



ICHOR MEDICAL SYSTEMS AWARDED \$3.3 MILLION NIH GRANT TO DEVELOP ALZHEIMER'S DISEASE VACCINE

SAN DIEGO - Ichor Medical Systems (Ichor) of San Diego announced today that it has been selected to receive a \$3.3 million grant award from the National Institute of Neurological Disorders and Stroke (NINDS) for development of a vaccine for Alzheimer's disease. Ichor is collaborating on the project with Dr. Michael Agadjanyan, Vice President and Head of Immunology at the Institute for Molecular Medicine (IMM), Huntington Beach, CA; Dr. David H. Cribbs, Professor, Department of Neurology and Institute for Memory Impairments and Neurological Disorders at the University of California, Irvine (UCI); and Dr. Ruth Mulnard, Associate Professor of Neurology and Associate Director, Institute for Clinical Translational Science at UCI.

In the last few years the laboratories of Dr. Agadjanyan and Dr. Cribbs have designed and evaluated DNA-based vaccines for Alzheimer's disease. In mice genetically engineered to model Alzheimer's disease, these vaccines slowed the development of pathology and reduced behavioral deficits. Building upon these promising research findings, Ichor will evaluate its proprietary TriGrid™ electroporation technology for delivery of DNA vaccines encoding proteins implicated in the development of Alzheimer's disease.

The objective of this approach is to induce antibody responses that slow down progression of Alzheimer's disease, or if vaccination is initiated early enough, could even prevent disease development. The plan funded by the NINDS includes the studies required to support eventual initiation of human clinical testing of this approach.

"The enormous and increasing worldwide healthcare burden of Alzheimer's disease coupled with the current lack of effective drugs has made the investigation of new prophylactic and/or therapeutic approaches capable of addressing Alzheimer's disease essential," according to Cribbs.

"DNA-based agents exhibit several significant advantages when compared to conventional biologics," said Agadjanyan. "However, the primary shortcoming of DNA-based agents is a lack of potency. Accumulating data suggest this can be overcome through improved delivery methods like Ichor's TriGrid™ electroporation technology."

"We are pleased to be working with the exceptional groups at IMM and UCI," said Drew Hannaman, Ichor Vice President of Research and Development. "Their work demonstrating the feasibility of using DNA immunization for Alzheimer's disease has provided a strong rationale supporting translation of this approach into clinical testing."

About Ichor: Ichor Medical Systems' TriGrid™ Delivery System is an integrated and fully automated system for electroporation-mediated DNA administration in humans. Ichor, a



privately-held biotech company based in San Diego, CA, is collaborating with partners on three continents in a wide range of studies to test the TriGrid as an enabling platform for delivery of DNA drugs and vaccines to treat diseases such as influenza, hepatitis, HIV, melanoma, wound healing, malaria, and others. The TriGrid is also being tested by the U.S. military as an efficient means of delivering biodefense countermeasures. For further information, visit www.ichorms.com.

About the University of California, Irvine: Founded in 1965, UCI is a top-ranked university dedicated to research, scholarship and community service. Led by Chancellor Michael Drake since 2005, UCI is among the fastest-growing University of California campuses, with more than 27,000 undergraduate and graduate students, 1,100 faculty and 9,200 staff. The top employer in dynamic Orange County, UCI contributes an annual economic impact of \$4.2 billion. For more UCI news, visit www.today.uci.edu.

About the Institute for Molecular Medicine: The Institute for Molecular Medicine is a non-profit organization founded in 1996 with the mission of contributing to the understanding, prevention and cure of Alzheimer's disease, cancer, human chronic, as well as infectious, neurodegenerative, autoimmune, and genetic diseases. IMM receives funding support from the NIH and other private and non-profit foundations as well as from private and institutional donations. In recent years, research has been focused on the generation and preclinical evaluation of vaccines for Alzheimer's disease, breast cancer, as well as medicine for HIV.

For additional inquiries, please contact: May de las Alas, Ph.D. at mdelasalas@ichorms.com.