New Head and Neck Vaccines for Cancer Therapy

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Chicago, IL (PRWEB) November 30, 2015 -- ICT has developed a new vaccine for patients with head and neck cancer. The vaccine is designed to induce a powerful immune response against cancer cells that remain in patients who have completed conventional therapy. The vaccine is designed as an adjunct, not a replacement, to conventional cancer treatments.

A Phase I/II clinical trial based on ICT’s technology for 37 patients with head and neck cancer has been approved by FDA for further development. The vaccine will be prepared under contract at the University of Pittsburgh Cancer Institute where the trial will be carried out.

The vaccine is prepared by transfer of DNA from the patient’s own tumor into an FDA-approved, highly immunogenic foreign to the patient (allogeneic) cell line where antigens characteristic of the patient’s cancer are expressed. The vaccine is naturally taken-up by dendritic (antigen presenting) cells that present tumor-antigens to cytotoxic (“killer”) T lymphocytes in the patient. The activated “killer” lymphocytes then seek out and destroy residual cancer cells, the common source of recurrent disease.

This type of vaccine has multiple advantages:

• Leukapheresis, an expensive, complex and patient inconvenient procedure used by others, is not required. ICT’s vaccine is administered by a simple injection into the skin in the Out-Patient Clinic. Hospitalization is not required.

• The vaccine targets the unique characteristics of the patient’s tumor. DNA from the patient’s cancer directs the expression of a broad array of unique antigens that characterize the patient’s own tumor.

• The vaccine is stable and readily prepared at low cost under conventional (GLP) laboratory conditions. The technology permits modification of the cells used as recipients of DNA from the patient’s tumor to further augment their inherent immune stimulating properties.

• The vaccines can be produced from minute amounts of tumor tissue. Sufficient DNA to prepare an effective vaccine can be obtained from a biopsy specimen or a tumor as small as 4 mm, enabling treatment early in the course of the disease when the tumor is most susceptible to immune-based therapies.

• The process can be used for treatment of various other solid tumors. In addition to head and neck cancer, patients with breast cancer, cancer of the colon, prostate or lung can receive therapy.

ICT’s core technology was developed at the University of Illinois College of Medicine under the leadership of Edward P. Cohen, MD, and a highly recognized tumor immunologist. Numerous preclinical studies published in leading scientific journals indicate that immunization with ICT’s vaccines induces strong therapeutic immune responses in mice with cancer. Four patents that protect the company’s technology have been issued in the United States and Europe. One additional patent, entitled, “Cancer Vaccines and Therapeutic Methods,” that
protects the Company’s strategy for the identification of tumor antigens, was recently issued.

ICT’s technologies were developed with funds from the NIH, the American Cancer Society, the Komen Foundation, the Department of Defense, the Illinois Department of Public Health, and from private capital. Learn more by visiting, www.immcellther.net
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