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Propanc Biopharma Publishes Impact of Proenzymes on Pancreatic Ductal Adenocarcinoma Fibroblasts in Peer Reviewed Journal

Results Underscore PRP Candidacy as a Disruptor of the Tumor Microenvironment

MELBOURNE, Australia, Dec. 22, 2025 (GLOBE NEWSWIRE) -- Propanc Biopharma, Inc. (Nasdaq: PPCB) ("Propanc" or the "Company"), a biopharmaceutical company developing novel treatments for chronic diseases such as recurrent and metastatic cancer, today announced that the Company and its joint research partners at the Universities of Jaén and Granada published key findings in a peer reviewed journal, *Scientific Reports*, regarding the impact of proenzymes on pancreatic ductal adenocarcinoma (PDAC) fibroblasts. From the publishers of *Nature*, *Scientific Reports* is an online, open access journal, which publishes primary research from all areas of the natural and clinical sciences. The article is entitled, "*Impact of pancreatic proenzymes on pancreatic ductal adenocarcinoma associated fibroblasts,*" and available online. The tumor microenvironment (TME) plays a pivotal role in tumor initiation, progression, and the form of pre-metastatic niches. PDAC is characterized by a dense fibrotic stroma containing a significant enriched population of cancer-associated fibroblasts (CAFs). The interplay between CAFs and tumor cells is crucial in driving tumor advancement and metastasis, underscoring the potential benefits of novel therapeutic strategies targeting stromal cells to improve patient survival. PRP, consisting of two bovine derived pancreatic proenzymes, trypsinogen and chymotrypsinogen, have shown efficacy in cancer treatment. The findings demonstrate PRP exerts multifaceted effects. Results underscore the candidacy of PRP as a potential disruptor of the TME.

Future clinical investigation is planned to validate the translational potential of PRP as an adjunct therapy for PDAC patients who no longer respond to standard treatment regimen. Despite recent advancements in clinical management, PDAC remains one of the most aggressive and deadliest forms of cancer, projected to become the second leading cause of cancer-related deaths by 2030. PDAC is characterized by its late-stage diagnosis, limited treatment options, and poor prognosis.

"Our findings demonstrate that PRP exerts multifaceted effects specifically over the CAFs population and tumor cells. All together, these results highlight PRP as a promising adjunct therapeutic candidate capable of disrupting key interactions within the PDAC TME," said Dr. Belén Toledo, PhD, joint lead researcher from the University of Jaén.

"After several years of research pioneered with our scientific researchers, we find ourselves publishing compelling scientific evidence that PRP has the potential to dramatically alter the way we perceive poor patients diagnosed with this killer disease," said Mr. James

Nathanielsz, Propanc's Chief Executive Officer. "We plan to undertake our Phase 1b study in advanced cancer patients suffering from solid tumors in Q3, 2026, and further announcements are anticipated. This pivotal study will determine our target dose for Phase 2 studies in which PDAC is one of our target therapeutic indications. We look forward to advancing PRP into the clinic as soon as possible to help PDAC patients with such a poor survival prognosis."

About Propanc Biopharma, Inc.

Propanc Biopharma, Inc. (Nasdaq: PPCB) is developing a novel approach to preventing cancer recurrence and metastasis by targeting and eradicating cancer stem cells through proenzyme activation. The Company's lead product candidate, PRP, is designed to address the underlying drivers of cancer proliferation and spread.

More information: www.propanc.com

Forward-Looking Statements

All statements in this press release that are not historical are forward-looking statements, including, among other things, statements relating to the Company's expectations regarding its market position and market opportunity, expectations and plans as to its product development, manufacturing and sales, and relations with its partners and investors, made in reliance upon the safe harbor provisions of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. These statements are not historical facts but rather are based on the Company's current expectations, estimates, and projections regarding its business, operations and other similar or related factors. Words such as "may," "will," "could," "would," "should," "anticipate," "predict," "potential," "continue," "expect," "intend," "plan," "project," "believe," "estimate," and other similar or related expressions are used to identify these forward-looking statements, although not all forward-looking statements contain these words. You should not place undue reliance on forward-looking statements because they involve known and unknown risks, uncertainties, and assumptions that are difficult or impossible to predict and, in some cases, beyond the Company's control. Forward-looking statements are not guarantees of future actions or performance. Actual results may differ materially from those in the forward-looking statements because of several factors, including, without limitation, risks and uncertainties related to market conditions, as well as those risks described under "Risk Factors" in the prospectus related to the proposed offering and those described in the Company's filings with the SEC. The Company undertakes no obligation to revise or update information in this release to reflect events or circumstances in the future, even if new information becomes available.

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