

In Special Recognition

The 2008–2009 academic year saw a number of changes in the senior academic and administrative leadership of MIT.

Li-Huei Tsai, the Picower professor of neuroscience and a Howard Hughes Medical Institute investigator, was appointed director of the Picower Institute for Learning and Memory on July 1. Also on July 1, dean for graduate education Steven R. Lerman '72, SM '73, PhD '75, became MIT's vice chancellor. The following day, Sherwin Greenblatt '62, director of the MIT Venture Mentoring Service, agreed to serve as interim executive vice president and CEO of the MIT Alumni Association. Costantino Colombo, dean of student affairs at Columbia University, was named MIT's dean for student life, beginning August 18. Richard Lester, professor of nuclear engineering and director of the Industrial Performance Center, was named head of the Department of Nuclear Science and Engineering, effective September 1. Ram Sasisekharan, the newly named Edward Hood Taplin professor of biological engineering and health sciences and technology, was appointed the new director of the Harvard-MIT Division of Health Sciences and Technology, effective December 10. As of January 1, Michael J. Cima, the Sumitomo Electric Industries professor of engineering, became the new faculty director of the Lemelson-MIT Program, succeeding Merton Flemings, emeritus Toyota professor of materials processing. Later that month, Amy Glasmeier, most recently the E. Willard Miller professor of economic geography at Penn State, assumed the role of head of the Department of Urban Studies and Planning, making her the first woman to do so since the inception of the department in 1933. She replaces Larry Vale, who served in that role during the past seven years.

Honors and Awards

The awards received by MIT students, faculty, and staff testify to the distinction of the Institute's programs and its people. Here we note only some of the honors and recognition garnered by members of the MIT community during the 2008–2009 academic year.

Four Marshall Scholarships and two Rhodes Scholarships were awarded to MIT students. Winning a Marshall Scholarship were Richard Lin, Anjali Tripathi, David Reshef, and Nathaniel Sharpe. Matt Gethers and Alia Whitney-Johnson received Rhodes Scholarships for 2009–2010.

During the 2008–2009 academic year, four recent MIT graduates and two current PhD students took advantage of Fulbright scholarships they had been awarded. Michael Hanowsky traveled to Mexico to gauge the future of aviation in Mexico and the threats it may pose to Mexico and the United States. Tao Liu traveled to Spain to continue his research on Parkinson's disease at the Cajal Institute. Mara MacDonald used her Fulbright to travel to Singapore to continue research on growth factor release coatings, working in a laboratory at Nanyang Technical University. Catherine McCurry enrolled as a visiting student at the Sound Studies Department of the Universität der Kunste in Berlin. Gustavo Sentrini, a former Udall Scholar, studied entrepreneurial activity in

Paraguay's organic sugar industry and the role cooperation between local producers can play in gaining access to global markets. Tess Veuthey traveled to Cambodia to continue the work she had begun with a winning IDEAS competition project to build low-cost and appropriate prosthetics for poor rural communities.

Following these successes, the Fulbright scholarship awards for 2009–2010 saw the number of MIT recipients more than double, making this year's tally of 13 Fulbright winners MIT's highest. The scholarship winners are Koyel Bhattacharyya, Nathan Cisneros, Greg Distelhorst, Erica Dobbs, Nicholas DuBroff, Xaq Frohlich, Jennifer Furstenaury, Gabrielle Kruks-Wisner, Anneka Lenssen, John Lopez, Matt Orosz, Amanda Shing, and Rebecca Woods.

The Gates Cambridge Trust, a program established by the Bill and Melinda Gates Foundation, has awarded Orian Welling, a senior in mechanical engineering, a full scholarship to study sustainable transportation technologies at the University of Cambridge. His graduate studies will commence once he completes a cycling trek from South Africa to England.

Natasha Scolnik, a junior working to make life easier for physically challenged individuals in Africa, has been awarded a 2009 Harry S. Truman Scholarship. The \$30,000 graduate scholarship will enable the mechanical engineering major to further develop chairs that can be locally made and will work well under rough conditions.

Geoffrey von Maltzahn, a biomedical engineer and PhD candidate in the Harvard-MIT Division of Health Sciences and Technology, won the \$30,000 Lemelson-MIT Student Prize with two innovations in nanomedicine: a new class of cancer therapeutics and a new paradigm for enhancing drug delivery to tumors.

The Marconi Society, which recognizes outstanding work in the field of communications science and the internet, named Jay Kumar Sundararajan, a PhD candidate in the Laboratory for Information and Decision Systems, one of four winners nationwide of its Young Scholar Award. This is the first year these awards have been granted.

