

Pain researcher Dr. Cheryl Stucky receives Javits Neuroscience Award

May 28, 2019 MCW News - Cheryl L. Stucky, PhD, Marvin Wagner Professor in Cellular Biology and Anatomy in the Department of Cell Biology, Neurobiology and Anatomy and Director of the Neuroscience Doctoral Program, received a prestigious National Institutes of Health (NIH) R37 Javits Award from the National Institute for Neurological Disorders and Stroke.

The Javits Neuroscience Award was established by Congress after the death of late New York Senator, Jacob Javits, who passed away from ALS – commonly known as Lou Gehrig's Disease. Among other standards, the award is given to individuals who demonstrate exceptional scientific excellence and productivity in one of the areas of neurological research supported by the NIH.



Dr. Stucky will use the grant award to conduct research on the pain mechanisms associated with Fabry Disease – a rare lysosome storage disease. While the symptoms of Fabry disease are usually noticeable in early childhood and adolescence, they may not become entirely apparent until later adulthood. Symptoms of the disease include severe burning pain in the hands and feet, decreased sweat production, discomfort in warmer temperatures, and appearance of a reddish-to-dark-blue skin rash mostly commonly seen between the hips and knees.

"This award will allow us to uncover the pain mechanisms of Fabry Disease and potentially uncover novel therapies to treat the symptoms," said Dr. Stucky. "More broadly, I am extremely enthusiastic to expand translational pain research at the Medical College of Wisconsin by continuing to develop innovative collaborations."

The Javits Award is a seven-year grant. The first four-year award segment in the amount of \$3,077,932 began May 15, with an additional three years in the additional amount of \$2,3084,449 to be awarded upon request at the end of year four.

Co-Investigators on the grant are Nancy Dahms, PhD, professor of biochemistry; Hongwei Yu, MD, associate professor, and Bin Pan, PhD, assistant professor, in

anesthesiology; and collaborator, Quinn Hogan, MD, professor and vice chair for research in anesthesiology. Other's involved with this project are Francie Moehring, PhD, Daniel Brozoski, PhD, and Anthony Menzel in Cell Biology, Neurobiology and Anatomy; Angela Beltrame, in Biochemistry; and Seung Min Shin in Anesthesiology. Dr. Dahms spearheaded the generation of a new rat model of Fabry disease that recapitulates many of the symptoms experienced by patients that will be used for these studies.

This research, along with research from Jeffrey Medin, PhD, MACC Fund Professor in the Department of Pediatrics, who published a study in 2017 highlighting the success of an experimental stem cell trial in treating Fabry Disease, underscores MCW's expertise in research and therapies to treat understudied diseases such as Fabry Disease and Sickle Cell Disease.