

Leading, Independent Researchers Report Significant Advantages of Pressure Cycling Technology (PCT) at Multiple Scientific Conferences

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South Easton, MA, October 11, 2011 – Pressure BioSciences, Inc. (NASDAQ: PBIO) (“PBI” and the “Company”) today announced that leading, independent researchers from academia, government, pharma, and the biotechnology industry have reported significant advantages when using the Company’s novel and enabling pressure cycling technology (“PCT”) platform in their critical sample preparation processes. The presentations were made at several major scientific conferences. The studies involved such important areas as biomarker discovery, therapeutics, and vaccine development.

Dr. Nathan Lawrence, Vice President of Marketing for PBI, said: “We believe that PCT is a powerful technology platform that can be of meaningful value to thousands of research laboratories worldwide. Specifically, we believe that the incorporation of PCT into the sample preparation workflow of many of these laboratories can result in faster sample processing, improved quality, and a reduction in cost.”

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[Dr. Bradford Powell \(Founder and CSO, Cernomics Solutions\) will present a podium talk at the Integrating Sample Preparation 2011 Meeting Integrating Sample Preparation of Chemical & Biological Agents, Threats & Pathogens into Detection, Identification & Analysis Technologies & Devices December 8-9, 2011 - Washington, DC](#)

Pressure Cycling Technology (PCT) for Improved Preparation and Analysis of Biothreat Agents and Infectious Microbial Samples

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Biological threat agents and other infectious microbial samples present multiple challenges to maintaining safety during handling, preparation and analysis. The use of conventional methods to homogenize and extract dangerous bacteria, virus, and invertebrate vectors can create deadly aerosols. Unfortunately, traditional pre-treatment methods for biological inactivation (e.g., autoclave, ionizing radiation, oxidizers) modify or destroy the biological molecules intended for analysis. Popular extraction procedures that isolate analytes by molecular class further diminish supply, which can be limited, and often confound strategies for multiplexing. Finally, the design of integrated test capabilities for use outside of the laboratory is complicated by the presence of bona fide specimen matrix issues (host tissues, soil substrate) and the lack of infrastructure (containment equipment, electricity, cold storage), which are heightened by the infectious nature of the samples. Aiming for safety, simplicity, quality, and robust field ability, we have developed and demonstrated a novel pressure cycling technology (PCT)-based platform for simultaneous inactivation and preparation of dangerous biological samples, including arthropod-borne bacteria and viruses, and bacterial spores. Discussion will include background descriptions of the technology gap and proposed solution, with preliminary results for safe and convenient inactivation, extraction, and assay of protein and nucleic acid markers.

PBI EVENTS

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Dr. Lawrence continued: "The number of presentations and publications from independent scientists citing the use and advantages of PCT is increasing, as are the number and frequency of unsolicited calls for information and price quotations. We believe this is not only a strong indication of increasing market awareness, but the beginning of market acceptance as well. We further believe that this early market acceptance will manifest itself in increased revenue over both the short and long term."

Mr. Richard T. Schumacher, President and CEO of PBI, said: "As per guidance previously given, we continue to believe that PCT Products revenue for Q3 2011 will exceed PCT Products revenue for any quarter over the past year, and that total revenue for the second half of 2011 will be significantly greater than total revenue for the first half of 2011. We are in active discussions with several companies about regional and worldwide distribution of our product line. We remain on track to release our PCT-based [FFPE service in late 2012. We also continue to make progress in the development of our XstreamPCT™ HPLC Digestion Module and our high throughput micro-well Barocycler System](#); we expect to release both new instrument systems by late 2013."

Mr. Schumacher concluded: "We believe that our PCT-based instruments and consumables fill a major market need for a better, faster, more accurate, and more versatile sample preparation system, particularly in the important area of protein research. We also believe that we need a more active and aggressive sales and marketing approach to successfully introduce the advantages of the PCT Platform to significantly more researchers than are aware of PCT today. To that end, we remain optimistic that we will raise the capital necessary to support our continued operations and future growth, including the development and support of a more aggressive, broad-based sales and marketing program."

Click on Bold Area to See a Video of PBI's Product Pipeline

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American Society for Mass Spectrometry (ASMS) Annual Meeting

- Presenting scientists were from [Pacific Northwest National Laboratory, DOE](#) (Richland, WA); [FDA-CFSAN](#) (College Park, MD); [Merck Research Laboratories](#) (West Point, PA); and [Centocor R&D, a division of J&J PRD](#) (Radnor, PA).
- Data were presented on the use of PCT to rapidly, effectively, and efficiently characterize certain proteins used in the development of bio-therapeutic drugs (we believe there are hundreds of such drugs in the pipeline); to be the driving force behind an automated, in-line, on-demand high throughput protein digestion module (we believe this instrument will save significant time and money, compared to current methods); to help in the identification of strain specific bacterial markers; to help identify new proteins of interest as potential vaccine targets; and to significantly reduce the time required for the characterization of monoclonal antibodies (bio-therapeutics), with a concomitant increase in quality.

