount of $900,000 (the "Notes"), plus accrued interest, payable at the end of three years. The Source Scientific Agreement provides for discounts on the Notes in the event of an early payoff. As part of the Source Scientific Agreement, Source Scientific, LLC has agreed to provide engineering, manufacturing, and other related services for our pressure cycling technology products until September 30, 2005 at the rate of approximately $25,000 per month. Payment, however, is contingent upon actual services being rendered to us by Source Scientific LLC. The Source Scientific Agreement also offers Mr. Henson and Mr. Sargeant the opportunity to purchase our 30% ownership interest in Source Scientific, LLC until May 31, 2007 at an escalating premium (10-50%) over our initial ownership value, provided that they have first paid off the Notes in their entirety. Although we expect the promissory notes to be paid in full by Mr. Henson and Mr. Sargeant, the repayment of the promissory notes may be viewed as being dependent on the future successful operations of the business of Source Scientific, LLC. In addition, despite our intent to exit the laboratory instrumentation business, we may be viewed as having a continuing involvement in the business of Source Scientific, LLC due to the fact that we have the right to designate one or potentially three members of the Board of Managers and we guaranteed the facility lease payments until January 31, 2005. Because of these factors, even though the transaction is treated as a divestiture for legal purposes, we have not recognized the transaction as a divestiture for accounting purposes in accordance with SEC SAB Topic 5E, *Accounting for Divestiture of a Subsidiary or Other Business Operation*. In accordance with SAB Topic 5E, we have recorded the assets and liabilities associated with the Source Scientific, LLC operation on our audited consolidated balance sheet as of December 31, 2004 under the captions "Assets transferred under contractual arrangements" and "Liabilities transferred under contractual arrangements" and have recorded a charge to income under the caption "Other operating credits and charges, net "in our audited consolidated statement of operations for the year ended December 31, 2004 and 2003 equal to the amount of the loss attributable to the business of Source Scientific for the respective periods presented. In accordance with SAB Topic 5E, we will continue this accounting treatment until circumstances have changed or until the net assets of the Source Scientific, LLC business have been written down to zero (or a net liability is recognized in accordance with GAAP).

Loan Receivable from Director and Chief Executive Officer

As of December 31, 2004, we evaluated the recoverability of a $1.0 million loan receivable together with associated accrued interest ($134,262 as of December 31, 2004, which represents interest accrued from January 1, 2003 at an average interest rate of 6.5% per annum) from our President and Chief Executive Officer, which is reflected on our balance sheet in stockholders' equity as a loan receivable and accrued interest. The Company had previously established a reserve for the interest on the loan. Our review included an evaluation of the collateral associated with the loan. The evaluation also considered the fact that because Mr. Schumacher repaid all remaining amounts due to a financial institution in February 2005 using the proceeds he received from the sale of his stock in our issuer tender offer commenced in December 2004 and completed in February 2005 (see Note 14), we became the holder of a first priority security interest in the remaining collateral previously held by the financial institution, which consists of 499,000 shares of common stock of Pressure BioSciences. We performed a test for impairment of our loan receivable together with associated accrued interest by analyzing the value of the collateral. This test included, among other things, a review of the current trading price of our common stock after taking into account factors that may affect our ability to sell such stock in the event we were to foreclose on the collateral to repay the loan receivable and any accrued and unpaid interest. After performing our impairment test, we determined that the loan receivable together with associated accrued interest was not impaired. The ultimate value that we may recover is dependent on numerous factors including our stock price, market conditions relative to the value of and ability to sell the collateral, and the financial status of our President and Chief Executive Officer. Based on our assessment as of and through April 1, 2005, we estimate that value of the collateral approximates the amount of our recorded loan receivable and accrued interest. If actual market conditions are less favorable, our stock price declines or other factors arise that are significantly different than those anticipated by management, a write-down of this asset is likely to be required.

YEARS ENDED DECEMBER 31, 2004 AND 2003

Revenue

We had total revenue of $412,616 in the year ended December 31, 2004, as compared to $671,001 in the prior year, a decline of $258,385.

