



FOR IMMEDIATE RELEASE

TransMolecular Unveils First Data on TM601 Anti-Angiogenic Mechanism-of-Action at AACR Annual Meeting-

-Data also reveal peptide's synergistic interactions with anti-VEGF therapeutics-

CAMBRIDGE, MA – April 14, 2008 – TransMolecular, Inc., a biotechnology company focused on targeted therapies for cancer, today announced the presentation of data that demonstrate anti-angiogenic properties of TM601. The findings from this mechanism of action study show that in addition to the high affinity tumor binding activity of TM601 that the compound may be an effective inhibitor of angiogenesis and tumor progression. The abstract was presented at the American Association for Cancer Research (AACR) Annual Meeting in San Diego, CA by Dr. Douglas Jacoby, Senior Director of Research and Development at TransMolecular in a poster session on April 13, 2008.

¹³¹I-TM601 is being investigated in multiple cancer types with both local and intravenous delivery. Phase 2 studies in malignant glioma and melanoma are currently underway. TransMolecular also plans to investigate non-radiolabeled TM601 in a Phase 1 trial for recurrent malignant glioma.

Using the complex model system chick chorioallantoic membrane (CAM), researchers observed that topical application or intravenous injection of TM601 inhibited angiogenesis (new blood vessel growth), which was stimulated by vascular endothelial growth factor (VEGF), basic fibroblast growth factor (bFGF), or lipopolysaccharide (LPS). Additionally, treatment of various human tumor cell lines grown on the surface of the CAM with TM601 decreased tumor growth and intratumoral hemoglobin levels. These data suggest that the compound's anti-angiogenic effect reduces tumor growth via inhibition of new blood vessel formation which is required to support rapid tumor proliferation.

Of note, researchers observed comparable potency between TM601 and the anti-VEGF therapeutics Avastin[®] (bevacizumab) and Lucentis[®] (ranibizumab injection) in this model. Significantly, when TM601 was administered together with either Avastin or Lucentis, the combination was more potent than effects of these therapeutics on their own, suggesting potential synergistic interactions.

"This research confirms that TM601 has an anti-angiogenic mechanism-of-action," said Michael Egan, President and Chief Executive Officer of TransMolecular. "The potential that TM601 may be synergistic with VEGF targeting drugs may encourage partnering opportunities surrounding this candidate. And because the peptide alone has

demonstrated anti-tumor activity, we will be initiating a Phase 1 trial with non-radiolabeled TM601 in malignant glioma. We believe its synergistic activity and potential for use with or without radiation demonstrate the broad therapeutic applications for this unique tumor targeting platform.”

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. TM601 targets and binds to receptors expressed on tumor cells but not on normal, healthy cells. When ¹³¹Iodine radiolabeled TM601 is administered, it binds primarily with the tumor cell receptor sites, and also delivers a targeted dose of radiation, killing the tumor cell without affecting nearby healthy cells. The data obtained from preclinical and clinical data 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, so the therapeutic potential as a non-radiolabeled peptide is also being explored. The Company’s robust development plan for TM601 reflects its broad platform potential for multiple applications in cancer. The FDA has granted the radiolabeled drug, ¹³¹I-TM601, orphan drug status for patients with high-grade and malignant glioma, as well as a Fast Track designation. TM601 has orphan status in the US for glioma.

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 is three-to-five years; however, 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.

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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