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ImmunoCellular Therapeutics Enters into Sponsored Research Agreement with University of Texas MD Anderson Cancer Center to Advance Stem-to-T-Cell Program

LOS ANGELES, Nov. 12, 2015 /PRNewswire/ -- ImmunoCellular Therapeutics, Ltd. ("ImmunoCellular") (NYSE MKT: IMUC) today announced it has entered into a sponsored research agreement with Dr. Cassian Yee at the University of Texas MD Anderson Cancer Center. Dr. Yee is an internationally recognized researcher and leading expert in identifying and isolating cytotoxic T cells. He serves as Professor, Department of Melanoma Medical Oncology, Division of Cancer Medicine, as well as Professor, Department of Immunology, Division of Cancer Medicine, and Director, Solid Tumor Cell Therapy, Center for Cancer Immunology Research, at MD Anderson.



Dr. Yee will focus on identifying T cells that strongly bind and kill tumor cells expressing an undisclosed target antigen. Then the T cell receptors (TCRs) will be sequenced and their corresponding DNA will be placed into stem cells to create preclinical therapeutic candidates for further evaluation. The ultimate goal of this work is to enable a clinical program based on hematopoietic stem cells that are isolated from the patient, engineered in the lab and then returned to the patient to create a population of antigen-specific killer T cells that target and kill the tumor. ImmunoCellular's Stem-to-T-cell platform technology has the potential to overcome the issue of short-lived T cell responses seen with the present forms of T cell and CAR-T therapies.

"The work on which Dr. Yee and ImmunoCellular are collaborating is both exciting in what it represents for immuno-oncology, and potentially groundbreaking, as it has not previously been accomplished on a large scale," said Steven Swanson, PhD, ImmunoCellular Senior Vice President, Research. "The identification of novel TCR sequences for application in stem cells has the potential to launch this program toward clinical testing. We are privileged to be working with an immune-oncologist of Dr. Yee's stature, and believe that this work has the potential to position our Stem-to-T-cell program as one of the most promising in the industry."

"With our lead phase 3 program ICT-107 underway and financed, we are now focusing additional resources and attention on moving our Stem-to-T-cell program toward clinical development," said Andrew Gengos, ImmunoCellular Chief Executive Officer. "Our collaboration with Dr. Yee and MD Anderson is an important step in our efforts to build a leading cancer immunotherapy company, and we look forward to potentially establishing more collaborations and bringing additional promising technologies into ImmunoCellular."

About ImmunoCellular's Stem-to-T-Cell Program

ImmunoCellular's dendritic cell-based immunotherapy platform and its Stem-to-T-cell platform represent complementary approaches that lead to the same result: to kill the tumor by creating a population of antigen specific T-cells that can specifically recognize and kill cancer cells as well as cancer stem cells.

Dendritic cell-based immunotherapies creates a dendritic cell outside of the patient's body, using the patient's own white blood cells which, when reintroduced into the patient's body, are programmed to find the killer T-cells and essentially teach them what to look for in the cancer and kill cancer cells.

In contrast, based on the technology in-licensed from Caltech last year, ImmunoCellular's Stem-to-T-cell program starts with hematopoietic stem cells which are then engineered outside of the patient's body such that when they are reintroduced, they divide into themselves, and into daughter cells which are antigen-specific killer T-cells.

ImmunoCellular's Stem-to-T-cell program is designed to harness the power of the immune system in highly directed and specific ways to engineer highly antigen-specific tumor killing. At the core of the Stem-to-T-cell technology is harvesting stem cells from cancer patients and then cloning into them T cell receptors that are specific for cancer cells. These engineered stem cells will then be reintroduced into the patient and are pre-programed to produce daughter cells that are antigen specific killer T cells that are capable of identifying, binding to, and killing cancer cells. Because stem cells are immortal, these reengineered stem cells could provide a natural and perpetual source of T cells that can target and destroy cancer cells in the patient.

An important component of the Stem-to-T-cell program is identification and selection of a T cell receptor that is capable of binding to tumor cells. It is this T cell receptor that will be transferred into the hematopoietic stem cell, and that allows the stem cell to produce cytotoxic T cells that can bind and kill tumor cells.

About ImmunoCellular Therapeutics, Ltd.

ImmunoCellular Therapeutics, Ltd. is a Los Angeles-based clinical-stage company that is developing immune-based therapies for the treatment of brain and other cancers. ImmunoCellular has concluded a phase 2 trial of its lead product candidate, ICT-107, a dendritic cell-based immunotherapy targeting multiple tumor-associated antigens on glioblastoma stem cells. ImmunoCellular's pipeline also includes: ICT-121, a dendritic cell immunotherapy targeting the CD133 antigen on stem cells in recurrent glioblastoma; ICT-140, a dendritic cell immunotherapy targeting antigens on ovarian cancer stem cells; and the Stem-to-T-cell research program which engineers the patient's hematopoietic stem cells to generate antigen-specific cancer-killing T-cells. To learn more about ImmunoCellular, please visit www.imuc.com.

Forward-Looking Statements for ImmunoCellular Therapeutics

This press release contains certain forward-looking statements, including statements regarding the development and commercialization of ICT-107, initiation of a phase 3 study of ICT-107, the advancement of the ICT-121 phase 1 trial, the development of the Company's preclinical Stem-to-T-cell and related research program efforts and its ability to achieve other clinical, operational and financial goals. These statements are based on ImmunoCellular's current expectations and involve significant risks and uncertainties, including those described under the heading "Risk Factors" in ImmunoCellular's most recently filed quarterly report on Form 10-Q and annual report on Form 10-K. Except as required by law, ImmunoCellular undertakes no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

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