



Cellular and Molecular Neuroscience: From Generation to Degeneration

April 5-6, 2017

Mishkenot Sha'ananim, Jerusalem

Organizing Committee: Chaya Kalcheim, Eran Meshorer and Hermona Soreq

Wednesday, April 5, 2017

8:45-9:00 – Opening remarks – **Organizing Committee**

Keynote lecture

Chair: Sami Sagol

9:00-9:45 – *Heller lecture: Eric Kandel*, Columbia University, USA
The biology of memory and age related memory loss

Session 1: Neural Development

Chair: Chaya Kalcheim, Hadassah Hebrew University Medical Center, Israel

9:45-10:20 – **Johan Ericson**, Karolinska Institute, Sweden
Composition of a timer regulating temporal identity and fate of neural stem cells

10:20-10:45 – **Orly Reiner**, Weizmann Institute of Science, Israel
Human brain organoids on a chip to model normal development and disease

10:45-11:15 – **Coffee break**

11:15-11:40 – **Avihu Klar**, Hadassah Hebrew University Medical Center, Israel
Characterization of neuronal circuits for coordinated limb movements in avians

11:40-12:15 – **Joanna Wysocka**, Stanford School of Medicine, USA
Gene regulatory principles in human development, disease and evolution

12:15-12:40 – **Oren Schuldiner**, Weizmann Institute of Science, Israel
From genetics to system, and back: A systematic exploration of neuronal remodeling reveals a transcription factor hierarchy

12:40-14:00 – **Lunch break**



Session 2: From Gene to Synaptic Function

Chair: Hermona Soreq, Hebrew University of Jerusalem, Israel

14:00-14:35 – **Li-Huei Tsai**, Massachusetts Institute of Technology, USA
Bringing gamma back — using noninvasive sensory stimulation to modify Alzheimer's disease

14:35-15:00 – **Uri Ashery**, Tel-Aviv University, Israel
Multifaceted mitigating effects of hyperbaric oxygen therapy in Alzheimer's Disease mouse models

15:00-15:25 – **Ohad Birk**, Ben Gurion University of the Negev, Israel
Monogenic diseases: From phenotypes to genes and novel molecular pathways

15:25-15:55 – **Coffee break**

15:55-16:20 – **Sebastian Kadener**, Hebrew University of Jerusalem, Israel
In vivo functions of circRNAs

16:20-16:55 – **Jens Schwamborn**, University of Luxemburg, Luxemburg
Brain-on-a-Chip technology and brain organoids for in vitro modeling of neurodegenerative diseases

16:55-17:20 – **Deborah Toiber**, Ben-Gurion University of the Negev, Israel
Neuroprotective functions for the histone deacetylase SIRT6

Thursday, April 6, 2017

Session 3: Aging and Neurodegeneration

Chair: Moussa Youdim, Technion-Israel Institute of Technology, Israel

9:00-9:35 – **Bart De Strooper**, University of Leuven, Belgium
The cellular phase of Alzheimer Disease

9:35-10:00 – **Inna Slutsky**, Tel-Aviv University, Israel
Maintaining the balance between stability and plasticity in hippocampal circuits

10:00-10:35 – **Giovanna Mallucci**, University of Cambridge, USA
Cool synapses: The mechanistic basis of neuroprotection

10:35-11:05 – **Coffee break**

11:05-11:40 – **Sudha Seshadri**, Boston University, USA



Emerging novel approaches to dementia prevention and therapy:

Population neuroscience and personalized care in the omics era

11:40-12:05 – **Moussa Youdim**, Technion-Israel Institute of Technology, Israel
Anti Alzheimer multi target drugs possessing neuroprotective, neurorestorative and mitochondrial biogenesis activities via activation of HIF

12:05-12:30 – **Sagiv Shifman**, Hebrew University of Jerusalem, Israel
Systematic comparison of genes implicated across neuropsychiatric disorders

12:30-13:30 – **Lunch break**

Session 4: Neural Stem Cells

Chair: Eran Meshorer, Hebrew University of Jerusalem, Israel

13:30-13:55 – **Tamir Ben-Hur**, Hadassah Hebrew University Medical Center, Israel
Basic aspects of translational issues in cell therapy for Multiple Sclerosis

13:55-14:20 – **Nissim Benvenisty**, Hebrew University of Jerusalem, Israel
Modeling and treating neurological disorders using human pluripotent stem cells

14:20-14:55 – **Martyn Goulding**, Salk Institute for Biological Studies, USA
Circuits in the spinal cord for touch and movement

14:55-15:15 – **Coffee break**

15:15-15:40 – **Yechiel Elkabetz**, Tel-Aviv University, Israel
Reliable modeling of cortical development and microcephaly in rosettes and organoids by combined pathway inhibition

15:40-16:15 – **Guo-Li Ming**, Johns Hopkins University School of Medicine, USA
Modeling human brain development and developmental diseases using hiPSCs

16:15-16:30 – Closing remarks – **Organizing Committee**