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respond to injury by becoming factories for healing substances that can prevent further damage," Dr. Katz explains. "The cells themselves don't replace cells damaged by a heart attack. Instead, they create an environment that minimizes further damage and seem to help the heart function better after the heart attack."

When Dr. Katz first began his career in 1984, cardiologists didn't worry about the long-term health of their heart failure patients. They didn't advise them about diet, cholesterol levels, or exercise, because, as he puts it, "We knew that they would probably all be dead within two years." But today, thanks to earlier detection and more effective medications, Dr. Katz, like other doctors who treat CHF patients, expects that his patients will be alive for many years if they get the right treatment and maintain heart-healthy habits. As Schipper puts it, "There are ways to prevent the progression of heart failure." And that's what the Heart Failure Program is really designed to do.

Of course, Dr. Katz and Schipper can do only so much. The rest is up to their patients. "They need to be ready to change behavior," Schipper explains. "And we have to intervene at the right time. We need to get at that teachable moment." Such moments can inspire patients to take charge of their own health. Whether it's Larsen making low-sodium tomato sauce, or the man in his sixties Schipper saw after he was treated at NYU for heart disease. "He didn't have heart failure, but he was at risk for it," Schipper recalls.

"I was able to reach him in a way that made him see that at this point in time, he could make a difference, that he could exercise and do the right things and allow his heart to recover in a way that would prevent him from being a disabled elderly person." And he did just that, according to Schipper. "He turned it around, and now he's doing very well." ●

## Dr. E. Roy John

**E. ROY JOHN, PH.D., PROFESSOR OF PSYCHIATRY**, died on February 28, 2009, at the age of 84. A pioneer in the use of quantitative electroencephalography (QEEG), Dr. John founded the Brain Research Laboratory at the School of Medicine in 1974 and served as its director for over three decades, working alongside his wife, Leslie Prichep-John, Ph.D., the lab's associate director. He was also a research scientist at the Nathan S. Kline Institute for Psychiatric Research of the New York State Office of Mental Health.



Dr. John was famous for his wide-ranging intellect and keen scientific insight, as well as for his warm heart and passionate interest in both humanity and the workings of the human brain. He is credited with inventing the field of neurometrics, which analyzes abnormal brain function by measuring the brain's electrical activity. Dr. John was also fascinated by the nature of consciousness and was among the first to postulate that memory is distributed throughout the brain, rather than encoded in specific groups of neurons.

His 1967 textbook, *Mechanisms of Memory*, remains a classic in its field. His colleague Robert Thatcher, Ph.D. (who coauthored the book *Functional Neuroscience* with

Dr. John), recalls, "There were so many occasions when difficult concepts were being discussed, when Roy would perceptively cut to the heart of the matter and immediately transform everyone in the room toward a simple and elegant solution. Sometimes this would almost take your breath away."

During the early years of World War II, Dr. John worked in an airplane plant and machined plutonium for a program later revealed to be the Manhattan Project. He volunteered for the U.S. Army in 1943 and fought in the Battle of the Bulge and the invasion of Germany. Following the war, he attended the University of Chicago on the G.I. Bill, earning a degree in mathematical biophysics and a doctorate in physiological psychology. After working as a brain researcher at the University of California at Los Angeles, he established the Center for Brain Research at the University of Rochester, then moved to New York City in 1963 to direct the brain research lab at Flower Fifth Avenue Hospital for 10 years before joining the School of Medicine's faculty.

Dr. John's interest in EEG brain research coincided with the development of computers, which allowed EEG data to be systematically analyzed for the first time. As computers became more powerful and their database of QEEG readings accumulated, Dr. John and his colleagues developed algorithms that let them quantitatively identify a wide range of mental abnormalities, from depression, dementia, and schizophrenia to traumatic brain injury and alcoholism. He also worked actively to translate these discoveries into clinical treatments for neurocognitive and psychiatric disorders. More recently, he developed a QEEG algorithm for monitoring patients' brain activity during surgery, to detect when they were receiving too much or too little anesthesia.

Dr. John is survived by his wife and colleague, Leslie Prichep-John, his children, Sarah John, Sheila Fischer, S. Sandor John, Martha John, M. Sasha John, and Joshua Turner, and his eight grandchildren and five great-grandchildren. ●