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MAYOR BLOOMBERG ANNOUNCES 2005 RECIPIENTS OF MAYOR'S AWARDS FOR EXCELLENCE IN SCIENCE AND TECHNOLOGY

Mayor Michael R. Bloomberg announced today the eight recipients of the Mayor's Awards for Excellence in Science and Technology. The Mayor's Awards for Excellence in Science and Technology recognize outstanding achievements in science and technology by individuals who live or work in New York City. Administered by the New York Academy of Sciences, the awards are presented annually in categories that include Biological and Medical Sciences, Physical Sciences and Mathematics, Engineering and Technology, and Young Investigator. Mayor Bloomberg was joined at City Hall in honoring the 2005 recipients by New York Academy of Sciences President Ellis Rubinstein and President of Rudin Management Company Bill Rudin. The Rudin Family is the sponsor the Mayor's Awards for Excellence in Science and Technology.

"In New York City we are focused on encouraging the long-term growth of our economy through innovations in science and technology," said Mayor Bloomberg. "Last year, in addition to appointing certified science teachers, and ensuring that across boroughs, neighborhoods, schools, and classrooms have high-quality science education available to all students, we have increased spending on science education in our City public schools by more than \$25 million. In honoring our eight recipients of the Mayor's Awards for Science and Technology, we pay tribute to those who harness their creativity and passion and contribute immeasurably to the advancement of our community and we pledge to continue to encourage their spirit for generations to come."

The New York Academy of Sciences oversees the nomination, evaluation, and review process for the awards. Nominations are received through a comprehensive nominating process that includes outreach to all sectors in the City's scientific communities. Mayor Bloomberg selected winners from a list of finalists submitted by New York Academy of Sciences.

"These awards are emblematic of New York's leadership in science and medicine," said New York Academy of Science President Ellis Rubinstein. "No City has more outstanding research talent than New York, exemplified by the exceptional quality of our winners and the number of institutions they represent."

2005 Mayor's Awards for Excellence in Science and Technology Award Recipients

*Biological and Medical Sciences***Wayne A. Hendrickson**

Dr. Hendrickson is a Professor of Biochemistry and Molecular Biophysics at Columbia University College of Physicians and Surgeons and Howard Hughes Medical Institute Investigator. He is one of the world's preeminent structural biologists whose research utilizes X-ray crystallography to study macromolecules at the atomic level. His studies have resulted in important discoveries in many areas, including HIV infection, fertility, and diabetes. In addition to his influence in molecular biophysics, he is known for his leadership in New York's community of structural biologists. Dr. Hendrickson is a member of the National Academy of Sciences, American Academy of Arts and Sciences and the Biophysical Society.

Jan L. Breslow

Dr. Breslow, Professor and Laboratory Head at The Rockefeller University, is very well known for his use of molecular genetic technologies in pioneering basic and clinical studies of the genetic and environmental causes of atherosclerotic cardiovascular disease. His laboratory has uncovered a number of human genetic variations that increase the risk of atherosclerotic disease. He is the recipient of many awards and prizes, including the Bristol-Myers Squibb Award for Cardiovascular Research, and is a member of the National Academy of Sciences. In addition to his science, Breslow has had a prominent role in the American Heart Association, serving as president from 1996-1997.

Joan Massagué

Dr. Massagué is a Professor and Program Chair of Cancer Biology and Genetics at the Memorial Sloan-Kettering Cancer Center, Professor at Weill-Cornell University Graduate School, and Howard Hughes Medical Institute Investigator. He is a leader in cell regulation and cancer. Combining biochemistry, cell biology and genetics, he elucidated the machinery that conveys growth inhibitory signals from the cell membrane to the nucleus. These mechanisms are now known to be also crucial in embryonic development, and their disruption causes tumor formation and metastasis. Building on these advances, Dr. Massagué has recently identified genes that cause tumors to form metastasis in vital organs, answering long-standing questions and opening new avenues of research on this devastating aspect of cancer. He is a member of the National Academy of Sciences, the American Academy of Arts and Sciences, and the European Molecular Biology Organization.