Two MIT faculty members—Marin Soljačić '96, assistant professor of physics, and John Ochsendorf, associate professor of architecture—were awarded 2008 MacArthur Fellowships, the so-called genius grants. Each will receive \$500,000 dispensed over five years from the John D. and Catherine T. MacArthur Foundation. Two MIT alumni were also named MacArthur Fellows: Andrea Ghez '87 and Adam Riess '92.

Election to a national academy is one of the highest honors that can be bestowed in the fields of engineering, science, and medicine. This year, six MIT faculty members were elected to membership in the National Academy of Sciences: Tyler Jacks, David H. Koch professor of biology and director of the David H. Koch Institute for Integrative Cancer Research; John Joannopoulos, Francis Wright David professor of physics and director of the Institute for Soldier Nanotechnologies; Monty Krieger, Whitehead professor of molecular genetics; Daniel Nocera, Henry Dreyfus professor of energy; Gilbert Strang, professor of mathematics; and Timothy Berners-Lee, 3Com founders

professor of engineering. Three faculty members and one emeritus professor were elected to the National Academy of Engineering: Yet-Ming Chiang, Kyocera professor of ceramics; Mark Drela, Terry J. Kohler professor of fluid dynamics; Edwin L. Thomas, Morris Cohen professor of materials science and engineering and department head; and Jack B. Dennis, professor emeritus in the Computer Science and Artificial Intelligence Laboratory. David C. Page, professor of biology and director of the Whitehead Institute, was elected to the Institute of Medicine.

Seven MIT faculty members were elected fellows of the American Academy of Arts and Sciences: Esther Duflo, Abdul Latif Jameel professor of poverty alleviation and development economics; Robert Gibbons, Sloan distinguished professor of organizational economics and strategy; Bradford Hager, Cecil and Ida Green professor of earth sciences; Nancy Kanwisher, Ellen Swallow Richards professor of cognitive neuroscience; Mehran Kardar, professor of physics; Michael Sipser, professor of mathematics and department head; and Edwin L. Thomas, Morris Cohen professor of materials science and engineering and department head. Also elected a fellow of the American Academy of Arts and Sciences was Dana Mead, chairman of the MIT Corporation.

Eight faculty members and an MIT research scientist became fellows of the American Association for the Advancement of Science: Marcia Bartusiak, visiting professor of science writing; Arup Chakraborty, Robert T. Haslam (1911) professor of chemical engineering, chemistry, and biological engineering; Charles W. Forsberg, a research scientist in the Department of Nuclear Science and Engineering; John D. E. Gabrieli, Grover Hermann professor of health sciences and technology and cognitive neuroscience; Martha L. Gray, Edward Hood Taplin professor of medical and electrical engineering; Philip S. Khoury, Ford International professor of history and associate provost; Mriganka Sur, Paul E. Newton (1965) professor of neuroscience and head of the Department of Brain and Cognitive Sciences; Li-Huei Tsai, Picower professor of neuroscience and director of the Picower Institute for Learning and Memory; and Graham C. Walker, American Cancer Society professor of biology and Howard Hughes Medical Institute professor.

The Royal Academy of Engineering named C. Forbes Dewey, professor of mechanical engineering and bioengineering, and Edward M. Greitzer, H. N. Slater professor of aeronautics and astronautics, as fellows for 2008. The academy brings together the most eminent engineers in all disciplines to promote excellence in the science, art, and practice of engineering in the United Kingdom.

The John Simon Guggenheim Memorial Foundation awarded fellowships to two MIT faculty members: Janet Conrad, professor of physics, and Patrick Doyle, associate professor of chemical engineering. Guggenheim fellows receive a grant adjusted to need, with consideration of other resources as well as the purpose and scope of their plans.

Six junior faculty members were named Alfred P. Sloan Foundation research fellows: Scott Aaronson of the Department of Electrical Engineering and Computer Science; Pablo Jarillo-Herrero of the Department of Physics; Guido Lorenzoni of the Department

of Economics; John McGreevy of the Department of Physics; Ramesh Raskar of the MIT Media Lab; and Robert Simcoe of the Department of Physics.

A team led by MIT and Caltech scientists has been awarded \$20 million by the National Science Foundation to fund a “Powering the Planet” alliance for five years. This is a project designed to help meet world energy needs with solar fuel power plants. MIT members of the team are Christopher Cummins, professor of chemistry; Paula Hammond, Bayer professor of chemical engineering; Daniel Nocera, Henry Dreyfus professor of energy; and Jonas Peters, professor of chemistry.

