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Propanc Biopharma Presents 100 Years of Clinical Evidence for “Novel” Enzyme Therapeutic Approach to Treat Cancer

MELBOURNE, Australia--(BUSINESS WIRE)-- **Propanc Biopharma, Inc.** (OTCQB: PPCB) (“Propanc” or the “Company”), a biopharmaceutical company developing novel cancer treatments for patients suffering from recurring and metastatic cancer, today announced that 100 years of clinical evidence supporting the use of proenzymes as a new therapeutic approach to treat cancer can be considered ‘compelling’. Chief Scientific Officer and Co-Founder, Dr Julian Kenyon MD, MB, ChB, has researched the effects of proenzymes against cancer for over 15 years and first came across the technology in his search to extend the life of several late-stage patients suffering from malignant solid tumors in the mid 2000’s. It was Professor John Beard from Edinburgh University who first proposed that pancreatic enzymes represent the body’s primary defense against cancer and would be useful as a cancer treatment. Since then, several scientists have endorsed Beard’s hypothesis with encouraging data from patient treatment.

In 1902, in an article published in *The Lancet*, Professor Beard proposed that the answer to questions about the origin of cancer could be found in the field of embryology. Professor Beard tested his theory in a mouse model of cancer. After injections of commercially available pancreatic enzyme trypsin, the tumor in a treated mouse was much smaller than that in an untreated control. Over several years, a number of physicians in the UK and US injected enzyme preparations with some remarkable success stories. As a result, the physicians began writing letters to the editor summarizing their clinical cases, such as Medical Record in the early 1900’s.

For example, Dr Campbell wrote about a 56-year-old male with a malignant left tonsil the size of a hen’s egg, experiencing left facial paralysis and constant pain. After periodic injections for a month, the infiltrations in the tongue and tonsil were greatly decreased, pain free and felt well. A second example, Dr Oldfield, reported a 65-year-old male with an abdominal tumor with secondary metastases in the stomach, full of solid tumor and in great pain. After daily injections for 3 months, the patient was reported to eat and sleep well, returned to a normal weight. Dr Outfield concluded that “No-one…can doubt the immense improvement that has taken place.” However, mixed results in the early stages of treatment were observed and attributed by Beard to the wide variation in the quality of enzymes of available enzymes at the time.

Over the years, there have been further clinical cases investigated into the use of enzymes as a way to treat cancer. Of particular note was the work undertaken by molecular biologist from Bucknell University, Dr Josef Novak and a retired Czech oncologist, Dr Frantisek Trnka. Drs Novak and Trnka undertook extensive laboratory work in the late ‘90s and 2000s, publishing their work in the journal *Anticancer Research* in the mid 2000s, where they first proposed that the enzyme extracts as recommended by Beard, must be used in the

“proenzyme” form to ensure their selective activation at the tumor site. They also undertook clinical research, administering a proenzyme treatment via a suppository formulation to 20 late-stage cancer patients, with a range of malignancies, of which 10 survived, ranging from 8 months to 10 years, with minimal, or non-existent side effects normally seen with current standard therapies. The conclusion of Drs Novak and Trnka from this work was the discovery “that proenzyme therapy mandated first by John Beard nearly one hundred years ago, shows remarkable selective effects that result in growth inhibition of tumor cells with metastatic potential.”

As a result of the clinical evidence observed throughout the years, Dr Kenyon decided to undertake his own investigation motivated by the condition of a number of late-stage cancer patients he treated in his clinical practice at The Dove Clinic, in Hampshire, UK. Consequently, the clinical efficacy of a suppository formulation containing pancreatic proenzymes was evaluated in the context of a UK Pharmaceuticals Special Scheme and results published in a peer reviewed journal, *Scientific Reports*. Clinical effects were studied in 46 patients with advanced metastatic cancers of different origin (prostate, breast, ovarian, pancreatic, colorectal, stomach, non-small cell lung, bowel cancer and melanoma) after treatment with a rectal formulation consisting of pancreatic proenzymes trypsinogen and chymotrypsinogen.

Dr Kenyon concluded that no severe or serious adverse events related to the rectal administration were observed. Patients did not experience any hematological side effects as typically seen with classical chemotherapy regimens. No allergic reactions after rectal administration of suppositories were also observed. In order to assess the therapeutic activity of rectal administration, overall survival of patients under treatment was compared to the life expectancy assigned to a patient prior to treatment start. Nineteen (19) from 46 patients (41.3%) with advanced malignant diseases, most of them suffering from metastases, had a survival time significantly longer than their expected, in fact, for the whole set of cancer types, mean survival (9.0 months) was significantly higher than mean life expectancy (5.6 months). Although the number of patients per cancer indication was naturally quite low, 3 out of 8 patients with prostate cancer and 5 out of 11 patients with gastrointestinal cancers appeared to particularly benefit from the treatment with the proenzyme suppositories.

“As a result of my research over the last 15 years, as well as the clinical evidence over the last 100 years, proenzyme therapy can have a meaningful and long-lasting clinical benefit on patients suffering from solid tumors, but without the side effects associated with standard therapies, which is simply compelling,” said Dr Kenyon. “Since the pioneering work undertaken by Professor John Beard and his medical colleagues, in the early 1900’s, their approach was ahead of their time, but since then, our understanding of tumor cell biology means we have elucidated how the activated enzymes works against solid tumors and in particular, cancer stem cells, optimized the formulation and its clinical effects, and developed a product candidate to pharmaceutical standard which can be administered by I.V. injection to maximize the exposure at the tumor site. My scientific and clinical research team at Propanc Biopharma are preparing to take our lead product candidate, PRP, into a world first, Phase I, First-In-Human study in advanced cancer patients suffering from solid tumors. The 100-year history of enzyme therapy gives me confidence we are on the right pathway with an exciting approach for the treatment and prevention of metastatic cancer from solid tumors, which is the main cause of patient death for sufferers.”

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 kidney, ovarian, breast, brain, prostate, colorectal, lung, liver, uterine and skin cancers.

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

All statements other than statements of historical facts contained in this press release are "forward-looking statements," which may often, but not always, be identified by the use of such words as "may," "might," "will," "will likely result," "would," "should," "estimate," "plan," "project," "forecast," "intend," "expect," "anticipate," "believe," "seek," "continue," "target" or the negative of such terms or other similar expressions. These statements involve known and unknown risks, uncertainties and other factors, which may cause actual results, performance or achievements to differ materially from those expressed or implied by such statements. These factors include uncertainties as to the Company's ability to continue as a going concern absent new debt or equity financings; the Company's current reliance on substantial debt financing that it is unable to repay in cash; the Company's ability to successfully remediate material weaknesses in its internal controls; the Company's ability to reach research and development milestones as planned and within proposed budgets; the Company's ability to control costs; the Company's ability to obtain adequate new financing on reasonable terms; the Company's ability to successfully initiate and complete clinical trials and its ability to successful develop PRP, its lead product candidate; the Company's ability to obtain and maintain patent protection; the Company's ability to recruit employees and directors with accounting and finance expertise; the Company's dependence on third parties for services; the Company's dependence on key executives; the impact of government regulations, including FDA regulations; the impact of any future litigation; the availability of capital; changes in economic conditions, competition; and other risks, including, but not limited to, those described in the Company's periodic reports that are filed with the Securities and Exchange Commission and available on its website at http://www.sec.gov. These forward-looking statements speak only as of the date hereof and the Company disclaims any obligations to update these statements except as required by law.

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Investor Relations and Media Contacts:
Mr. James Nathanielsz
Propanc Biopharma, Inc.
irteam@propanc.com
+61-3-9882-0780

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