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# Pressure BioSciences' PCT Platform Featured in Multiple Presentations at Major International Science Conference

*Ten Presentations by Scientists from Seventeen Research Institutions Worldwide*

*Highlight Novel Applications for PBI's PCT Platform in Cancer Research and Diagnostics*

South Easton, MA, Sept. 26, 2019 (GLOBE NEWSWIRE) -- via NEWMEDIAWIRE -- Pressure BioSciences, Inc. (OTCQB: PBIO) ("PBI" or the "Company"), a leader in the development and sale of broadly enabling, pressure-based 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 no less than ten separate presentations from scientists affiliated with seventeen leading research institutions worldwide at the [International Human Proteome Organization World Congress \("International HUPO"\)](#), held this year from September 15-18, 2019 in Adelaide, Australia.

International HUPO plays a pivotal role in defining and promoting proteomics through international cooperation and collaborations by fostering the development of new technologies, techniques, and training to better understand the full complement and roles of proteins in human health and disease. The multiple PCT-related presentations included development of new methods and applications using PBI's unique PCT platform to advance knowledge and understanding in areas such as cancer research, with particular focus on cancer biomarker discovery.

Ms. Roxana McCloskey, PBI's Global Director of Sales & Marketing, commented: "We are delighted to note that the number of PCT-related presentations at important international meetings is now exploding, in response to our years of investment in building collaborations and supporting research and the publication of now over 150 peer-reviewed scientific articles. Most importantly, several presentations describe new workflows, applications, and techniques for the PCT platform that were developed independently by scientists from many different prestigious institutions. We believe that several of the methods described will eventually lead to the routine use of the PCT platform in clinical diagnostics and precision medicine, a market that is expected to reach \$217 billion by 2028 (BIS Research, 2019)."

PCT-related presentations delivered at this meeting were primarily in the key areas of new and approved methods and protocols and in new applications for the discovery and identification of cancer markers. The presentations continue to show the flexibility and increasing potential for the PCT platform in cancer diagnostics and discovery. These include:

## **New and Improved Methods and Protocols Using PCT**

- Dr. Dylan Xavier (a scientist at the ProCan cancer research center near Sydney, Australia – a world-renowned group that focuses on the proteomics of cancer) presented data on a novel method combining bead beating (a common laboratory technique) with a PCT-based Barocycler 2320EXT system from PBI. The data showed that this new method facilitated full sample preparation for proteomic analysis by mass spectrometry in under one hour (very fast compared to competing methods) and resulted in an increase in diversity and abundance in yields of proteins for analysis (increasing the chance for discovery) compared to current methods.
- Dr. Philip Robinson (Co-Director of ProCan) emphasized in his presentation that new methods, such as the one reported by Dr. Xavier, “are essential for greater accuracy and high-throughput capabilities that are required to realize the vision of precision medicine.”
- A team of scientists from South Africa reported on their efforts to develop a seamless, fully automated workflow that included PCT sample preparation as an integral step, from the extraction of proteins to the analysis by mass spectrometry.

## **Characterization of Specific Cancers Using PCT**

Several presentations illustrated the flexibility of PCT to extract proteins and nucleic acids from different types of tissue biopsies used in the characterization of specific cancers.

- Data presented from a study conducted by 12 scientists from four leading academic and research institutions in China demonstrated the effectiveness and practicality of PCT in a study of colorectal cancer.
- Another study showed PCT to be an effective component of the workflow to help highlight details of gastric cancer, including key information that could aid in the discovery of novel prognostic markers and potential therapeutic targets.
- Yet another cancer-related study showed that the combination of PCT and mass spectrometry could result in a superior method for “ruling-in and ruling-out” cancer in thyroid nodules compared to current diagnostic tests.

Dr. Nate Lawrence, Senior Consultant to PBI, said: “We are excited that international teams of scientists from more than seventeen institutions on four continents contributed to presentations showing the power and versatility of PCT for cancer research, biomarker discovery, proteomics, and molecular biology. It has been projected that these combined markets are expected to be in excess of \$200 billion by 2025 (Zion Market Research, 2019).”

In summation, Ms. McCloskey commented: “We believe the unique value provided by our PCT platform for cancer research and diagnostics, which was broadly highlighted across ten presentations at this important international human protein conference, will help to accelerate awareness and adoption for our unique PCT sample preparation platform across multiple large and growing markets. Subsequently, we believe this increased awareness and conversion into adoption will result in increased sales of our PCT instruments and consumables in Q4 2019 and beyond.”

## **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 quality, homogenized, extended shelf-life or room temperature stable low-acid 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 forward-looking 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 forward-looking 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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