Campbell receives patents for hearing loss research

Kathleen C. M. Campbell, Ph.D., professor of otolaryngology, head and neck surgery, and director of audiology research for the surgery department at SIU, received three U.S. patents and five international patents for discovering that D-methionine, an amino acid present in protein, is effective in reducing hearing loss from very loud and long-term noise exposure in animal models.

"If the clinical trials find it works in humans as well as it does in animals, permanent hearing loss from prolonged loud noises and accidents such as military gunfire and automobile airbag detonation could be prevented for many people around the world," said Dr. Campbell. In animal studies, the compound works even when first given soon after the noise exposure.

The drug also has been found to be effective against hearing loss caused by cisplatin, an anticancer drug used in chemotherapy. Approximately 50 percent of ovarian cancer patients and 30 percent of lung cancer patients receiving cisplatin will develop hearing loss.

"Another big application for D-methionine may be for treating side effects of a group of antibiotics, called aminoglycoside antibiotics, that inhibit bacterial protein synthesis and are active especially against gram-negative bacteria. This is a big health problem in third world countries," Dr. Campbell explains.

The patents for this new application have been licensed by a pharmaceutical company and it is now being tested in clinical trials.

"Getting a discovery patented is a very big step, but it's even more exciting to see it progress to clinical trials," she said. "Only about five out of every 1,000 patents go to clinical trials."

NIH grant to fund preeclampsia study

Donald S. Torry, Ph.D., professor of medical microbiology, immunology and cell biology and of obstetrics and gynecology, has been awarded a five-year federal grant from the National Institute of Child Health and Human Development (NICHD) to study preeclampsia, one of the leading obstetric complications. Total budget for the grant is $1,112,650.

In some pregnancies, the mothers' blood supply to the placenta is deficient so babies in the womb do not get enough oxygen or nutrients and may not grow properly. The study aims to determine how to increase expression of genes needed for blood vessel formation in the uterus in order to potentially lessen the severity of preeclampsia and allow more time for the pregnancy to continue.

Dr, Torry's research on preeclampsia and placenta growth factor has received $2 million in funding from NICHD over the past 10 years.

Excellence in Academic Medicine (EAM) awards

Six researchers have received Excellence in Academic Medicine (EAM) awards.

The EAM is a state-funded program, established in 1996, that provides funding for medical research and post-tertiary clinical program development at the state's academic medical centers.

The Illinois State Legislature appropriates funds each year to support the Excellence in Academic Medicine (EAM) Act.

The annual awards are generally in the range of $40,000 to $50,000, and projects must be completed in one year.

■ **SOPHIA RAN, Ph.D.**, Dept. or Medical Microbiology, Immunology and Cell Biology, "Identification of New Regulators of Tumor Lymphangiogenesis"

■ **CARL FAINGOLD, Ph.D.**, Dept. of Pharmacology "Molecular and Neuronal Mechanisms of Epileptogenesis"

■ **LOUIS PREMKUMAR, Ph.D.,** Dept. of Pharmacology, "A Novel Approach for Chronic Pain Treatment Using Resiniferatoxin." M. Steven Evans, M.D., Dept. of Neurology

■ **LINDA TOTH, DVM, Ph.D.,** Dept. of Pharmacology, "Fatigue During Chronic Viral Infection"

■ **LAURA ROGERS, M.D.,** Dept. of Medicine, "Quality of Life, Physical Functioning, and Head and Neck Cancer (LIPHT Study)"

Thomas Robbins, M.D., Cancer Institute
Patricia Hopkins-Price, Dept. of Medicine
James Malone, M.D., Dept. of Surgery
Richard Pamenter, Ph.D., Dept. of Medicine
Krishna Rao, M.D., Ph.D., Dept. of Medicine
Steven Verhulst, Ph.D., Statistics and Research Consulting

■ **MARY PAUZA, Ph.D.,** Dept. of Medical Microbiology, Immunology and Cell Biology "Uncovering the Molecular Mechanisms Responsible for Novel functions of c-Maf in T Lineage Cells from Normal and Diabetes Prone Mice"