Two MIT teams received grants from the Office of Naval Research in the US Department of Defense. Five researchers led by principal investigator Michael Strano, the Charles and Hilda Roddey associate professor of chemical engineering, received a \$5 million, five-year grant to develop a new generation of ultra-fast microchips from graphene. The second team, headed by Daniela Rus, professor of computer science and engineering and associate director of the Computer Science and Artificial Intelligence Laboratory, will work on developing smart adaptive reliable teams for persistent surveillance (SMARTS).

A EUREKA award from the National Institutes of Health was given to Mehmet Fatih Yanik, a Robert J. Schillman career development assistant professor of electrical engineering and computer science, who works on developing new technologies for regenerative neurobiology, including neural regeneration and complex wiring of neuronal networks. The \$1.2 million award will be dispensed over four years. Scott Manalis, associate professor of biological and mechanical engineering, has also been awarded a new EUREKA grant, worth approximately \$800,000 over four years, that will fund development of a microsystem for cell sizing. This could help answer the question of how cells control their size, thereby shedding light on how a cancer develops.

The Office of Naval Research named Tomás Palacios, assistant professor of electrical engineering and computer science, one of 15 Young Investigators, each of whom receives a three-year research grant worth up to \$510,000.

Professor Barbara Liskov, Ford professor of engineering and associate provost for faculty equity, has won the Association for Computing Machinery’s A. M. Turing Award, one of the highest honors in science and engineering, for her pioneering achievements in the design of computer programming languages. Liskov, the first woman to earn a PhD in computer science in the United States, was recognized for helping make modern computing software more reliable, consistent, and resistant to errors and hacking. The Turing Award is often described as the “Nobel Prize in computing.”

The National Science Board has named Institute Professor Mildred Dresselhaus as the 2009 recipient of the Vannevar Bush Award, which annually recognizes an individual whose public service activities in science and technology have made an outstanding contribution to “the welfare of mankind and the nation.”

MIT has been awarded the Mellon Award for Technology Collaboration in recognition of the Institute's 20 years of work on developing and supporting Kerberos, the most widely used authentication system for computer networks today. The Kerberos Consortium will use the \$100,000 proceeds from the award to further improve the interoperability of Kerberos.

Krzysztof Wodiczko, professor of architecture and director of the Center for Advanced Visual Studies, was selected to represent Poland at the 53rd Venice Art Biennale 2009. In receiving this honor, Wodiczko becomes the third member of the visual arts faculty to represent his native country at the oldest and most prestigious art biennale.

Adèle Naudé Santos, dean of the School of Architecture and Planning, was honored with the 2009 Topaz Medallion for Excellence in Architectural Education, given by the American Institute of Architects and the Association of Collegiate Schools of Architecture, in recognition of the holistic and interdisciplinary aspects of her work in academia.

Three MIT scientists from the Francis Bitter Magnet Laboratory received the 2009 Oliver E. Buckley Condensed Matter Prize from the American Physical Society. Jagadeesh Moodera, group leader; Paul Tedrow, retired scientist; and Robert Meservey, visiting scientist, will share the \$10,000 prize with Teronuobu Miyazaki from Tohoku University in Japan. The four were cited for pioneering work in spin-dependent tunneling and its application to magnetoelectronics.

James McKernan, professor of mathematics, was one of two recipients of the 2009 Frank Nelson Cole Prize in algebra. Presented every three years by the American Mathematical Society, the Cole Prize is one of the highest distinctions in the field.

Ann Graybiel, the Walter A. Rosenblith professor of neuroscience, won the Vanderbilt Prize in biomedical science, which honors a woman scientist with a stellar record of research accomplishments joined with mentorship of other women in science.

The Semiconductor Industry Association's University Researcher Award for 2009 was presented to Anantha Chandrakasan, the Keithley professor of electrical engineering and director of MIT's Microsystems Technology Laboratories. He was honored for his work in micropower design, wireless microsensor arrays, and ultra-wideband radios.

Ann Graybiel, the Walter A. Rosenblith professor of neuroscience, and Barbara H. Liskov, Ford professor of engineering and associate provost for faculty equity, were named Institute Professors, the highest honor awarded by MIT's faculty and administration.

Four faculty members were named MacVicar Faculty Fellows: Vladimir Bulovic, KDD associate professor of communications and technology; Diana Henderson, professor of literature and dean for curriculum and faculty support; Daniel Jackson, professor of electrical engineering and computer science; and David Jones, associate professor of the history and culture of science and technology.

Rudolf Jaenisch, professor of biology and a founding member of the Whitehead Institute, received the James R. Killian, Jr., Faculty Achievement Award for 2009–2010, which is given in recognition of extraordinary professional accomplishment by an MIT faculty member.