PCT products & services: Product revenue totaled $19,310 in the year ended December 31, 2004, compared to $102,396 for the corresponding period of 2003. Product revenue in 2004 included lease payments from one customer and sales of PULSE Tubes to three customers. There were no Barocycler sales in 2004, which accounts for the decrease in product revenue. We believe that sales of our pressure cycling technology products have been adversely affected due to a number of factors, including, among others, the initial selling price of the Barocycler , the limited amount of research data available demonstrating its capabilities and potential, the absence of a strong sales and marketing team, our inability to execute our sales plan as a result of financial constraints and other factors affecting capital spending on laboratory instruments. To address our limited sales volume, in March 2005, we released for commercial sale a less expensive and smaller bench top version of the PCT Barocycler , which we believe will meet a growing and unmet need for an automated sample preparation instrument in the genomics and proteomics fields at a more affordable cost. To increase market awareness of our products, we plan to place units in selected strategic customer sites for a trial period, which will provide potential customers with the opportunity to develop and collect independent and objective data and statistical information. Although we can provide no assurance of success, we believe that we will be able to generate sales of our products from these customers after the customer experiences the performance, reliability, and safety of the technology provided by the product.

Grant Revenues: Grant revenue consists predominately of the award of SBIR funding activity through the National Institute of Health. Grants and services revenue decreased to $393,306 in the year ended December 31, 2004 from $568,605 for the corresponding period in 2003. The decrease in PCT grants and services revenue was primarily related to the completion of work in early and mid-2004 on two Phase-II SBIR grants resulting in a lower level of research conducted under SBIR research grants for the balance of the year, as compared to 2003. We recently submitted three new SBIR research grant proposals to fund future research. We do not expect to be notified as to whether our proposals are accepted for approximately six months.

Cost of Products

The cost of PCT products and services was $183,579 in the year ended December 31, 2004 compared to $65,781 for the comparable period of 2003. The increase in 2004 was primarily the result of a write-down of inventory of approximately $117,000 charged in the fourth quarter of 2004 of which approximately $103,000 related to our Barocycler NEP2017 floor model based upon the sales history of that product.

Cost of Grant Services

The cost of services related to grant revenues $388,744 in the year ended December 31, 2004 compared to $528,597 for the comparable period of 2003. The decrease in 2004 was primarily the result completion of work in process in mid-2004 reflecting a reduced activity in the area of awards.

Research and Development

PCT related research and development expenditures decreased to $419,936 in the year ended December 31, 2004 from $621,825 for the comparable period of 2003. This decrease was primarily due to the lower level of research and development expenditures on SBIR grants as described above, and more efficient expenditures on the development of the new bench top Barocycler through our outsourcing partner, Source Scientific, LLC. As described elsewhere, in connection with the Source Scientific Agreement, Source Scientific, LLC has agreed to provide engineering, manufacturing, and other related services for our pressure cycling technology products until September 30, 2005, at the rate of approximately $25,000 per month. Payment, however, is contingent upon actual services being rendered to us by Source Scientific LLC.

Selling and Marketing

PCT related selling and marketing expenses decreased to $194,612 for the year ended December 31, 2004 from $411,504 in 2003. During 2004, we did not employ any sales personnel, attended fewer trade shows, and spent less on marketing materials as compared to 2003, as our focus was on development of the bench top Barocycler and the sale of our core businesses. We hired one sales executive in January 2005 and we expect to hire additional sales personnel during 2005 depending on the availability of funds.

General and Administrative

General and administrative costs totaled $1,617,976 in the year ended December 31, 2004, as compared to $1,484,208 in the comparable period of 2003, an increase of $133,768. The majority of this increase was related to the increased corporate transaction costs associated with the various divestiture initiatives occurring during the year which included the sale of our BBI Core Businesses to SeraCare, the transfer of certain assets and liabilities of PBI Source Scientific Inc. to Source Scientific, LLC and subsequent sale of 70% of our ownership interests in Source Scientific, LLC, and special shareholder meetings, and an increase in other corporate-related expenses related to patent costs incurred in the prosecution of our patents in Europe.

