HWI'S DR. DEBASHIS GHOSH AND UB'S DR. FEDERICO GONZALEZ-FERNANDEZ AWARDED $1.6 MILLION JOINT NIH GRANT

The Hauptman-Woodward Medical Research Institute’s (HWI) Debashis Ghosh, Ph.D., and the Ross Eye Institute’s (REI) Federico Gonzalez-Fernandez, MD, Ph.D., have been awarded a four-year, $1.6 million NIH grant to support their research into a human eye protein found to be essential to the processes involved in vision.

Ghosh, a principal investigator at HWI who also holds a joint appointment at Roswell Park Cancer Institute, and Gonzalez-Fernandez, an ocular pathologist affiliated with the REI, have collaborated to uncover the role of the Interphotoreceptor Retinoid-Binding Protein (IRBP), a protein which is used in supplying the photoreceptor of the eye with pigmentation essential to the vision cycle. They are using two very different experimental approaches to characterize the previously uncharacterized protein.

The mutation of IRBP has been proven to cause retinitis pigmentosa, a group of genetic eye conditions that can eventually lead to blindness.

Ghosh’s research—the first step in the process—will be focused on the molecular level of the protein structure and its function. Gonzalez-Fernandez will then build on the foundation of Ghosh’s results by researching the cell function with an aim at explaining the physiological phenomena of the protein.

“This is the perfect marriage of science. It is the perfect example of taking basic science to translational and medicinal research,” Ghosh said.

“Our research combines biochemical, structural, and pathophysiologial studies to address the structure and function of this interesting protein in vision,” Gonzalez-Fernandez said. “Our recent success with the NIH, I think, is due to the potential to really break this field open through a synergy of diverse approaches.”

ABOUT HWI

With more than 50 years of exceptional scientific research, the Hauptman-Woodward Institute is an internationally-renowned independent, non-profit facility specializing in life-altering research. Our team of more than 75 members is committed to improving human health through the study of the causes of diseases, as well as potential therapies, at their fundamental molecular level. HWI is located in the heart of the Buffalo Niagara Medical Campus in Downtown Buffalo, New York, in a state-of-the-art structural biology research center at 700 Ellicott Street. For more information, visit HWI’s website at www.hwi.buffalo.edu or call 716-898-8600.

ABOUT UB

The University at Buffalo is a premier research-intensive public university, a flagship institution in the State University of New York system that is its largest and most comprehensive campus. UB’s more than 28,000 students pursue their academic interests through more than 300 undergraduate, graduate and professional degree programs. Founded in 1846, the University at Buffalo is a member of the Association of American Universities.