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ImmunoCellular Therapeutics Enters into Research Agreement with University of Pennsylvania to Support Phase II Clinical Trial of ICT-107

LOS ANGELES, CA – April 21, 2010 – ImmunoCellular Therapeutics, Ltd., (OTC.BB: IMUC), a biotechnology company that is developing immune based therapies for the treatment of various forms of cancer, announced today that the Company has entered into a sponsored research agreement and an option agreement with The University of Pennsylvania ("UPENN") to support process development and manufacturing in a planned Phase II clinical trial of ICT-107, the Company's dendritic-cell based cancer vaccine product candidate for the treatment of glioblastoma multiforme (GBM). GBM is the most common and aggressive form of brain cancer. In a Phase I clinical trial, ICT-107 demonstrated the ability to significantly extend in patients their overall survival time as well as tumor free survival time compared to the current standard of care.

The UPENN agreement will include process optimization with the goal of increasing yields such that in a single manufacturing run enough doses could be produced for 2-3 years of each patients vaccination and reduce the cost of manufacturing of each dose significantly. In addition, the optioned dendritic cell production technologies developed at UPenn could result in a higher potency as well as reduced time to manufacture these vaccines.

"We are pleased that such a prestigious institution as The University of Pennsylvania has agreed to participate in our research efforts surrounding ICT-107," said Manish Singh, Ph.D., ImmunoCellular Therapeutics' President and CEO. "We look forward to validating the promising results demonstrated in the Phase I trial through a more extensive study in Phase II."

ICT-107 is a dendritic-cell based vaccine that works by activating a patient's immune system against specific tumor-associated antigens. This is accomplished by extracting dendritic cells from a patient, loading them with the antigens, and reintroducing them to the patient's body to trigger an immune response.

In a recent Phase I study of ICT-107 in GBM, newly diagnosed patients who received the vaccine demonstrated a median progression-free survival (PFS) of 17.7 months after surgery. This compared favorably with the historical median PFS of 6.9 months observed with standard treatment with surgery, radiation and chemotherapy. Seven of the 16 patients (44%) who participated in the study continue to live with no disease progression with an average time over 2 years, which is significantly better than historical data of less than 15% disease free survival.

The six tumor-associated antigens used in ICT-107 are AIM2, Her-2/neu, gp-100, MAGE-1, TRP-2 and IL13Ra2. These antigens are highly expressed in GBM as well as a number other types of cancer, including breast, ovarian, colon and melanoma. In addition, three of these antigens are also highly expressed on cancer

stem cells. ICT-107 may, therefore, be potentially applicable to multiple cancer types and may target both the bulk of the tumor as well as cancer stem cells, which are widely considered as roots of these tumors.

About ImmunoCellular Therapeutics

IMUC is a Los Angeles-based clinical-stage company that is developing immune-based therapies for the treatment of brain and other cancers. The Company recently completed a Phase I trial of its lead product candidate, ICT-107, a dendritic cell-based vaccine targeting multiple tumor associated antigens for glioblastoma. The Company is planning to initiate a multicenter phase II study of this vaccine in the second half of 2010. The Company's "off the shelf" therapeutic vaccine product candidate (ICT-121) targeting cancer stem cells for multiple cancer indications is targeted by IMUC to enter clinical trials for glioblastoma during the second half of 2010. IMUC has entered into a research and license option deal with the Roche Group for one of the Company's monoclonal antibody product candidates for the diagnosis and treatment of ovarian cancer and multiple myeloma, which provides for potential licensing and milestone payments of $32MM and royalties if the Roche Group exercises its option and commercializes this antibody technology for multiple indications. IMUC is in pre-clinical development of another monoclonal antibody product candidate for the treatment of small cell lung cancer and pancreatic cancer, and is also evaluating its platform technology for monoclonal antibody discovery to target cancer stem cells. To learn more about IMUC, please go to www.imuc.com.

Forward-Looking Statements

This press release contains certain forward-looking statements that are subject to a number of risks and uncertainties, including without limitation, the risks associated with potential unanticipated difficulties or delays in optimizing the manufacture of ICT-107 for planned clinical trials; the potential inability to obtain licenses from third parties that will be needed to commercialize ICT-107 in many major commercial territories; the potential inability to secure a partner for ICT-107; the risk that future trials of ICT-107, if any, do not confirm the safety and efficacy data generated in the Phase I trial; the need to satisfy performance milestones to maintain the vaccine technology licenses with Cedars-Sinai; the risks associated with obtaining a patent that provides commercially significant protection for ICT-107; and the need for substantial additional capital to fund development of product candidates beyond their initial clinical or pre-clinical stages, including to fund the planned Phase II trial for ICT-107, and to continue IMUC's operations. Additional risks and uncertainties are described in IMUC's most recently filed SEC documents, such as its most recent annual report on Form 10-K, all quarterly reports on Form 10-Q and any current reports on Form 8-K. IMUC undertakes no obligation to publicly update or revise any forward-looking statements, whether as a result of new information, future events or otherwise.

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