Operating Loss from Continuing Operations

The operating loss of the PCT business was $2,392,231 in the year ended December 31, 2004 as compared to an operating loss of $2,440,914 in 2003. The reduction in margin from lower revenues was partially offset by the lower research and development expenses along with lower sales and marketing costs.

Other Operating Credits and (Charges) net

The non-PCT related activities of PBI Source Scientific, Inc., together with Source Scientific, LLC, had an operating loss of $442,611 in the year ended December 31, 2004, as compared to an operating loss of $910,546 in the fiscal year of 2003. This decrease was the result of higher revenues, operational efficiencies resulting in improved operating margins, and lower operating costs for 2004 as compared to 2003. See also Note 4 to the Consolidated Financial Statements included in Part II of Item 7 contained hereunder.

Net Interest (Expense)/Income

Net interest income totaled $151,576 for the year ended December 31, 2004 as compared to net interest expense of $34,545 in 2003. Increase in net interest income was in part the result of interest earned on investments from proceeds associated with the sale of our BBI Core Businesses to SeraCare. In addition, we recognized the benefit of accrued interest related from the Director / CEO's loan receivable. On September 14, 2004, we used an aggregate of $2,005,148 of the proceeds from the sale to SeraCare to repay all outstanding indebtedness under the revolving line of credit, including an early termination fee of $106,000. Upon payment of the outstanding indebtedness together with the early termination fee, the revolving line of credit agreement was terminated. We do not have a line of credit from which we can borrow and cannot be certain that we will be able to obtain one in the future on acceptable terms.

Loan Receivable and Accrued Interest from Director and Chief Executive Officer

As of December 31, 2004, we evaluated the recoverability of a $1,000,000 loan receivable together with associated accrued interest of $134,262 (which represents interest accrued from January 1, 2003 at an average interest rate of 6.5% per annum) from Mr. Richard T. Schumacher, a Director and our

current President and Chief Executive Officer, which is reflected on our balance sheet in stockholders' equity as a loan receivable and accrued interest as of December 31, 2004 and December 31, 2003. Our review included an evaluation of the collateral associated with the loan, which consists of common stock of Pressure BioSciences. In February 2005, Mr. Schumacher repaid in full a loan outstanding between an entity controlled by him and a financial institution with proceeds from the sale of 130,000 shares of our common stock in connection with the our tender offer completed on February 11, 2005. As a result, we currently maintain a first priority security interest in this collateral previously held by the financial institution, which consists of 499,000 shares of common stock of Pressure BioSciences. We performed a test for impairment of our loan receivable together with associated accrued interest by analyzing the value of the collateral. This test included, among other things, a review of the current trading price of our common stock after taking into account factors that may affect our ability to sell such stock in the event we were to foreclose on the collateral to repay the loan receivable and any accrued and unpaid interest. After performing our impairment test, we determined that the loan receivable together with associated accrued interest was not impaired. The ultimate value that we may recover is dependent on numerous factors including our stock price, market conditions relative to the value of and ability to sell the collateral, and the financial status of our President and Chief Executive Officer. Based on our assessment as of and through April 1, 2005, we estimate that the value of the collateral approximates the amount of our recorded loan receivable and accrued interest. If actual market conditions are less favorable, our stock price declines or other factors arise that are significantly different than those anticipated by management, a write-down of this asset is likely to be required.

Income Taxes

In the year 2004 we recorded a benefit from continuing operations of $941,350. In the year 2004, we maintained a full valuation allowance for our deferred tax assets in accordance with Statement of Financial Accounting Standards No. 109 and in consideration of three consecutive years of losses from continuing operations. We have not included the potential of future loss carrybacks in the valuation of our deferred tax asset.

