

**IMMUNOCELLULAR THERAPEUTICS' CANCER VACCINE DEMONSTRATES
IMMUNE RESPONSE AGAINST BRAIN CANCER IN CLINICAL TRIAL**

LOS ANGELES, CA – December 23, 2008 – ImmunoCellular Therapeutics, Ltd. (OTC: IMUC.OB) (IMUC), a biotechnology company, presented preliminary, promising clinical data from a Phase I trial, evaluating ICT-107, the company's dendritic cell-based cancer vaccine product candidate for the treatment of glioblastoma. ICT-107 was well tolerated, and no significant adverse events were reported. These data were reported at the Society for Neuro-Oncology 13th Annual Scientific Meeting in Las Vegas, Nevada.

The Phase I clinical trial of ICT-107 was conducted to evaluate the safety and tolerability of the cancer vaccine in patients with glioblastoma, the most common and malignant type of brain cancer. The trial enrolled 19 patients and was conducted at Cedars-Sinai Medical Center. Of the 19 patients enrolled, seventeen patients are still alive, with eight patients surviving at least one year after the surgery that preceded their vaccine treatment. Ten patients were evaluated for immune responses, and five of them had a significant immune response to at least one tumor-associated antigen. Patients demonstrating an immune response are exhibiting a trend toward longer overall survival. IMUC expects to present additional follow-up data on this trial at a medical meeting in 2009.

“We are encouraged by these preliminary data from ICT-107, and while we are cautious due to their preliminary nature, we are pleased that 42 percent of patients remain alive one year after the surgery that preceded their vaccine treatment. Our clinical goal with ICT-107 is to stimulate a cancer-specific immune response, so we were encouraged to see that 50 percent of the patients evaluated had a tumor-specific immune response,” stated Surasak Phuphanich, M.D., the principal investigator of the trial and a senior author of the presentation at the meeting.

“Glioblastoma remains a large unmet medical need across all age groups, and I am optimistic that an immune-based therapy such as ICT-107 or our cancer stem cell vaccine product candidate, ICT-121, may someday provide additional survival benefit to this patient population,” stated Manish Singh, Ph.D. “Our next goal is to advance ICT-121, which we expect to enter the clinic as a non patient-specific (“off the shelf”) vaccine in the second quarter of 2009. IMUC is strategically reviewing how to best move forward with our various vaccine cancer and molecular antibody programs in light of our limited resources and the difficulty for biotech companies to access additional capital under current market conditions. We look forward to completing the analysis of the data from the Phase I trial of our dendritic cell-based vaccine as an important part of this strategic review.”

About ICT-107

ICT-107 is IMUC's patient-specific therapeutic cancer vaccine product candidate that consists of dendritic cells—immune system cells responsible for presenting antigens (immune system targets) to the immune system—which are obtained from the patient's blood and “programmed” with tumor

antigens, which in turn provide a target for the immune system. The immune system should then be armed to seek and destroy any remaining glioblastoma cells.

About Glioblastoma

The high rate of mortality of patients diagnosed with brain cancers and in particular with glioblastoma multiforme (the most lethal and devastating form) is driving the scientific community to discover and develop improved treatments that could increase the survival time and enhance the quality of life of patients. Of the approximately 19,000 cases of malignant brain and spinal cord tumors that are diagnosed each year in the United States, there currently is no satisfactory treatment, and the two-year survival rates are only in the range of 26 percent. Neither surgery, radiation nor anti-cancer drugs, the standard treatment modalities, have shown to date any prospect of meaningful extension of patients' lives.

About ImmunoCellular Therapeutics, Ltd.

IMUC is a Los Angeles-based clinical-stage company that is developing immune based therapies for the treatment of brain and other cancers. IMUC's lead product candidate—a dendritic cell-based vaccine for treating brain tumors—has recently completed patient enrollment in a Phase I clinical trial. The company's "off the shelf" therapeutic vaccine product candidate targeting cancer stem cells for multiple cancer indications is expected to enter clinical trials during the second quarter of 2009. IMUC is in pre-clinical development of a 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 using differential immunization for diagnosing and treating multiple types of cancer. To learn more about IMUC, please visit 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 that final review of the Phase I trial data will not support continued development of the dendritic cell-based cancer vaccine; the risks associated with obtaining FDA clearance to commence clinical trials of the cancer stem cell vaccine on a timely basis or at all; the risks associated with adhering to projected preclinical or clinical timelines and the uncertainties of outcomes of development work for product candidates, including those based on destroying cancer stem cells as a potentially safe and effective treatment for various cancers; 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 the dendritic cell-based cancer vaccine and the need to obtain licenses from third parties before commercializing this vaccine; and the need for substantial additional capital to fund development of product candidates beyond their initial clinical or pre-clinical stages. Additional risks and uncertainties are described in IMUC's most recently filed SEC documents, such as its most recent annual report on Form 10-KSB, 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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