Early in 1998, the trustees of the Jacob and Louise Gabbay Foundation decided to establish a major new award in basic and applied biomedical sciences. The foundation felt that existing scientific awards tended to honor people who were already well-recognized or to focus on work that had its primary impact in traditional basic research fields. Yet the history of science suggests that most scientific revolutions are sparked by advances in practical areas such as instrumentation and techniques or through entrepreneurial endeavors. The foundation therefore created the Jacob Heskel Gabbay Award in Biotechnology and Medicine to recognize, as early as possible in their careers, scientists in academia, medicine or industry whose work had both outstanding scientific content and significant practical consequences in the biomedical sciences.
The award was renamed the Jacob and Louise Gabbay Award in Biotechnology and Medicine in 2016 to honor Jacob’s wife, Louise Gabbay, who was instrumental in founding the award.

Because of their long association with Brandeis University, the trustees of the foundation asked the Rosenstiel Basic Medical Sciences Research Center at Brandeis to administer the award.

The award, given annually, consists of a $15,000 cash prize (to be shared in the case of multiple winners) and a medallion. The honorees travel to Brandeis University each fall to present lectures on their work and attend a dinner at which the formal commendation takes place. This year, a committee of distinguished scientists selected
Jeffery Kelly of the Scripps Research Institute for his profound and paradigm-shifting contributions to our understanding of protein-folding mechanisms and protein-folding diseases.

The Jacob and Louise Gabbay Foundation was founded by its namesakes in 1969. The late Jacob Gabbay, a physician, moved his family from Baghdad to the United States in 1952, maintaining a medical practice in New York City until 1982. The foundation, originally intended to help students of Iraqi descent pursue higher education in Israel, has subsequently funded computer education for Israeli high school students and various medical projects. Louise Gabbay established the Gabbay Award, the foundation’s first American endeavor, in honor of her husband, who passed away in 1995.
PRESIDING

Dagmar Ringe
Professor of Biochemistry, Chemistry and
Rosenstiel Basic Medical Sciences Research Center

WELCOME

Lisa Lynch
Provost and Maurice B. Hexter Professor
of Social and Economic Policy
Brandeis University
GUEST SPEAKER

Peter Lansbury
Chief Scientific Officer
Lysosomal Therapeutics Inc.

PRESENTATION OF MEDALLIONS AND AWARDS

Dagmar Ringe

RESPONSE

Jeffery W. Kelly
Lita Annenberg Hazen Professor of Chemistry
Scripps Research Institute
Jeffery W. Kelly

Jeffery W. Kelly is the Lita Annenberg Hazen Professor of Chemistry in the Department of Chemistry and the chairman of the Department of Molecular and Experimental Medicine at the Scripps Research Institute. Kelly also served as vice president of academic affairs and dean of graduate studies at Scripps for nearly a decade. His research is focused on uncovering protein-folding principles and on understanding the etiology of protein misfolding and/or aggregation diseases and using this information to develop novel therapeutic strategies.

He is the author of more than 300 publications (h-index > 81) and has been elected to the American Academy of Arts and Sciences (2016). He has received several awards, including the Royal Society of Chemistry’s Jeremy Knowles Award (2016), the American Chemical Society’s Ralph F. Hirschmann Award in Peptide Chemistry
(2012), the Biopolymers Murray Goodman Memorial Prize (2012), the Protein Society’s Emil Thomas Kaiser Award (2011), the American Peptide Society’s Rao Makineni Lectureship (2011), the American Peptide Society’s Vincent du Vigneaud Award (2008), the American Chemical Society’s Arthur C. Cope Scholar Award (2001), the State University of New York at Fredonia’s Alumni Distinguished Achievement Award (2000) and the Protein Society’s Dupont Young Investigator Award (1999).

Kelly cofounded FoldRx Pharmaceuticals based on his discovery of the drug Tafamidis, approved by several regulatory agencies to treat familial amyloid polyneuropathy and now sold by Pfizer. Kelly also cofounded Proteostasis Therapeutics, a public company that develops drugs for cystic fibrosis and other proteinopathies. He serves on the board of directors of several public and private companies.
Peter Lansbury

Peter Lansbury is chief scientific officer of Lysosomal Therapeutics Inc. He graduated from Princeton University and earned a PhD from Harvard University. After a postdoctoral fellowship at The Rockefeller University, he joined the faculty of the Department of Chemistry at MIT. He moved to Harvard Medical School in 1996 and was promoted to professor of neurology in 2004. He was the founding director of the Morris K. Udall Parkinson’s Disease Research Centers of Excellence at the National Institutes of Health. He also founded Link Medicine and served as its chief scientific officer from 2005 until its sale to AstraZeneca in 2012. He is currently on leave from his position as professor of neurology at Harvard Medical School. Lansbury was a National Science Foundation Presidential Young Investigator and a Zenith Fellow of the Alzheimer’s Association.
PREVIOUS WINNERS OF THE JACOB HESKEL GABBAHAY AWARD IN BIOTECHNOLOGY AND MEDICINE

2001

For his pioneering achievements in miniaturization of fundamental biochemical experiments

J. Michael Ramsey
Chemical and Analytical Sciences Division
Oak Ridge National Laboratory
Oak Ridge, Tenn.

2002

Dr. Rastetter for his pioneering contributions in the development of antibody-based drugs; Dr. Slamon for his role in the development of the HER-2 immunotherapy against certain types of breast cancer, a pioneering contribution to medicine; and Dr. Winter for his pioneering role in the development of humanized monoclonal antibodies, and for the founding of the company Cambridge Antibody Technology (CAT) in the United Kingdom

William H. Rastetter, PhD
Chairman and Chief Executive Officer
IDEC Pharmaceuticals Corp.
San Diego, Calif.
Dennis J. Slamon, MD, PhD
Executive Vice Chair for Research and Professor of Medicine
UCLA School of Medicine
Los Angeles, Calif.

