Developing Light Infusion Therapy™ (Litx™), an innovative light-activated drug treatment for solid tumors

FOR IMMEDIATE RELEASE

Light Sciences Oncology Completes Patient Enrollment in Phase 3 Clinical Trial of Litx as a Treatment for Hepatocellular Carcinoma

200 Patients Enrolled in Clinical Trial to Assess Survival of Patients Receiving Litx versus Standard of Care Therapies for Unresectable Hepatocellular Carcinoma

Bellevue, WA (November 25, 2008) – Light Sciences Oncology, Inc. (LSO) today announced the completion of enrollment in a global Phase 3 clinical trial of Light Infusion Therapy™ (Litx™) as a treatment for unresectable hepatocellular carcinoma (HCC), also known as hepatoma or primary liver cancer.

The two-armed, randomized clinical trial has enrolled 200 patients at sites in the Philippines, Korea, India, Malaysia, Thailand, Hong Kong, Singapore, Serbia, Poland, Croatia, and Italy. The primary endpoint of the clinical trial is to assess the survival of patients receiving Litx therapy versus those receiving standard-of-care therapies.

"We are pleased to have enrolled the final patient in this pivotal clinical trial of Litx in primary liver cancer," said Llew Keltner, M.D., Ph.D., president and CEO of Light Sciences Oncology. "We look forward to seeing a statistically significant survival benefit of Litx and proceeding with a New Drug Application to the U.S. FDA, EMEA, and other regulatory authorities in 2009."

HCC represents a great unmet medical need, with no effective treatments now available for the vast majority of patients. According to the 2005 edition of Cancer, Principles & Practice of Oncology, there are approximately one million new cases of HCC worldwide each year and, according to an article published in the Journal of Hepatology in 2004, HCC kills approximately one million people worldwide each year.

About Light-Infusion Therapy (Litx)

Litx is designed as an entirely new mode of therapy compared with the older, laser-based generation of light-activated drug therapies. The single-use, disposable Litx device uses light-emitting diodes (LEDs) to activate LS11® (talaporfin sodium), a light-activated, water-soluble drug. An LS11 molecule activated by the Litx system results in the production of singlet oxygen, which can kill target tissues with minimal side effects. Litx uses low-intensity light that causes vascular closure and apoptosis, or "programmed

cell death." Illumination with low-intensity light can activate each molecule of LS11 many times, resulting in a continuous supply of singlet oxygen molecules.

The Litx device contains a tiny array of LEDs at the end of a very narrow (only 1.2 mm wide) flexible coated micro-wire. Administering physicians insert the LED array into a tumor using a biopsy-like procedure, requiring only a mild anesthetic, followed by intravenous injection of LS11. The device emits red light at a discrete frequency and intensity, for a fixed time period, to activate LS11 and create a 2 cm by 4 cm "kill zone" around the LED array.

Litx attacks tumors from the inside-out, rather than outside-in, the method used in many standard treatments. It kills all tumor cells in the kill zone, rather than only the minority of cells undergoing rapid division. The Litx treatment closes tumor blood supply vessels, starving remaining cancer cells of oxygen and nutrients. The use of multiple light sources and multiple treatments is feasible and can be tailored based on the number, size, shape and location of the target tumors.

Additionally, Litx may stimulate a patient's immune system to attack untreated tumors. Since 2007, data from a number of published animal and human studies has demonstrated that the production of large apoptotic masses in tumors with light-activated drug therapies, including Litx, yields tumor-specific clones of CD8+ T-cells that infiltrate distant, untreated tumors and destroys them. Human trials of Litx have produced images that demonstrate destruction of large tumors not directly treated with Litx.

There is no evidence that Litx produces the typical side effects from the systemic damage to rapidly-dividing normal cells caused by chemotherapy, radiation, and other cancer treatments. As a single-use disposable drug and device combination, Litx is being developed solely as a drug product through the oversight of FDA's Center for Drug Evaluation and Research (CDER).

About Light Sciences Oncology

Light Sciences Oncology (LSO) is the developer of an innovative light-activated drug treatment for solid tumors known as Light Infusion Therapy™ (Litx™). The drug treatment is activated by a palm-sized, single-use, disposable unit that provides easy use for physicians and tolerable, effective, and repeatable treatments for cancer patients. In addition to the Phase 3 HCC trial, LSO is also treating patients in a Phase 3 trial for metastatic colorectal cancer. Based on the mechanism of action of Litx treatment, additional applications of Litx may also include benign neoplasms—growths of non-cancerous tissue that nonetheless have implications for patient morbidity and even mortality. LSO has completed a Phase 1/2 trial and has initiated a Phase 2a trial in benign prostatic hyperplasia (BPH), or enlargement of the prostate. The company has positioned itself for growth with a strong portfolio of intellectual property, innovation applications in development, and an exceptionally capable and efficient team.

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