Krystyn J. Van Vliet, associate professor of materials science and engineering, received the Harold E. Edgerton Faculty Achievement Award in recognition of her achievements in teaching, research, and service to the MIT community.

The Gordon Y Billard Award, recognizing special services of outstanding merit to the Institute, were given to three faculty members: Lotte Bailyn, professor of management emerita; John Deutch, Institute Professor; and Gerald Wilson, Vannevar Bush professor.

In Memoriam

Each year death takes from among us men and women who have contributed greatly to the academic dynamism and service to the wider world that distinguish MIT as a remarkable community. The memories of their achievements urge us to our own best efforts.

Emeritus professor Gordon L. Brownell, PhD '50, a widely respected physicist, died on November 11, 2008, following a long illness. He was 86. Brownell played a key role in developing positron emission tomography and pioneered the use of the technology to detect and locate brain tumors in human patients. Born in Duncan, OK, and raised in New York and Pennsylvania, Brownell received his BSc from Bucknell University and his PhD in physics from MIT. During World War II, he served in the Navy Research Group, developing acoustic devices to detect deep-sea mines. Brownell established the Physics Research Laboratory at Massachusetts General Hospital in 1950 and remained an honorary physicist in the Department of Radiology at MGH until his death. He joined the MIT faculty in 1956 and served as a professor in the Department of Nuclear Science and Engineering. He was elected to the Institute of Medicine in 2002.

Laura Capone, senior associate dean in the Division of Student Life, passed away on July 4, 2008, at Addison Gilbert Hospital after a battle with cancer, aged 47. Capone, of Gloucester, MA, served MIT for 19 years in a variety of roles, beginning as an assistant department head in the business section of the athletics department and later becoming a project manager in the Office of the Dean for Undergraduate Education and Student Life. As a 2003 graduate of MIT's Leader2Leader program, she contributed energy and focus to efforts to bring organizational change to MIT and was regarded by her colleagues as an accomplished leader, a talented and strategic professional, and a teacher, mentor, coach and friend. Her article "Non-Traditional Shared Services—A Partnership Approach" was published in *Shared Services News*.

Alexander Vladimir d'Arbeloff '49, a visionary entrepreneur who cofounded the Boston-based high-tech company Teradyne before becoming the eighth chairman of the MIT Corporation, died at age 80 on July 8, 2008, surrounded by his family. As chairman of the Corporation, d'Arbeloff provided crucial leadership for the Calculated Risks, Creative Revolutions campaign, which had a transformative effect on the Institute—from the

physical campus to its research agenda. With his wife, Brit, SM '61, d'Arbeloff created the Fund for Excellence in Education to support teaching innovations in science and engineering. They also supported a professorship in the Department of Mechanical Engineering and established the d'Arbeloff Lab in the same department. D'Arbeloff was born in 1927, in Paris, to parents who had fled the Russian Revolution a decade earlier. English was the fourth language he learned to speak during a peripatetic childhood, but by the time he entered MIT in 1945 he had lost all trace of Russian, French, and Spanish in his speaking; he wanted to be an American and fit in like any other young man. Graduating from MIT with an SB in management, d'Arbeloff found that his can-do attitude didn't always sit well with superiors in the corporate culture of the 1950s. In 1960, he cofounded Teradyne, Inc., a manufacturer of electronic test equipment, with former MIT classmate Nick DeWolf. He became Teradyne's chief executive officer in 1961, its president in 1971, and its chairman in 1977. His precept that anyone in an organization could have an idea worthy of discussion and action fostered a company culture of collegiality, cooperation, and integrity. By the time of his retirement in 1997, Teradyne had become the world's largest producer of automatic test equipment and interconnection systems for the electronics and telecommunications industries. D'Arbeloff was elected to the MIT Corporation in 1989, becoming a life member in 1994; in 1997 he was elected chairman. His energetic participation in Institute activities across the country and around the world built new friendships and strengthened existing relationships with graduates, friends of the Institute, and industry. After stepping down in 2003, d'Arbeloff became honorary chairman of the Corporation, retaining the title until his death. President emeritus Charles M. Vest characterized d'Arbeloff as a dynamic personality who possessed "one of the most active minds" he had ever seen. Former president Paul Gray recalled how d'Arbeloff spoke about the importance of the years that followed his graduation from MIT, when he was fired from three jobs over a 10-year period. "He has always been, in my experience, a person who 'thought otherwise' — who brought different perspectives, fresh insights, and creative solutions to problems, here at MIT and elsewhere," said Gray. D'Arbeloff's honors were many: recipient of a lifetime achievement award from the Institute of Electrical and Electronics Engineers; fellow of the American Academy of Arts & Sciences; a member of the Network Communications Hall of Fame; and recipient of the John I. Sandson Lifetime Achievement Award from the Arthritis Foundation, as well as the Golden Door Award from the International Institute in Boston. From MIT he received the Corporate Leadership Award, the Entrepreneurial Leadership Award, and the Bronze Beaver Award, the highest honor given by the MIT Alumni Association.

