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News Release

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FOR IMMEDIATE RELEASE
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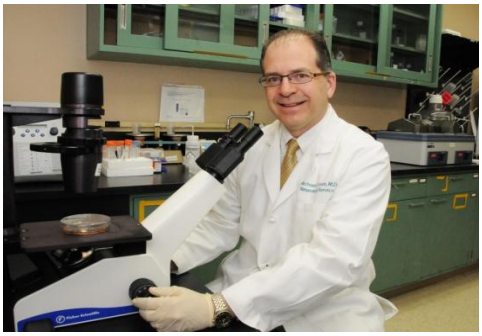
Michael Levin, Professor at the University of Tennessee Health Science Center, Researcher at the Memphis Veterans Affairs Medical Center receives $650,000 VA Grant to Study Multiple Sclerosis



Michael C. Levin, M.D., Chief, Neurology Service Veterans Affairs Medical Center Memphis, TN

Memphis, Tennessee (Feb. 22, 2013) – When you find yourself under attack, figuring out why you're a target and ways to stop it are the most pressing issues. Michael Levin, MD, is investigating those questions for those who suffer with multiple sclerosis (MS). The professor of Neurology at the University of Tennessee Health Science Center (UTHSC) and Chief of Neurology Service at the Department of Veterans Affairs (VA) Medical Center in Memphis has received a $650,000 grant to study novel mechanisms in MS. The federal funds, awarded by the Office of Research and Development of the U.S. Department of Veterans Affairs (VA), will be used to study how the MS patient's own antibodies attack nerve cells in the brain and spinal cord.

"We've been studying how antibodies attack nerve cells for years, and now this mechanism is gaining national and international scientific recognition," said Dr. Levin, who performs research at the VA, one of UTHSC's partners and teaching hospitals. His VA research team, in collaboration with UTHSC, the Salk Institute, University of Michigan, University of Maryland and the University of Pennsylvania, showed that antibodies purified from MS patients stick to a protein known as heterogeneous nuclear ribonuclear protein A1, or "A1" for short. In addition, Dr. Levin's research revealed that these antibodies enter nerve cells, bind to "A1" and cause neuronal injury and neurodegeneration.

An autoimmune disease in which a person's own immune system attacks nerve cells in the brain and spinal cord, MS is one of the most common neurological diseases to affect

middle-aged adults. Traditionally, the immune response was thought only to destroy the protective coating of nerve cells, known as myelin. However, there has been an important shift in thinking. Recent studies indicate that the immune response also directly attacks nerve cells, leading to neuronal injury, in a process known as neurodegeneration.

The VA Office of Research and Development described Dr. Levin as a "pioneer and expert in the study of hnRNP A1 and neurodegenerative diseases, including MS." His research proposal was described as "highly innovative…conceptually novel…and employing cutting-edge technology." If the research continues to be successful, his lab may have discovered both a new diagnostic test for MS as well as a novel mechanism by which an MS patient's own immune response attacks the brain and spinal cord.

Dr. Levin's work was accepted for a platform presentation at the 2013 American Academy of Neurology annual meeting in a new session titled, "Multiple Sclerosis: Novel Mechanisms of Action."

The United States Department of Veterans Affairs is one of the world's largest integrated health care systems, providing care to more than 6 million Veterans in 2012. Its Office of Research and Development makes major contributions to research in this country and "aspires to discover knowledge, develop VA researchers and health care leaders, and create innovations that advance health care for our Veterans and the nation."

As the flagship statewide academic health system, the mission of the **University of Tennessee Health Science Center** (UTHSC) is to bring the benefits of the health sciences to the achievement and maintenance of human health, with a focus on the citizens of Tennessee and the region, by pursuing an integrated program of education, research, clinical care, and public service. Offering a broad range of postgraduate and selected baccalaureate training opportunities, the main UTHSC campus is located in Memphis and includes six colleges: Allied Health Sciences, Dentistry, Graduate Health Sciences, Medicine, Nursing and Pharmacy. UTHSC also educates and trains cohorts of medicine, pharmacy and/or allied health students -- in addition to medical residents and fellows -- at its major sites in Knoxville, Chattanooga and Nashville. Founded in 1911, during its more than 100 years, UT Health Science Center has educated and trained more than 53,000 health care professionals in academic settings and health care facilities across the state. For more information, visit www.memphis.va.gov or www.uthsc.edu.

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