

Brief bio

Steven E. Hyman

Steven E. Hyman, M.D. is Director of the Stanley Center for Psychiatric Research at the Broad Institute of MIT and Harvard and Harvard University Distinguished Service Professor of Stem Cell and Regenerative Biology. From 2001 to 2011, Hyman served as Provost of Harvard University, the University's chief academic officer. As Provost he had a special focus on developing collaborative scientific initiatives, spanning multiple disciplines and institutions. In that role he helped shape the Broad Institute of MIT and Harvard and Harvard's Wyss Institute for Biologically Inspired Engineering. From 1996 to 2001, he served as Director of the U.S. National Institute of Mental Health (NIMH), where he emphasized investment in neuroscience, emerging genetic technologies, and the establishment of DNA collections to facilitate genetic studies at large scale. He also initiated a series of large clinical trials with the goal of informing practice, including studies of children, a population about which little was known.

Hyman is Editor of the Annual Review of Neuroscience, President-elect of the Society for Neuroscience, and was founding President of the International Neuroethics Society. He is a member of the Institute of Medicine of the U.S. National Academies where he serves on the governing Council, the Board of Health Science Policy, and chairs the Forum on Neuroscience and Nervous System Disorders which brings together industry, government, academia, and voluntary organizations. He is a fellow of the American Academy of Arts and Sciences, a fellow of the American Association for the Advancement of Science, a fellow of the American College of Neuropsychopharmacology, and a Distinguished Life Fellow of the American Psychiatric Association.

Hyman received his B.A. summa cum laude from Yale College, a B.A. (hons.) and M.A. from the University of Cambridge, which he attended as a Mellon fellow, and an M.D. cum laude from Harvard Medical School.

Abstract



Progress in Psychiatric Genetics Means Challenges for Neurobiology

Remarkable progress in the genetic analysis of schizophrenia, autism, and bipolar disorder has flowed from new technologies, new genomic resources, and large global consortia that have made it possible to address these disorders at the scale required. Identification of risk alleles and thus specific disease associated genes creates great opportunities for understanding disease mechanisms and for discovery of new therapeutics. However, the current predominant approaches for studying genetically influenced diseases are optimized for highly penetrant mutations characteristic of monogenic disorders. Putting new genetic information to work for complex, polygenic psychiatric disorders will require new approaches to neurobiology.

The National Institute for Psychobiology in Israel owes its existence to the generosity and foresight of the Smith Family of Washington DC. Over forty years ago, Mr. Charles E. Smith founded the Institute, and his son, Mr. Robert H. Smith deepened and expanded the activities of the Institute. His grandson, Mr. David Bruce Smith continues the family heritage, enabling the Psychobiology Institute to continue its support of basic and applied brain research in Israel.

In 1988 the Smith Family established the Charles E. Smith Family and Prof. Joel Elkes Laboratory for Collaborative Research in Psychobiology. Since its inception, the Institute has been a pivotal force in the development of psychobiology in Israel, supporting a generation of young and established scientists, through research grants, postdoctoral and senior fellowships, visiting lectureships and scientific conferences. Entering the twenty first century, the Institute continues to identify and promote scientific excellence and to balance and encourage interdisciplinary collaboration between fundamental and clinical research in psychobiology. Mr. David Bruce Smith serves as President of the Institute, Prof. Elliot Gershon as Chairman of the Board of Trustees, Prof. Ronen Segman, Institute Director, and Prof. Micha Spira, Director of the Smith-Elkes Laboratory.

Program

15:00 Poster Presentations & Reception

16:00 **Chair: Prof. Ronen Segman**
Director, National Institute for Psychobiology in Israel

Greetings:

Mr. David Bruce Smith

President, National Institute for Psychobiology in Israel

Opening Remarks and Introduction

Prof. Elliot Gershon

Chairman, Board of Trustees National Institute for Psychobiology in Israel

The Annual Lecture in Memory of Mr. Charles E. Smith

Steven E. Hyman, MD

Guest Lecturer

Stanley Center for Psychiatric Research at the
Broad Institute of MIT and Harvard,
Harvard University, USA

