UC San Diego News Center

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Three UC San Diego Professors Named AAAS Fellows

Scripps Institution of Oceanography and School of Medicine researchers to be recognized at February AAAS annual meeting

The American Association for the Advancement of Science (AAAS), the largest general science organization in the United States, has awarded the distinction of Fellow to three UC San Diego professors.

Steven Cande, Trey Ideker, and **Mark D. Ohman** are among 401 honorees newly selected by AAAS, which will publish the full list of new Fellows in the Nov. 28, 2014, issue of the journal *Science*. Continuing a tradition that began in 1874, AAAS members are considered for the rank of Fellow if nominated by the steering group of their respective sections, by three existing Fellows, or by AAAS's chief executive officer.

New Fellows will be recognized on Saturday, Feb. 14, at the AAAS annual meeting in San Jose, Calif.

Steven Cande, a marine geologist and professor emeritus at UC San Diego's Scripps Institution of Oceanography, was named a Fellow "for distinguished contributions to the development of the geomagnetic polarity time scale and plate tectonic reconstructions of the Southern Oceans," according to his AAAS citation. Cande uses magnetic anomalies to analyze tectonic plate motions in the world's ocean basins. The data allow him to study the processes by which the oceanic crust is formed at mid-ocean ridges, and to analyze the behavior of Earth's magnetic field. Perhaps best known for his work using magnetic anomalies to understand when polarity reversals of Earth's



Steven Cande

magnetic field have taken place, Cande has also studied variations in the paleointensity of Earth's magnetic field that are recorded in the oceanic crust. Although most of his work has been with magnetics data acquired at sea, Cande has also collected data from aircraft flying over the Weddell Sea near Antarctica and Chile Ridge in collaboration with scientists from the Naval Research Lab.



Trey Ideker

Trey Ideker, a professor at UC San Diego's School of Medicine, was cited by AAAS for "distinguished contributions to the fields of bioinformatics and computational biology, particularly in pioneering network research." His research seeks to comprehensively map connections between the many genes and proteins in a cell and how these connections trigger or prevent disease. His current work focuses on DNA mutations that cause cancer. Although each person's cancer tumor may be caused by a nearly unique set of mutations, Ideker has shown that different sets of mutations often alter and hijack the same gene networks. The longterm goal of his research is to build a whole working model of a cancer cell that can be used in the clinical setting to interpret patients' genomic data both their inherited DNA and the mutations

associated with their particular malignancy—to refine and tailor cancer diagnoses and treatments. Such analyses are in the early stages of being used to screen people who are unlikely to respond to certain types of chemotherapy.

Mark D. Ohman, a professor of biological oceanography at UC San Diego's Scripps Institution of Oceanography, was recognized for "distinguished contributions to marine plankton research, notably in using zooplankton populations to document and investigate mechanisms of ocean response to climate variability." His research interests include the population ecology of marine zooplankton, prey-predator interactions, and demographic estimation methods, with primary expertise in the population dynamics of marine planktonic copepods. In addition to serving as curator of the Pelagic Invertebrates Collection of the Scripps Oceanographic Collections, Ohman serves as the lead principal investigator of the National Science Foundation-supported California Current Ecosystem Long-Term Ecological Research (LTER) site. He is currently

working on climate change effects on zooplankton of the California Current System, use of inverse models to infer demographic rates in stagestructured zooplankton populations, and autonomous measurements of ocean ecosystems.

MEDIA CONTACT

Mario Aguilera, 858-822-5148, maguilera@ucsd.edu

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Mark D. Ohman