

Gerald H. Jacobs - Professor Emeritus 2006

Gerald H. Jacobs majored in Psychology and Zoology at the University of Vermont (B.A. 1956). After army service, he pursued his graduate education in Physiological Psychology at Indiana University (Ph.D. 1963). He was Assistant and Associate Professor at the University of Texas, Austin, from 1964 to 1969. He then came to UCSB, advancing to full professor in 1973, and remaining in that position until 2006, when he became a Research Professor.

Jerry's research focus was on mammalian color vision. He employed a wide range of behavioral, biological, and physical techniques to understand how animals see colors. The core of his work was behavioral experiments that measured the color vision capabilities in more than thirty species of mammals, including humans, combined with recordings of the electrical response of the retina that analyzed the photosensitive pigments in their eyes. He shows that these photopigments account for many aspects of color vision. He and his colleagues examined the neuronal responses coding for color in the visual pathway, studied the morphology and distribution of photoreceptors, measured the absorption of light by single photoreceptors, and analyzed the genes that control the spectral tuning of the photopigments. Through cross-species comparisons he assessed the utility and evolution of color vision.

Jacobs was an excellent teacher and a mentor to research students who have gone on to distinguish themselves. His large body of work is characterized by a focus on important specific problems, elegant and meticulous experimentation, precise measurement, and lucid writing. He achieved international recognition as a leading expert on comparative color vision. He was honored by being awarded the Rank Prize in Opto-Electronics in 1988, being named UCSB Faculty Research Lecturer in 1996, and receiving the Proctor Medal from the Association for Research in Vision and Ophthalmology in 1998.