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# **Pressure BioSciences Reports Significant Progress in the Development of a PCT-based Method to Improve Processing of Sexual Assault Samples**

## **New Method Could Result in Decreased Processing Time, Increased Throughput, Decreased Costs, and Improved Results in Rape Kit Testing**

SOUTH EASTON, Mass., Jan. 25, 2012 (GLOBE NEWSWIRE) -- Pressure BioSciences, Inc. (Nasdaq:PBIO) ("PBI" and the "Company") today announced measurable progress in the development of a new procedure for the selective extraction of male DNA from mixtures of male and female cells. The project's goal is to improve the processing of sexual assault evidence kits (also called "rape kits"); the new procedure is based on the Company's patented Pressure Cycling Technology ("PCT"). The data were reported at the recent 17<sup>th</sup> Latin-American Symposium on Biotechnology, Biomedical, Biopharmaceutical, and Industrial Applications of Capillary Electrophoresis and Microchip Technology ("LACE 2011"). This international conference was held from December 2-6, 2011 in Hollywood, Florida.

Dr. Bruce R. McCord, Associate Director of the International Forensic Research Institute (IFRI), Department of Chemistry and Biochemistry, Florida International University (FIU), and Ms. Deepthi Nori, MFS from the IFRI - FIU, presented the study, which was entitled *Application of Pressure Cycling Technology (PCT) in Differential Extraction*. Dr. McCord and Ms. Nori are working on the development of a unique, PCT-based method to differentially extract DNA from sperm and vaginal epithelial cells in the same mixture. Dr. McCord and Ms. Nori believe that this novel method has the potential to significantly decrease rape kit processing time, increase throughput, decrease costs, and improve results. They also believe that it may lead to better identification of criminals involved in sexual assaults, by helping to confirm suspect and victim contact.

Ms. Deepthi Nori, co-author of the study, said: "Current methods for processing rape kit samples require the selective extraction of male DNA from sperm cells in the presence of much larger quantities of female DNA. This is accomplished by first separating the sperm and non-sperm fractions. This processing step is essential, yet it remains difficult, complex, time-consuming, and not aligned with automation. It is truly a serious bottleneck in sexual assault casework."

Dr. Nathan Lawrence, VP of Marketing at PBI, commented: "With as many as 400,000 unprocessed rape kits nationwide, and an estimated 180,000 new sexual assault cases each year, it is essential that improved methods for processing rape kits be developed. We believe that the data reported by Dr. McCord and Ms. Nori indicate that PCT can potentially increase

the recovery of DNA from sperm cells, without the need for a long and laborious separation step. Based on their findings, we believe their unique PCT-based method could result in better quality of results and significantly increased throughput, which in turn could result in a reduction in the rape kit backlog and an increase in arrest rates for sex crimes. And for PBI shareholders, we believe this method could result in significant increases in Barocycler instrument placements and product revenue in 2012 and beyond."

Dr. Bruce McCord said: "Our goal is to develop a PCT-based method that can selectively disrupt sperm cells in mixtures containing female cells, without the need to first separate the cells. At the LACE 2011 Meeting, we reported on the successful completion of this important processing step in laboratory samples. We have now begun to test this unique approach in complex mixtures and real sexual assault evidence kit samples. We expect to report on these new studies at the annual American Academy of Forensics Sciences ("AAFS") Conference in February, and at other venues throughout the year."

### **About Pressure BioSciences**

Pressure BioSciences, Inc. ("PBI") (Nasdaq:PBIO) is focused on the development, marketing, and sale of proprietary laboratory instrumentation and associated consumables based on Pressure Cycling Technology ("PCT"). PCT is a patented, enabling technology platform with multiple applications in the estimated \$6 billion life sciences sample preparation market. PCT uses cycles of hydrostatic pressure between ambient and ultra-high levels to control bio-molecular interactions. PBI currently focuses its efforts on the development and sale of PCT-enhanced sample preparation systems (instruments and consumables) for mass spectrometry, biomarker discovery, bio-therapeutics characterization, vaccine development, soil and plant biology, forensics, histology, and counter-bioterror applications.

### **Forward-Looking Statements**

Statements contained in this press release regarding the Company'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 expected advantages of PBI's PCT product line in processing rape kit samples; the potential for PCT as a tool for the differential extraction of DNA from sperm cells and epithelial cells, without the need for prior separation; that the PCT method has the potential to significantly decrease rape kit processing time, increase throughput, decrease costs, improve results, lead to better identification of criminals involved in sexual assaults, confirm suspect and victim contact, and help prove innocence; that the PCT method could result in an increase in product sales in 2012 and beyond; and the number of unprocessed rape kits and the number of new sexual assault cases each year. These statements are based upon PBI'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: unforeseen technological difficulties or business issues in the implementation of the PCT method in the processing of rape kits that may impede or prevent the achievement of the expected advantages of the PCT method for such processing; due to unforeseen technical difficulties, or marketing, sales, and distribution difficulties, the PCT method may not be adopted by the forensics community as an accepted workflow for rape kit sample

preparation or the forensics community may not perceive the benefits of PCT for sample preparation; if actual operating costs are higher than anticipated, or revenues from product sales are less than anticipated, the Company may need additional capital prior to March 2012; and if the Company fails to achieve its plan to regain compliance with the NASDAQ Listing Rules for minimum stockholders' equity and the minimum bid price of \$1.00 per share, the Company's common stock will be delisted from The NASDAQ Capital Market. 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, as amended, 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.

PBI filed a registration statement (including a prospectus) with the SEC for the offering to which this communication may relate. Before you invest, you should read the prospectus in that registration statement for the offering and other documents PBI has filed with the SEC for more complete information about PBI and the offering. You may get these documents for free by visiting EDGAR on the SEC Web site at [www.sec.gov](http://www.sec.gov). Alternatively, PBI can arrange to send you the prospectus, when available, upon request.

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

<http://www.pressurebiosciences.com>

<http://bit.ly/yB7wAi>

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