

QuickTime™ and a
decompressor
are needed to see this picture.

Contact:
Beth Nestlerode
Diccicco Battista Communications
484-342-3600 x225
bnestlerode@dbcommunications.net

TRANSMOLECULAR REPORTS ANNEXIN A2 IS A NOVEL BINDING PARTNER FOR TM601 - Confirms TM601's Cell Binding Properties-

CAMBRIDGE, MA – February 17, 2010 – TransMolecular, Inc., a developer of innovative oncology drugs through targeted delivery to tumors, today announced two separate publications highlighting mechanistic aspects of TM601, a synthetic peptide. TM601 has shown potential as a tumor-targeting vehicle for multiple chemotherapy drugs. TM601 conjugated to iodine 131 (¹³¹I-TM601) has been shown clinically to have therapeutic benefit in patients with recurrent glioma, and to selectively bind to multiple tumor types following intravenous injection. The findings in the two separate publications support previous findings of TM601's tumor-specific binding properties, while also introducing anti-angiogenic activity.

"Each publication continues to advance our understanding of the benefits of TM601's tumor targeting capabilities," said Robert Radie, President and CEO of TransMolecular. "The data support a specific mechanism for the peptide's tumor-specific binding and elucidate an anti-angiogenic property. Taken together, the publications enhance our understanding of the compound's ability to target tumor cells without affecting surrounding healthy tissue and cells."

The purpose of the article published in the *Journal of Biological Chemistry*, "Annexin A2, a molecular target for TM601," was to identify the surface receptor required for specific binding of TM601 to tumor cells. The report identifies annexin A2 as a novel binding partner for TM601 in multiple human tumor cell lines. Annexin A2 has been shown by others to be upregulated in a large number of solid and hematologic cancers. By reducing annexin A2 expression using siRNA knockdown, scientists at TransMolecular have shown that surface binding of TM601 to a pancreatic tumor cell line is abolished.

In a separate but related publication, a novel anti-angiogenic activity for TM601 has been identified. As published by *Anticancer Research*, TM601 was shown to have pleiotropic anti-angiogenic effects, inhibiting angiogenesis stimulated by any of eight pro-angiogenic factors. In addition, when co-administered with bevacizumab, an anti-VEGF

-more-

therapy, the combination was more potent than a ten-fold increase in bevacizumab dose. Using a different model, TM601 administration was shown to reduce tumor growth in an angiogenesis-dependent fashion, and using a common mouse model, intravenous TM601 injections significantly reduce new blood vessel growth stimulated by VEGF and bFGF. These findings are consistent with annexin A2 serving as a receptor for TM601 on proliferating vascular endothelial cells.

For more information about both of these studies and their results, see <http://www.transmolecular.com/>

About TM601

TM601 is a novel, wholly synthetic peptide found to have exceptional tumor-targeting properties as well as robust anti-angiogenic activity in neovascular diseases, including cancer.

TM601 is highly specific and selective in targeting both primary tumors and metastases in the periphery and in the central nervous system. The peptide has the unique properties of highly specific tumor cell binding, uptake and internalization. Preclinical studies confirm that TM601 targets and binds to Annexin A2, a receptor expressed on a wide range of tumor cells. The peptide alone has *in vivo* anti-angiogenic activity, but can also be labeled for imaging and therapy.

TransMolecular is expanding the TM601 tumor-targeting platform to deliver a range of therapeutic agents to tumor cells, including novel and currently used chemotherapeutic agents as well as siRNA molecules.

About TransMolecular, Inc.

TransMolecular, Inc. is committed to discovering and developing novel therapeutic products that help patients combat cancer. TransMolecular's product pipeline is based on the TM601 platform, a novel synthetically derived polypeptide, which has both highly specific tumor binding properties and anti-angiogenic therapeutic properties. 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.

#