



Stroke



BOGACHAN SAHIN, MD, PhD

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Program*

A New Treatment to Help Visual Impairment after Stroke

Nearly 800,000 people have a stroke in the United States each year, making stroke the leading cause of adult disability in this country. Up to two-thirds of stroke survivors experience some degree of visual impairment. This can dramatically affect quality of life and level of independence, making it difficult, if not impossible, for many patients to navigate familiar environments, drive, or attend to their own daily needs.

Despite major advances in stroke care over the past 20 years, there are still no proven treatments that are safe and effective beyond the first few critical hours after a stroke. For many stroke survivors, especially those with stroke-related visual loss, there are no currently available medical treatments to improve functional recovery.

Two University of Rochester Medical Center scientists—Bogachan Sahin, MD, PhD and Bradford Mahon, PhD—hope to change that. They are testing whether a commonly prescribed antidepressant called fluoxetine—also known by the brand name, Prozac®—may enhance the brain’s ability to heal itself and help patients regain visual function after a stroke. Their pilot clinical trial—Fluoxetine for Visual Recovery after Ischemic Stroke (FLUORESCENCE)—has the potential to radically alter how stroke patients are treated to help them regain critical neurologic functions.

The researchers ultimately hope to understand the mechanisms by which fluoxetine may help the brain recover, and test whether fluoxetine and similar drugs may be paired with traditional cognitive-behavioral retraining to maximize post-stroke recovery. While the current trial is focused on restoration of vision after a stroke, the next steps within the research program will test whether other brain functions, such as memory, language, attention, and problem solving, can likewise be improved using this type of therapeutic approach in the rehabilitation of stroke survivors.

Dr. Sahin’s research interests include mechanisms of post-stroke recovery and novel diagnostic methods for the evaluation of strokes of unknown cause.



BRADFORD MAHON, PhD

*Assistant Professor, Departments of Brain
and Cognitive Sciences, Neurosurgery,
Neurology, and the Center for Visual
Science*

Dr. Mahon is a cognitive neuroscientist who uses functional and structural MRI and behavioral analysis to study disruption and recovery of neural systems after brain damage.

Your gift helps us *develop new treatments for stroke*

With your support, we can continue to be a leader in stroke research and care in western New York. Our cutting-edge research can lead to new medical advancements to help patients affected by this debilitating disease.

ENDOWED RESEARCH FUNDS—\$750,000 to \$1,000,000+

These funds support mid-career scientists who have not yet attained the rank of full professor, providing a vital connection between the work of our most eminent scientists and tomorrow's future scientific leaders.

TEAM SCIENCE FUNDS—\$500,000 to \$1,000,000 (multi-year)

Most scientific discoveries are not made by one lone scientist. Generally, they are the result of years of intensive work by teams of researchers that include graduate students, post-doctoral fellows, and laboratory technicians. You can support the contributions of our entrepreneurial, innovative research teams who have a legacy of working collaboratively across disciplines and with scientists from other institutions. You can also support the technology that speeds the path to new therapies and cures, yet adds heavily to research costs.

RISING STAR FUNDS—\$250,000 to \$500,000 (multi-year)

Support at this level can help the best and brightest, early-career researchers fund promising science that may be too cutting-edge to attract external funding from traditional avenues of support like the National Institutes of Health (NIH). This high-risk work is vital to most scientific breakthroughs.

BRIDGE FUNDS—\$100,000

As government research funds become more restrictive, it is increasingly difficult for both well-established and new investigators to sustain uninterrupted NIH funding. These interruptions can have a significant, negative impact on the research being conducted. Private philanthropy is an essential stopgap measure to sustain promising science and highly meritorious research projects.

PILOT PROJECTS/SEED FUNDS—\$50,000 to \$100,000 (annually)

Gifts for seed funding are “risk capital” for a promising researcher. They allow scientists to shift the direction of their research to follow promising leads or new ideas, propelling scientific discoveries in new ways. You can help give researchers the time they need to push the boundaries of science and allow innovative ideas to reach their full potential.

POSTDOCTORAL AND STUDENT FELLOWSHIPS—\$25,000 to \$75,000 (a one-year)

These funds support an aspiring scientist while providing research training and mentorship in the laboratory setting.

For more information about how your gift can make an impact, please contact Brenda Gaglia at: (585) 276-4570 • bgeglio@admin.rochester.edu



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