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UCSB NEUROSCIENTIST TO RECEIVE AWARD

Steven K. Fisher, professor and founding director of the Neuroscience Research Institute (NRI) at the University of California, Santa Barbara, has been chosen to receive the Ludwig von Sallmann Prize for 2002. The prestigious award is for his outstanding contributions to vision research and ophthalmology.

The award committee, which was unanimous in its support of Fisher, made special note of his research contributions over many years to a better understanding of retinal detachment. The award ceremony will be held in Geneva, Switzerland later in the year.

"My career has been built around a desire to contribute to our understanding of the organization and function of vertebrate retina," said Fisher. "Although this has taken me along various satisfying paths, my most current and perhaps most satisfying emphasis is on the biology of induced retinal detachment."

He explained why he was attracted to this particular problem: "We want to understand specifically how this condition causes visual loss or abnormalities in human patients. Detachment is one of the few degenerative retinal conditions in which patients can experience significant visual recovery upon surgical treatment. Thus we felt that we had an opportunity to develop an experimental system in which we could study both 'degenerative' and 'regenerative' changes."

Fisher said that information derived from such a study may also yield information about other central nervous system injuries.

"Optimizing recovery after retinal reattachment is certainly a goal of our study," said Fisher. "However, the broader goal is to understand the mechanisms that underlie visual deficits that occur as a result of detachment, with the hope that this knowledge will be of use in developing therapies for other visual disorders such as age-related macular degeneration."

Fisher also did a study, published in the American Journal of Ophthalmology, that supported the use of oxygen therapy with patients who are waiting for surgery for retinal reattachment. Using a feline model, the study showed that oxygen provided protection to the cells until the retina could be reattached. Fisher works with Robert Avery, a Santa Barbara ophthalmologist and NRI researcher, who now offers oxygen to patients waiting to have their retinas reattached.

Fisher earned his Ph.D. in neurobiology in 1969 at Purdue University. Part of the study for the Ph.D. was done in the Department of Biophysics at Johns Hopkins University. In 1969 he became a National Institutes of Health postdoctoral fellow at the Wilmer Institute of the Johns Hopkins School of Medicine, where he began research on the vertebrate retina. He moved to UCSB in 1971. His research is supported by grants from the National Eye Institute; he also is a recipient of a National Eye Institute Research Career Development Award. Fisher served as director of the NRI from 1984 through March 2001.

Since its founding, the NRI has expanded its programs and has increased its efforts in vision neuroscience. Currently the NRI researchers conduct cutting-edge research examining cellular and molecular mechanisms underlying the normal development and function of the nervous system, as well as many neurodegenerative conditions and behavior. These include age-related macular degeneration; retinal detachment, reattachment and recovery of vision; Alzheimer's disease; cancer; diabetes; cardiovascular disease; multiple sclerosis and muscular dystrophy. Investigations into neurodegenerative conditions that arise as a result of injury or developmental defects are also being conducted at the NRI.

Note: Steven Fisher can be reached at (805) 893-3637 or fisher@lifesci.ucsb.edu

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