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RESEARCH NEWS

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# Esteemed Neurobiologist Lawrence C. Katz, 1956-2005

Lawrence C. Katz, Ph.D., a Howard Hughes Medical Institute investigator at Duke University Medical Center, died of melanoma on November 26, 2005, at his home. He was 48 years old.

Katz was a highly esteemed neurobiologist whose research on the development and function of the mammalian cortex was recognized internationally. The early part of Katz's research career focused on elucidating the cellular events and cues used by the developing brain to form, maintain, and modify local neuronal circuits in the primary visual cortex.

Katz pioneered the use of a variety of techniques, including fluorescent tracers, optical imaging in brain slices and *in vivo* , and combinations of optical and electrophysiological methods, to help define the rules by which specific circuits in the cortex emerge and how they function as neuronal assemblies.

In recent years, Katz continued to investigate the organization of the visual system, and his group had also begun to study the olfactory system. In particular, his lab used the mouse as a model to examine how olfactory signals important for basic, built-in behaviors are encoded by the main olfactory system, which detects airborne odors, and the vomeronasal system, which detects species-specific signals called pheromones. Katz's long-term goal was to understand how the neural circuits activated by the olfactory and vomeronasal systems elicit species-specific behaviors.

Using brain-imaging techniques, Katz and his colleagues visualized the representations of individual odorants and mixtures in space and time in the living brain. By applying advanced microscopy techniques, they were able to visualize the microstructure of neuronal circuits in living mice and to follow changes in those circuits as animals learned new olfactory tasks.

Katz was named a Howard Hughes Medical Institute investigator in 1996. At Duke University Medical Center, he was the James B. Duke Professor of Neurobiology. He received his B.A. degree in biology with honors from the University of Chicago and his Ph.D. in neurobiology from the California Institute of Technology, where he worked with Masakazu Konishi. At Caltech, he was awarded the Clauser Prize for the most original Ph.D. thesis. Before moving to Duke, Katz did postdoctoral work with Torsten Wiesel at

The Rockefeller University.

Katz had published more than fifty original scientific articles and had received numerous professional awards for his research. Katz was a Lucille P. Markey Foundation scholar, a McKnight Foundation scholar, and a recipient of the Young Investigator Award from the Society for Neuroscience, and the Charles Judson Herrick Award from the American Association of Anatomists. He was a fellow of the American Association for the Advancement of Science. Katz was also an avid and skilled fly fisherman.

Katz is survived by his wife, Doris Iarovici, of Durham, North Carolina; his children, Ariel and Justin; his father, Leonard Katz of Naples, Florida; his sister, Elizabeth Katz, and her husband, Clifford, of Beijing, China; a niece, Leah; and two nephews, Greg and Mark.

Graveside funeral services will be held Monday, November 28 at 2:30 p.m. at the Congregation Sons of Israel Spring Valley Cemetery in New York by Rabbi David Fass. There will be a memorial service at a later date at Temple Beth-El in Durham, North Carolina.

In lieu of flowers, memorials may be made to the Nature Conservancy, One University Place, Suite 290, 4705 University Drive, Durham, NC, 27707.

Arrangements in Durham are by Howerton and Bryan Funeral Home. Arrangements in New York are by Hellman Memorial Chapels.