

## PharmaCyte Biotech Reports Successful Completion of Long-term Studies on Cells Used in Pancreatic Cancer Therapy

LAGUNA HILLS, Calif.--(BUSINESS WIRE)-- <u>PharmaCyte Biotech, Inc.</u> (OTCQB: PMCB), a clinical stage biotechnology company focused on developing targeted cellular therapies for cancer and diabetes using its signature <u>live-cell encapsulation technology, Cell-in-a-Box</u><sup>®</sup>, today announced the successful results of long-term studies on the type of cells that will be encapsulated using its Cell-in-a-Box<sup>®</sup> technology and then combined with low doses of the cancer prodrug ifosfamide for the treatment of patients with locally advanced, non-metastatic, inoperable pancreatic cancer (LAPC).

These studies, which have taken over three years to complete, are needed to develop the comprehensive dossier of information concerning the genetically engineered human cells that are encapsulated for use in PharmaCyte's therapy for LAPC. This work is required by the U.S. Food and Drug Administration ("FDA") to be included in PharmaCyte's Investigational New Drug Application (IND) PharmaCyte is in the process of preparing for submission to the FDA.

The long-term studies were designed to demonstrate that the cells did not alter their properties after long periods in cell culture. The successful nature of these studies ensured that the properties of the product will not change over time and that product manufactured now will be the same as product manufactured in the future.

Kenneth L Waggoner, Chief Executive Officer of PharmaCyte, said, "We are delighted with the results of these long-term studies. They are crucial to demonstrating the long-term functionality and other characteristics of our genetically engineered cells, the 'Active Pharmaceutical Ingredient (API),' we plan to encapsulate as part of our therapy for LAPC. We have shown the API continues to function as designed over lengthy periods of time. We now have a large dossier of data to reference in our IND that documents each of the important characteristics of our API."

The characteristics of the cells that were tested included their genetic composition, their metabolic activity and the amount of the active enzyme (cytochrome P450 2B1) produced that converts the inactive prodrug, ifosfamide, to its active cancer-killing form. Importantly, the studies also showed that the cells were stable in the absence of the use of "selection agents," meaning that the cytochrome P450 gene that had been introduced into the cells was stably integrated in the genome of the cells.

## **About PharmaCyte Biotech**

PharmaCyte Biotech is a clinical stage biotechnology company developing cellular therapies for cancer and diabetes based upon a proprietary cellulose-based live cell encapsulation

technology known as "Cell-in-a-Box<sup>®</sup>." This technology will be used as a platform upon which therapies for several types of cancer and diabetes are being developed.

PharmaCyte's therapy for cancer involves encapsulating genetically engineered human cells that convert an inactive chemotherapy drug into its active or "cancer-killing" form. For pancreatic cancer, these encapsulated cells are implanted in the blood supply to the patient's tumor as close as possible to the site of the tumor. Once implanted, a chemotherapy drug that is normally activated in the liver (ifosfamide) is given intravenously at one-third the normal dose. The ifosfamide is carried by the circulatory system to where the encapsulated cells have been implanted. When the ifosfamide flows through pores in the capsules, the live cells inside act as a "bio-artificial liver" and activate the chemotherapy drug at the site of the cancer. This "targeted chemotherapy" has proven effective and safe to use in past clinical trials and results in no treatment related side effects.

PharmaCyte's therapy for Type 1 diabetes and insulin-dependent Type 2 diabetes involves encapsulating a human cell line that has been genetically engineered to produce, store and release insulin in response to the levels of blood sugar in the human body and/or beta islet cells. The encapsulation will be done using the Cell-in-a-Box<sup>®</sup> technology. Once the encapsulated cells are implanted in a diabetic patient, they will function as a "bio-artificial pancreas" for purposes of insulin production.

## Safe Harbor

This press release contains forward-looking statements, which are generally statements that are not historical facts. Forward-looking statements can be identified by the words "expects," "anticipates," "believes," "intends," "estimates," "plans," "will," "outlook" and similar expressions. Forward-looking statements are based on management's current plans, estimates, assumptions and projections, and speak only as of the date they are made. We undertake no obligation to update any forward-looking statement because of new information or future events, except as otherwise required by law. Forward-looking statements involve inherent risks and uncertainties, most of which are difficult to predict and are generally beyond our control. Actual results or outcomes may differ materially from those implied by the forward-looking statements due to the impact of numerous risk factors, many of which are discussed in more detail in our Annual Report on Form 10-K and our other reports filed with the Securities and Exchange Commission.

More information about PharmaCyte Biotech can be found at <a href="www.PharmaCyte.com">www.PharmaCyte.com</a>. Information may also be obtained by contacting PharmaCyte's Investor Relations Department.

View source version on businesswire.com: <a href="https://www.businesswire.com/news/home/20180430005458/en/">https://www.businesswire.com/news/home/20180430005458/en/</a>

## Investor Relations:

PharmaCyte Biotech, Inc. **Dr. Gerald W. Crabtree,** 917.595.2856

Investor Relations Department

Info@PharmaCyte.com

Source: PharmaCyte Biotech, Inc.