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Transformative Impact and Adoption of Pressure BioSciences' PCT Platform Prominently Highlighted Throughout Week at Major Scientific Conference

PCT-based Sample Preparation Methods and Enabling Impact Featured in Eight Presentations Over Four Days in Cancer, Tissue Biopsy, Archival Samples, and Food-borne Pathogen Studies

SOUTH EASTON, Mass., June 19, 2014 /PRNewswire/ -- Pressure BioSciences, Inc. (OTCQB: PPIO) ("PBI" or the "Company") today announced that scientists from six separate research groups presented data at the 62nd Annual Conference of the American Society for Mass Spectrometry ("ASMS") being held from June 15-19, 2014 in Baltimore, MD. Study results indicated that utilizing the Company's patented pressure cycling technology ("PCT") platform in the preparation of samples for analysis resulted in critically enabling quality and/or improved time or cost efficiency of test results. These studies were conducted by scientists from ETH Zurich and the University of Zurich ("ETH Zurich"); Laboratory Corporation of America ("Lab Corp"); the Food and Drug Administration ("FDA"); the University of Minnesota ("UMN"), Mayo Clinic, and the Karolinska Institutet; Northeastern University ("NEU"); and the Baltimore VA Medical Center ("BVAMC"), SAIC-Frederick, National Cancer Institute, and the Veteran's Health Administration.

ETH Zurich. Mass spectrometry is an important method for the characterization of proteins (and other biomolecules). Dr. Tiannan Guo (laboratory of Dr. Ruedi Aebersold, internationally acclaimed protein chemist and Professor of Molecular Systems Biology at ETH Zurich and the University of Zurich), presented on both Sunday June 15th and Wednesday June 18th on PCT SWATH, a method they developed that combines the many advantages of PCT with SWATH, a revolutionary mass spectrometry method from AB SCIEX. Dr. Guo's and Professor Aebersold's results indicate that PCT SWATH could significantly reduce overall processing times for protein analysis and biomarker discovery by mass spectrometry while concomitantly decreasing test cost and increasing test quality. AB SCIEX is a global leader in life science and analytical technologies, including mass spectrometry.

Lab Corp. Thyroid cancer accounts for approximately 4% of all new cancers each year in the United States. Deaths are uncommon if detected early as it can usually be treated and cured once diagnosed. Dr. Christopher Shuford and colleagues presented data on the development of a mass spectrometry-based thyroid cancer test. A major step in the potential test workflow is the rapid digestion of the thyroglobulin protein and its subsequent identification by mass spectrometry. PCT was shown to digest thyroglobulin significantly faster than all three comparative methods, including two microwave systems (current

competitive alternatives to PCT for protein digestion) and the Lab Corp standard heat-based method.

FDA. There are more than 250 different food-borne diseases. They are caused by bacteria, other pathogens, and toxins. Symptoms range from mild disease to life-threatening conditions. Dr. Melinda McFarland and colleagues presented data on the development of a mass spectrometry-based method to improve the identification of bacteria involved in food-borne outbreaks by testing contaminated food samples. Thirty-six Salmonella isolates originating from food-borne outbreaks were studied. PCT was the method of choice for extracting the pathogen from the samples. Current methods to determine the causative agent of food-borne outbreaks primarily use DNA detection. The authors showed that bacterial protein expression profiles could potentially enhance pathogen identification in food-borne outbreaks.

UMN and Others. COPD is a leading cause of death in the United States. It is a serious lung condition and a key risk factor for lung cancer. There is no cure and no way to reverse the damage done by the condition. The goal of the study was to find novel biomarkers in COPD-associated lung cancer tissue samples and to eventually apply the detection of these biomarkers to non-invasively collected bronchoalveolar lavage. In their presentation, Dr. Brian Sandi and colleagues reported on the discovery of target pathways and promising biomarkers of COPD-associated lung cancer. PCT was the sample preparation method of choice, as the authors had previously shown that PCT could extract substantially more proteins from lung tissue than other extraction methods.

NEU and Others. *Peganum harmala* (*P. harmala*) is a perennial plant, also known as Syrian Rue. The seed has been used for medicinal purposes and as a condiment. The seed contains the hallucinogenic and narcotic compounds harmine and harmaline. The purpose of the study was to evaluate DMS mass spectrometry as a potentially better analysis method for the characterization of suspected *P. harmala* seeds, as compared to GC mass spectrometry. PCT was the method of choice for sample preparation, for as Dr. Adam Hall and colleagues stated: "to illustrate a faster and more efficient extraction method, harmine and harmaline were extracted from seeds using an adapted method based on PCT." The authors reported that PCT followed by the rapid separation and analysis by DMS mass spectrometry enhanced the detection of harmine and harmaline, as compared to standard GC mass spectrometry.

BVAMC and Others. Formalin fixation followed by paraffin embedding ("FFPE") is the most commonly used method worldwide for the preservation of tissues for pathology evaluation. Archival repositories that contain millions upon millions of FFPE tissue samples represent an invaluable resource for retrospective studies of disease progression and response to therapy. Unfortunately, the analysis of FFPE samples is highly problematic because molecules (including proteins) of interest are chemically trapped in the tissue samples by formalin fixation. Nonetheless, in two different presentations, Dr. Carol Fowler, Dr. Jeffrey Mason, and colleagues reported substantial improvements in protein recovery from FFPE tissue samples of four-fold (4x) when extraction was performed by PCT.

Dr. Nate Lawrence, Vice President of Marketing and Sales, said: "We are having a very successful ASMS Meeting. The launch of our new high throughput Barozyme HT48 has gone better than expected, with strong interest reflected in our booth traffic and meetings. The PCT platform has also received a lot of publicity with eight presentations by six separate

research groups on the uses and advantages of PCT."

Dr. Lawrence continued: "We are pleased and very encouraged with the presentations on PCT by many prominent scientific clients over the past four days. We believe the data they reported support the use of PCT in a number of new, exciting, and potentially financially rewarding areas, and that their data will encourage and accelerate new researchers to try PCT. In that regard, we are particularly pleased with the results reported by Dr. Guo and Dr. Aebersold on the advantages of PCT SWATH, as their workflow utilized our new patent-pending PCT micro-Pestle. We believe that the advantages of this new device for the extraction of protein from very small biopsy samples go well beyond current competitive products, and that the PCT micro-Pestle will begin to positively affect revenue as early as Q3 2014."

About Pressure BioSciences, Inc.

Pressure BioSciences, Inc. ("PBI") (OTCQB: PBIO) develops, markets, and sells proprietary laboratory instrumentation and associated consumables to the estimated \$6 billion life sciences sample preparation market. Our products are based on the unique properties of both constant (i.e., static) and alternating (i.e., pressure cycling technology, or PCT) hydrostatic pressure. PCT is a patented enabling technology platform that uses alternating cycles of hydrostatic pressure between ambient and ultra-high levels to safely and reproducibly control bio-molecular interactions. To date, we have installed over 250 PCT systems in approximately 160 sites worldwide. There are over 100 publications citing the advantages of the PCT platform over competitive methods, many from key opinion leaders. Our primary application development and sales efforts are in the biomarker discovery and forensics areas. Customers also use our products in other areas, such as drug discovery & design, bio-therapeutics characterization, soil & plant biology, vaccine development, histology, and counter-bioterror applications.

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. 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, the 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, 2013, 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 website link:

<http://www.pressurebiosciences.com>

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