Richard E. Filipowski, a sculptor of international reputation who taught visual design in the School of Architecture and Planning for 36 years, died on November 26, 2008, at the age of 85. A graduate of the Institute of Design in Chicago, Filipowski joined MIT's faculty in 1952 as an associate professor and was the first to introduce Bauhaus teaching methods to MIT. He developed a course on design theory that left a lasting influence on the school's design curriculum and described his work of "finding form" as a "sustained search for spatial-structural-emotional concepts." Filipowski retired from MIT in 1988, and in 2005 the MIT Museum honored his legacy with the exhibition "Finding Form: The Artwork of Richard Filipowski."

Michael Hammer, a research affiliate in MIT's Engineering Systems Division, died on September 3, 2008, at the age of 60. He was president of Hammer and Company, a research and consulting firm focused on business operations, organization and management. Hammer received his SB (1968), SM (1970), and PhD (1973) degrees from MIT and joined the faculty upon graduation, becoming an assistant professor of computer science. Rising to full professor, he also served as associate director of the Laboratory for Computer Science, a precursor of today's Computer Science and Artificial Intelligence Laboratory. In 1987, he began full-time work as a management consultant, an endeavor he characterized as "research, and teaching the theory and practice of why and how enterprises do (and don't do) good work." Hammer was named by *Time* to its first list of the 25 Most Influential Individuals in America and coauthored (with James Champy) the best-selling book *Reengineering the Corporation*. "My *modus operandi* is simple," he once wrote, "though not always easy to carry out. I take nothing at face value. I approach all business issues and practices with the same skepticism: Why?"

Kenneth Hoffman, an MIT faculty member for over 40 years who contributed significantly to US science and education policy, died on September 29, 2008, at the age of 77. Hoffman headed MIT's math department from 1971 to 1979 and was instrumental in marshalling support for mathematics research and education in US public policy. From 1981 to 1984, he directed the National Research Council's David Committee, which conducted an extensive review of federal support for the mathematical sciences. When the committee's report was issued in 1984, Hoffman established the math community's first public affairs office in Washington, DC, which he ran until 1989, dramatically increasing media coverage of mathematics. In 1986, the Joint Policy Board for Mathematics awarded Hoffman its first Public Service Award "for his farsighted and effective initiation of the planning and the implementation of a national mathematical science policy." In 1990, he received the American Mathematical Society's first Distinguished Public Service Award. Hoffman was also a leader in national K-12 education. During his time at the National Research Council, he launched a series of initiatives with national impact, including the Mathematical Sciences Education Board and the National Science Education Standards project. In 1961, Hoffman coauthored (with Ray Kunze) the undergraduate textbook *Linear Algebra*, which became a classic in the field and was used for many decades.

Jack Howard, a world-renowned expert in the manufacture of nanostructured carbon materials, died on July 7, 2008, at the age of 70. Howard received his BS and MS from the University of Kentucky and his PhD from Pennsylvania State University. He came to MIT as a Ford Foundation fellow and earned a full professorship in the Department of Chemical Engineering. He was named the first Hoyt C. Hottel chair of chemical engineering in 1995 and was appointed director of MIT's Center for Airborne Organics in 1996. Retiring in 2002, he founded Nano-C, a Westwood firm that develops nanostructured carbon products. Howard's research focused on high-temperature chemistry, including the mechanisms and kinetics of combustion reactions, and he authored and coauthored more than 200 scientific papers and received 15 patents. He won the Henry H. Storch Award from the American Chemical Society in 1983, the Bernard Lewis Gold Medal from the Combustion Institute in 1992, and was named to the University of Kentucky's Engineering Hall of Distinction.

William Weed Kaufmann, a leading expert on defense planning in the nuclear age, passed away on December 14, 2008, at the age of 90. Kaufmann was a graduate of Choate and Yale and served in the Army Air Corps during World War II. After the war, Kaufmann returned to Yale to earn a doctoral degree and subsequently taught government and history there, as well as at Princeton, before joining the RAND Corporation in 1956. In 1961, he joined MIT's political science department, where he taught until his retirement in 1984. A central player in the development of nuclear strategy and defense budgets, Kaufmann served as a Pentagon consultant in every administration from John F. Kennedy's to Jimmy Carter's. But after the boom in military spending during the 1960s and 1970s, he became more circumspect in his later years. In a 1986 article, "A Reasonable Defense," Kaufmann argued for reorganizing the US military and saving billions of dollars in the process. That same year, an article in *Foreign Affairs* referred to Kaufmann as "the man who may well be the most knowledgeable individual in this country on the defense budgets of the past quarter-century." One of his later books, *Glasnost, Perestroika, and U.S. Defense Spending* (1990), called for cutting the US military budget in half. With dual roles as a teacher and a government consultant, Kaufmann educated a generation of defense analysts in the proposition that a disciplined and objective approach to defense budgeting was possible.

