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Three UC San Diego Professors Elected to National Academy of Sciences

The National Academy of Sciences (NAS) has announced that University of California San Diego faculty members Susan Ackerman and Bill McGinnis have been elected to membership in the prestigious organization, considered one of the highest honors for U.S. scientists and engineers. Also elected this year is Jeremy Jackson, professor emeritus with Scripps Institution of Oceanography at UC San Diego.



The National Academy of Sciences announced that Susan Ackerman, Jeremy Jackson and Bill McGinnis have been elected to membership in the prestigious organization, one of the highest honors for U.S. scientists.

Ackerman, McGinnis and Jackson are part of a group of 100 new members and 25 foreign associates who were elected to the NAS “in recognition of their distinguished and continuing achievements in original research.”

The newly elected National Academy members bring UC San Diego’s total current and emeriti faculty to 76. Within the Division of Biological Sciences, there are now 23 National Academy members.

“Membership in the National Academy of Sciences is an honor conveyed only on top scientists whose discoveries have had major impact. I am very proud that Susan Ackerman and Bill McGinnis, two Biological Sciences professors known for their groundbreaking and elegant research, and Jeremy Jackson, a Scripps Institution of Oceanography professor emeritus known for his research and public outreach efforts in marine conservation, were elected this year,” said Kit Pogliano, dean of UC San Diego’s Division of Biological Sciences. “The collective impact of these three individuals is remarkable and I am pleased that they have achieved the prominence and recognition afforded by being elected to the National Academy of Sciences.”

Susan Ackerman, the Stephen W. Kuffler Chair in Biology, is a professor in the Division of Biological Sciences' Section of Neurobiology and the School of Medicine's Department of Cellular and Molecular Medicine. Ackerman's discoveries have had a profound influence on multiple fields including genetics, neurobiology, biochemistry and molecular biology. Her early work elucidated novel molecular pathways essential for proper brain development. Her more recent work using unbiased genetic approaches in mice has defined the pathways and networks that regulate neuronal homeostasis and thus neuron survival in the aging mammalian brain. Among her many accomplishments, Ackerman has identified novel mechanisms for the formation of misfolded proteins that accumulate in specific types of neurons leading to their death, including problems in the accuracy of protein synthesis. Her findings that mutations in single members of multi-copy non-coding gene families result in disease states have changed conventional views about genes and their functions.

Ackerman has been a Howard Hughes Medical Institute Investigator since 2005. She received her Ph.D. from UCLA and was a postdoctoral fellow at the University of Illinois Medical School. Before moving to UC San Diego in 2016, she was a professor at The Jackson Laboratory in Bar Harbor, Maine, where she was a faculty member for 19 years. In April, Ackerman was elected to membership in the American Academy of Arts and Sciences.

Bill McGinnis, a UC San Diego faculty member since 1995, is a distinguished professor in the Section of Cell and Developmental Biology and former dean of the Division of Biological Sciences. During much of his career he has studied genetic systems that control the development and regeneration of tissues in animal embryos. He made the original surprising discovery that mammalian genes that control embryonic development could be identified using the fruit fly *Drosophila* as a model system, considered one of the most important discoveries in modern developmental biology and evolution. He has long studied how this family of genes regulates the morphological diversification of embryonic tissues, and how homeobox gene expression patterns and protein sequences have changed during evolution to contribute to differing morphology between species. Recently, he and his collaborators have studied evolutionarily conserved genes that regenerate normal epidermal barriers after wounding.

From 1984 to 1995, McGinnis was on the faculty of Yale University. He received his Ph.D. from UC Berkeley in 1982 and was a Jane Coffin Childs postdoctoral fellow at the University of Basel. He has received a Searle Scholar Award, a Presidential Young Investigator Award and a Dreyfuss Teacher/Scholar Award. In 2010, he was elected a member of the American Academy of Arts and Sciences.

Jeremy Jackson is a renowned ecologist, paleobiologist and conservationist, who is an emeritus professor at Scripps Institution of Oceanography, where he co-founded the Center for Marine Biodiversity and Conservation. His work and research focuses on threats and solutions to human impacts on the environment and the ecology and evolution of coral reefs. Jackson has published more than 170 scientific papers and 11 books. He is a senior scientist emeritus at the Smithsonian Institution, visiting scientist at the American Museum of Natural History and senior advisor on coral reefs for the International Union for the Conservation of Nature. He has received numerous prizes and awards including the BBVA International Prize in Ecology and Conservation, the Peterson Medal of Harvard University, the Paleontological Medal and the Darwin Medal of the International Society for Reef Studies. He holds a Ph.D. in geology and ecology from Yale University.

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