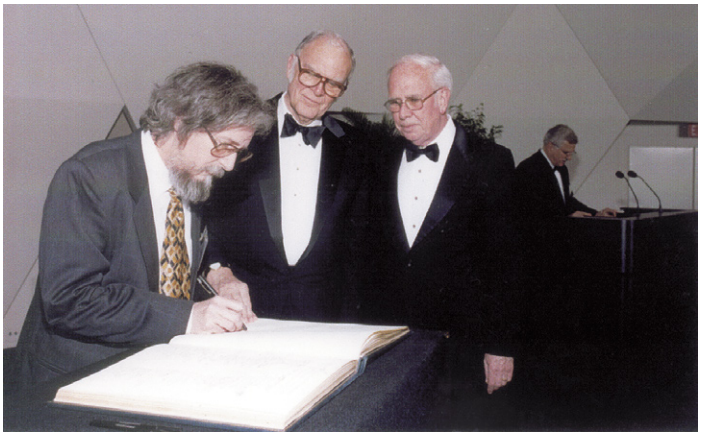
out. And he found out a lot of really neat stuff. He didn't believe he could change the way things were; it was his job to figure out *how* things were—the true scientist, in a sense." McKelvey was responsible, Ledyard said, for convincing him to change his mind and come to Caltech after he had already turned down the job.

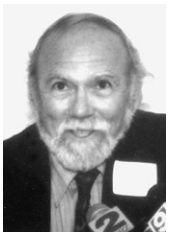
McKelvey's most recent work will play out posthumously. He initiated a contest called a Turing Tournament, designed to improve the ability to predict how people will behave in strategic situations, and this summer, leading scholars in the fields of economics and game theory will compete in the tournament for a cash prize, to be awarded to the theory that best matches actual human behavior in experimental situations.

McKelvey is survived by his wife, Stephenie Frederick, and three children, Kirk, Christopher, and Holly. At the end of the memorial service, Frederick thanked everyone for coming and invited all back to their house, where the credit card collection and the light switch system would be on display ("he didn't want to take the time to look for the light switch and switch it on and off, and so he spent hours, *years*, working on this system"). She also thanked "all of you in academia for creating a world that Richard could love so much." And after reciting, with mock resentment, a litany of household disasters over the years that McKelvey had managed to evade because "he was with a graduate student—maybe one of you," Frederick said that she wanted to do something "to honor Richard's dedication to his students." So the Richard D. McKelvey Prize Fellowship has been established, to be awarded annually to a student doing superior work in social sciences. She gave Ledyard a check for $5,000 toward the fellowship. "This is from Richard and me," she said. □



McKelvey signs the book of members of the National Academy of Sciences in 1993.

Faculty File



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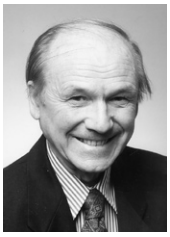

Roshko

Four Elected to NAS

Four Caltech professors were elected to the prestigious National Academy of Sciences in April: Barry Barish, the Linde Professor of Physics and director of the Laser Interferometer Gravitational-Wave Observatory (LIGO), an experimental high-energy physicist; Jacqueline Barton, the Hanisch Memorial Professor and professor of chemistry, who has pioneered the application of transition metal complexes as tools to probe recognition and reactions of double-helical DNA; H. Jeff Kimble, the Valentine Professor and professor of physics, an expert in quantum optics, who has made groundbreaking discoveries relating to quantum measurement and to the new science of quantum information; and Anatol Roshko, the Von Kármán Professor of Aeronautics, Emeritus, known for his research in several areas of gas dynamics and fluid mechanics.

This brings to 67 the number of living Caltech professors and emeritus professors who have earned this honor. □

And Five Elected to AAAS

Five members of the Caltech faculty have been elected to the American Academy of Arts and Sciences, joining the 177 Fellows and 30 Foreign Honorary Members in the academy's "class of 2002." They are: Richard Andersen, the Boswell Professor of Neuroscience, whose work focuses on neural mechanisms for visual-motor integration, spatial perception, and visual-motion analysis; David Anderson, professor of biology, as well as an investigator with the Howard Hughes Medical Institute (HHMI), whose main areas of investigation include the development of the nervous system, the development of the circulatory system, and the functional neuroanatomy of fear; Ronald Drever, professor of physics, whose research interests include experimental gravitation and the detection of gravitational waves; Mary Kennedy, the Davis Professor of Biology, who studies how brains store new information; and Mark

Tech Review's Top 100

Wise, the McCone Professor of High Energy Physics, whose interests include particle physics, nuclear physics, and cosmology—and finance. Their election brings to 80 the number of Caltech faculty who are Fellows of the academy. □

Michelle Effros, associate professor of electrical engineering, Stephen Quake, associate professor of applied physics, and three Caltech PhDs, Howie Choset, Kelvin Lee, and Suzie Hwang Pun, have been named to the TR100, the world's top 100 young innovators according to *Technology Review* magazine, published by the Massachusetts Institute of Technology.

Effros, who is director of Caltech's data-compression lab, conducts research on information compression and communication, with applications to the World Wide Web, signal processing, wireless communications, Internet and wireless networks, data storage devices, and speech recognition. Quake's work involves biophysics and microfluidic devices. He uses biological molecules as model systems for studying physics, and his work in microfluidics has led to the development of "lab-on-a-chip" devices.

Choset, who received his PhD in mechanical engineering in 1996 and is now an associate professor at Carnegie Mellon, builds "snakebots," highly articulated robots designed for complex exploration tasks. Lee, PhD '95 in chemical engineering and an assistant professor at Cornell, discovered a marker protein for identifying Creutzfeldt-Jakob disease in humans and "mad cow disease." And Pun, PhD '01 in chemical engineering, is a senior scientist at Insert Therapeutics, a company founded to exploit her work on using polymers, rather than viruses, to carry injected genes through the bloodstream to precise locations.

