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Pressure BioSciences, Inc. Releases Novel, PCT-dependent Sample Preparation Kit for Systems Biology Studies

SOUTH EASTON, Mass., Aug. 20 /PRNewswire-FirstCall/ -- Pressure BioSciences, Inc. (Nasdaq: PBIO) ("PBI" or the "Company") today announced the release for sale of ProteoSolve-SB, a novel, pressure cycling technology ("PCT")-dependent kit for the simultaneous extraction, isolation, and fractionation of nucleic acids (DNA and RNA), proteins, and lipids from animal and plant samples routinely used in laboratory research. This patent-pending kit was released earlier this week at the International HUPO (Human Proteomic Organization) Meeting, being held in Amsterdam, The Netherlands. It contains proprietary reagents, consumable processing containers (PULSE Tubes), and instructions for use, and is intended to be used with the Company's patented PCT Sample Preparation System. The kit is based on the unique approach to a "systems biology" sample preparation method that was first unveiled earlier this year by the PBI scientific team in collaboration with Dr. Alexander Ivanov of the Harvard School of Public Health at the annual meetings of US HUPO and the Association of Biomolecular Research Facilities (ABRF).

Systems biology (SB) is the study of the complex interactions of biological systems within an organism. This allows the researcher to consider the integrated effects and emergent properties of many complex biological systems, which in turn should result in the more rapid development of diagnostics and therapeutics. Integral to the SB approach is the study of nucleic acids, proteins, and lipids from the same biological sample. Very few techniques currently available allow for the efficient concomitant extraction, isolation, and fractionation of these important bio-molecules; therefore, scientists must rely on mutually incompatible sample preparation methods that result in costly, time-consuming, and problematic processing issues.

Dr. Vera Gross, Senior Scientist in R&D for PBI, and one of the inventors of the kit, said: "There are several methods available today that offer scientists the important ability to get proteins, DNA, and RNA from the same sample. However, unlike nearly all of these kits, ProteoSolve-SB does not use inefficient columns or harsh detergents that can cause serious problems with protein recovery. Instead, ProteoSolve-SB uses organic solvents that can be easily and quickly removed, and that have been shown to offer enhanced protein recovery over current methods. Furthermore, unlike ProteoSolve-SB, none of the methods available today extract lipids in addition to proteins and nucleic acids from the same biological sample -- lipid extraction is very important, and integral to a systems biology approach."

Mr. Richard T. Schumacher, Founder, President, and CEO of PBI commented: "Our number one priority is to drive the installed base of PCT Sample Preparation Systems throughout the life sciences area. We believe the best way to achieve this goal is to develop PCT-dependent products that can improve scientific research and enhance the opportunity for discovery. ProteoSolve-SB, and the recently released FT500-ND PULSE Tube and the

Proteolysis (Trypsin)-PrEP application, were all designed with these important objectives in mind. To this end, we believe that our PCT-dependent products have already begun to fill unmet needs in critical, growing areas of scientific research. This in part accounts for the record number of installations already achieved in the current quarter, and the expectation that we will install 40 or more PCT Systems in 2008 as compared to 20 in 2007, as announced on August 14th."

About Pressure BioSciences, Inc.

Pressure BioSciences, Inc. (PBI) is a publicly traded company focused on the development of a novel, enabling technology 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 13 US and 6 foreign patents covering multiple applications of PCT in the life sciences field, including such areas as genomic and proteomic sample preparation, pathogen inactivation, the control of chemical reactions, immunodiagnostics, and protein purification.

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 use of the Company's Pressure Cycling Technology Sample Preparation System (PCT SPS) for the simultaneous extraction, isolation, and fractionation of nucleic acids, proteins, and lipids from a wide variety of cells and tissues; that the use of the Company's PCT SPS with certain proprietary reagents has advantages over other currently available methods in the extraction of proteins, lipids, and nucleic acids; that nucleic acids, proteins, and lipids can be partitioned separately in a single step and that this "systems biology" approach may lead to the development of important diagnostics and therapeutics; that bio-molecule extraction by the PCT method is done in a more cost effective, less time-consuming, and less problematic way; that proteins may be extracted by the PCT method that may not be extracted by other current techniques; the expectation that the Company will install a record number of PCT Systems in the 2008 third quarter and 40 or more during 2008 as compared to 20 in 2007; and the potential markets for the Company's PCT-based products. 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: unforeseen technological difficulties that the Company may encounter in the development of the PCT technology; due to such unforeseen technical difficulties, or marketing, sales, and distribution difficulties, the PCT-dependent systems biology method of bio-molecule extraction may not offer significant advantages over current methods of bio-molecule extraction; that the PCT-dependent, systems biology method of bio-molecule extraction may not be adopted by the scientific community as an accepted method of bio-molecule extraction, or may not help advance scientific research, diagnostic development, or drug discovery; that the PCT-dependent, systems biology method of bio-molecule extraction may not enable the extraction of any proteins not previously extracted by current methods; that other scientists who use the PCT-dependent method of bio-molecule extraction may not achieve the results reported by Dr. Ivanov and others; and the other risks

and uncertainties discussed under the heading "Risk Factors" in the Company's Annual Report on Form 10-K for the year ended December 31, 2007 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.

Visit us at our website http://www.pressurebiosciences.com

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