Stony Brook University Medical Center: Press Release

Office of Media Relations TEL:(631) 444.7880 FAX: (631) 444.8852 Medical Center, Level 2, Suite 9, Stony Brook, NY 11794-7538

Contact: Lauren Sheprow

Faculty/Student Awards

Kidney Disease Researcher Is Named The First Zickler Scholar In Translational Research at SBUMC

Dr. Dickman and Colleagues to Investigate a Compound Linked to Renal Disease and Cancer

STONY BROOK, N.Y., December 1, 2006 – Kate Dickman, Ph.D., Research Assistant Professor in the Departments of Pharmacological Sciences and Medicine at Stony Brook University Medical Center, will be the first Zickler Scholar in Translational Research. Effective January 1, 2007, the position lasts three years.

Dr. Dickman will investigate a compound found in certain herbal medicines that is associated with renal disease and cancer.



Kate Dickman, Ph.D., Zickler Scholar in Translational Research

Animal studies have linked the compound, aristolochic acid, to chronic renal failure and cancer of the urothelial tissue. In the 1990s, reports about kidney disease being associated with people taking herbal medicines that contained aristolochic acid surfaced worldwide. This prompted the U.S. Food and Drug Administration to ban herbal supplements containing the toxic and carcinogenic compound.

Perhaps most strikingly, a study of a cluster of cases of chronic renal failure in otherwise healthy women in Belgium was traced to the inadvertent ingestion of a Chinese herb that contained the compound, which was mistakenly included it in a dietary supplement these women took for weight loss. Kidney damage was so severe in many that dialysis or kidney transplant was necessary.

"Not everyone who ingests aristolochic acid ends up with kidney disease, suggesting that genes may play an important role in individual susceptibility," says Dr. Dickman. "The goals of our research are to determine how aristolochic acid selectively damages the kidney and to identify genes implicated in that process," she explains.

"We are approaching this research from several angles, using an interdisciplinary approach," says Arthur P. Grollman, M.D., Distinguished Professor of Pharmacological Sciences. Dr. Grollman heads the Zickler Laboratory of Chemical Biology (LCB) where Dr. Dickman will conduct her research. Studies will include animal and human models, microarray and proteomic analyses of the cells treated with aristolochic acid, genetic analyses, and epidemiologic studies.

The Zickler Scholar award provides funding for interdisciplinary research at the LCB. The award was made possible through the generosity of Leo and Judy Zickler of Bethesda, Md. Captivated by the achievements of molecular medicine and alert to the needs of scientific research, the Zicklers created an endowment for a lecture series of visiting professors to Stony Brook University. Established in 1988, the lecture series has so far featured eight Nobel Prize winners in Medicine and Physiology. The award is the latest of several philanthropic gifts the Zicklers have made to the School of Medicine. Previously, they established a microinjection facility, sponsored major scientific symposia and provided funding that established the LCB.

Dr. Dickman, a renal physiologist who specializes in research on renal function and disease, began her joint appointment in Medicine and Pharmacological Sciences in 2006. Previously, she served as an Assistant Professor in the Division of Nephrology, Department of Medicine, and as Research Physiologist at the VA Medical Center in Northport.

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