Gregory P. Winter, CBE, FRS
Joint Head of Division of Protein & Nucleic Acid Chemistry
MRC Laboratory of Molecular Biology
Cambridge, England

2003
For their development of yeast two-hybrid and yeast mating interaction traps

Roger Brent
President and Research Director
The Molecular Sciences Institute
Berkeley, Calif.

Stanley Fields
Howard Hughes Medical Institute
Department of Genome Sciences and Medicine
University of Washington
Seattle, Wash.

2004
For his many contributions to the biotechnology industry

George M. Whitesides
Woodford L. and Ann A. Flowers University Professor
Harvard University
Cambridge, Mass.
2005

For their roles in the development and use of molecular beacons as a diagnostic tool in vivo, and in the detection of RNA in living cells

Fred R. Kramer
Professor of Microbiology and Molecular Genetics
New Jersey Medical School; and Member,
   Public Health Research Institute
Newark, N.J.

Sanjay Tyagi
Professor, Department of Medicine,
New Jersey Medical School; and Member,
   Public Health Research Institute
Newark, N.J.

2006

For their role in the development of contrast agents used in cardiodiagnostic procedures

Dr. Alan Davison
Professor Emeritus of Chemistry
Massachusetts Institute of Technology
Cambridge, Mass.

Dr. Alun Gareth Jones
Professor of Radiology
Harvard Medical School and
   Brigham and Women’s Hospital
Boston, Mass.
2007

For pioneering the technology of gene targeting in mouse embryo-derived stem (ES) cells that allows scientists to create mice with mutations in any desired gene by choosing which gene to mutate and how to mutate it

Dr. Mario Capecchi
Howard Hughes Medical Institute
Professor of Human Genetics
University of Utah, School of Medicine
Salt Lake City, Utah

2008

For his seminal basic-science discoveries, including regulated protein turnover in bacteria and mitochondria and, most importantly, the development of proteasome inhibitors as a treatment for cancer

Dr. Alfred Goldberg
Professor of Cell Biology
Harvard Medical School
Boston, Mass.

2009

For their significant contributions in the field of assisted human reproduction

Dr. Alan H. Handyside
Visiting Professor
University of Leeds, and
Director of the London Bridge Fertility, Gynaecology and Genetics Centre
London, England
Dr. Ann A. Kiessling  
Associate Professor  
Harvard Medical School, and  
Director of the Bedford Stem Cell Research Foundation  
Bedford, Mass.

Dr. Gianpiero D. Palermo  
Professor  
New York Presbyterian Hospital,  
Weill Medical College of Cornell University, and  
Director of Assisted Fertilization and Andrology at the Center for Reproductive Medicine and Infertility  
New York, N.Y.

2010

For her work on aromatase inhibitors for breast cancer

Dr. Angela Hartley Brodie  
Professor of Pharmacology  
University of Maryland  
Marlene and Stewart Greenebaum Cancer Center  
Baltimore, Md.

2011

For his work on the immune responses by T cells, a type of lymphocyte

James P. Allison  
Howard Hughes Medical Institute Investigator and Chair of the Immunology Program  
Memorial Sloan-Kettering Cancer Center  
New York, N.Y.
2012

For their work in identifying the negative cellular effects of bisphenol in plastics, and for alerting the commercial sector in order to prevent its further use

Patricia Hunt
Professor, School of Molecular Biosciences
Washington State University
Pullman, Wash.

Carlos Sonnenschein
Professor, Department of Anatomy and Cellular Biology
Tufts University School of Medicine
Boston, Mass.

Ana M. Soto
Professor, Department of Anatomy and Cellular Biology
Tufts University School of Medicine
Boston, Mass.

2013

For their contributions to the discovery and applications of a method called optogenetics

Edward Boyden
Associate Professor of Biological Engineering and Brain and Cognitive Sciences
MIT Media Lab and McGovern Institute

Karl Deisseroth
D.H. Chen Professor of Bioengineering and of Psychiatry and Behavioral Sciences
Stanford University
Gero Miesenböck
Waynflete Professor of Physiology and Director of the Centre for Neural Circuits and Behaviour
University of Oxford

**2014**

*For their work on the CRISPR/cas system*

Feng Zhang
W. M. Keck Career Development Professor of Biomedical Engineering
Massachusetts Institute of Technology

Jennifer Doudna
Professor of Chemistry, Biochemistry and Molecular Biology
University of California, Berkeley

Emmanuelle Charpentier
Professor
Hannover Medical School
Head of Regulation in Infection Biology
Helmholtz Center for Infection Research

**2015**

*For his contributions to both the basic science of microfluidics and its applications to biomedical research*

Stephen Quake
Howard Hughes Medical Institute
Lee Otterson Professor in the School of Engineering
Professor of Bioengineering and Applied Physics
Stanford University School of Medicine