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# Pressure BioSciences Ultra Shear Technology Commercialization Achieves Key Milestone: Production-Scale System Commissioned at Ohio State to Serve Food Industry

***Installation of BaroShear MAX UST System in Acclaimed The Ohio State University Food Pilot Plant Will Introduce Global Food Industry to Preparation of Safer, More Nutritious Liquid Foods and Beverages***

**SOUTH EASTON, MA / ACCESSWIRE / January 27, 2022** /Pressure BioSciences, Inc. (OTCQB:P BIO) ("PBI" or the "Company"), a leader in the development and sale of broadly enabling, pressure-based instruments, consumables, and process development services to the worldwide food and beverage, biotherapeutics, and personal wellness industries, among others, today announced the commissioning of its first production-scale, patented Ultra Shear Technology™ ("UST™") platform. The BaroShear MAX UST processing system was installed and commissioned in The Ohio State University College of Food, Agricultural, and Environmental Sciences ("CFAES"). Along with the previously announced formation of the Food Industry Consortium, co-led by PBI and Ohio State, this completes one of the last remaining critical milestones in the UST platform deployment at Ohio State to serve the global food industry.

The Consortium's mission is to help companies manufacture higher quality, longer shelf-life, and safer liquid foods and beverages. Utilizing PBI's proprietary UST platform, producers can reduce/remove chemical additives and damaging heat in current processing methods, enabling the production of healthier, more nutritious products with greater appeal to modern consumers. The Consortium is open to food companies worldwide. Ohio State and PBI plan to initiate an aggressive outreach program in the Spring 2022 and expect to welcome a global group of preeminent food & beverage companies as Consortium members shortly thereafter. Members will help direct Ohio State and PBI efforts across a universe of prospective liquid food and beverage products, with emphasis on microbiology, stability, nutrition, sensory qualities, and increased bioavailability. UST applications development will also extend into nutraceutical products, such as infused water, functional sports beverages, and other health-focused products of high interest to consumers and producers. Consortium members will have a first-right to license new applications and methods.

Dr. Edmund Y. Ting, Senior VP of Engineering at PBI, and a key innovator in the development of high pressure-based food technologies, commented: "Over the past 20 years, high pressure processing ("HPP") has emerged as a highly successful, clean-label approach for food quality and safety. The HPP market was estimated at [\\$15.5 billion in 2019](#). HPP is a versatile technology, but it does not employ critical fluid shear forces like

UST, which are essential when particle or droplet size reduction is required for better stability, texture, taste, and bioavailability. Our UST platform uniquely combines the benefits of high hydrostatic pressure, extreme fluid shear, and controlled temperature to achieve these results. Food proteins and lipids, processed by UST, result in true nanoemulsions with improved appearance, taste, smell, texture, nutrition, stability, and bioavailability - all of which are important attributes to liquid foods, such as sauces, beverages, and even ice cream. Importantly, UST not only can produce the highest quality nanoemulsions, but this innovative process can also help destroy bacteria and other pathogens, and reduce/eliminate the need for chemical additives, thus increasing food safety."

Dr. Alexander V. Lazarev, Chief Science Officer of PBI, added: "We believe the ability to modify physical attributes and safety/stability through the physics of shearing and pressure, rather than chemical additives and heat, will create a multitude of new opportunities in the development of new or improved products in other areas, such as cosmetics, nutraceuticals, and pharmaceuticals. Additionally, nanoemulsions are already beginning to play a major role in advanced therapeutics."

Mr. Richard T. Schumacher, President and CEO of PBI, explained: "We expect to begin placing commercial processing units into the market during the third/fourth quarters of 2022, under a leasing and licensing model. As new and commercially-relevant UST applications are demonstrated, and Consortium members utilize their first rights to license them for their own use, Ohio State and PBI will both benefit from resulting royalty streams. PBI will also benefit from equipment leases and consumables sales. In addition, PBI will drive the commercialization of these new applications amongst non-Consortium food companies worldwide and through multiple other major industries beyond food and beverages."

Sponsorship of UST development by the U.S. Department of Agriculture's NIFA program is deeply appreciated.

### **PBI's January 20th Webinar Participation**

On January 20<sup>th</sup>, PBI participated as an invited panelist in a FORCE Family Office Webinar on *Innovations and Advancements in the \$4.6 Billion CBD Market*. Mr. Schumacher represented PBI. Other panelists included: (i) Dr. Christopher Hudalla, the founder and CSO of ProVerde Laboratories, one of the most respected cannabis analytical testing laboratories in the U.S. Dr. Hudalla was recently voted as one of the top 10 influencers in the cannabis sciences industry, and (ii) Mr. Richard "Ricky" Wright, the Founder and CEO of the Alkaline Water Company (NASDAQ: WTER). Alkaline Water has recently launched a new CBD-infused bottled water to provide functional benefits to consumers. The Webinar was sponsored by FORCE Family Office and was moderated by Mr. Steven Saltzstein, CEO of FORCE. Please click here to access the full Webinar: [\*Innovations & Advancements in the CBD Market. 012021.\*](#)

### **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 bio-molecular interactions safely and reproducibly (e.g., cell lysis, biomolecule extraction). Our primary focus is 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, 2020, 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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