

Brainy Days in Jerusalem: an Interdisciplinary Celebration

June 21-25, 2015

Mishkenot Sha'ananim, Jerusalem

Organizing Committee: Yoram Burak, Yosi Yarom and Eilon Vaadia

Sunday, June 21, 2015

19:30-23:00 – *Opening Gala Event – The Khan Gallery (for invited guests only)*

Monday, June 22, 2015

8:45-9:00 – **Eilon Vaadia** – *The Hebrew University of Jerusalem, Israel* – Opening remarks

Chair: Chaya Kalcheim

9:00-9:50 – **Sagiv Shifman** – *The Hebrew University of Jerusalem, Israel*

Chromatin regulators in neurodevelopmental disorders

9:50-10:40 – **Leslie Vosshall** – *The Rockefeller University, USA*

The genetic basis of innate behaviors

10:40-11:10 – *Coffee Break*

Chair: Idan Segev

11:10-12:00 – **Omri Barak** – *Technion – Israel Institute of Technology, Israel*

Neural dynamics of perceptual detection under temporal uncertainty

12:00-12:50 – **Shaul Druckmann** – *Janelia Farm Research Campus, USA*

Dynamic attractors and non-coding spaces in a delayed working memory task

12:50-14:00 – *Light lunch*

Chair: Eran Meshorer

14:00-14:50 – **Inna Slutsky** – *Tel Aviv University, Israel*

Interplay between population firing stability and single neuron dynamics in hippocampal networks

14:50-15:40 – **Christian Lüscher** – *University of Geneva, Switzerland*

From synaptic causalities to blue prints for novel therapies in addiction

15:40-16:10 – *Coffee Break*

Chair: Yifat Prut

16:10-17:00 – **Matteo Carandini** – *University College London, UK*

Soloists and choristers in a cortical population

17:00-17:50 – **Ranulfo Romo** – *National Autonomous University of Mexico, Mexico*

Where and how in the cerebral cortex do single neurons process more than one sensory modality during perceptual judgments?

Free evening

Tuesday, June 23, 2015

Chair: Amir Amedi

9:30-10:20 – **Ehud Zohary** – *The Hebrew University of Jerusalem, Israel*

On the representation of viewed hand actions in the human cortex

10:20-11:10 – **Galia Avidan** – *Ben-Gurion University of the Negev, Israel*

Altered topology of neural circuits in congenital prosopagnosia

11:10-11:40 – *Coffee Break*

11:40-12:30 – **Nikos Logothetis** – *University of Tübingen, Germany*

NET-fMRI of large-scale brain networks: Mapping dynamic connectivity in epochs of synaptic and system consolidation

12:30-13:30 – *Light lunch*

Chair: Baruch Minke

13:30-14:20 – **Hermona Soreq** – *The Hebrew University of Jerusalem, Israel*

Checks and balances of cholinergic signaling in brain and body functions

14:20-15:10 – **Kobi Rosenblum** – *University of Haifa, Israel*

From molecular and cellular mechanisms underlying cortical-dependent memories to cognitive enhancers

15:10-15:40 – *Coffee Break*

15:40-16:30 – **Ami Citri** – *The Hebrew University of Jerusalem, Israel*

Behavioral Transcriptomics: A molecular perspective on experience-dependent plasticity

16:30-20:30 – *Trip to the old city + dinner (for invited guests only)*

Wednesday, June 24, 2015

Chair: Moshe Abeles

9:00-9:50 – **Israel Nelken** – *The Hebrew University of Jerusalem, Israel*

The transformation of surprise representations in the ascending auditory system

9:50-10:40 – **Anthony Zador** – *Cold Spring Harbor Laboratory, USA*

Corticostriatal circuits underlying auditory decisions

10:40-11:10 – *Coffee Break*

Chair: Mickey London

11:10-12:00 – **Misha Ahrens** – *Janelia Farm Research Campus, USA*

The neural substrate of a short-term motor memory

12:00-12:50 – **Adam Cohen** – *Harvard University, USA*

Optical electrophysiology with microbial rhodopsins

12:50-14:00 – *Light lunch*

Chair: Naftali Tishby

14:00-14:50 – **Shimon Ullman** – *Weizmann Institute of Science, Israel*

Atoms of visual recognition

14:50-15:40 – **Emo Todorov** – *University of Washington, USA*
Synthesis of contact-rich behaviors with optimal control

15:40-16:10 – *Coffee Break*

Chair: Yonatan Loewenstein

16:10-17:00 – **Haim Sompolinsky** – *The Hebrew University of Jerusalem, Israel*
Computational perspectives on neuronal representations

17:00-17:50 – **Heller Lecture** – **Joshua Tenenbaum** - MIT, USA
Reverse-engineering common sense in the human mind and brain

20:00-22:00 – *Dinner – Angelica restaurant (for invited guests only)*

Thursday, June 25, 2015

Chair: Yosi Yarom

9:00-9:50 – **Yoram Burak** – *The Hebrew University of Jerusalem, Israel*
Efficient coding of a dynamic trajectory in the entorhinal cortex

9:50-10:40 – **Nachum Ulanovsky** – *Weizmann Institute of Science, Israel*
Neural codes for 2-D and 3-D space in the hippocampal formation of bats

10:40-11:10 – *Coffee Break*

Chair: Marshall Devor

11:10-12:00 – **Michael Häusser** – *University College London, UK*
All-optical interrogation of neural circuits

12:00-12:50 – **Yang Dan** – *UC Berkeley, USA*
Neural circuits controlling sleep

12:50-14:00 – *Light lunch*

Chair: Inbal Goshen

14:00-14:50 – **Chris De Zeeuw** – *Netherlands Institute for Neuroscience, The Netherlands*
Cerebellar conditioning and rebound: Two sides of the same coin

14:50-15:40 – **Andreas Lüthi** – *Friedrich Miescher Institute for Biomedical Research, Switzerland*
Deconstructing fear

15:40-16:10 – *Coffee Break*

16:10-17:00 – **Adi Mizrahi** – *The Hebrew University of Jerusalem, Israel*
Coding new smells and new sounds in the transition to motherhood

17:00-17:30 – ELSC graduation and awards ceremony

18:30 – *Closing dinner – HaChatzer restaurant (for invited guests only)*

For further details & registration, visit our website:

elsc.huji.ac.il/elsc-conference