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Study Demonstrates Safety of Promising Investigational Treatment for Deadly Brain Cancer

Results Establish Safe Dosages for Larger-Scale Study of ¹³¹I-TM-601 in Treatment of High-Grade Gliomas

CAMBRIDGE, MA – June, 5, 2006 – TransMolecular, Inc., a biotechnology company focused on targeted therapies for cancer, today announced favorable safety results from the first sequence of a phase II trial evaluating ¹³¹I-TM-601 for treatment of high-grade glioblastoma. Results of the safety analysis were presented yesterday at the 2006 ASCO Annual Meeting in Atlanta, GA.

“We have been impressed with the low toxicity seen in this study,” said John Fiveash, M.D., Radiation Oncology, University of Alabama at Birmingham who presented the results. “We have demonstrated the ability to give 24 times the dose of radio-labeled TM-601 used in the initial phase I/II study, which had shown promising results in this difficult to treat patient population, and are very enthusiastic about pursuing development of this agent in malignant glioma.”

¹³¹I-TM-601 is a synthetic version of chlorotoxin – a naturally occurring peptide derived from scorpion venom – coupled with the radioisotope iodine 131 that is delivered directly to the brain through an intracavitary reservoir device. Chlorotoxin, or 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. Evidence from previous phase I/II studies suggests that ¹³¹I-TM-601 is associated with positive clinical outcomes and prolonged survival.

In the open-label study, 15 patients with high-grade, recurrent glioblastoma were assigned to one of 4 treatment groups, each of which received fixed dosages ranging from 0.4 mg of TM-601 and 20 mCi of radioisotope to 0.8 mg of TM-601 and 40 mCi of radioisotope. ¹³¹I-TM-601 was administered once a week for either 3 or 6 weeks.

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Safety evaluations following the administration of each dose revealed no dose-limiting toxicities in any of the treatment groups. Serious adverse events included seizures, brain swelling, and low platelet counts; none were judged to be related to the study drug.

¹³¹I-TM-601 was approved by the Food and Drug Administration as an investigational drug in April 2002, was granted orphan drug status for patients with high-grade glioma, and has received Fast Track designation. A phase I/II trial was successfully completed in 2004. The second sequence of the ¹³¹I-TM-601 phase II trial evaluating the effects of three or six weekly injections in 54 patients with high-grade glioma is currently ongoing.

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 cancer diseases having inadequate pharmaceutical alternatives. Research on TransMolecular's product pipeline based on a small peptide derived from scorpion venom that is expected to be useful in treating a wide variety of cancers is ongoing. 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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