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# Pressure BioSciences Awarded Pivotal U.S. Patent for Novel, High Pressure Enhanced Consumable Device

## New Patent Secures and Protects Company's Control Over Its Best Selling PCT Sample Preparation Consumable Product, the PCT MicroPestle

SOUTH EASTON, Mass., Aug. 12, 2020 /PRNewswire/ -- 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 solutions to the worldwide Life Sciences and other industries, today announced the award of a key U.S. patent entitled "Sample Preparation Devices and Methods". This new patent (US 10,710,082) brings the Company's Intellectual Property ("IP") estate up to a total of 25 issued patents.

Biotech, biopharma, academic and government laboratories worldwide, many led by recognized Key Opinion Leaders ("KOLs"), depend on PBI's unique Pressure Cycling Technology ("PCT") systems for standardized, high-throughput, efficient, and reproducible sample preparation (a critical function prior to analysis). These laboratories focus their research efforts in diverse, exciting, and important areas, such as vaccine and drug development, cancer diagnostics and treatment guidance, and in the detection, prevention, and cure of infectious diseases – such as viral hepatitis and COVID-19.

PBI's PCT systems are comprised of two major, interdependent components: the pressure cycling instrument and the consumable that contains and delivers the cycled pressure to the sample. The just patented PCT MicroPestle (the "PCT MP") is PBI's most important and popular consumable. Its unique construction seals and protects the sample while flexing to transfer immense pressures. This facilitates homogenization and precise physical and chemical preparation of minute biological samples, such as needle biopsies, small suspensions of cells, and/or laser micro-dissected tissue sections. The PCT MP is made of inert fluoropolymer material, which enables stability throughout a very broad temperature range, as well as excellent resistance to aggressive chemicals. Its extremely low surface binding characteristics allow the PCT MP to preserve and maximize the availability of each sample's precious molecules, which could include important biomarkers to be discovered for disease diagnosis or for critical prognostic decisions on treatment selection and guidance.

Ms. Roxana McCloskey, PBI's Global Director of Sales and Marketing, said: "We have many customers worldwide who routinely use our PCT Micro-Pestle consumable in their research studies. These include Professor Phil Robinson and his team at the Children's Medical Research Institute in Australia (processing 70,000 tumor samples, looking for prognostic and diagnostic markers in cancer) and Dr. Tiannan Guo and his team at Westlake University in

China (studying thyroid cancer and COVID-19). The PCT MP is also a critical part of the innovative laser microdissection tumor processing workflow developed by Dr. Tom Conrads of the Inova Health System in the U.S. This important new tumor processing method promises significant improvements in the clinical management of most solid tumor cancers. His novel workflow is the basis of our major co-marketing collaboration recently announced with Leica Microsystems (a Danaher Company). It is clear why we see this award of the PCT MP patent as a critical milestone in securing our pivotal intellectual property around the PCT system, and another important driver toward accelerated adoption of PCT in biological sample preparation markets. We expect to take full advantage of this opportunity and further boost our sales."

Dr. Alexander Lazarev, PBI's Chief Scientific Officer, said: "This long-anticipated patent is an exciting endorsement of our efforts to transform biological sample preparation. Our PCT sample preparation workflows have been adopted not only in biomarker discovery and cancer research, but they are now advancing into enormous opportunities in clinical applications. More recently, PCT is now opening major opportunities in the biopharmaceutical development and manufacturing markets, ranging from protein characterization and quality control to bioprocess development, protein refolding and formulations development. Single use MicroPestle consumables enable research in all of these markets, and this powerful new dimension to our patent protected portfolio should help us to secure and accelerate the growth of our business."

Mr. Richard T. Schumacher, President and CEO of PBI, added: "This is a critical patent award and important news for PBI. The PCT MicroPestle consumable is integral to our current and future PCT expansion plans. Scientists worldwide continue to generate strong data showing that they can generate the highest quality analytical results by using the PCT MicroPestle, especially in the preparation of precious biopsy samples for analysis of biomarkers to diagnose disease and guide treatment selections. With the PCT MP patent now in hand, we have materially strengthened our intellectual property platform. We believe the newly patented PCT MP consumable will help drive sales of PCT systems into many new customer sites and applications globally."

### **About Pressure BioSciences, Inc.**

Pressure BioSciences, Inc. (OTCQB: P BIO) is a leader in the development and sale of innovative, broadly enabling, pressure-based solutions for the worldwide life sciences and other industries. 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 control biomolecular interactions safely and reproducibly (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 and 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, 2019, 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>

Please visit us on Facebook, LinkedIn, and Twitter.

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