



Three UC San Diego Faculty Named Fellows of the American Academy of Arts & Sciences

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Two scientists and a mathematician from the University of California, San Diego were named Fellows of the American Academy of Arts and Sciences on April 20.

José Nelson Onuchic, professor of physics and co-director of the Center for Theoretical Biological Physics; Ruth Williams, professor of mathematics; and Martin Yanofsky, professor of biology and chair of the Section of Cell and Developmental Biology were recognized this year.

The American Academy of Arts & Sciences honors the country's leaders in scholarship, business, the arts and public affairs. New members will be formally welcomed into the Academy at an Induction Ceremony in Cambridge, Massachusetts, on October 10, 2009.

Founded in 1780, the Academy annually elects individuals who have made preeminent contributions to their disciplines and to society at large. The 2009 class of scholars, scientists, artists, civic, corporate and philanthropic leaders elected as fellows of the American Academy of Arts & Sciences includes 210 new Fellows and 19 new Foreign Honorary Members from 28 states and 11 countries.

About UC San Diego's 2009 Fellows:

José Nelson Onuchic has since 2002 co-directed the Center for Theoretical Biological Physics, which encompasses a broad spectrum of research and training activities at the forefront of the interface between biology and physics. This interdisciplinary approach-carried out jointly by physicists, chemists, mathematicians and biologists-has provided biologists with a better understanding of the underlying mechanisms governing complex biological systems. Onuchic's research centers on theoretical and computational methods for molecular biophysics and chemical reactions in condensed matter with a special focus on protein folding and electron transfer in biological systems. Onuchic received his bachelor's degrees in both physics and electrical engineering from the University of São Paulo in Brazil and his Ph.D. in chemistry from the California Institute of Technology. He is a Fellow of the American Physical Society and a member of the National Academy of Sciences.

Ruth Williams is a mathematician whose interests lie in probability, stochastic processes and their applications. She is especially well known for her work on theory and applications associated with stochastic networks, which arise in semiconductor manufacturing, telecommunications, computer systems and Internet congestion control. Williams is a Fellow of the American Association for the Advancement of Science and the Institute of Mathematical Statistics and has been a U.S. National Science Foundation Presidential Young Investigator, an Alfred P. Sloan Fellow, and a Guggenheim Fellow. Williams received her Bachelor of Science and Master of Science degrees at the University of Melbourne, Australia and she earned her Ph.D. degree in Mathematics from Stanford University.

Martin Yanofsky studies the genes that control flower and fruit development in the model plant system of *Arabidopsis thaliana*. Over the past two decades his lab has isolated many of the major regulatory genes that are required not only for the initiation of flowers but also for the development of the four types of flower organs: sepals, petals, stamens and carpels. In recent years his group has turned their attention to the fruit, where they have again used molecular and genetic approaches to identify and characterize important fruit development genes, leading to a model that explains the genetic interactions that determine the fruit's structure. They are now extending this work an earlier phase of the plant life cycle: the development of the female reproductive tract where pollen fertilizes the ovules that will eventually become the seeds. Yanofsky received his Ph.D. from the University of Washington and was an NSF Postdoctoral Fellow at the California Institute of Technology. He has also received a Packard Fellowship for Science and Engineering and a Beckman Young Investigator Award and in 2008 was elected to the National Academy of Sciences.

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