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New Data Indicate Pressure BioSciences' Novel Technology Platform Offers Great Promise to the Areas of Biomarker Discovery and Drug Development

Advantages of the Company's Pressure Cycling Technology ("PCT") Presented at the Biophysical Society and US HUPO Annual Meetings

SOUTH EASTON, Mass., March 7, 2012 (GLOBE NEWSWIRE) -- Pressure BioSciences, Inc. (Nasdaq:PBIO) ("PBI" and the "Company") today announced that data supporting important advantages of PBI's powerful and enabling Pressure Cycling Technology ("PCT") Platform were presented last week at the 56th Annual Meeting of the Biophysical Society in San Diego, CA and this week at the 8th Annual US Human Proteomic Organization ("HUPO") Conference in San Francisco, CA.

The development of highly sophisticated analytical tools for the research laboratory has enabled a greater understanding of complex biological molecules, including proteins. One such method, Electron Paramagnetic Resonance ("EPR") spectroscopy, has been shown to provide key information on the structure, flexibility, and function of proteins. This information is crucial to the development of new therapeutics, vaccines, and diagnostics.

At the Biophysical Society Annual Meeting, a presentation entitled "Measuring Protein Conformational Exchange Rates with Pressure-Jump Site Directed Spin Labeling EPR Spectroscopy" was given by Michael T. Lerch, Zhongyu Yang, and Wayne L. Hubbell, each of the Jules Stein Eye Institute and Department of Chemistry and Biochemistry at UCLA, together with collaborators Jason Sidabras, James Anderson, and James S. Hyde, each of the National Biomedical EPR Center. The researchers reported the development of a specially-designed, pressure-based EPR system that uses rapid changes in pressure to monitor the rate of protein conformational changes likely related to a protein's function. This strategy allows the investigation of dynamic events that would be difficult or impossible to study by conventional EPR technology.

Dr. Wayne L. Hubbell, Distinguished Professor of Chemistry and Biochemistry and Jules Stein Professor of Ophthalmology at UCLA, commented: "Protein flexibility is a new frontier in understanding protein function and regulation. The study of proteins under pressure by EPR, NMR and other spectroscopic techniques has great potential to reveal salient features of protein flexibility, and hence to provide new insights into protein function and rational drug design. In my opinion, high pressure will play an important role in the discovery process that lies ahead in the exciting field of protein science."

At the US HUPO Conference, a poster entitled "Mechanistic Studies of the Pressure-

enhanced Tryptic Digestion" was presented by Dr. Alexander Lazarev, Vice President of Research and Development for Pressure BioSciences, Inc. Dr. Lazarev reported on the benefits of the application of high pressure in sample preparation for proteomic research directed towards the discovery of protein biomarkers for human disease. Data from the study indicated that pressure-enhanced sample preparation can help to discover proteins that have been traditionally difficult to detect.

Richard T. Schumacher, President and CEO of PBI, said: "We believe these studies, in combination with existing data reported by other researchers using the PCT Platform, strongly indicate that PCT can enhance the recovery, detection, and measurement of proteins from a wide variety of samples, and thus should be considered as part of the standard proteomic sample preparation workflow. As part of our 2012 commercialization plan, we will be focusing a large amount of our marketing effort on drug development and biomarker discovery laboratories, where we believe these exciting and convincing proteomic data will allow us to be highly successful in increasing the sales of our PCT Systems."

About the Biophysical Society

The Biophysical Society was founded to encourage development and dissemination of knowledge in biophysics. It does so through its many programs, including its meetings, publications, and committee outreach programs. The Society's members, now over 9,000, work in academia, industry, and in government agencies throughout the world.

About US HUPO

US HUPO, or the US Human Proteomic Organization, engages in scientific and educational activities to encourage the use of proteomics (study of proteins) technologies and to disseminate knowledge pertaining to the human proteome and that of model organisms. The annual conference is one of the more important meetings held each year focusing on proteins; hundreds of scientists from throughout the world usually attend. The 2012 conference was held in San Francisco, CA from March 4-7, 2012.

About Pressure BioSciences, Inc.

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 forensics, biomarker discovery, bio-therapeutics characterization, vaccine development, soil and plant biology, 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 statements include, without limitation, statements regarding the presentations at the 56th Annual Meeting of the

Biophysical Society and the 8th Annual US HUPO Conference; the reported benefits of spectroscopic techniques, including EPR and NMR, and tryptic digestion; and the role that pressure will play, and the advantages of pressure and the use of PCT in the protein science discovery process, and the estimated size of the life sciences sample preparation market. 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; other scientists may not achieve the same results reported at the Biophysical Society Annual Meeting and the US HUPO conference; 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; the Company may not be successful in raising additional capital necessary on acceptable terms, if at all, to fund the Company's operations beyond April 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, which could impact the Company's ability to raise capital. 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, 2011, 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 an 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. 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:

www.pressurebiosciences.com

http://bit.ly/xgwl7z

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