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PharmaCyte Biotech Successfully Completes Cytochrome P450 Site of Integration DNA Sequencing Assay

LAGUNA HILLS, Calif.--(BUSINESS WIRE)-- PharmaCyte Biotech, Inc. (NASDAQ: PMCB), a biotechnology company focused on developing cellular therapies for cancer and diabetes using its signature live-cell encapsulation technology, Cell-in-a-Box®, announced today the results of an additional, more detailed, analysis of the integration site of the cytochrome P450 2B1 gene from the augmented HEK293 cell clone that PharmaCyte uses in its CypCap™ product. This assay is one of the assays required by the U.S. Food and Drug Administration (FDA) in order to have the FDA's clinical hold lifted on PharmaCyte's Investigational New Drug Application (IND) for the treatment of locally advanced, inoperable pancreatic cancer (LAPC).

PharmaCyte's Chief Executive Officer, Kenneth L. Waggoner, said, "We are elated to have completed this sequencing assay given its importance to the FDA, and how incredibly difficult it was to arrive at this successful conclusion. We can report that the DNA sequence analysis of the cytochrome P450 2B1 augmented cells is now complete, and it is a great challenge that is now behind us. This kind of analysis is technically demanding, and we spent a great deal of time getting this right. In addition to extending our characterization of the augmented cells, the data also verifies our previous studies on the cells that are the active component of our novel LAPC therapy."

In previous studies, PharmaCyte showed that the cytochrome P450 2B1 gene in the augmented HEK293 cell clone was located on human chromosome 9 and the flanking sequence had already been determined. The FDA requested that the exact sequence of the cytochrome P450 2B1 gene inserted at that location should also be determined. This is technologically challenging because the introduced DNA is large and concatenated, causing the Company to turn to nanopore sequencing technology for this analysis. Nanopore sequencing is a cutting edge, unique and scalable technology that enables direct, real-time analysis of long DNA fragments. The technology was successfully used to determine the sequence of the introduced DNA, and the analysis of the sequence data shows that it is both intact and complete.

To learn more about PharmaCyte's pancreatic cancer treatment and how it works inside the body to treat locally advanced, inoperable pancreatic cancer, we encourage you to watch the company's documentary video complete with medical animations at: https://www.PharmaCyte.com/Cancer

About PharmaCyte Biotech

PharmaCyte Biotech, Inc. is a 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®.” This technology is being 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 we believe results in little to 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 and release insulin in response to the levels of blood sugar in the human body. The encapsulation of the cell line will be done using the Cell-in-a-Box technology. Once the encapsulated cells are implanted in a diabetic patient, we anticipate that they will function as a “bio-artificial pancreas” for purposes of insulin production.

Safe Harbor

This press release may contain forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 that express the current beliefs and expectations of the management of PharmaCyte. Any statements contained herein that do not describe historical facts are forward-looking statements that are subject to risks and uncertainties that could cause actual results, performance, and achievements to differ materially from those discussed in such forward-looking statements. Factors that could affect our actual results include our ability to raise the necessary capital to fund our operations and to find partners to supplement our capabilities and resources, our ability to satisfactorily address the issues raised by the FDA in order to have the clinical hold on our IND removed, as well as such other factors that are included in the periodic reports on Form 10-K and Form 10-Q that we file with the U.S. Securities and Exchange Commission. These forward- looking statements are made only as of the date hereof, and we undertake no obligation to update or revise the forward-looking statements, except as otherwise required by law, whether as a result of new information, future events or otherwise.

More information about PharmaCyte Biotech can be found at www.PharmaCyte.com. Information may also be obtained by contacting PharmaCyte’s Investor Relations Department.

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