

Four UCSD faculty elected to National Academy of Sciences

April 28, 1998

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FOUR UCSD FACULTY ELECTED TO NATIONAL ACADEMY OF SCIENCES

Four members of the faculty of the University of California, San Diego have been elected this year to the prestigious National Academy of Sciences.

The four are: Roy D'Andrade, professor of anthropology; Tony Hunter, adjunct professor of biology; Lu Jeu Sham, professor of physics; and Roger Y. Tsien, professor of chemistry and biochemistry and pharmacology.

Members are elected in recognition of their distinguished achievements in original research. Including this year's election, 64 members of the UCSD faculty are now part of the organization.

D'Andrade, who joined the UCSD faculty in 1970, has been studying cognitive anthropology and American culture. His recent publications include research on "chimpanzees and human mitochondrial DNA," "the development of cognitive anthropology," and "moral models in anthropology."

Prior to joining UCSD, D'Andrade was a professor and chairman of the anthropology department at Rutgers University; a Fellow in the Center for Advanced Study in the Behavioral Sciences, Stanford, Calif.; a member of the anthropology faculty at Stanford University; and an anthropology instructor at Harvard University.

Hunter, an adjunct UCSD biology professor and professor at The Salk Institute for Biological Sciences, was elected to the academy as a Foreign Associate, in recognition of his achievements in the molecular biology of cancer cells. He is one of only two Foreign Associates elected who work in the United States.

Hunter's laboratory showed that an avian tumor virus turns a normal cell into a tumor cell with the use of a specific chemical "switch," referred to as tyrosine phosphorylation. This seminal discovery opened the door to understanding how normal growth is controlled by networks of chemical switches and how tumors can develop when switching mechanisms go awry. Drugs designed to block this chemical switch are currently in clinical trials for the treatment of cancer and other diseases. Hunter continues to study key points in the growth control network.

After receiving his Ph.D. from Cambridge University, Sham spent three years at UCSD as an assistant research physicist. He subsequently joined the faculty of the University of California, Irvine and of the University of London. Sham returned to UCSD in 1968 as a member of the physics department.

While at UCSD, Sham has received a Guggenheim Fellowship and a Humboldt Foundation Award to pursue sabbatical leave studies at the Max Planck Institute in Germany. An authority on condensed matter physics, Sham has been active as a research scientist, teacher and advisor to graduate students. He currently is chair of the physics department.

Tsien, an investigator at the Howard Hughes Medical Institute at UCSD, is working to gain a better understanding of information processing inside a living cell. In his lab, Tsien has designed and synthesized fluorescent dyes sensitive to calcium, sodium, hydrogen, and cyclic AMP. These dyes act as molecular probes, capable of detecting and imaging minute changes inside living cells. One potential goal of this work is to monitor the activity of large number of interacting neurons as they process information in the brain.

Tsien, who joined UCSD in 1989, has received several notable research honors including the 1991 Young Scientist Award from the Passano Foundation, the Gairdner Foundation International Award, and the Artois-Baillet-Latour Health Prize.

(April 28, 1998)