

Making the Cover of Scientific American

The work of Susana Martinez-Conde, Ph.D., director of the Laboratory of Visual Neuroscience, and Stephen Macknik, Ph.D., director of the Laboratory of Behavioral Neurophysiology, was featured on the August cover of *Scientific American*.

Drs. Martinez-Conde and Macknik authored an article describing the history of fixational eye movement research and the investigations they have conducted at Barrow. For decades, researchers have debated the purpose of fixational eye movements and particularly of microsaccades, the largest and fastest of fixational eye movements. Recent research conducted by Dr. Martinez-Conde and her team at Barrow has shown that microsaccades produce visibility when a person's gaze is fixed on an object. Microsaccades may also help reveal a person's subliminal thoughts. Fixational eye movements are responsible for driving most of our visual experience and without them humans would become blind to stationary objects.

"We are thrilled to have our research highlighted in *Scientific American*," says Dr. Martinez-Conde. "Fixational eye movements

have long been debated and our research has proven that they do serve a very important purpose."

Scientific American is the oldest continuously published magazine in the U.S. The magazine publishes 15 foreign language editions and has a total of more than one million copies in circulation worldwide.

Drs. Martinez-Conde and Macknik also recently published a feature article in *Nature*, the world's premier journal of science. The article describes The Magic of Consciousness symposium that the pair recently organized in Las Vegas. *The New York Times* and *Vanity Fair* also covered the symposium.



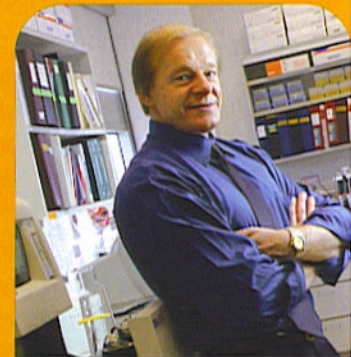
HLI Is Offering Mitral Valve Repair



Every year, thousands of Americans with leaky mitral valves undergo surgery to have them replaced with an artificial valve. Many, if not most, of these patients could have their valve saved through mitral valve repair. The procedure is being offered at the Heart & Lung Institute at St.

Research Review

Ronald Lukas, Ph.D., is St. Joseph's new vice president of Research. Dr. Lukas joined St. Joseph's in 1980 as director of the Laboratory of Neurochemistry at Barrow and will continue to serve as the senior staff scientist in the Division of Neurobiology.



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In his new role, Dr. Lukas will be responsible for overseeing the hospital's research projects and clinical studies. He will also administer collaborative partnerships, educational training and review and approval of research activities.

Research conducted by Greg Lekovic, M.D., neurosurgery resident; Mark Preul, M.D., Barrow Newsome Endowed Chair of Neurosurgery Research; and Jill Lekovic, M.D., pediatrician, was recently featured on the cover of *Neurosurgery*, the official journal of the Congress of Neurological Surgeons. Research is being done to see if there's a link between head deformation and cognitive impairment in cultures that practice head deformation techniques such as the Mayans.