JACOB AND LOUISE GABBAY AWARD IN BIOTECHNOLOGY AND MEDICINE

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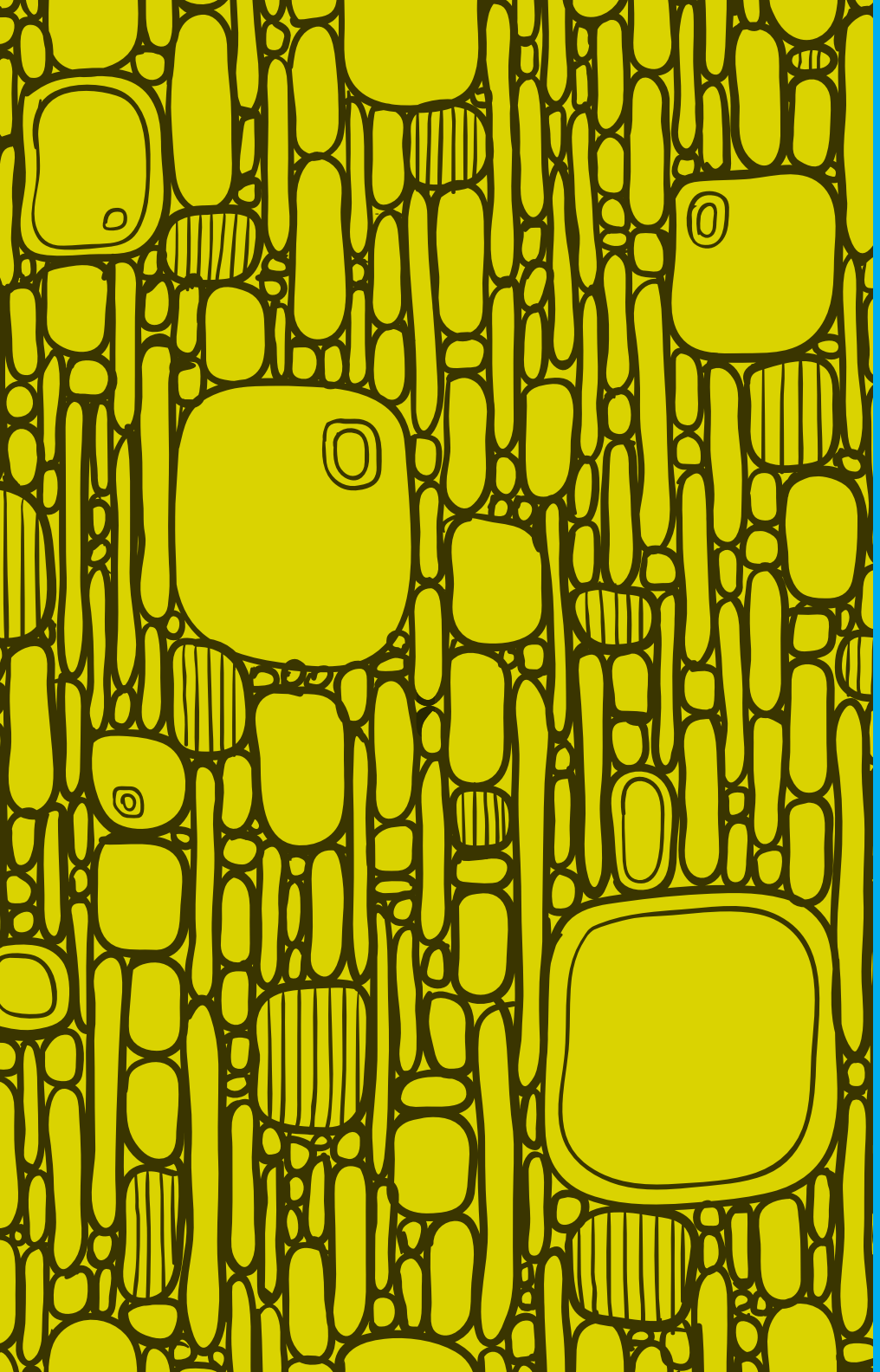
Brandeis University

21st Annual

PRESENTATION CEREMONY
TUESDAY, OCTOBER 9, 2018
WALTHAM, MASSACHUSETTS
BRANDEIS UNIVERSITY



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 Lorenz Studer, MD, of the Memorial Sloan Kettering Cancer Center, for his original thinking and groundbreaking research in the use of human embryonic stem cells (hESCs) for one of the most prevalent neurodegenerative disorders: Parkinson's disease.

