

## PharmaCyte Biotech Cannabinoid Research Shows Promise for Success

LAGUNA HILLS, Calif., Oct. 10, 2016 (GLOBE NEWSWIRE) -- PharmaCyte Biotech, Inc. (OTCQB:PMCB), a clinical stage biotechnology company focused on developing targeted treatments for cancer and diabetes using its signature live-cell encapsulation technology, Cell-in-a-Box<sup>®</sup>, today announced that it has advanced into a new and promising phase of research at the University of Northern Colorado (UNCO) in its quest to develop targeted cannabinoid-based chemotherapy utilizing the Cell-in-a-Box<sup>®</sup> technology.

"The work at UNCO is just one of the programs actively underway at PharmaCyte," commented the Chief Executive Officer of PharmaCyte, Kenneth L. Waggoner. "With our preliminary work complete, we are now looking forward to the possibility of making significant progress in the development of targeted cannabinoid-based chemotherapy. The approach being used for our cannabinoid-based chemotherapy is the same as we are using for our pancreatic cancer therapy."

Utilizing data collected from recently-completed preliminary studies, a new research protocol has been undertaken to deliver anti-cancer cannabinoid molecules like cannabidiol (CBD) and tetrahydrocannabinol (THC) to solid tumors in a targeted fashion. PharmaCyte has identified a naturally-occurring enzyme that it believes is capable of converting specific cannabinoid prodrugs into cancer-fighting forms. The exact gene code of this enzyme has been sequenced.

Knowing the gene code, it is possible to synthesize the gene. The gene may then be inserted or "transfected" into the genetic code of live human cells. The bioengineered cells may then be grown in culture and tested for their cannabinoid prodrug activating ability. This work is currently in progress. If sufficient prodrug activation is detected, PharmaCyte plans to move directly to live-cell encapsulation using its Cell-in-a-Box<sup>®</sup> platform technology and pre-clinical testing with various cancer models.

The goal is to implant encapsulated bioengineered cells at the site of a tumor and then to administer the cannabinoid prodrug into a blood vessel near the tumor. The enzyme produced by the live cells within the capsules would activate the prodrug in a targeted fashion, initiating cancer cell death. Such an approach should maximize effectiveness and minimize side effects from this form of chemotherapy.

"We are quite pleased with the progress UNCO has made and to have all the necessary components in place to advance our research," commented cannabinoid medicine expert and member of PharmaCyte's Medical and Scientific Advisory Board, Dr. Mark L. Rabe. "Having a candidate enzyme and knowing the gene behind it is huge. It is now a matter of completing a series of steps and making sure everything we have planned works. If so, it is a fairly straight line to the clinic. Our initial goal is to tackle glioblastoma, an almost untreatable form of brain cancer."

## **About PharmaCyte Biotech**

PharmaCyte Biotech is a clinical stage biotechnology company developing therapies for cancer and diabetes based upon a proprietary cellulose-based live cell encapsulation technology known as "Cell-in-a-Box®." This technology will be used as a platform upon cancer which therapies for several types of 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. These encapsulated cells are implanted as close to the patient's cancerous tumor as possible. 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 comes in contact with the encapsulated cells they act as an artificial liver and activate the chemotherapy drug at the source of the cancer. This "targeted chemotherapy" has proven effective and safe to use in past clinical trials and results in no side effects.

In addition to developing a novel therapy for cancer, PharmaCyte is developing a therapy for Type 1 and insulin-dependent Type 2 diabetes. PharmaCyte plans to encapsulate 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. 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 may contain forward-looking statements regarding PharmaCyte Biotech and its future events and results that involve inherent risks and uncertainties. The words "anticipate", "believe", "estimate", "expect", "intend", "plan" and similar expressions, as they relate to PharmaCyte or its management, are intended to identify forward-looking statements. Important factors, many of which are beyond the control of PharmaCyte, could cause actual results to differ materially from those set forth in the forward-looking statements. They include PharmaCyte's ability to continue as a going concern, delays or unsuccessful results in preclinical and clinical trials, flaws or defects regarding its product candidates, changes in relevant legislation or regulatory requirements, uncertainty of protection of PharmaCyte's intellectual property and PharmaCyte's continued ability to raise capital. PharmaCyte does not assume any obligation to update any of these forward-looking statements.

More information about PharmaCyte can be found at<u>www.PharmaCyte.com</u>. It can also be obtained by contacting Investor Relations.

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