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# Pressure BioSciences' PCT Platform Prominently Featured in Record Number of Presentations at Major International Science Conference

Scientists from Leading Laboratories in Europe, Asia, Oceania, and North America Highlight the Critical Importance of PBI's Patented PCT System in Cancer and Other Priority Research Areas

**SOUTH EASTON, MA / ACCESSWIRE / June 12, 2019 /**Pressure BioSciences, Inc. (OTCQB: PBIO) ("PBI" or the "Company"), a leader in the development and sale of broadly enabling, pressure-base instruments, consumables, and platform technology solutions to the worldwide life sciences industry, today announced that the Company's patented pressure cycling technology ("PCT") platform was prominently featured in 15 independent presentations at the annual conference of the American Society for Mass Spectrometry ("ASMS"), held from June 1-6, 2019 in Atlanta, GA. The presentations spanned wide ranging applications for PBI's unique PCT platform in scientific studies, particularly their essential use in advancing knowledge and understanding in such areas as cancer research, protein function, molecular biology, and biomarker discovery.

Roxana McCloskey, PBI's Global Director of Sales & Marketing, commented: "The number of PCT-related presentations at the 2019 ASMS conference significantly exceeded prior PBI records for a scientific meeting. We are gratified that the use of our PCT platform continues to expand to new investigators and laboratories worldwide, and that its use has shown great promise in critical areas of human health, such as cancer. We believe the presentations at this prestigious annual meeting clearly show the increasing potential for the PCT platform in diagnostics and discovery, which we believe could eventually lead to the routine use of the PCT platform in precision medicine, a rapidly expanding market that is expected to reach \$217 billion by 2028 (BIS Research, 2019)."

PCT-related presentations delivered at the 2019 ASMS meeting were primarily in the following key areas.

### **Cancer Research**

Nine presentations focused on the importance of PBI's PCT platform in the study of cancers.Of these, three described the development and use of a novel, streamlined, sample preparation protocol and system featuring PBI's Barocycler 2320EXT instrument and proprietary MicroTubes as the link between two widely used techniques: laser microdissection and mass spectrometry. In this new suggested system, precise small sections of cells are cut from suspected tumor tissue slices while being viewed under a microscope. Once cut from the biopsy tissue, the slices of interest fall directly into PBI's

MicroTubes, are processed by PCT and are then analyzed by mass spectrometry. Data show that the PCT platform has the potential to accelerate and strengthen protein analysis, improve cancer characterization, and provide clinically relevant information for diagnosis and treatment guidance in a timely manner. Findings also highlighted the necessity for the development of new methods and equipment for better identification of gynecologic cancers specifically, and cancer biomarkers in general.

Researchers from China and Australia reported on advancements in their cancer diagnostic programs. These large studies of thousands of cancer samples rely critically on PBI's PCT platform to rapidly and reproducibly extract proteins from tumor tissues for analysis by mass spectrometry.

The PCT platform was also used in studies to better understand underlying racial disparities in cancer. Such studies may provide improved early detection and thus more effective treatment options to minorities.

## **Biomarker Discovery**

Several presentations reported results from studies that used the PCT platform for basic research and discovery of unique cancer biomarkers. Discovery of new biomarkers for early diagnosis, cancer subtyping, progression, and underlying pathway dysfunction is vital to help improve clinical outcomes. In addition to cancer biomarker discovery, a presentation reported the use of the PCT platform to help reveal unique biomarkers due to exposure to chemicals in the environment such as benzene. This is the second report of using PBI technology to monitor the effects of environmental pollutants.

## **Protein and Molecular Biology Studies**

The PCT platform continues to be used for basic but important proteomic research. The proteome consists of all the proteins made or modified by an organism. Studies presented of proteins, using PBI's high pressure PCT system, included the use of pressure to accelerate enzymatic reactions for molecular biology and other applications, and for muscle tissue studies.

Richard T. Schumacher, President and CEO of PBI, said: "We are thrilled with both the number and caliber of presentations made at the annual ASMS conference highlighting the advantages of the PCT platform. Well-known research groups from both academia and industry, including key opinion leaders in proteomics and cancer diagnostics, presented data at the conference strongly supporting the use of the PCT platform in multiple areas of scientific research. These researchers were from highly respected labs and institutions worldwide, including: Johns Hopkins University, Fred Hutchinson Cancer Center, John P. Murtha Cancer Center, the Inova Schar Cancer Institute, Westlake University (China), Children's Medical Research Institute (Sydney, AU), the ETH Zurich, PPD Madison, Pfizer, and SCIEX."

Dr. Bradford Young, Sr. VP and Chief CommercialOfficer of PBI, said: "By 2025, the combined projected market sizes forcancer research, biomarker discovery, proteomics, and molecular biology is expected to be in excess of \$200 billion. The global proteomics market alone is projected to be in excess of \$40 billionby 2025 (Zion Market Research, 2019). We believe the unique value provided by our PCT platform for samplepreparation and biomarker

discovery as shown in the 15 presentations at this year's ASMSConference will help generate awareness and demand for our platforms in these very largeand growing markets."

## About Pressure BioSciences, Inc.

Pressure BioSciences, Inc. (OTCQB: PBIO) is a leader in the development and sale of innovative, broadly enabling, pressure-based solutions for the worldwide life sciences industry. 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 (e.g., cell lysis, biomolecule extraction). Our primary focus is in the development of PCT-based products for biomarker and target discovery, drug design and development, biotherapeutics characterization and quality control, soil & plant biology, forensics, and counter-bioterror applications. Additionally, major new market opportunities have emerged in the use of our pressure-based technologies in the following areas: (1) the use of our recently acquired, patented technology from BaroFold, Inc. (the "BaroFold" technology) to allow entry into the bio-pharma contract services sector, and (2) the use of our recently-patented, scalable, high-efficiency, pressure-based Ultra Shear Technology ("UST") platform to (i) create stable nanoemulsions of otherwise immiscible fluids (e.g., oils and water) and to (ii) prepare higher guality, homogenized, extended shelf-life or room temperature stable lowacid liquid foods that cannot be effectively preserved using existing non-thermal technologies.

# **Forward Looking Statements**

This press release contains forward-looking statements. These statements relate to future events or our future financial performance and involve known and unknown risks, uncertainties and other factors that may cause our or our industry's actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed, implied or inferred by these forwardlooking statements. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "could," "would," "expects," "plans," "intends," "anticipates," "believes," estimates," "predicts," "projects," "potential" or "continue" or the negative of such terms and other comparable terminology. These statements are only predictions based on our current expectations and projections about future events. You should not place undue reliance on these statements. In evaluating these statements, you should specifically consider various factors. Actual events or results may differ materially. These and other factors may cause our actual results to differ materially from any forwardlooking statement. 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, 2018, 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. Due to rounding, numbers presented throughout this and other documents may not add up precisely to the totals provided and percentages may not precisely reflect the absolute figures.

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

### http://www.pressurebiosciences.com

Please visit us on Facebook, LinkedIn, and Twitter.

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