

UC SANTA BARBARA

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## **CENTER STUDIES AGE-RELATED EYE DISEASE**

One out of five people between the ages of 65 and 74 suffers from vision impairment resulting from age-related macular degeneration (AMD), according to the National Eye Institute, an arm of the National Institutes of Health. The disease is the leading cause of new blindness in adults over the age of 60 in the U.S. and it is more prevalent among women.

The Center for the Study of Macular Degeneration, part of the Neuroscience Research Institute at the University of California, Santa Barbara, is continuing to make progress toward understanding this disease. The center's research is focused on age-related deposits called drusen which are similar in molecular composition to plaques and deposits that form in other age-related diseases such as Alzheimer's and atherosclerosis.

Steven Fisher, director of the NRI, predicts that as the population bulge known as "baby boomers" gets older there will be increasing pressure for progress in understanding and treating AMD.

Macular degeneration causes the death of cells in the light-sensitive region of the eye called the retina. The cells, called photoreceptor cells are most severely affected in a specialized region of the retina called the macula, hence the name macular degeneration. The macula is used to focus on very small objects, and is the vision that enables one to drive, read, sew, watch television, and many other activities.

There are many mysteries about the disease, according to Fisher. "Is there a genetic component, or is exposure to light the culprit? What about smoking or the environment? Could nutrition be involved, could vitamins and anti-oxidants help to prevent the disease?"

"There are so few hints, and it occurs late in life, so it's hard to design studies of the disease," said Fisher. He said that one of the few studies about macular degeneration looked at Chesapeake Bay fishermen who spend most of their lives facing sunlight and its reflection from the water.

Fisher recently participated in the first meeting of the Macula Vision Research Foundation, a new organization dedicated to understanding AMD. Participants from the U.S., Canada and England including clinical researchers and basic scientists in cell biology, biochemistry and molecular biology were able to meet and compare notes about their different perspectives on the disease, said Fisher. He believes that this type of collaboration and exchange of ideas is an important key to making progress toward understanding the disease.

Editors:

For more information including graphics and photos, check the center's web page at: <http://www.csmd.ucsb.edu/>

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The University of California, Santa Barbara is a leading research institution that also provides a comprehensive liberal arts learning experience. Our academic community of faculty, students, and staff is characterized by a culture of interdisciplinary collaboration that is responsive to the needs of our multicultural and global society. All of this takes place within a living and learning environment like no other, as we draw inspiration from the beauty and resources of our extraordinary location at the edge of the Pacific Ocean.