Discontinued Operations

Net loss from discontinued operations was $113,196 for the year ended December 31, 2004, as compared to income of $1,814,952 for the same period in 2003. During the third quarter of 2004, we wrote-off approximately $450,000 of leasehold improvements in the Frederick, Maryland repository building due to the early termination of the repository lease that coincided with the move of the repository operations to larger facility and increased inventory reserves associated with the Diagnostics unit. It should be noted that the 2004 period is reflective of only nine months of contribution from revenues for the 2004 period because of the sale of the BBI Core Businesses to SeraCare on September 14, 2004.

We have recorded a gain on the sale of assets to SeraCare of $14,567,697 net of taxes. The gain from the sale to SeraCare is subject to post closing adjustments, including an adjustment resulting from an increase or decrease of the net asset value of the assets sold to SeraCare. The post closing adjustments were settled and agreed upon in December 2004 and February 2005, which resulted in a release of $1,412,192 of escrow funds and a corresponding decrease in the gain on sale. The effect of these agreements has been recorded in the 2004 financial statements. As a result of the sale to SeraCare, we realized significantly less revenues and contribution related to the products sold by the discontinued operations in 2004 than the effect of a full year's revenue in 2003.

Following the completion of the sale of our BBI Core Businesses to SeraCare, our Board of Directors continued to consider alternative uses of the proceeds received in the transaction. One of these alternatives was to engage in an issuer tender offer. On September 14, 2004, our Board of Directors approved the extension of the termination date of all stock options granted to employees of

BBI Diagnostics and BBI Biotech to the later of 90 days after termination of employment or if a tender offer was commenced, the expiration of the tender offer being considered by the Board. The Board believed that this extension would give former employees who held stock options a longer opportunity to decide whether or not to exercise their stock options and participate in the contemplated tender offer if the board ultimately approved the commencement of the tender offer. In accordance with the provisions of FASB Interpretation No. 44, we recognized stock-based compensation of $281,737 in 2004. This charge is included in the results of discontinued operations for the year ended 2004.

Net Income (Loss)

Overall, for 2004, we had net income of $12,712,585 which included the gain of $14,567,697 on the asset sale to SeraCare completed in September 2004 and the loss of $113,196 from our discontinued operations. This compares to an overall net loss of $1,289,222 in 2003.

LIQUIDITY AND FINANCIAL CONDITION

Our working capital position, as of December 31, 2004 was $21,005,382. Our working capital position was driven by the sale of substantially all of the assets and selected liabilities of our BBI Diagnostics and BBI Biotech business units to SeraCare for an aggregate purchase price of $30 million in cash of which $27.5 million was paid at the closing and $2.5 million initially deposited in escrow pursuant to an escrow agreement expiring in March 2006. Since September 14, 2004, $1,412,192 has been released from escrow pursuant to our settlement of final closing balance sheet claims, and the proceeds and gain from the sale have been reduced accordingly. On February 11, 2005, we completed an issuer tender offer and purchased from stockholders 5,210,001 shares of common stock for an aggregate purchase price of $16.3 million, which included 761,275 shares issued upon exercise of stock options. As a result of the completion of the tender offer, immediately following payment for the tendered shares, we had 2,424,189 shares of common stock outstanding and our working capital was thereby reduced to $5.1 million. We believe this amount is adequate to meet our business plan for at least until March 2006.

Net cash used by continuing operations for the year ended December 31, 2004 was approximately $1,836,817 as compared to net cash provided by operations of $2,817,008 for the year ended December 31, 2003. The cash used in operations for 2004 was primarily a result of losses incurred.

Net cash used by financing activities for the year ended December 31, 2004 was $969,977 as compared to cash provided from financing activities of approximately $11,038 for fiscal 2003. On September 14, 2004, we used an aggregate of $2,005,148 of the proceeds from the sale of our BBI Core Businesses to SeraCare to repay all outstanding indebtedness under the revolving line of credit, together with an early termination fee of $106,000. Upon payment of the outstanding indebtedness together with the early termination fee, the revolving line of credit agreement was terminated. We do not have a line of credit from which we can borrow and we cannot be certain that we could obtain one on acceptable terms.