Former professor and NASA scientist Erik L. Mollo-Christensen '48, SM '49, ScD '54, died on February 20, 2009, at the age of 86. Mollo-Christensen taught at MIT for more than 30 years and made significant discoveries in the physics of turbulence flow, jet noise, aero elasticity, air-sea interaction, and fluid dynamics. Born in Bergen, Norway, Mollo-Christensen joined the Norwegian resistance during World War II, was captured by the Nazis, and was imprisoned at Buchenwald in 1943. After the war, he returned briefly to Norway before moving to Cambridge in 1946 to begin his studies at MIT. Hired by the Institute in 1948, he taught aeronautics, meteorology, and oceanography, becoming a full professor in 1962. In the mid-1980s, he left MIT for NASA's Goddard Institute for Space Studies, where he served as chief of the Laboratory for Oceans and associate director of Earth Sciences. An expert on tides and currents, he was an avid outdoorsman who enjoyed hiking, skiing, sailing, and being near the ocean. He was a fellow of the American Academy of Arts and Sciences and of the American Physical Society.

Former dean for student affairs John Daniel Nyhart, who helped build community at MIT during a time of great unrest on American college campuses, died on December 6, 2008, at the age of 77. After graduating from Princeton in 1953, Nyhart spent two years in the US Navy, serving aboard a destroyer in the Atlantic. He received a law degree from Harvard in 1958 and spent two years conducting research on banking and law in developing countries, including Uganda and Nigeria. He was appointed a research associate at the Sloan School of Management in 1960 and went on to serve the Institute for 41 years in a variety of roles. Besides international development banking, his research interests included the intersection of law and technology, law of the sea, and dispute resolution through negotiation. Nyhart served as dean for student affairs between 1969 and 1972, when opposition to the Vietnam War culminated in student strikes that shut down more than 450 campuses nationwide. During this turbulent time, Nyhart devoted himself to developing and strengthening relationships between faculty and students.

A profile published in the 1970 student yearbook described him as “an energetic man who came [to office] with ideas of how to work with students, how to make the student experience more meaningful and how to get students and the rest of the Institute relating to each other.” In 1972, Nyhart became special assistant to the chancellor for law-related studies and preprofessional noncurricular programs, and he subsequently received tenure with appointments in the Sloan School and the Department of Ocean Engineering.

Lucian W. Pye, one of America’s leading China scholars, died on September 5, 2008, after a long illness. He was 86. Pye was the author or editor of more than 25 books, including *Asian Power and Politics: The Cultural Dimensions of Authority*, *China: An Introduction*, and *Mao-Tse Tung*. As the Ford professor of political science at MIT, he mentored several generations of influential political scientists and was an active participant in circles where scholars, government experts, and lay leaders met to discuss Asia-related research and policy, including the Council on Foreign Relations, the US-China Relations Committee, and the Asia Foundation. His dominant intellectual concern was to explore the cultural differences that help explain why the game of politics differs so greatly from one nation to another. The unique insight he brought to this pursuit came in part from his experience of growing up as a child of Christian missionaries in northwest China. Born in 1921, he had lived primarily in China before traveling to Minnesota to attend Carleton College. After graduating from Carleton, Pye returned to China at the end of World War II to serve as an intelligence officer in the 5th Marine Corps, and later returned to the United States to attend graduate school at Yale on the GI Bill. During these crucial years, Pye joined in new efforts by political scientists to unravel the psychological, sociological, and anthropological elements of international affairs, which were departures from the standard “realism” of the day. Gabriel Almond, his mentor at Yale, recalled his student Pye as “generally leaving me a little breathless; he had so much energy and enthusiasm.” As one of a handful of scholars who studied Asian politics from a comparative standpoint, Pye was well heeded in the policy world as well as in the classroom.

