

Three UC San Diego Professors Elected to Prestigious National Academy of Sciences

Professors in Chemistry, Medicine and Physics Receive One of the Highest Honors in Science

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The National Academy of Sciences today elected three professors in chemistry, medicine and physics at the University of California, San Diego to membership in the prestigious academy, one of the highest honors bestowed on U.S. scientists and engineers.

Mark H. Thiemens, dean of the Division of Physical Sciences; Don W. Cleveland, a professor of medicine, neurosciences and cellular and molecular medicine at UCSD's School of Medicine, and Jose# N. Onuchic, co-director of the Center for Theoretical Biological Physics, were among the 72 new members and 18 foreign associates elected to the academy this morning "in recognition of their distinguished and continuing achievements in original research."

They join 63 current members of the UCSD faculty who previously had been named to membership in the academy, which was established by Congress in 1863 to serve as an official adviser to the federal government on matters of science and technology.

"The election today of these three distinguished individuals to the National Academy of Sciences underscores the continued strength and vitality of UCSD as one of the world's great research institutions," said Marye Anne Fox, chancellor of UCSD, a professor of chemistry and biochemistry, and a member of the academy.

Thiemens, a professor of chemistry and biochemistry, is an expert in atmospheric chemistry whose studies frequently employ rocket-borne sampling to understand the chemistry of the earth's upper atmosphere. He received his undergraduate degree in chemistry at the University of Miami and his Ph.D. in oceanography from Florida State University. Shortly after coming to UCSD in 1980 from his postdoctoral fellowship at the University of Chicago, he made discoveries that overturned conventional theories about the formation and evolution of the solar system.

The founder and director of UCSD's Center for Environmental Research and Training, Thiemens has done research on a wide variety of problems-from ozone chemistry to global warming to questions about the prospect of life on Mars. His most recent work has focused on understanding climate change from chemical clues embedded in the ice at the South Pole. He has twice received the Alexander Von Humboldt awards and won the E.O. Lawrence Award from the U.S. Department of Energy in 1998. In 2002, he was elected to the American Academy of Arts and Sciences.

Cleveland, who is also head of the Laboratory of Cell Biology at the Ludwig Institute for Cancer Research, has made pioneering discoveries of the mechanisms of chromosome movement and cell-cycle control during normal cellular division, as well as of the principles of neuronal cell growth during mammalian development - defects that lead to inherited human neurodegenerative diseases. A leader in the study of Amyotrophic Lateral Sclerosis, he is a member of the San Diego Laboratory for ALS Research.

He received his bachelor's degree in physics from New Mexico State University, his Ph.D. in biochemistry from Princeton University and was a postdoctoral fellow at the University of California, San Francisco. He was a professor at the Johns Hopkins University School of Medicine before joining the UCSD School of Medicine in 1995. He has been the editor of the *Journal of Cell Biology* since 1999 and was elected yesterday to the American Academy of Arts and Sciences.

Onuchic, a professor of physics, has since 2002 co-directed the Center for Theoretical Biological Physics, which uses the theoretical tools of physics to understand the fundamental principles governing complex biological systems. This interdisciplinary approach-carried out jointly by physicists, chemists, mathematicians and biologists-has begun to provide biologists with a better understanding of the underlying mechanisms governing complex biological systems, such as networks of neurons or biochemical pathways in the assembly of proteins, and allowed physicists to develop new principles and models for complex systems based on biological phenomena.

Onuchic received his bachelor's degrees in both physics and electrical engineering from the University of Sa#o Paulo in Brazil and his Ph.D. in chemistry from the California Institute of Technology. He was an assistant professor of physics at the University of Sa#o Paulo before coming to UCSD in 1990. He is a Fellow of the American Physical Society and received the 2002 Distinguished Teaching Award from UCSD's Academic Senate.

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