Progress in Psychiatric Genetics Means Challenges for Neurobiology

Poster presentation

1. CNS-specific immunity at the choroid plexus shifts towards destructive Th2 inflammation in brain aging
Kuti Baruch, Aleksandra Deczkowska and Michal Schwartz
Neurobiology, Weizmann Institute of Science, Rehovot
2. Voltage sensors in the m2r
Yair Ben-Chaim
The Avinoam Adam Department of Natural Sciences, The Open University
3. The developmental program and molecular codes that govern brainstem interneuron circuitries
Ayelet Kohl, Yoav Hadas, Avihu Klar and Dalit Sela-Donenfeld
Koret School of Veterinary Medicine, The Robert H. Smith Faculty of Agriculture, Food and Environment and Medical Neurobiology, The Faculty of Medicine, Hebrew University
4. Sampling the spatial extent of contour integration with fixational eye movements: evidence for global processing in V1
Ariel Gilad, Roy Oz and Hamutal Slovin
Gonda Brain Research Center, Bar Ilan University
5. The role of synaptic proteins in tuning neuronal networks activity
Lavi Ayal, Perez Omri, Sheinin Anton, Shapira Ronit, Pritch Tali, Yeshurun Yehezkel, Ashery Uri
Neurobiology, Tel Aviv University
6. Adrenergic modulation of Ih shapes dendritic interaction in Layer 5 pyramidal neurons
Christina Labarrera Mønsted and Michael London
Edmond and Lily Safra Center for Brain Sciences, Hebrew University
7. How low can you go? Changing the resolution of novel complex objects in visual working memory according to task demands
Ayala S. Allon, Halely Balaban, and Roy Luria
Department of Psychology, Tel Aviv University
8. High fat diet induces transgenerational alterations in epigenetic markers at the Pomc Promoter
A. Marco, T. Kisliouk, T. Tabachnik, N. Meiri, A. Weller
Faculty of Life Sciences, Gonda Brain Res Center, Department of Psychology, Bar Ilan University, Institute of Animal Science, ARO, The Volcani Center, Bet Dagan
9. Involvement of synaptic genes in the regulation of dominant and submissive behavior
Elimelech Neshet, Moshe Gross, Tatiana Tikhonov, Gal Yadid, Albert Pinhasov
Ariel University, Ariel, Bar Ilan University
10. Molecular and cellular pain: Fighting pain at the source
Henry Mazner, Rakesh Kumar, Matan Geron, Adina Hazan & Avi Priel
The Institute for Drug Research (IDR), School of Pharmacy, Faculty of Medicine, The Hebrew University

11. Disruption of ErbB signaling in adolescent increases striatal dopamine levels and affects learning and hedonic-like behavior in the adult mouse

Golani I., Tadmor H., Kremer I. and Shamir A
Department of Biotechnology, ORT Braude College, Karmiel
Psychobiology Research Laboratory, Mazra Mental Health Center, Akko
Faculty of Medicine in the Galilee, Bar-Ilan University, Zefat
The Ruth and Bruce Rappaport Faculty of Medicine, Technion

12. Depicting brain networks that track the shared dynamics of musical emotional experience: a data driven approach
N. Singer, N. Jacobi, E. Soreq, G. Raz, D. Abecasi, E. Pasternak, R. Tarrasch, R. Y. Grano, T. Hendler

Sagol Sch. of Neuroscience, Sch. of Psychological Sci., Sackler Sch. of Med., Sch. of Educ., Tel Aviv University; Functional Brain Ctr., Tel Aviv Sourasky Med. Ctr.; Interdisciplinary Ctr. for Neural Computation, Musicology Dept., Hebrew University

13. Evaluation of the metabolic parameters of a novel antipsychotic agent "PGW5" in a rat model of atypical antipsychotics induced metabolic side-effect

Michal Taler, Israel Vered, Rea Globus, Liat shbiro, Irit Gil-Ad, Abraham Weizman, Igor Tarasenko, Aharon Weller
Laboratory of Biological Psychiatry, Felsenstein Medical Research Center and Sackler Faculty of Medicine, Tel Aviv University
Psychology, Bar Ilan University; Research Unit, Geha Mental Health Center

14. Role of the translational machinery in antioxidant-induced reversal of cocaine psychomotor sensitization

Lisniansky E., Kohen R., Yaka R
Institute for drug research, School of Pharmacy, Hebrew University

15. State dependent processing of reproductive chemosignals
Oksana Cohen and Yoram Ben-Shaul

Department of Medical Neurobiology, Faculty of Medicine, Hebrew University

16. A warning signal to the use of microtubule stabilizing agents as drugs to counteract mutant-human-tau induced neuropathology

H. Erez, S.M. Ojovan, M.E. Spira
Department of Neuroscience, Life Sciences Institute, Hebrew University

17. They say "Diamonds are a girl's best friend" but primary neurons don't like them as a substrate

S.M. Ojovan, N. Rabieh, M. McDonald, H. Erez, M. Nesladek, M.E. Spira
Department of Neuroscience, Life Sciences Institute, Hebrew University

18. "Feeling by seeing": Searching for efficient psychophysical haptic to visual transfer function

Michael Wager and Tomer Elbaum
Psychology and Industrial Engineering, Ariel University

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המכון הלאומי לפסיכוביולוגיה בישראל
The National Institute for Psychobiology in Israel

Founded by the Charles E. Smith Family

ההרצאה השנתית לזכר מר צ'רלס סמית,
מייסד המכון

**The Annual Lecture in Memory of
Mr. Charles E. Smith
Founder of the Institute**

**Progress in Psychiatric
Genetics Means Challenges
for Neurobiology**

Prof. Steven E. Hyman

**Mishkenot Sha'ananim,
Yamin Moshe, Jerusalem
Wednesday, June 11, 2014
Poster Session - 15:00, Lecture - 16:00**