UC San Diego
UC San Diego News Center

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UC San Diego Professors Elected to National Academy of Sciences

New NAS members Karten, Schroeder, Severinghaus, and Tauxe

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

Harvey Karten of the School of Medicine, Julian Schroeder of the Division of Biological Sciences, and Jeff Severinghaus and Lisa Tauxe of Scripps Institution of Oceanography were among the 84 new members and 21 foreign associates from UC San Diego elected to the academy today “in recognition of their distinguished and continuing achievements in original research.”

Russell Lande, an emeritus professor of biology at UC San Diego, now a Royal Society Research Professor at Imperial College London, was also elected into the academy.

They join 103 living and deceased members of the UC San Diego 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.

Major research universities use the number of academy members on their faculty as a benchmark by which to compare the strength of their scientific research and education programs among universities across the nation in different disciplines.

Karten is professor emeritus of neurosciences in the School of Medicine. His groundbreaking work included studies on the nature of the avian brain and the discovery of many shared features with the mammalian cortex. This has provided insight into the evolutionary origins of the cortex of mammals and mechanisms of cortical development. Karten is also a member of the American Academy of Arts & Sciences.

Schroeder, a distinguished professor of biology and co-director of UC San Diego Center for Food and Fuel for the 21st Century, has been faculty member in the Division of Biological Sciences since 1990 and pioneered the characterization of ion channels in higher plants. His laboratory later turned its research focus toward identifying the basic molecular mechanisms by which plants respond to and mount resistance to abiotic stresses.

Schroeder, who holds the Novartis Chair in Plant Sciences, is president of the American Society of Plant Biologists, a professional society of over 4,000 members devoted to the advancement of the plant sciences, and director of the Plant Systems Biology Graduate Training program at UC San Diego. He received the Charles Albert Shull Award from ASPB, a Presidential Young Investigator Award from the National Science Foundation, the Deutsche Forshungsgemeinshaft Heinz-Maier-Leibnitz Research Priz, and the Blasker Award in Environmental Science and Engineering. He is also a Fellow of the American Association for the Advancement of Science.

After growing up on the East Coast, Schroeder pursued his undergraduate studies in physics at the University of Göttingen and completed his MS and PhD in biophysics and physics at the Max Planck Institute for Biophysical Chemistry in Göttingen, Germany.

Severinghaus is a professor of geosciences in the Geosciences Research Division at Scripps. His research raises the question of whether the addition of carbon dioxide to the atmosphere through the burning of fossil fuels could also produce a rapid change in climate, rather than the slow, steady rise in temperature many computer models of global climate now predict. His current research interests center on using trapped bubbles of gases contained in ice cores to track changes in ancient climate. He was the recipient of the 2011 Claire C. Patterson Medalist of the Geochemical Society, an award given annually for a breakthrough in environmental geochemistry. Severinghaus was also awarded a Comer Science and Education Fellowship

(2002), a Packard Foundation Fellowship (2001), a NOAA Climate and Global Change Graduate Fellowship (1992), and a University of California Regents Fellowship (1985). He is also a fellow of the American Geophysical Union.

Tauxe is a distinguished professor of geophysics in the Geosciences Research Division and Department Chair/Deputy Director for Education at Scripps. Tauxe's studies concentrate on paleomagnetism, the study of remanent magnetism in geological and archaeological materials. She is working to extend the record of paleointensity of Earth's magnetic field behavior 200 million years back into history. Tauxe has received the George P. Woollard Award of the Geological Society of America, Outstanding Academic Title in Earth Science from the American Library Association for Essentials of Paleomagnetism, the Antarctic Service Medal, the Benjamin Franklin Medal, and the Arthur L. Day Medal. She has served as a Distinguished Lecturer of the Joint Oceanographic Institutions and as an Invited Speaker of the Science Lecture Series at the Radcliffe Institute for Advanced Study. Tauxe is a fellow of the American Association for the Advancement of Science, of the Geological Society of America, and of the American Geophysical Union. She has served as president of the Geomagnetism/Paleomagnetism Section and is currently the general secretary/treasurer of the American Geophysical Union. Tauxe has published more than 190 scientific papers.

Those elected today bring the total number of active members to 2,250 and the total number of foreign associates to 452. Foreign associates are nonvoting members of the Academy, with citizenship outside the United States.

The National Academy of Sciences is a private organization of scientists and engineers dedicated to the furtherance of science and its use for the general welfare. It was established in 1863 by a congressional act of incorporation signed by Abraham Lincoln that calls on the Academy to act as an official adviser to the federal government, upon request, in any matter of science or technology.

Additional information about the Academy and its members is available online.

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