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Pressure BioSciences Continues Expansion of IP Portfolio of Revolutionary UltraShear Technology with Award of First Canadian Patent

Patent Protects PBIO's Exclusive Rights to Commercialize UltraShear Platform in Canada, Leveraging Unique, Best-in-Class Nanoemulsions Processing Performance with Full Commercial Scalability

SOUTH EASTON, MA / ACCESSWIRE / October 10, 2023 /Pressure BioSciences, Inc. (OTCQB:PBIO) ("PBI" or the "Company"), a leader in the development and sale of broadly enabling, pressure-based instruments, consumables, and specialty process development and testing services to the global pharmaceuticals, nutraceuticals, cosmeceuticals, food/beverage, agrochemical, and other industries, today announced the award of the first Canadian patent for its revolutionary UltraShear™ Technology (UltraShear™ or UST™) platform. Entitled "System for High Pressure, High Shear Processing of Fluids", this new patent (Canadian No. 2981058) brings the Company's intellectual property ("IP") estate for the UltraShear Technology platform to eight issued patents and the Company's total IP estate to 43 issued patents with another 21 pending applications.

The UltraShear platform was created to revolutionize the processing of normally immiscible mixtures of oil-soluble and water-soluble components into long-term stable, effectively water-soluble, easily absorbable and highly bioavailable nanoemulsions. Emulsions of oil and water components typically require the addition of chemicals called emulsifiers (e.g., surfactants) in order to produce stable macro- or micro-emulsions. Emulsions are critically important for thousands of products in everyday use, including food, medical products, pharmaceuticals, nutraceuticals, cosmetics, skincare, industrial lubricants, and even cannabis oil extracts (e.g., CBD). Scientific data now corroborate that greatly accelerated and improved absorption, higher bioavailability, greater stability, lower surfactant levels, and other advantages (such as more efficient and reliable dosing) are achieved with high quality nanoemulsions.

Based on peer-reviewed scientific research, customer feedback, and multiple consumer focus group studies, PBIO has established the differentiation of its patented UltraShear Technology platform as the best-in-class nanoemulsion performance and delivery system worldwide. The Company believes the evidence is compelling that its UltraShear Technology platform delivers unequalled values for the diverse global industries ready to benefit from world-class nanoemulsions performance and production scalability, including nutraceuticals, pharmaceuticals, cosmeceuticals, agrochemicals, and even in food and beverages.

Dr. Edmund Y. Ting, Sr. Vice President of Engineering of PBI and the inventor on this patent, said: "Nanoemulsions have long been shown to exhibit improved absorption, higher

bioavailability, and greater stability, while often requiring lower levels of emulsifiers than macro/micro emulsion products. Because of these significant advantages, nanoemulsions are currently the focus of numerous research efforts worldwide. However, cost-effective scale-up of high quality nanoemulsion processing at a commercial level has long remained to be quite challenging. Importantly, we believe that PBI's innovative, patented, and now Canadian patent-protected UltraShear platform will provide the pivotal key to commercial success for nanoemulsion products."

Mr. John B. Hollister, Director of Marketing and Sales, said: "We recently set up an UltraShear Nano-CBD processing site in Massachusetts. We are closing in on customer orders for nearly one-million dollars of UltraShear Nano-CBD topical spray to be supplied over the next year, product processing has started, and shipment of finished product ready for customer white-labeling began last week. UltraShear is no longer a research tool; it has become a revenue-generating machine."

Mr. Kenneth F. Micciche, Director of Business Development, added: "A number of our Canadian colleagues were ecstatic when told of the award of our first Canadian UltraShear patent. This initial patent opens up many possibilities in Canada, from setting up toll-processing sites, to future lease/license arrangements, to joint ventures. Regardless of the path we choose, we believe that patent protection in Canada will quickly translate into additional escalating revenues for the Company."

About Pressure BioSciences, Inc.

Pressure BioSciences, Inc. (OTCQB: PBIO) is a global leader in providing innovative, broadly enabling, high pressure-based solutions for a range of industries, including biotechnology, pharmaceutical, nutraceutical, cosmeceutical, and agrochemical, as well as food and beverage manufacturing. Our products utilizeboth constant and alternating pressure. Our patented enabling technology platform, Pressure Cycling Technology (PCT), utilizes alternating cycles of pressure to control bio-molecular interactions (such as cell lysis and biomolecule extraction) safely and reproducibly. PCT-based products are beginning to be widely used for biomarker and target discovery, drug design and development, biotherapeutics characterization and quality control, soil & plant biology, forensics, and counter-bioterrorism applications. We have recently expanded our market opportunities with the acquisition of the BaroFold^{TM} patented technology platform, allowing us to enter the bio-pharma contract services and GMP manufacturing equipment sector. We have also developed the scalable and high-efficiency pressure-based UltraShear Technology^{TM} (UltraShear^{TM}) platform, which allows for the creation of stable nanoemulsions of otherwise immiscible fluids. It also allows for the preparation of higher quality, homogenized, extended shelf-life or room temperature-stable low-acid liquid foods that cannot be effectively preserved using existing non-thermal technologies. Our commitment to innovation and cutting-edge technology has established PBIO as a leader in the high-pressure industry, providing unique and effective solutions to our customers.

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, 2022, 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.

Investor Contacts:

Richard T. Schumacher, President and CEO (508) 230-1828 (T)
Kenneth F. Micciche, Director of Business Development (508) 230-1829 (F)
John B. Hollister, Director of Marketing and Sales (805) 908-5719 (T)

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