2011 Meeting of the European High Pressure Research Group (EHPRG 2011)

- Presenting scientists were from [the Barnett Institute of Northeastern University](#) (Boston, MA); the [University of Debrecen](#) (Hungary); and the [University of Massachusetts](#) (Boston, MA).
- Data were presented on the significant advantages of PCT in the analysis of glycoprotein-based drugs and drug candidates; on the development of industrial processes that use high pressure to minimize the production of waste materials and to reduce/eliminate the need for hazardous chemicals ("green chemistry"); and on the development of an automated, high pressure generator capable of real-time, unattended pressure control up to approximately 58,000 psi.

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American Society for Microbiology (ASM) Annual Meeting

- The presenting scientist was Dr. Mark Lawrence of [Mississippi State University](#)
- Data were presented on the use of PCT to help determine the composition of microorganisms in the core of oil wells. Dr. Lawrence indicated that PCT was invaluable in allowing them to isolate bacterial DNA from the community of microorganisms associated with oil deposits. They also indicated that understanding the bacterial community in petroleum deposits was important for the development of improved methods of oil recovery from oil fields.

About Pressure BioSciences, Inc.

Pressure BioSciences, Inc. (PBI) is a NASDAQ Capital Market listed company focused on the development and sale of instrumentation and consumables based on a novel, enabling technology platform called Pressure Cycling Technology (PCT). PCT uses cycles of hydrostatic pressure between ambient and ultra-high levels (up to 35,000 psi and greater) to control bio-molecular interactions. PBI currently holds 24 issued patents covering multiple applications of PCT in the life sciences field, including genomic and proteomic sample preparation, pathogen inactivation, the control of chemical reactions, immunodiagnostics, and protein purification. PBI currently focuses its efforts on the development and sale of PCT-enhanced bio-molecule extraction and enzymatic digestion products designed specifically for the mass spectrometry marketplace, as well as sample preparation products for biomarker discovery, soil and plant biology, forensics, histology, and counter-bioterror applications.

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Forward Looking Statements

Statements contained in this press release regarding PBI's intentions, hopes, beliefs, expectations, or predictions of the future are "forward-looking" statements within the meaning of the Private Securities Litigation Reform Act of 1995. Such forward looking statements include statements regarding the significant advantages observed when PCT is incorporated into the sample preparation workflow, including faster processing, improved quality, and cost reduction; the large and growing market for PCT; the use of PCT to enhance biomarker discovery, diagnostics, therapeutics, and vaccine development; that PCT might help to improve methods for the recovery of oil in oil fields; that PCT can be of measurable value to thousands of research labs worldwide; that the presentations from leading independent scientists citing the use and advantages of PCT is growing rapidly, and is an indication of market awareness and the beginnings of market acceptance; that the nascent market acceptance now observed will manifest itself in short and long-term revenue growth; that the Company is making significant progress towards signing at least one regional or worldwide PCT Products distributor in 2011; that the Company remains on track to release its pressure-enhanced FFPE protein extraction service in late 2012, and expects to release its XstreamPCT™ HPLC module and its high throughput PCT-based microwell system by late 2013; that the Company expects to raise the capital necessary to support its growth for the foreseeable future; that a more active and aggressive sales and marketing approach will enable to Company to introduce the advantages of PCT to a greater share of the market; and that the Company believes the third quarter and second half of 2011 will be significantly better in PCT Products and total revenue, as compared to the prior four quarters and the first half of 2011, respectively. These statements are based upon the Company's current expectations, forecasts, and assumptions that are subject to risks, uncertainties, and other factors that could cause actual outcomes and results to differ materially from those indicated by these forward-looking statements. These risks, uncertainties, and other factors include, but are not limited to: possible difficulties or delays in the implementation of the Company's strategies that may adversely affect the Company's continued commercialization of its PCT-based product line; changes in customer's needs and technological innovations; the Company's sales force may not be successful in selling the Company's PCT product line because scientists may not perceive the advantages of PCT over other sample preparation methods; that other researchers may not achieve the same results as those achieved by the presenting scientists; that the Company may not be successful in raising the additional capital necessary to fund the Company's operations beyond late November; and if actual operating costs are higher than anticipated, or revenues from product sales are less than anticipated, the Company may need additional capital sooner than expected. Given the uncertainty in the capital markets and the current status of the Company's product development and commercialization activities, there can be no assurance that the Company will secure the additional capital necessary to fund its operations beyond late November on acceptable terms, if at all. Additional risks and uncertainties that could cause actual results to differ materially from those indicated by these forward-looking statements are discussed under the heading "Risk Factors" in the Company's Annual Report on Form 10-K for the year ended December 31, 2010, and other reports filed by the Company from time to time with the SEC. The Company undertakes no obligation to update any of the information included in this release, except as otherwise required by law.

For more information about PBI and this press release, please click on the following links:

<http://www.pressurebiosciences.com>

<http://bit.ly/p1zk9s>