40th Annual Presentation Ceremony

Thursday / April 14, 2011

Award for Distinguished Work in the Basic Medical Sciences

Lewis S. Rosenstiel

Brandeis University
In 1971, the Lewis S. Rosenstiel Award for Distinguished Work in Basic Medical Science Research was established as an expression of the conviction that educational institutions have an important role to play in the encouragement and development of basic science as it applies to medicine.
Medals are presented annually at Brandeis University on the basis of recommendations from a panel of outstanding scientists selected by the Rosenstiel Basic Medical Sciences Research Center. Awards are given to scientists for recent discoveries of particular originality and importance to basic medical science research. A $30,000 prize accompanies the award.

Since its inception, Brandeis University has placed great emphasis on basic science and its relationship to medicine. With the establishment of the Rosenstiel Basic Medical Sciences Research Center, made possible by the generosity of Lewis S. Rosenstiel in 1968, research in basic medical science at Brandeis has been
expanded significantly. These awards provide a way to extend the center’s support beyond the campus community.

The winners of the 2011 Lewis S. Rosenstiel Award for Distinguished Work in Basic Medical Sciences are C. David Allis, professor in the Laboratory of Chromatin Biology and Epigenetics at The Rockefeller University, and Michael Grunstein, professor of biological chemistry at the University of California, Los Angeles.

These two innovative scientists established the key molecular connections among histones, histone modifications and chromatin structure and their effects on the regulation of gene transcription.
Presentation Ceremony

PRESIDING

James E. Haber
Abraham and Etta Goodman Professor of Biology
Director, Rosenstiel Basic Medical Sciences Research Center
Brandeis University

ADDRESS

Michael Rosbash
Professor of Biology and Howard Hughes Medical Institute Investigator
Brandeis University

PRESENTATION OF MEDALLIONS AND AWARDS

James E. Haber
RESPONSES

C. David Allis
Tri-Institutional Professor
Joy and Jack Fishman Professor
LABORATORY OF CHROMATIN BIOLOGY AND EPIGENETICS
The Rockefeller University
New York, N.Y.

Michael Grunstein
Distinguished Professor, Biological Chemistry
DEPARTMENT OF BIOLOGICAL CHEMISTRY
University of California, Los Angeles
Los Angeles, Calif.
C. David Allis

C. David Allis is the Joy and Jack Fishman Professor and head of the Laboratory of Chromatin Biology and Epigenetics at The Rockefeller University in New York City. His laboratory focuses on the DNA–histone protein complex chromatin, which is part of a sophisticated system that allows for extremely selective gene activation (or inactivation) in a given cell. His team investigates chromatin signaling via histone modifications such as acetylation, methylation and phosphorylation. These modifications may act together to form a “histone code” that, in turn, dictates downstream biological events. Research suggests that these and other chromatin-modifying activities are centrally connected to the control of both normal cellular proliferation and differentiation as well as abnormal events leading to transformation and tumorigenesis.

Allis received a B.S. from the University of Cincinnati and a Ph.D. from Indiana University. A member of the American Academy of Arts and Sciences since 2001, Allis is a recipient of the DeWitt Stetten Jr. Award (2001), the Dickson Prize in Medicine (2002), the Massry Prize (2003) and the Wiley Prize (2004). He was elected to the National Academy of Sciences in 2005, and he received the Gairdner International Award in 2007.
Michael Grunstein

Michael Grunstein is a distinguished professor of biological chemistry at the Geffen School of Medicine at the University of California, Los Angeles. He was born in Romania and earned a B.Sc. from McGill University in Montreal and a Ph.D. from the University of Edinburgh, Scotland. He did postdoctoral training at Stanford University in Palo Alto, Calif., where he invented the colony hybridization screening technique of recombinant DNAs in David Hogness’ laboratory. Soon after joining UCLA in 1975 he pioneered the genetic analysis of histones in yeast and showed for the first time that histones are regulators of gene activity in living cells. He now studies the means by which histone modifications regulate gene activity in yeast and human cells.
Michael Rosbash

Michael Rosbash is a professor of biology at Brandeis University and an investigator of the Howard Hughes Medical Institute. Born in Kansas City, Mo., he was raised in Newton, Mass. He earned a B.S. in chemistry from the California Institute of Technology and a Ph.D. from the Massachusetts Institute of Technology, and he did postdoctoral training in the Department of Epigenetics at the University of Edinburgh, Scotland.

