



**CHIMERIX**

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## **CMX157 shows potential to treat multi-drug-resistant HIV and improve the activity and toxicity profile of Tenofovir**

**RESEARCH TRIANGLE PARK, NC, July 28, 2010** – Chimerix, Inc., a biopharmaceutical company developing orally-available antiviral therapeutics, today announced the publication of research results demonstrating the potential of CMX157 (hexadecyloxypropyl tenofovir) to effectively suppress replication of human immunodeficiency virus (HIV) that cannot be treated with currently available nucleoside/nucleotide reverse transcriptase inhibitors (NRTIs), including tenofovir disoproxil fumarate (Viread®), due to the development of multi-drug resistance. Earlier this year, Chimerix initiated a dose-escalating Phase 1 clinical trial of CMX-157 to evaluate drug safety, tolerability and pharmacokinetics.

In these preclinical studies, CMX157 was highly active against all major subtypes of HIV, including strains that fail to respond to all currently available NRTIs. HIV strains with pan-NRTI resistance were sensitive to CMX157, and no antagonistic interactions were observed between CMX157 and any currently approved antiretroviral. The in vitro efficacy of CMX157 was increased approximately 300-fold relative to tenofovir. This improvement in potency was attributable to the significantly increased intracellular uptake of CMX157, resulting in approximately 34-fold higher levels of the active antiviral in cells treated with CMX157 as compared to tenofovir. No toxicities were seen with CMX157, even at concentrations 100-fold above the EC50 of HIV mutants highly resistant to current therapies.

The article, "Development of Hexadecyloxypropyl Tenofovir (CMX157) for the Treatment of Wild-Type and Nucleoside/Nucleotide-Resistant HIV" appears in the July 2010 issue of the journal *Antimicrobial Agents and Chemotherapy*.

"CMX157 has the potential to address three issues with tenofovir: loss of efficacy against multi-nucleoside resistant HIV, renal toxicity and slow uptake by target cells," said Randall Lanier, Ph.D., the paper's lead author and Senior Director of Virology at Chimerix. "In addition, the ability of CMX157 to directly intercalate the envelope of HIV virions may lead to an important application as a topical microbicide."

"As a promising clinical stage antiretroviral with significant potential as a powerful new treatment option for HIV patients, CMX157 may lead to a new set of combination therapies," said George Painter, Ph.D., Chief Scientific Officer and Chairman of the Board of Chimerix. "Chimerix is actively exploring the best ways to match the unique properties of this drug with the needs of the global HIV community."

### **About CMX157**

CMX157 is a new chemical entity created by applying Chimerix's PIM (Phospholipid Intramembrane Microfluidization) Conjugate Technology to chemically modify tenofovir, marketed as the prodrug Viread®, an antiviral agent approved for the treatment of HIV and

chronic hepatitis B. Chimerix's PIM Conjugate Technology improves the absorption and distribution profile of tenofovir, effectively decreasing potential toxicity while increasing antiviral efficacy. The compound is currently in Phase 1 clinical testing in the United States.

### **About Chimerix**

Chimerix is developing novel antiviral therapeutics with the potential to transform patient care in multiple settings, including transplant, oncology, acute care and global health. The company's lead candidate, CMX001, is in Phase 1 and Phase 2 clinical studies in immunocompromised transplant and cancer patients for the treatment of life-threatening viruses, such as BK virus, cytomegalovirus and adenovirus. CMX001 is also being developed as a biodefense countermeasure in the event of a smallpox release. Chimerix has advanced a second antiviral compound, CMX157, into Phase 1 clinical studies as a potent nucleoside analogue against multi-drug resistant HIV infections. Led by a world-class antiviral drug development team, Chimerix is also leveraging the company's extensive chemical library to pursue new treatments for hepatitis C virus, malaria and other global public health needs.

Privately-held, Chimerix has received financing from Sanderling Ventures, Canaan Partners, Alta Partners, Asset Management Company and Frazier Healthcare Ventures, as well as significant funding from the National Institute of Allergy and Infectious

Diseases. For additional information on Chimerix, please visit <http://www.chimerix.com>.