

Clinical trial to test creatine's effect on Parkinson's Disease

SIU School of Medicine is participating in a large-scale national clinical trial to learn if the nutritional supplement creatine can slow the progression of Parkinson's disease (PD).

While creatine is not an approved therapy for PD or any other condition, it is believed to improve exercise performance. The potential benefit of creatine for PD was identified by Parkinson's researchers through a new rapid method for screening potential compounds. The trial is sponsored by the National Institutes of Health (NIH).

Rodger Elble, Ph.D., chair of neurology and director of SIU's Parkinson Disease and Movement Disorders Clinic, is the principal investigator at the School of Medicine. "We are proud to be one of the participating centers in this important and unique step toward finding a cure for Parkinson disease," Dr. Elble says.

The double-blind, placebo-controlled, phase III study is one of the largest PD clinical trials to date. SIU School of Medicine is one of 51 medical centers in the United States and Canada that will be recruiting patients as part of an effort to enroll 1,720 people with early-stage PD.

"This study is an important step. We are pleased to have so many sites participating in this study, which may help us move more quickly toward developing a therapy that could change the course of this devastating disease," says Elias A. Zerhouni, M.D., director of the National Institutes of Health. "The goal is to improve the quality of life for people with Parkinson's for a longer period of time than is possible with existing therapies." Currently no treatment has been shown to slow the progression of PD.

The trial is the first large study in a series of NIH-sponsored clinical trials called NET-PD (NIH Exploratory Trials in Parkinson's Disease). SIU School of Medicine has worked with the network since 2003.



How do we learn?

Gregory J. Brewer, Ph.D., professor of medical microbiology, immunology and cell biology received a five-year federal grant from the National Institutes of Neurological Disorders and Stroke, a division of the National Institutes of Health, to study the function of neurons in the brain. The grant, with a budget of \$942,072, is a subcontract of a grant awarded to the University of Illinois at Urbana/Champaign (UIUC).

The study is investigating how learning and memory work. Nerve cells in rodent brains will be examined to identify patterns or connections that link neurons to determine whether the neurons can be engineered like a circuit board to form useful patterns and connections. This study may eventually lead to potential new treatments for memory problems in humans as well as develop better computers and teaching methods.

Bruce Wheeler, Ph.D., professor of bioengineering at UIUC, is principal investigator of the overall project.

Dr. Brewer's research has received funding for 30 years from the National Institutes of Health and the National Science Foundation, totaling more than \$4.3 million. His previous research has focused on two- and three-dimensional neural networks and how aging contributes to Alzheimer disease.

Student awarded fellowship

Holly Hoefgen, Class of 2008, has been awarded the 2007 Carolyn L. Kuckein Student Research Fellowship. The \$4,500 award supports Hoefgen's research project exploring how stem cells from bone marrow and umbilical cord blood migrate to and invade ovarian cancer tumors. **Mary McAsey, Ph.D.**, assistant professor of obstetrics and gynecology at SIU and director of research for the department is supervising the project.

The goal is to examine the use of genetically engineered stem cells in delivering anti-cancer drugs to areas in a tumor difficult to reach through current treatments.

Hoefgen is one of about 50 medical students nationally receiving an award.



Hoefgen and Mary McAsey, Ph.D.

This is the twelfth Alpha Omega Alpha (AOA) national fellowship awarded to an SIU medical student since 1994.