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.

PRESENTATION CEREMONY

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

Dennis J. Selkoe, MD

The Vincent and Stella Coates Professor of
Neurologic Diseases
Harvard Medical School

Co-Director, Center for Neurologic Diseases
Department of Neurology
Brigham and Women's Hospital

PRESENTATION OF MEDALLIONS AND AWARDS

Dagmar Ringe

RESPONSE

Lorenz Studer, MD

Director, Center for Stem Cell Biology
Memorial Sloan Kettering Cancer Center

Member, Developmental Biology Program
Memorial Sloan Kettering Cancer Center

2018 WINNER

Lorenz Studer

Lorenz Studer, MD, is director of the Center for Stem Cell Biology and member of the Developmental Biology Program at Memorial Sloan Kettering Cancer Center. A native of Switzerland, he received an MD and doctorate degree from the University of Bern, where he got involved in developing cell-based therapies for Parkinson's disease. He subsequently trained as a post-doctoral fellow with Professor Ronald McKay at the National Institutes of Health, pioneering the therapeutic application of neural stem cell-derived neurons in models of neurodegeneration.

In his laboratory, he has established techniques that can turn human pluripotent stem cells into many of the diverse cell types of the nervous system. He has also been among the first to realize the potential of patient-specific stem cells in modeling human disease and in drug discovery. Furthermore, he is currently leading a multidisciplinary consortium to pursue the clinical application of human stem cell-derived dopamine neurons for the treatment of Parkinson's disease.

Studer has received numerous awards, including the Louise and Allston Boyer Young Investigator Award, the Annemarie Opprecht Award and a MacArthur Fellowship.

2018 GUEST SPEAKER

Dennis J. Selkoe

Dennis J. Selkoe, MD, The Vincent and Stella Coates Professor of Neurologic Diseases at Harvard Medical School (HMS) and Brigham and Women's Hospital, has devoted his career to the use of molecular approaches to study Alzheimer's disease (AD), Parkinson's disease and related basic biological questions. He is a graduate of Columbia University and the University of Virginia School of Medicine. After initial research training at the National Institutes of Health (NINDS), he completed a residency in neurology at the Harvard/Longwood Program and a postdoctoral fellowship in neuronal cell biology and neurochemistry in the Department of Neuroscience, HMS. In 1978, he founded a laboratory applying biochemical and cell biological techniques to the study of human neurodegeneration.

Selkoe's AD research has led to numerous awards, including the Potamkin Prize (shared with George G. Glenner), the Metropolitan Life Foundation Award and the A.H. Heineken Price for Medicine.

Selkoe is a member of the Institute of Medicine of the National Academies and a Fellow of the American Association for the Advancement of Science.

PREVIOUS WINNERS

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

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

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

Dr. Alun Gareth Jones
Professor of Radiology
Harvard Medical School and
Brigham and Women's Hospital

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

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

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

Dr. Ann A. Kiessling
Associate Professor
Harvard Medical School, and
Director of the Bedford Stem Cell Research Foundation

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

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

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

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

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

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

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

2016

For his contributions to our understanding of protein-folding mechanisms and protein-folding diseases

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

2017

For his pioneering contributions to synthetic biology and its practical applications in medicine, biotechnology and the biomedical sciences

James J. Collins
Termeer Professor of Medical Engineering and Science
Massachusetts Institute of Technology
Wyss Institute for Biologically Inspired Engineering
Harvard University