

## FOR IMMEDIATE RELEASE

UF to study new therapy for language problems caused by stroke

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GAINESVILLE, Fla. — University of Florida researchers have received a \$900,000 grant from the National Institutes of Health to study a new treatment for language problems that commonly occur after a stroke.

Led by Bruce Crosson, Ph.D., a professor of clinical and health psychology at the UF College of Public Health and Health Professions, the research team will investigate the effectiveness of a new therapy for the language disorder known as nonfluent aphasia. Patients with nonfluent aphasia have trouble finding the right words to communicate their meaning, speaking in sentences or saying more than one or two words without stopping.

About 750,000 Americans experience a stroke annually, according to the National Stroke Association.

“Approximately 25 percent of strokes are associated with aphasia and only 21 percent of these patients eventually recover normal language function,” Crosson said. “Thus, it is estimated that more than 1 million Americans experience chronic aphasia that substantially limits their ability to work, affects relationships with friends and family and degrades quality of life for survivors.”

Researchers will employ the concept of neuroplasticity — the idea that the brain can be reorganized so that other parts of the brain can take over lost functions. Because the left side of the brain is responsible for language in right-handed individuals, a stroke on the brain’s left side can damage its language production centers. In the UF study, investigators will attempt to shift language production to the right side of the brain in patients with stroke.

During the course of the study participants will complete a series of verbal exercises. Patients will be shown a series of pictures on a computer screen and will be asked to name the object. In a later phase of the study, they will be given a category, for example, “birds,” and will be asked to name a member of that category, such as “robin.” Some participants will initiate verbal exercises by pressing a button, and others will receive prompts to initiate their exercises.

“The idea is to determine if one method of initiating verbal responses is better than the other at coaxing the brain to reorganize word production to its right side,” Crosson said.

To measure changes in right brain function, participants will undergo functional magnetic resonance imaging scans before therapy begins, at the end of the treatment period and three months after treatment is completed. The scans provide researchers with a view of which parts of the brain are active during speech.

To participate in the aphasia research study, participants must have been right-handed prior to their stroke and be a native English speaker. For more information, call 352-376-1611 ext. 5395.

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