Light Sciences Oncology Initiates Phase II Trial of Litx™ Therapy in Patients with Glioma

First Patient Enrolled in Study to Evaluate the Safety of Light Infusion Therapy™ Prior to Intraoperative Treatment of Patients with Brain Cancer

Seattle, WA (February 14, 2007) – Light Sciences Oncology today announced the treatment of the first patient in its Phase II trial for glioma. The open label study is being conducted in Europe and is expected to enroll 12 patients. Its primary objective is to demonstrate the safety of Light Infusion Therapy™ (Litx™) with increasing light doses in the treatment of primary or recurrent glioma—including glioblastoma and astrocytoma.

"Data from human studies shows evidence of the selective uptake of LS11 in brain malignancies versus normal brain, when administered within a specific window of time prior to activation with light of the correct wavelength," said Llew Keltner, M.D., Ph.D., President and CEO of Light Sciences Oncology. "Building on that evidence, we intend to use Litx to target the cancer while sparing healthy brain tissue. Glioma is an extremely deadly form of brain cancer without adequate treatment options, and we are eager to demonstrate that Litx has promise for patients with this very challenging disease."

Glioma is a common and aggressive as well as deadly brain cancer. The American Cancer Society estimates that 20,500 people in the United States will develop primary cancer of the brain or nervous system in 2007, and nearly 13,000 will die from the disease. The National Cancer Institute estimates that glioblastoma and anaplastic astrocytoma account for approximately 38% of primary brain tumors. Internationally, Datamonitor estimates that there were approximately 34,000 new cases of glioma in the United States, Japan and Western Europe in 2005.

Litx uses light-emitting diodes (LEDs) to activate LS11 (talaporfin sodium). An activated LS11 molecule results in the production of singlet oxygen molecules which can kill target tissues with minimal side effects through vascular closure and apoptosis, or "programmed cell death." Constant illumination 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, flexible catheter-like conductor. Administering physicians insert the LED array into a tumor after intravenous injection of LS11. Emitting red light at a discrete frequency, intensity, and time period, the device activates LS11 in a prescribed "kill zone" around the LED array. Unlike laser-based light-activated therapies, Litx does not require expensive equipment.

Litx may avoid the serious toxicities associated with traditional treatments. It attacks tumors from the inside-out, rather than outside-in, the method used in many standard treatments. Litx kills all tumor cells in the kill zone, rather than only the minority of cells undergoing rapid division. The Litx treatment may also close 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 size, shape and location of the target tumors.

ABOUT LIGHT SCIENCES ONCOLOGY

Light Sciences Oncology, Inc. (LSO) is developing Light Infusion Therapy (Litx™) to provide safer and more effective treatment to cancer patients. In addition to the Phase II clinical trial of Litx in glioma, the company is conducting Phase III trials in hepatocellular carcinoma and metastatic colorectal cancer. In December 2006 LSO purchased the assets of its former parent company Light Sciences Corporation (LSC), securing all Litx intellectual property and widening its scope of potential therapeutic applications to include benign neoplasms such as benign prostatic hyperplasia (BPH) and uterine fibroids, as well as vascular disease, dermatology, and all other applications of the versatile Litx platform. The Company has positioned itself for growth with a strong portfolio of intellectual property, innovative applications in development, and an exceptionally talented team.

CONTACTS

Robert M. Littauer
Vice President, Chief Financial Officer and Treasurer
425-369-2760
bobl@lsoncology.com

Llew Keltner, M.D., Ph.D
President and CEO
425-369-2760
dr_llew@lsoncology.com

website: www.lsoncology.com