Investment in Panacos Pharmaceuticals

Related to our investment in Panacos Pharmaceuticals, on March 11, 2005, V.I. Technologies, Inc. ("Vitex") announced that it had closed its merger with Panacos Pharmaceuticals, Inc. ("Panacos"), pursuant to the Agreement and Plan of Merger dated as of June 2, 2004, as amended on November 5, 2004, November 28, 2004, December 8, 2004, and February 14, 2005 (the "Merger Agreement"). The merger was approved by the stockholders of both Vitex and Panacos at their respective meetings on March 10, 2005. Panacos stockholders received an aggregate of approximately 227,500,000 shares of Vitex common stock, or slightly over 80% of the outstanding shares of Vitex Common Stock, after

giving effect to the merger, and before giving effect to Vitex's 1:10 reverse stock split, which was announced on March 14, 2005. The shares of Vitex common stock issued to the Panacos stockholders were registered with the Securities and Exchange Commission on a Registration Statement on Form S-4. Panacos stockholders received 6.75275 shares of Vitex common stock for each share of Panacos common or preferred stock held by them at the effective time of the merger. As a result of the merger and the subsequent reverse stock split, we own approximately 1,000,000 shares of Vitex common stock in place of our Panacos capital stock. Fifteen percent of Vitex stock owned by former owners of Panacos stock, including fifteen percent of the Vitex common stock owned by us, will be held in escrow per the Merger Agreement. On March 31, 2005, the closing price of Vitex common stock was $3.02 per share as quoted on the Nasdaq National Market.

Contractual Obligations

The following is a summary of our future contractual obligations as of December 31, 2004:

	Payments Due by Period				
Contractual Obligations	**Total**	**Less than 1 year**	**1-3 years**	**4-5 years**	**More than 5 years**
Minimum future royalty payments(1)	$ 0	$ 0	$ 0	$ 0	$ 0
Obligations relating to Discontinued Operations(2)	90,000	56,000	34,000		
PCT related purchase commitments(3)(4)	257,234	257,234	0		
Total Contractual Obligations	**$ 347,234**	**$ 313,324**	**$ 34,000**	$ 0	$ 0

(1) In 1998, we acquired all the remaining outstanding common stock of BioSeq, Inc., a development stage company involved with PCT. In accordance with the provisions of a technology transfer agreement assumed in the transaction, we are obligated to pay a 5% royalty on net sales (until March 2016) of future sales by any entity of ours utilizing PCT. This obligation is determined and based upon sales of PCT products.

(2) In December 2000, we exited the clinical laboratory testing services segment and in February 2001, we sold the assets of our wholly owned subsidiary, BBI Clinical Laboratories, Inc. to Specialty Laboratories, Inc. of Santa Monica, CA. Our estimate of remaining short and long term accrued liabilities to exit the clinical laboratory testing business is $90,000 as of December 1, 2004. See also Note 3(b) of Notes to Consolidated Financial Statements hereunder, included in Part II, Item 7 of this Form 10-KSB; amounts due pursuant to a lease termination agreement entered into in March 2004 are reflected in the above table.

(3) In June 2004, we transferred certain assets and liabilities of our PBI Source Scientific, Inc. subsidiary to a newly formed limited liability company known as Source Scientific, LLC. At the time of the transfer we owned 100% of the ownership interests of Source Scientific, LLC. We subsequently sold 70% of our ownership interests of Source Scientific, LLC to Mr. Richard Henson and Mr. Bruce A. Sargeant pursuant to a purchase agreement (the "Source Scientific Agreement"). As a result of the sale of 70% of our ownership interests, Mr. Henson and Mr. Sargent each own 35% and we own the remaining 30% of Source Scientific, LLC. In connection with the Source Scientific Agreement, Source Scientific, LLC has agreed to provide engineering, manufacturing, and other related services for our pressure cycling technology products until September 30, 2005, at the rate of approximately $25,000 per month. Payment, however, is contingent upon actual services being rendered to us by Source Scientific LLC. The table above assumes a $25,000 per month payment.

(4) Includes the Company's obligation relating to the Garden Grove, CA facility formerly occupied by PBI Source Scientific, Inc. in the amount of $32,234. The lease's term expired in January 2005.