

## Washington Square gives \$36,000 for research on low vision rehabilitation

The [Washington Square Health Foundation](#) recently awarded \$36,000 to support a research study that will provide critical information regarding the ability of the brain to respond to vision rehabilitation in low vision patients.

The research study, "A Functional Magnetic Resonance Imaging Evaluation of Brain Plasticity Following Low Vision Reading Rehabilitation," will help identify more effective strategies for low vision patients undergoing vision rehabilitation programs that help them with routine activities such as reading.

The [Low Vision Laboratory of the Department of Ophthalmology and Visual Sciences](#) uses a program it developed for training low vision patients that identifies "islands" of healthy residual vision within severely diseased regions of the retina. Once these functional areas are identified, patients may be trained to use them as a surrogate fixation area for reading.

The proposed project will use fMRI brain scans of patients before and after reading rehabilitation training to categorize patients according to their success in the program. These fMRI findings will provide information that will help refine the program for future patients according to the nature of their visual impairment. "Vision rehabilitation is an expensive and time-consuming process," says [Janet Szlyk, PhD](#), director of the Low Vision Laboratory and principal investigator for the project. "By determining which aspects of rehabilitation will be most effective, we hope to be able to predict better outcomes for clinical programs."

Such refinement of the reading rehabilitation program is not possible without the guidance of fMRI data, according to Dr. Szlyk. "Among the research resources we are lucky to have at our disposal is the latest fMRI technology," she said, noting the [University's Center for Magnetic Resonance \(MR\) Research](#). Among the project's co-investigators is Keith Thulborn, MD, PhD, director of the center and a professor of radiology, physiology and biophysics.

Howard Nochumson, executive director of Washington Square Health Foundation, expressed strong support for the project's goal to determine the most effective aspects of the Low Vision Laboratory's reading rehabilitation program.

"Identifying the optimal method of reading rehabilitation may increase the patient's reading ability and reduce the time and costs associated with such rehabilitative training," he said. "Hopefully, this fMRI technique will be applied to the other areas of rehabilitative skill training."

In addition to Dr. Thulborn, Jeffrey Bloom, MD and William Seiple, PhD, with the Department of Ophthalmology and Visual Sciences, and Jose Pulido MD, PhD, department chair, also are collaborating with Dr. Szlyk. Jennifer Paliga, BS, of the Low Vision Laboratory, is the project coordinator for the reading rehabilitation program.