The theme for the 2002 TR100 selection has been the transformation of existing industries and the creation of new ones, particularly in "hot spots" such as information technology, biotechnology and medicine, nanotechnology and materials, energy, and transportation. □

More Honors and Awards

The 2002 ASCIT (Associated Students of Caltech) Teaching Awards were given to James Arvo, associate professor of computer science; Niles Pierce, assistant professor of applied and computational mathematics; Darryl Yong, von Kármán Instructor in Applied and Computational Mathematics; Vladimir Baranovsky, the Olga Taussky and John Todd Instructor in Mathematics; John Preskill, the MacArthur Professor of Theoretical Physics; and John Sutherland, visiting professor of literature. A lifetime teaching award was presented to Michael Shumate for his years as lecturer in applied physics.

The Graduate Student Council conferred its teaching awards on Oscar Bruno, professor of applied and computational mathematics; and Yaser Abu-Mostafa, professor of electrical engineering and computer science. Bruno also received a mentoring award.

Seymour Benzer, Boswell Professor of Neuroscience, Emeritus, has been chosen to receive this year's March of Dimes Prize in Developmental Biology. He is being honored "for research that addressed many of the mysteries of human biology and contributed to the design of new treatments for birth defects and other disorders." The prize's cash award of $250,000 will be shared equally by Benzer and his corecipient, Sydney Brenner, Distinguished Professor at the Salk Institute.

Christopher Brennen, professor of mechanical engineering and former vice president for student affairs, has received the Fluids Engineering Award, the highest award given by the Fluids Engineering Division of the Japan Society of Mechanical Engineers. It has never before been awarded to a non-Japanese. Brennen will deliver a lecture and accept the award in Tokyo in September.

William Deverell, associate professor of history, will serve as the 2002–03 Haynes Fellow beginning July 1. An authority on the West, he has written extensively about the history of California and Los Angeles. The oldest private foundation in the city of Los Angeles, the Haynes Foundation has been supporting social science research into regional policy issues since 1926.

Jim Eisenstein, professor of physics, has been invited to present a series of Morris Loeb Lectures at Harvard next winter. These lectureships, dealing with research topics of special interest to the lecturers, usually involve

John Todd and Olga Taussky Todd (painting by Sylvia Posner).

talks for both specialized and less-specialized audiences.

Charles Elachi, Caltech vice president, director of the Jet Propulsion Laboratory, and lecturer in electrical engineering and planetary science, has been elected a fellow of the American Institute of Aeronautics and Astronautics "for his leadership and contributions in the field of spaceborne imaging radars." He has also received the Wernher Von Braun Award from the German Organization of Air and Space Travel, given in recognition of the Shuttle Radar Topography Mission team (*E&S* No. 1, 2002), and has been named the 2002 Distinguished Alumnus of UCLA's department of earth and space science.

Michael Hoffmann, the Irvine Professor of Environmental Science, was honored as the Dodge Distinguished Lecturer in Chemical Engineering at Yale in April.

Alexander Kechris, professor of mathematics, has won a 2002 John Simon Guggenheim Memorial Foundation Fellowship; the award will support his work in "classification problems in mathematics, group actions, and equivalence relations." Guggenheim Fellows "are appointed on the basis of distinguished achievement in the past and exceptional promise for future accomplishment."

Shrinivas Kulkarni, the MacArthur Professor of Astronomy and Planetary Science, has been chosen as the 2002 Jansky Lecturer. Established in 1966 by the trustees of Associated Universities, Inc., the Karl G. Jansky Lectureship recognizes outstanding contributions to the advancement of astronomy.

David MacMillan, associate professor of chemistry, has been selected to receive a Sloan Research Fellowship. Fellows are chosen by the Alfred P. Sloan Foundation "from among hundreds of highly qualified scientists in the early stages of their careers on the basis of their exceptional promise to contribute to the advancement of knowledge."

Dianne Newman, the Luce Assistant Professor of Geobiology and Environmental Science and Engineering, has been selected by the Department of the Navy as a recipient of the Office of Naval Research Young Investigator Award. The program "is designed to attract young scientists and engineers who show exceptional promise for outstanding research and teaching careers."

Michael Ortiz, professor of aeronautics and mechanical engineering, has been selected to receive a Humboldt Research Award for Senior U.S. Scientists. The Alexander von Humboldt Foundation of Germany "grants up to 150 Humboldt Research Awards annually to foreign scholars with internationally recognized academic qualifications. The award is intended as a lifelong tribute to the past academic accomplishments of award winners." Ortiz's award is in the amount of 65,000 euros.

Jonas Peters, assistant professor of chemistry, has received a 2002 Camille Dreyfus Teacher-Scholar Award from the Camille and Henry Dreyfus Foundation. Only 15 Teacher-Scholars were chosen. The program "is designed to provide external support to young faculty members at early stages of their academic careers. It is the Foundation's expectation that this award will assist these outstanding scientists to continue the high level of accomplishment in education and research that they have demonstrated thus far." The award to Peters is for $60,000.

John Todd, professor of mathematics, emeritus, and his late wife, Olga Taussky Todd, who was also professor of mathematics, emeritus, have been selected to have their pictures displayed in the Portrait Gallery of Distinguished NBS/NIST Alumni. The gallery honors staff members and research associates of the National Bureau of Standards—now the National Institute of Standards and Technology—from 1901 to the present.

Theodore Y. Wu, professor of engineering science, emeritus, has been elected a Foreign Member of the Chinese Academy of Sciences, for his distinguished contributions to fluid mechanics and for his international academic collaboration. His election brings the foreign membership of the Chinese Academy to 41. □