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Propanc Biopharma's CSO Predicts PRP Could Solve Problem That Impacts Response Rate of Immune Checkpoint Inhibitors Treating Solid Tumors

British Journal of Cancer Concludes Tumor cell-intrinsic PD-L1 function promotes EMT

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 the Company's lead asset, PRP, could solve the problem that impacts the response rate of immune checkpoint inhibitors treating PD-L1-High (Programmed Death-Ligand 1) solid tumors, such as lung cancer. Propanc's Chief Scientific Officer and Co-Founder Dr Julian Kenyon, MD, MB, ChB, predicts that pretreatment of PD-L1-high solid tumors with PRP as a combinatorial approach could reverse the promotion of epithelial to mesenchymal transition (EMT) pathways induced by PD-L1, a fundamental process by which malignant cells promote tumor growth and metastasis. Tumor cells that undergo the EMT are motile and invasive, spreading and seeding new tumors, as well as become immortal, no longer dying off naturally. They are also non-dividing, which means they are resistant to standard treatment approaches.

Use of immune therapy, such as checkpoint inhibitors, have become increasingly widespread for treating solid tumors as an effective method to stop the immune system from turning off before cancer is eliminated completely. The immune system relies on T cells to fight cancer. These specialized cells are extremely powerful and have the potential to damage healthy cells. The Immune Checkpoint Inhibitors Market is US$47.22 Billion in 2023, and expected to reach US$158.26 Billion by 2031 according to FutureWise Research. Despite growing popularity, response rates range between 15 to 30% in most solid tumors. As a result, scientific research is being conducted to consider how to improve response rates.

A recent study published in the British Journal of Cancer (May, 2024), highlights that EMT induced by tumor cell-intrinsic (i.e., belonging naturally) PD-L1 signaling predicts a poor response to immune checkpoint inhibitors in PD-L1-High lung cancer. PD-L1 is a protein that acts as a kind of "brake" to keep the body's immune system under control. PD-L1 may be found on some normal cells and in higher-than-normal amounts on some types of cancer cells. When PD-L1 binds to another protein called PD-1 (Programmed Death protein, found on T cells), it keeps T cells from killing the PD-L1-containing cells, including cancer cells. Anticancer drugs called immune checkpoint inhibitors bind to PD-L1 and block its binding to PD-1. This releases the 'brakes' on the immune system and leaves T cells free to kill cancer cells. "The implication is that PRP will enable PD-L1 non responders to become responders," according to Dr Kenyon.

Dr Kenyon explained further, “Cancer immunotherapy is being increasingly used in cancers. For immunotherapy, normal PD-1 receptors are needed. Many tumors do not have this and these are mostly (PD-L1-High) tumors expressing EMT pathways. PRP induces cell differentiation in cancer cells, which reverses EMT pathways and reduces metastatic potential (ability to spread). This means that PRP could correct this overexpression and so be an ideal combinatorial treatment with cancer immunotherapy.”

“Dr Kenyon and the Propanc R&D team continue to explore ways that PRP can be developed to improve and extend the lives of cancer sufferers worldwide. We are committed to advancing PRP into the clinic and as we progress, understanding better how PRP can be used both as a stand-alone therapy and an addition to the treatment process so that cancer sufferers, who may not respond to certain treatment modalities, can be given renewed hope where the standard of care has failed, or encountered resistance,” said Mr. James Nathanielsz, Propanc’s Chief Executive Officer. “We continue to work tirelessly on these important objectives, and reassure shareholders that we are currently executing plans to achieve our vision to develop a long-term therapy for the treatment and prevention of metastatic cancer from solid tumors, which remains the main cause of patient death for sufferers. We look forward to providing updates when material events occur.”

About PRP:

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 (FDA) for treatment of pancreatic cancer.

To view the Company’s “Mechanism of Action” video on the Company’s lead asset, PRP, please click on the following link: http://www.propanc.com/news-media/video.

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.

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 because 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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