Swami Sarvagatananda, a former Hindu chaplain at MIT, died on May 4, 2009, at the age of 96. Swami Sarvagatananda was born in 1912 in Andhra Pradesh, India, and joined the [Ramakrishna Order](#) as a monk in 1935. He came to the United States in October 1954, a time when religious activity on most American campuses was confined to Christianity and Judaism. In May 1955, Swami Sarvagatananda was invited to the dedication ceremony for a new chapel at MIT in which all the religions of the world were invited to worship, and he began his 45-year tenure as an MIT chaplain soon afterward. For many MIT students over the years, the swami’s Friday evening classes on the [Bhagavad Gita](#) provided a fresh outlook, much-needed balance, and a respite from grueling course work. He gave the inaugural prayer for the investiture of President Paul Gray and the invocations for several MIT Commencements. In 1996, the Institute organized a special celebration in his honor, recognizing him as “a store of wisdom and strength for this community.” During his time in America, Swami Sarvagatananda also served as a member of the Harvard-Radcliffe United Ministry and was head of the Ramakrishna Vedanta Societies of Boston and Providence.

David Schauer, professor of biological engineering and comparative medicine, died unexpectedly on June 7, 2009, two weeks after suddenly falling ill. He was 48. Schauer was known for his warmth and easygoing nature, as well as for the rigor of his research on the development of bacterial diseases. Schauer received a bachelor's degree in zoology from the University of North Carolina in 1983, a doctorate in veterinary medicine from North Carolina State University in 1987, and a PhD from Stanford in microbiology and immunology in 1993. He then joined the MIT faculty as an assistant professor, was promoted to associate professor in 1999, and full professor in 2005. Students consistently gave him high marks for his teaching, and he was widely respected by his colleagues for his clear and calm approach to problem solving, both in and out of the lab. He often joined his students in intramural sports and enjoyed outdoor activities such as skiing and biking. He was also very active at Temple Emanuel in Newton, MA.

Robert C. Seamans Jr., former dean of MIT's School of Engineering, died on June 28, 2009, at the age of 89. Seamans received his SM in aeronautics and ScD in instrumentation from MIT, the latter in 1951, and played major administrative roles both in government and at MIT. Widely credited with helping the United States put men on the moon, Seamans was associate administrator and deputy administrator of NASA during the Apollo program. A former president of the National Academy of Engineering, he was also the first administrator of the US Energy Department. From the early 1940s through 1955, he taught in MIT's aeronautical engineering department and worked as a project leader in the Instrumentation Lab, a chief engineer for Project Meteor, and a director of the Flight Control Lab. The one period of his life spent away from academia or the government—from 1955 to 1960—landed him at RCA, where he was chief engineer of the company's Airborne Systems Lab and of its Missile Electronics and Controls Division. Seamans served as a consultant to the Scientific Advisory Board of the United States Air Force from 1957 to 1959 and was Secretary of the Air Force from 1969 to 1973. He was named dean of MIT's School of Engineering in 1978 and served in that post for three years. During that time, he focused his efforts on laying the foundations of a new academic program in the management of technology. Seamans officially retired from the Institute in 1984 but served as a senior lecturer in the Department of Aeronautics and Astronautics until 1996. In recognition of his dedicated work, a part of the Aero-Astro Learning Lab was named, in his honor, the Robert C. Seamans Jr. Laboratory. He received NASA's Distinguished Service Medal twice—in 1965 and again in 1969—and also was a recipient of the Thomas D. White National Defense Award, in 1980.

Louis D. Smullin, a former head of MIT's electrical engineering department, died on June 4, 2009, at the age of 93. Smullin received a bachelor's degree in electrical engineering from the University of Michigan in 1936 and an SM from MIT in 1939. Upon graduating from MIT, he went to the Farnsworth Television Company of Fort Wayne, IN, to work on the design and testing of photomultiplier tubes. In 1941, he joined MIT's Radiation Laboratory as head of its Transmit-Receive and Duplexer section, where he supervised methods for testing microwave TR tubes, work crucial to the successful development of airborne radar during World War II. After a stint with the Federal Telecommunications Laboratory, Smullin returned to MIT in 1947 to organize and

head the Microwave Tube Laboratory of the Research Laboratory of Electronics. He also helped to plan and establish MIT's Lincoln Laboratory and in 1952 became head of the Radar and Weapons Division located there. In 1955, he returned to the Cambridge campus as associate professor of electrical engineering and was promoted to professor in 1960. In 1966, he became head of the electrical engineering department, serving through February 1974, when he stepped down to focus on teaching. In the 1970s and 1980s, with Smullin's help, the electrical engineering department evolved into the Department of Electrical Engineering and Computer Science. Smullin retired from MIT in 1986 and as professor emeritus continued to ride his bike daily to the Institute, continuing his work on cold fusion research until 2001. An experiment for which Smullin is widely remembered occurred in 1962, soon after the first laser was invented. He and Giorgio Fiocco transmitted laser pulses to the moon for the first time and detected their return in an experiment they called "LunaSee." He was a fellow of the Institute of Electrical and Electronics Engineers, the American Academy of Arts and Sciences, and the American Physical Society.

