



FOR IMMEDIATE RELEASE

Dosing Initiated in TransMolecular's Phase 1/2 Clinical Trial for Intravenous Administration of ¹³¹Iodine-TM601 in Patients with Recurrent Malignant Glioma

-First patient treated at University of Chicago Medical Center-

CAMBRIDGE, Mass. September 29, 2008 – TransMolecular, Inc., a biotechnology company focused on targeted therapies for cancer, announced today that dosing was initiated in a Phase 1/2 trial of ¹³¹I-TM601 delivered intravenously (IV) for the treatment of adult patients with recurrent malignant glioma. The trial will focus on investigating the tolerability, safety, and therapeutic efficacy of multiple doses of ¹³¹I-TM601 when administered intravenously. This study follows the clinical confirmation in a now completed Phase 1 trial that IV-delivered ¹³¹I-TM601 crosses the blood-brain barrier and specifically targets and binds to tumor tissue.

"There is a great need for specifically targeted and effective treatment options for patients with recurrent malignant glioma, one of the most serious cancer recurrences," commented Steven Chmura, M.D., Ph.D., Assistant Professor of Radiation and Cellular Oncology at the University of Chicago and the Principal Investigator for the trial. "I am encouraged by previous preliminary clinical results for radiolabeled TM601 in this disease. By using a single low dose of ¹³¹I-TM601 as an imaging agent to confirm tumor specific uptake and localization of the drug prior to delivering higher treatment doses, we should be able to ensure safety and potentially identify and predict the likely therapeutic responders, which will ultimately help us to further understand the potential of this treatment."

About the Phase 1/2 Trial

The Phase 1/2 trial will enroll approximately 64 patients aged 18-years and older who have failed prior radiation treatment, with or without chemotherapy. The study will be conducted at up to 20 clinical sites across the United States. The primary study objectives are to determine the safety, tolerability and efficacy of multiple doses of radiolabeled TM601. The secondary objective is to evaluate, in a subset of patients, the level of radiation absorbed by the target tumor and also by other organs, stemming from intravenous delivery.

Prior to initiating treatment as part of the study, patients will receive an imaging dose of ¹³¹I-TM601 to determine which patients demonstrate tumor-specific localization and uptake of the drug. Only those patients who demonstrate tumor uptake of ¹³¹I-TM601 will be deemed appropriate to continue in the study and receive higher treatment doses. The study will be conducted in two phases. In the first phase, patients will be assigned to dosing cohorts and receive two-to-five weekly IV doses of ¹³¹I-TM601. Escalation to the next highest dose level will be dependent upon the demonstrated tolerance in the previous dose level. Patients enrolled in the second phase of the study will be assigned to the optimal dose-level determined by the experience in the first phase.

“Several studies have suggested a potential therapeutic benefit of ¹³¹I-TM601 against a number of cancer types, and that the compound specifically targets and is actively taken up by tumor tissue. TM601 has shown broad potential both as a targeting and delivery vehicle linked to other anti-cancer agents, as well as in its own right due to its anti-angiogenic activity. With this study, we hope to build upon these previous results and further advance the diverse TM601 platform,” said Michael Egan, President and CEO of TransMolecular.

About TM601

TM601 is a novel synthetic peptide derived from scorpion venom, which is highly specific and selective in targeting both primary tumors and metastases both in the periphery and in the central nervous system. TM601 targets and binds to receptors expressed on tumor cells, but not on normal, healthy cells. When ¹³¹Iodine radiolabeled TM601 is administered, it is actively and rapidly taken up into these tumor cells, delivering a highly concentrated dose of radiation to kill the tumor cells while sparing nearby healthy cells. TransMolecular is also exploring the potential for TM601 to deliver additional therapeutic agents to tumor cells. The data obtained from preclinical and clinical studies also suggest that native TM601 may affect a tumor’s ability to grow and spread without added radiation through an anti-angiogenic mode-of-action.

About Glioma

In the U.S., an estimated 20,500 new cases of brain and/or nervous system tumors were expected to be diagnosed in 2007. Of primary brain tumors, malignant glioma is the most common tumor type and is the second most common cause of cancer-related mortality in the 15-to-44 age group. In patients with grade III anaplastic glioma, the median survival from the time of diagnosis is three to five years; median survival in patients with grade IV glioma or glioblastoma multiforme is approximately a year. Despite over twenty-five years of intensive research and a variety of chemotherapy, radiotherapy, and surgical approaches, the prognosis for these tumors has not changed significantly. Malignant glioma remains one of the most aggressive and difficult-to-treat cancers.

About TransMolecular, Inc.

TransMolecular, Inc. is a privately held, venture capital backed biotechnology company committed to discovering, developing and commercializing novel and proprietary products to diagnose and treat cancers that have inadequate treatment alternatives. TransMolecular’s product pipeline is based on a protein platform that employs a therapeutically active polypeptide derived from scorpion venom. The company is currently exploring the use of this platform for broad applications to diagnose and treat cancers and other human diseases. More information can be found at www.transmolecular.com.

About University of Chicago Medical Center

The University of Chicago Medical Center, established in 1927, is one of the nation's leading academic medical institutions. It consists of the renowned Pritzker School of Medicine; Bernard Mitchell Hospital, the primary adult patient care facility; Comer Children's Hospital, devoted to the medical needs of children; Chicago Lying-in Hospital, a maternity and women's hospital; and the Duchossois Center for Advanced Medicine, a state-of-the-art ambulatory-care facility with the full spectrum of preventive, diagnostic, and treatment functions. Care is provided by more than 700 attending physicians - most of whom are full-time University faculty members - 620 residents and fellows, more than 1,000 nurses and 9,500 employees. The Medical Center is consistently recognized as a leading provider of complex medical care. It is the only Illinois hospital ever to make the U.S. News and World Report Honor Roll and 10 clinical specialties

ranked among the top 30 programs nationwide. The Medical Center was awarded Magnet status in 2007, the highest level of recognition for nursing care.

This press release contains forward-looking statements. The Company wishes to caution the reader of this press release that actual results may differ from those discussed in the forward-looking statements and may be adversely affected by, among other things, risks associated with litigation, clinical trials, the regulatory approval process, reimbursement policies, commercialization of new technologies, intellectual property, and other factors.

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