*Physical Sciences and Mathematics***Mitchell J. Feigenbaum**

Dr. Feigenbaum is a Professor and Laboratory Head at The Rockefeller University. He is well known for his pioneering studies in chaos theory. His discovery of the quantitative universality of chaos was one of the seminal studies that lead to the creation and rapid expansion of "Nonlinear Science" as an endeavor bridging many disciplines. He also made significant contributions to a variety of other

problems. For example, he introduced several novel mathematical tools, which were used to redesign from scratch the 1992 Hammond World Atlas. Dr. Feigenbaum has received many awards, including the MacArthur Fellowship and the Wolf Foundation Prize in Physics, and is a member of the National Academy of Sciences and the American Academy of Arts and Sciences. He is currently director of the Center for Studies in Physics and Biology at The Rockefeller University.

Joan S. Birman

Dr. Birman, Professor of Mathematics Emeritus at Barnard College, Columbia University, has been influential in theoretical mathematics and has contributed to fundamental developments in topology. Her work has focused on low-dimensional topology: braids, knots, surface mappings, and 3-dimensional manifolds. Dr. Birman's knot invariants have had applications to the work of molecular biologists who have been studying the knotted shapes of DNA. She has been awarded an honorary doctorate by the Technion in Israel and has received fellowships from the Sloan and Guggenheim Foundations. She is a member of the European Academy of Sciences. Dr. Birman co-founded the non-profit publishing house Mathematical Sciences Publishing, which oversees a number of mathematical journals. She also continues to be actively involved in human rights issues, and is a member of the New York Academy of Sciences Human Rights of Scientists Committee.

Engineering and Technology

Bernard Haber

Mr. Haber, Partner Emeritus at Hardesty & Hanover, LLP, has been honored as one of the outstanding civil engineers in the New York metropolitan area. He is a graduate of the City College of New York. Until his retirement in 2001, he was the Managing Partner of Hardesty & Hanover, one of the oldest and largest bridge design firms in the country. Under his direction, the firm designed, inspected, rehabilitated or reconstructed thousands of bridges throughout the US and in the New York Metropolitan area. He served as Chairman of the American Consulting Engineering Council's National Transportation Committee and was a Director and Vice President of NY Association of Consulting Engineers. He is a fellow and life member of the American Society of Civil Engineers, and the National Society of Professional Engineers. He has published numerous professional papers on engineering and civic issues, and has been an active participant in New York City affairs. Mr. Haber has served on many City boards and commissions, notably the Mayor's Commission on the Year 2000 and the NYC Industrial Development Agency.

Young Investigator

Hernan A. Makse

Dr. Makse has made important theoretical contributions to the field of granular materials and allied areas of soft condensed matter physics, with profound implications for the understanding of glasses and other disordered systems. Granular materials are ubiquitous, important for such different materials as pharmaceutical and to the preservation on barrier islands. A major highlight of Makse's work has been to place the thermodynamics of granular materials on a firm footing. His demonstration

of self-similarity in network structures like the internet may have important implications for network security. He is an Associate Professor of Physics at City College of New York, CUNY.

Leslie Vosshall

Dr. Vosshall is an Assistant Professor and Laboratory Head at The Rockefeller University. She is head of The Laboratory of Neurogenetics and Behavior and is a molecular neurobiologist and recognized leader in olfactory research. Her studies established a novel system for investigating the molecular basis of olfaction in the fruit fly *Drosophila*. She has developed a powerful set of research tools that allow her to address some of the most important questions about the processes that generate our sense of smell and that underlie appropriate behavioral responses to beneficial and harmful odors. Dr. Vosshall has recognized that an understanding of the biology of olfaction in the fruit fly may be relevant to *Anopheles* mosquito, the vector carrying the malarial parasite to man. She has therefore initiated experiments to identify odors elicited by humans that attract *Anopheles* to specifically compromise the mosquito olfactory system.

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