



TransMolecular Reports Positive Phase 1 Trial of ¹³¹Iodine Radiolabeled TM-601 in Glioma

**-Data demonstrates that the intravenous administration of radio-labeled TM-601
can cross the blood-brain barrier-**

CAMBRIDGE, MA – October 31, 2007 – TransMolecular, Inc., a biotechnology company focused on targeted therapies for cancer, today announced the presentation of positive interim Phase 1 data for its intravenous formulation of ¹³¹I-TM-601 in recurrent glioma at the American Society for Therapeutic Radiology and Oncology Meeting (ASTRO) in Los Angeles, CA. The Phase 1 study demonstrated that intravenously administered radiolabeled TM-601 is able to cross the blood-brain barrier, bind to tumor tissue in the brain, and produce MR imaging improvement in patients with inoperable malignant glioma. The ASTRO abstract was presented by lead author Dr. John Fiveash, M.D., Radiation Oncology, University of Alabama at Birmingham in a poster session on October 30, 2007.

TM-601 is a synthetic version of chlorotoxin, a naturally occurring peptide derived from scorpion venom, which is highly specific in targeting both primary tumors and metastases. TM-601 targets and binds to receptors expressed on tumor cells but not on normal, healthy cells. As the TM-601 binds primarily with the tumor cell receptor sites, it also delivers a targeted dose of radiation, killing the tumor cell without affecting nearby healthy cells. The FDA has granted it orphan drug status for patients with high-grade glioma, as well as a Fast Track designation.

“This Phase 1 study provides important data demonstrating that radiolabeled TM-601 can cross the blood-brain barrier, which is an obstacle in the clinical development of other drugs for brain cancers,” said Dr. Fiveash. “This peptide has also shown low toxicity. Importantly, it allows the administration of drug intravenously as well as locally. This positive profile is encouraging, and TM-601 may emerge as a promising new therapeutic for glioma patients, a community with significant unmet medical needs due to the current lack of drug therapies for their disease.”

Michael Egan, President and Chief Executive Officer of TransMolecular, commented, “We are pleased by the positive results from this trial and believe that they support our plans to begin a Phase 2 intravenous trial in glioma soon. We are also planning a Phase 1 trial with non-radiolabeled TM-601 in malignant glioma, as the mechanism-of-action of this peptide suggests that it may affect the tumor’s ability to grow and spread without added radiation. Our clinical development plan for TM-601 is a reflection of its broad platform potential for multiple applications in cancer.”

The purpose of the current study was to determine if intravenous administration of radiolabeled TM-601 would be feasible and would demonstrate intratumoral uptake in patients with a variety of metastatic cancers and gliomas refractory to treatment. The

abstract reports results from a subset of five patients on the trial, all with recurrent or refractory malignant glioma. Five patients with recurrent gliomas received a test dose of 0.2 mg of TM-601 labeled with 10 mCi of ¹³¹Iodine radioisotope. Sequential whole body gamma camera images were then collected at five time points —immediately following administration, then 3 hours, 24 hours, 48-72 hours, and 168 hours post-administration – to determine tumor uptake and perform dosimetry analysis. Patients whose images indicated tumor uptake received a second therapeutic dose of 0.6 mg TM-601 labeled with 30 mCi of ¹³¹Iodine radioisotope one week later.

Trial results revealed that all five patients with malignant glioma demonstrated tumor-specific uptake of radiolabeled TM-601 based on the whole body planar gamma camera imaging. Additionally, no dose-limiting toxicities were observed. Radiation dosimetry analysis indicated that the dose of radiation delivered intravenously may be escalated significantly before causing concern about toxicity to normal organs. Moreover, one of the five glioma patients treated on the study to-date did demonstrate a reduction in the volume of enhancement on MRI scan, suggesting possible tumor response to treatment.

About Glioma

Glioma is a highly invasive, rapidly spreading form of brain cancer that is currently resistant to surgical or medical treatment. Among the 36,000 primary brain tumors reported in the U.S. each year, more than 17,000 are diagnosed as high-grade gliomas. Gliomas can occur at any time in life, from childhood to old age. About half of patients with high-grade glioma die within the first year of diagnosis.

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 therapeutically active polypeptides 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.

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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