Soon after coming to Brandeis as an assistant professor in 1974, he began working on gene expression in yeast. In 1982, he began collaborating with colleague Jeffrey Hall on studies of biological clocks in fruit flies. In 1990, their work demonstrated for the first time a relationship between gene expression and circadian timing. This has proved relevant to circadian timing in all organisms where circadian rhythms are found, including humans.

Rosbash continues to study biological clocks from both a neural system and gene expression perspective, including the role of chromatin, linking his work to that of Rosenstiel Award winners Michael Grunstein and C. David Allis.
Recent Recipients of the Lewis S. Rosenstiel Award for Distinguished Work in Basic Medical Sciences

2010: For their pioneering work in the field of innate immunity.

Ruslan Medzhitov
David W. Wallace Professor of Immunobiology
Howard Hughes Medical Institute
Yale University, School of Medicine
New Haven, Conn.

Jules Hoffmann
Professor and Distinguished Class
Research Director, Institute of Molecular and Cellular Biology, CNRS
University Louis Pasteur
Strasbourg, France

2009: For their pioneering work in the field of stem cell research.

John Gurdon
Professor, Department of Zoology
Gurdon Institute
University of Cambridge
Cambridge, England
Irving Weissman
Professor of Pathology and Developmental Biology
Director, Stem Cell Biology and Regenerative Medicine Institute
Stanford University School of Medicine
Stanford, Calif.

Shinya Yamanaka
Professor, Kyoto University, Japan
Senior Investigator, Gladstone Institute of Cardiovascular Disease
L.K. Whittier Foundation Investigator in Stem Cell Biology
Professor of Anatomy
University of California, San Francisco

2008: For their elucidation of the molecular machinery that guides proteins into their proper functional shape, thereby preventing the accumulation of protein aggregates that underlie many diseases, such as Alzheimer’s and Parkinson’s.

F. Ulrich Hartl
Director, Max Planck Institute of Biochemistry
Martinsried, Germany

Arthur L. Horwich
Investigator, Howard Hughes Medical Institute
Yale University School of Medicine
New Haven, Conn.

2007: For their pioneering work in understanding the mechanisms of gene silencing by epigenetic chromosome modifications.

Mary F. Lyon
Mammalian Genetics Unit
MRC Harwell
Oxfordshire, England

Davor Solter
Max Planck Institute of Immunobiology
Freiburg, Germany
Azim Surani  
Gurdon Institute  
University of Cambridge  
Cambridge, England

2006: For their pioneering development of powerful new tools that allow the direct visualization of molecules in living cells.

Martin Chalfie  
William R. Kenan Jr. Professor of Biological Sciences  
Columbia University  
2008 NOBEL PRIZE IN CHEMISTRY

Roger Y. Tsien  
Investigator, Howard Hughes Medical Institute  
Professor of Pharmacology and Chemistry & Biochemistry  
University of California, San Diego  
2008 NOBEL PRIZE IN CHEMISTRY

2005: For their pioneering achievements in RNA-mediated genetic regulatory mechanisms.

Victor R. Ambros  
Professor of Genetics  
Dartmouth Medical School

Andrew Z. Fire  
Professor of Pathology and Genetics  
Stanford University School of Medicine  
2006 NOBEL PRIZE IN PHYSIOLOGY OR MEDICINE

Craig C. Mello  
Investigator, Howard Hughes Medical Institute  
Professor, Program in Molecular Medicine  
University of Massachusetts Medical School  
2006 NOBEL PRIZE IN PHYSIOLOGY OR MEDICINE

Gary Ruvkun  
Professor of Genetics  
Massachusetts General Hospital

A complete list of awardees may be viewed at www.rose.brandeis.edu/Center/rose_past.html.