

## Four UCSD faculty members named AAAS Fellows

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Four members of the faculty of the University of California, San Diego were among 44 faculty members of the University of California to be named Fellows of the American Association for the Advancement of Science.

Established in 1848, the AAAS is the world's largest federation of scientists, with more than 140,000 members.

The four new AAAS Fellows from UCSD are:

\*Theodore Friedmann, M.D., is a professor of pediatrics and one of the founding faculty members at UCSD School of Medicine. Over the past 25 years he has explored the ethical and scientific challenges related to gene therapy, and he is one of the world's experts on the use of virus packages to deliver therapeutic genes to cells.

Working with colleagues at UCSD and Salk Institute, he was the first in the world to show that genes delivered with a disabled virus into defective human cells could correct a human genetic defect associated with cancer, some forms of heart disease and degenerative neurological disease.

Currently, Friedmann directs UCSD's Gene Therapy Program, designed to facilitate the safe and efficient use of gene therapy to treat human disease. He is also serving as the 1994/1995 Newton Abraham Chair in Medical, Chemical and Biological Sciences at Oxford and has been named a fellow to Lincoln College at Oxford, which is a lifetime appointment.

\*John W. Miles, professor emeritus of applied mechanics and geophysics, is renowned for his work in theoretical fluid mechanics. Since 1964, he has been on the faculties of UCSD's Department of Applied Mechanics and Engineering Sciences and the Institute of Geophysics and Planetary Physics (IGPP) at Scripps Institution of Oceanography. He also served as vice chancellor for academic affairs at the university from 1980 to 1983. He retired in the mid-1980s, but remains active on the Scripps campus.

Since joining Scripps he has made fundamental contributions to all aspects of fluid dynamics, including supersonic flow, ocean tides, the stability of currents, and water waves and their nonlinear interactions, along with extensive work in the development of mathematical methodology.

Miles has published several hundred research papers and has served as editor or co-editor of several international scientific journals. He was born in Cincinnati, Ohio, in 1920 and received his B.S. in 1942, M.S. in 1943, and A.E. and Ph.D. in 1944, all from California Institute of Technology, Pasadena.

Miles has received Fulbright and Guggenheim fellowships and is a member of the National Academy of Sciences and a fellow of the American Academy of Arts and Sciences, the American Academy of Mechanics, and the American Institute of Aeronautics and Astronautics. His awards include the Timoshenko Medal of the American Society of Mechanical Engineers. In 1990 an international symposium on fluid mechanics was held at Scripps in recognition of Miles's contributions to science and academia.

\*Richard Skalak, professor of bioengineering at UCSD, is director of the Institute for Mechanics and Materials. The Institute was set up in 1992 with a \$5 million grant from the National Science Foundation to foster collaboration in materials science and theoretical mechanics among academic, industrial and governmental researchers.

Skalak received his Ph.D. in applied mechanics from Columbia University and an honorary M.D. degree from the University of Gothenburg.

His current research revolves around molecular models of cell adhesion, passive and active rheology and leukocytes, neural damage under tourniquets, cellular correlates of memory, endothelial mechanics and fluid stresses on cells.

\*John C. Wheeler, a professor of chemistry at UCSD, has been studying the theory of phase transitions in complex mixtures since joining the chemistry faculty in 1969. Wheeler previously has been awarded fellowships from the Alfred P. Sloan Foundation and the John Simon Guggenheim Memorial Foundation.

Prior to joining UCSD, he was an NSF postdoctoral fellow at Harvard University, and an NSF graduate fellow at Cornell University, where he received his Ph.D. in theoretical physical chemistry. He graduated with high honors from Oberlin College with a bachelor's degree in chemistry.

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