László Tisza, an expert in quantum mechanics and thermodynamics, died on April 15, 2009, at the age of 101. Born in Budapest, Tisza emigrated to the United States and joined the MIT faculty in 1941. He taught at MIT until 1973, specializing in theoretical physics, thermodynamics, quantum mechanics, and statistical physics. Tisza's first encounter with quantum mechanics came in 1928 when, as a mathematics student in Budapest, he transferred to the University of Göttingen and attended Max Born's course, in which he was delighted to find modern mathematics applied to experience. He then switched his major to physics. Still, his impression that the connection between physics and mathematics was not yet clear enough marked the beginning of a life-long search. With Edward Teller, he wrote his first paper on molecular spectra. Later, Tisza worked in Leipzig under Werner Heisenberg. The same theme developed into a PhD thesis, submitted in Budapest. Tisza then joined Lev Landau's group in Kharkov, Ukraine, and was much influenced by Landau's integration of thermodynamics into modern physics. In 1937, Tisza was associated with Fritz London in Paris, who established the connection between Bose-Einstein statistics and liquid helium. Tisza developed this into an early version of the two-fluid model of superfluidity that became a standard for describing experiments. Tisza was a fellow of the American Physical Society and the American Academy of Arts and Sciences, and a John Simon Guggenheim fellow. In 1966, he published *Generalized Thermodynamics*.

Edward Oswald Vetter '42, a former commerce undersecretary in the Ford administration and a life member emeritus of the MIT Corporation, died on March 9, 2009, at the age of 88. Born in Rochester, NY, to German immigrant parents, Vetter graduated from MIT with a bachelor's degree in mechanical engineering. Following a stint in the army, his professional career took him to Standard Oil of California as a production engineer and then to Texas Instruments, where he retired as chief financial officer in 1975. He then entered government service, becoming an undersecretary of commerce in the Ford administration, an energy advisor to the governor of Texas, and chairman of the Texas Department of Commerce. Vetter was elected a term member of the MIT Corporation in 1973, reelected in 1978, and elected a life member in 1983. Vetter served on numerous Corporation committees, including more than a decade on both

the Executive and the Membership committees. In 1977, he received the Bronze Beaver Award, the highest honor bestowed by the Alumni Association.

Margaret (Peg) Warner, a financial planner at MIT for ten years, passed away on February 7, 2009, at the age of 67. Peg joined MIT's Office of Budget and Financial Planning as associate director in 1998 and was responsible for the Institute's financial planning and budget development, submission, and reporting. A native Californian, Peg graduated from Stanford with a BA in French literature and from Harvard with an MA in Romance languages and literature; she was fluent in French, Italian, and Spanish. She began her financial career at Harvard's Smithsonian Astrophysical Observatory, where she was division administrator for the Radio and Geoastronomy Division. In 1984, she earned an MBA at Boston University and joined Raytheon Company, where she worked first as a business and program manager for several profit centers and later as a marketing manager and director of competitive intelligence for Raytheon Service Company. A tireless volunteer for causes in which she believed, Peg served on numerous nonprofit arts, civic, and cultural boards in the Boston area and was active in several animal welfare groups, including the Charles River Feline Association and the Somerville Alley Cats. Friends fondly remember her whimsical, off-beat sense of humor; her voracious love of all things edible, especially sweets; her interesting tales of MIT, Harvard, and California; and her delightful stories about her three cats, Thomas, Lucy, and Ida. She enjoyed gardening, hiking, horseback riding, traveling, and spending time in her log cabin in the New Hampshire woods.

It is with sadness that we also report the untimely passing of two of MIT's exceptional students.

Han Duy Nguyen, a 25-year-old doctoral student, fell to his death on June 2, 2009, from Building E19. Nguyen was a 2006 graduate of Stanford with degrees in economics and psychology who worked with Professor Drazen Prelec at the MIT Sloan School of Management. He was a teaching assistant in courses on managerial psychology and branding and was in the third year of the PhD program in marketing.

Kjell A. Tovander died on November 16, 2008, after collapsing during the Route 66 Marathon in Tulsa, OK. Tovander was on leave from MIT at the time with plans to enter the Navy. At MIT he was an electrical engineering and computer science major and a resident of MacGregor House. A UROP project he worked on to develop better chest protectors for catchers was featured in the *Boston Globe* in April 2008. Tovander had been running in the half-marathon division of the race and was attended to by medical staff before he was taken to St. John Medical Center, where he passed away.