NIH Awards $13.8 Million to Test UAMS-Discovered Drug for Methamphetamine Use Disorder Treatment

Funding Follows $8.1 Million Award in 2020

LITTLE ROCK — A drug discovered at the University of Arkansas for Medical Sciences (UAMS) to counter the effects of methamphetamine will be tested in a phase 2 clinical trial as the only potential treatment of its kind for methamphetamine use disorder.

The study is led by UAMS startup biopharmaceutical company InterveXion Therapeutics LLC and is funded by a three-year, $13.8 million grant from the National Institutes of Health (NIH) National Institute on Drug Abuse (NIDA).

The drug, IXT-m200, could be the first monoclonal antibody treatment for methamphetamine use disorder and overdose. It received the U.S. Food and Drug Administration (FDA) Fast Track Designation in 2016 for treatment of methamphetamine use disorder. FDA Fast Track Designation facilitates the development and speeds the review of drugs to treat serious conditions and fill an unmet medical need.

“There is an urgent need for an effective treatment, and we’re excited to begin this next phase of testing,” said Brooks Gentry, M.D., one of the grant’s principal investigators and a professor in the UAMS College of Medicine departments of Anesthesiology and Pharmacology and Toxicology. “Because there are no medications out there to treat meth use disorder or overdose, we hope the FDA Fast Track Designation will help us move a little more quickly.”

Gentry, the chief medical officer for InterveXion, noted that the number of people in the United States with methamphetamine use disorder increased by 62% between 2015 and 2019, and overdose deaths increased by 43%.

UAMS, which has partial ownership of InterveXion, will receive a sub-award of $388,876 to support the clinical trial, named the OUTLAST trial.

A monoclonal antibody is a molecule designed in a lab to aid the immune system attack on other cells or molecules. IXT-m200 has demonstrated the potential to significantly
reduce or prevent the euphoric rush that drug users crave by keeping methamphetamine in the bloodstream and out of the brain, where the drug has its most damaging effects.

The funding follows a 2020 NIH/NIDA grant of $8.1 million to study the same drug as a treatment for methamphetamine overdose. That phase 2 clinical trial is called METH-OD and included a sub-award to UAMS of $408,101. Gentry is one of the principal investigators on that grant award, along with Misty Stevens, Ph.D., MBA. The UAMS site principal investigator on the METH-OD study is Michael Wilson, M.D., Ph.D., an assistant professor in the departments of Psychiatry and Emergency Medicine. Three other hospitals in New Mexico and Washington are also study centers for the METH-OD clinical trial.

InterveXion was established through BioVentures LLC by a UAMS research team that included Michael Owens, Ph.D., now professor emeritus, who retired from the Department of Pharmacology and Toxicology in 2019. Based on the UAMS campus in Little Rock, BioVentures helps researchers with technology licensing, patent protection and provides resources to assist with company startups.

The OUTLAST trial will build on promising results from a recent phase 2 clinical trial of people with methamphetamine use disorder. That recently completed study of IXT-m200, called STAMPOUT, revealed how IXT-m200 changes methamphetamine concentrations in the body, and how it impacts methamphetamine effects.

UAMS is the state's only health sciences university, with colleges of Medicine, Nursing, Pharmacy, Health Professions and Public Health; a graduate school; hospital; a main campus in Little Rock; a Northwest Arkansas regional campus in Fayetteville; a statewide network of regional campuses; and seven institutes: the Winthrop P. Rockefeller Cancer Institute, Jackson T. Stephens Spine & Neurosciences Institute, Harvey & Bernice Jones Eye Institute, Psychiatric Research Institute, Donald W. Reynolds Institute on Aging, Translational Research Institute and Institute for Digital Health & Innovation. UAMS includes UAMS Health, a statewide health system that encompasses all of UAMS' clinical enterprise including its hospital, regional clinics and clinics it operates or staffs in cooperation with other providers. UAMS is the only adult Level 1 trauma center in the state. U.S. News & World Report recognized UAMS Medical Center as a Best Hospital for 2021-22; ranked its ear, nose and throat program among the top 50 nationwide for the third year; and named five areas as high performing — colon cancer surgery, diabetes, hip replacement, knee replacement and stroke. Forbes magazine ranked UAMS as seventh in the nation on its Best Employers for Diversity list. UAMS also ranked in the top 30% nationwide on Forbes' Best Employers for Women list and was the only Arkansas employer included. UAMS has 2,876 students, 898 medical residents and six dental residents. It is the state's largest public employer with more than 10,000 employees, including 1,200 physicians who provide care to patients at UAMS, its regional campuses, Arkansas Children's, the VA Medical Center and Baptist Health. Visit www.uams.edu or www.uamsshare.com. Find us on Facebook, Twitter, YouTube or Instagram.

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