Nine UCI researchers named AAAS fellows

Honor is conferred for distinguished contributions to their fields
Tuesday, November 26, 2019
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UCI News



Eric Rignot, the Donald Bren Professor of Earth system science, is among UCI's latest cohort of American Association for the Advancement of Science fellows.

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Maria Stenzel

A total of 443 AAAS members are being honored this year for their efforts to further science or its applications. New fellows will each receive an official certificate and a gold-and-blue rosette pin on Feb. 15, 2020, at the organization's annual meeting, in Seattle.

"It is an honor to congratulate UCI's nine researchers named fellows of the American Association for the Advancement of Science," said Enrique Lavernia, UCI provost and executive vice chancellor. "Representing a broad range of fields, these scholars exemplify academic excellence and bring great prestige to UCI with this exceptional recognition."

The honorees will be formally announced Nov. 29 in the AAAS News & Notes section of the journal *Science*. Those from UCI – and their AAAS citations – are:

- **Tallie Z. Baram**, the Danette Shepard Chair in Neurological Sciences, “for distinguished contributions to the understanding of childhood and febrile seizures as well as early life adversity on brain development and their enduring consequences.” Baram directs the Conte Center@UCI, which earlier this year received a $15 million federal grant to enhance studies of how unpredictable, chaotic early life experiences contribute to lifelong cognitive and emotional problems, such as risky behaviors, addiction and post-traumatic stress disorder.

- **Michael Franz**, Chancellor’s Professor of computer science, “for distinguished contributions to computer science, particularly to the areas of just-in-time compilation and optimization and techniques for computer security.” He directs UCI’s Secure Systems and Software Laboratory and is a leading authority on cybersecurity. Franz is also a fellow of the Association for Computing Machinery, a fellow of the Institute of Electrical and Electronics Engineers and an inaugural fellow of the International Federation for Information Processing.

- **Julia M. Gelfand**, a Distinguished Research Librarian for applied sciences and engineering, “for significant and distinguished contributions to professional societies, advancements to the study of scientific publishing and grey literature, and service as a distinguished science librarian.” She earned the first international award for outstanding achievement in grey literature in 1999, and her ongoing scholarship in this field has influenced its direction in open-access publishing, the definition of new information products, an active grey literature movement, and contributions to program planning for STEM libraries and librarians.

- **John S. Lowengrub**, a Chancellor’s Professor of mathematics and biomedical engineering, “for his distinguished research accomplishments in mathematical biology.” He is the co-founder of the UCI Center for Cancer Systems Biology, which is one of 13 research institutions nationwide that are part of the NCI’s Cancer Systems Biology Consortium. He is also an associate director of the NSF-Simons Foundation Center for Multiscale Cell Fate Research at UCI and a co-leader of the Systems, Pathways and Targets Program at the UCI Chao Family Comprehensive Cancer Center. He is a leader in creating mathematical models to explain biological activity, such as cancer progression and response to treatment.

- **David Neumark**, Distinguished Professor of economics, “for prominent contributions to the field of labor economics, econometrics and field-based experiments.” He is the director of UCI’s Center for Population, Inequality and Policy and a leading authority on how employee pay, hiring practices, age discrimination and health contribute to inequality and poverty.

- **Eric Rignot**, the Donald Bren Professor and Chancellor’s Professor of Earth system science, “for innovations in detecting glacier changes leading to the first continent-wide assessment of mass balance for Antarctica and Greenland using remote sensing methods.” His studies are providing evidence of the effects of global climate change, particularly the accelerated melting of the planet’s polar ice fields. In 2018, Rignot was elected to the National Academy of Sciences, one of the highest honors in his field.

- **Zuzanna Siwy**, professor of physics & astronomy, chemistry and biomedical engineering, “for distinguished contributions to the chemistry and physics of synthetic nanopores as templates for biomimetic channels, as well as ionic diodes and ionic transistors.” Her research is revealing information on the creation of artificial cells with greater strength and durability than those found in biological systems. It may also prove useful in such applications as desalination and biosensing.

- **David Van Vranken**, professor of chemistry, focuses on a mechanistic understading of chemical reactions in biological and organic chemistry, across vast scales of chemical reactivity. Over the past 25 years, he has developed new methods for the synthesis of biologically active molecules, including compounds with anti-cancer, antifungal and antibiotic activity.

- **Marcelo A. Wood**, professor and chair of neurobiology & behavior, “for distinguished contributions to the fields of memory and addiction, particularly for the study of mechanisms underlying neuronal function, as well as distinguished teaching.” His research is yielding new information about normal long-term memory processes, memory processes associated with drugs of abuse, and age-related memory impairments.

With this year’s cohort, UCI has 176 AAAS fellows.

About the University of California, Irvine: Founded in 1965, UCI is the youngest member of the prestigious Association of American Universities. The campus has

produced three Nobel laureates and is known for its academic achievement, premier research, innovation and anteater mascot. Led by Chancellor Howard Gillman, UCI has more than 36,000 students and offers 222 degree programs. It's located in one of the world's safest and most economically vibrant communities and is Orange County's second-largest employer, contributing $5 billion annually to the local economy. For more on UCI, visit www.uci.edu.

Media access: Radio programs/stations may, for a fee, use an on-campus ISDN line to interview UCI faculty and experts, subject to availability and university approval. For more UCI news, visit news.uci.edu. Additional resources for journalists may be found at communications.uci.edu/for-journalists.

About the American Association for the Advancement of Science: The AAAS is the world's largest general scientific society and publishes the journals *Science* (www.sciencemag.org), *Science Translational Medicine*, *Science Signaling*, *Science Advances*, *Science Immunology* and *Science Robotics*. *Science* has the largest paid circulation of any peer-reviewed general science journal in the world. The nonprofit was founded in 1848 and encompasses nearly 250 affiliated societies and academies of science, serving 10 million individuals. The AAAS is open to all and fulfills its mission to "advance science and serve society" through initiatives in science policy, international programs, science education, public engagement and more. For the latest research news, log on to EurekAlert! (www.eurekalert.org), the premier science news website, a service of the AAAS. For more information, visit www.aaas.org.

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