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Propanc Biopharma Produces Synthetic Recombinant Proenzymes for Cancer Therapy Targeting Advanced Solid Tumors

MELBOURNE, Australia--(BUSINESS WIRE)-- **Propanc Biopharma, Inc.** (OTC Pink: PPCB) ("Propanc" or the "Company"), a biopharmaceutical company developing novel cancer treatments for patients suffering from recurring and metastatic cancer, today announced that synthetic recombinant proenzymes trypsinogen and chymotrypsinogen were successfully produced via the Proenzyme Optimization Project 1 (POP1) joint research and drug discovery program with the Universities of Jaén and Granada, Spain. The POP1 project is led by Mr. Aitor González, whose doctoral thesis is focused on the "synthetic development of PRP and its subsequent biological validation," conducted at the laboratory of Professor Macarena Perán, PhD, University of Jaén, Granada, Spain, and in collaboration with Professor Diethard Mattanovich at the Institute of Microbiology and Microbial Biotechnology, University of Natural Resources and Life Sciences, Vienna, Austria. The program is designed to produce a backup clinical compound to the Company's lead product candidate, PRP, which is from bovine origin, targeting metastatic cancer from solid tumors. According to Emergen Research, the global metastatic cancer market is projected to be worth over $111 Billion by 2027.

Key findings from the research conducted by Mr. González determined that it is possible to scale up production of both proenzymes trypsinogen and chymotrypsinogen using recombinant technology, resulting in stable, purified proteins that are biologically active and have a similar anti-tumoral effect when compared with PRP. Furthermore, cell viability assays on pancreatic cancer stem cells (Bx PC3-CSCs) suggest that recombinant proenzymes may possess an even stronger anti-tumor effect than pancreatic proenzymes from bovine origin.

Dr Julian Kenyon, MD, MB, ChB, Propanc's Chief Scientific Officer, said, "The work undertaken by Aitor is masterfully brilliant. I read his thorough work producing recombinant proenzymes in detail. It started with a comprehensive assessment of our current level of understanding of proenzymes and then describes in detail recombinant technology, culminating in the successful production of a completely synthetic recombinant product. As a result, we now have a viable way forward to developing a recombinant product, ultimately into the clinic."

The recombinant proenzyme product candidate, designated the label, *rec*-PRP, is set to enter preclinical pharmacology and safety toxicology studies to compare the safety and efficacy profile to the naturally derived formula in 2023 and 2024 calendar years.

A recombinant version of PRP could have additional benefits to the global healthcare system that could further capitalize on a new therapeutic approach to treating cancer that the Company's lead product candidate offers sufferers. For example, both proenzymes are

synthesized by an *in vivo* (living organism) system to produce crystallized proteins that could be maintained for long periods without suffering degradation in the absence of refrigeration. This will be useful for a longer shelf life as well as global distribution of the product, particularly in warmer climates and developing regions where refrigeration may not be available.

PRP is a mixture of two proenzymes, trypsinogen and chymotrypsinogen from bovine pancreas, administered by intravenous injection. A synergistic ratio of 1:6 inhibits growth of most tumor cells. Examples include pancreatic, ovarian, kidney, breast, brain, prostate, colorectal, lung, liver, uterine, and skin cancers. Orphan Drug Designation status of PRP has been granted from the US Food and Drug Administration (US FDA) for treatment of pancreatic cancer.

About Propanc Biopharma, Inc.

Propanc Biopharma, Inc. (the "Company") is developing a novel approach to prevent recurrence and metastasis of solid tumors by using pancreatic proenzymes that target and eradicate cancer stem cells in patients suffering from pancreatic, ovarian, and colorectal cancers. For more information, please visit www.propanc.com.

The Company's novel proenzyme therapy is based on the science that enzymes stimulate biological reactions in the body, especially enzymes secreted by the pancreas. These pancreatic enzymes could represent the body's primary defense against cancer.

To view the Company's "Mechanism of Action" video on its anti-cancer lead product candidate, PRP, please click on the following link: http://www.propanc.com/news-media/video.

Forward-Looking Statements

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Forward-looking statements reflect management's current expectations, as of the date of this press release, and involve certain risks and uncertainties. Forward-looking statements include statements herein with respect to the planned studies and market projections described above and the successful execution of the Company's business strategy. The Company's actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors. Such risks and uncertainties include, among other things, our ability to establish and maintain the proprietary nature of our technology through the patent process; the availability of financing; the Company's ability to implement its long range business plan for various applications of its technology; the Company's ability to enter into agreements with any necessary business partners; the impact of competition; the obtaining and maintenance of any necessary regulatory clearances applicable to applications of the Company's technology; and management of growth and other risks and uncertainties that may be detailed from time to time in the Company's reports filed with the SEC.

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