

Ein Gedi 2020 Program

Sunday, February 23

08:45 Bus departure to Ein-Gedi from Edmond J. Safra Campus, main bus stop. Departure at **09:00 SHARP!**

10:30 Arrival to Ein Gedi Hotel

10:30-11:00 Coffee reception

11:00-11:05 **Opening remarks**

11:05-12:35 **Session I – Reinforcement Learning in Real Life**, *Chair: Alex Kazakov*

Lior Fox: Planning and learning to explore in complex environments: A maximum-entropy approach

Johannes Niederiek: Modeling rat behavior by reinforcement learning with information limits

Ana Polterovich: Spatial learning in a complex environment

Lilach Avitan: Hunting behavior in the developing larval zebrafish - Behavioral incentives and informational constraints

12:35-13:45 Sandwich lunch & Discussion groups (weather permitting)

13:45-15:00 **Session II – Local and External Mechanisms of Cortical Modulation**, *Chair: Ana Polterovich*

Amir Dudai: Functional characterization of the VIP/ChAT interneurons *in vivo*

Yair Deitcher: Nonlinear relationship between multimodal adrenergic responses and local dendritic activity in primary sensory cortices

Gal Atlan: The mouse claustrum and its function in behavior under sensory load: from elusive anatomy to physiology

15:00-15:15 **Community Outreach - Yonatan Loewenstein**

15:15-15:45 Coffee break

15:45-16:15 **Poster Blitz #1** *Chair: Adi Mizrahi*

Alex Kazakov, Shani Vaknine, Elior Drori, Efrat Sheinbach, Ayelet Gertsovski, Tomer Barak

16:15-17:30 **Storytelling Workshop: Rinat Gershfeld**

17:30-19:00 Room allocation + free time

19:00-20:00 Dinner

20:00-21:30 **Social activity initiated by ELSC Students, with the pianist Daniel Talmor**

Monday, February 24

07:30-08:30 Breakfast

08:30-09:45 **Session III – From Genes to Behavior**, *Chair: Ami Citri*

Ben Jerry Gonzales: The ventrolateral striatum: A brain hub connecting stereotypies, reinforcement and drug preference

Haran Shani-Narkiss: Adult-born neurons improve odor discrimination by mitral cells

Rotem Dan: Emotional states as dynamic organizations of functional brain networks

09:45-10:15 **Poster Blitz #2** *Chair: Inbal Goshen*

Daniel Batyrev, Shai Berman, Dina Moshitch, Gal Vishne, Eilam Goldenberg, Anna-Kristina Schmidtner

10:15-10:40 Coffee break

10:40-12:20 **Session IV – Computation in Biological and Artificial Neural Systems**, *Chair: Yonatan Loewenstein*

Michael Doron: Discovering unknown nonlinear phenomena in simulation and experimental data

Gadi Mintz: Non-normal amplification in the barrel cortex connectome

Haggai Agmon: Functional and emergent consequences of synaptic coupling between grid cells and place cells, across multiple spatial maps

Guy Hacoen: All neural networks are created equal

12:20-13:20 Sandwich lunch

13:20 **Bus departure to a hike and tour with Dr. Uri Ryb from the Institute of Earth Sciences**

17:00-18:15 Back to Ein Gedi + free time

18:15-18:30 Poster set-up

18:30-20:00 **Poster Session (at “The Ficus Square”)**

19:30 Wine & Cheese

20:00-21:00 **ELSCAR! & Prize announcement for best blitz and poster winners**

21:00 **Party!**

Tuesday, February 25

07:30-09:00 Breakfast & Check-out

09:00-10:40 **Session V – Neurodegenerative Diseases**, *Chair: Eran Meshorer*

Katarzyna Winek: Transfer RNA fragments and microRNAs co-regulate the cholinergic control of post-stroke immune responses

Pnina Rappel: Beta oscillations in the basal ganglia: Between physiology and pathology

Walaa Oweis: Identifying biological mechanisms associated with poly-glutamine aggregate formation in Huntington’s disease

Anael Cain & Gilad Green: The cellular landscape of the human aging and Alzheimer’s brain

10:40-11:10 Coffee break

11:10-11:40 **New Recruit Lecture**, *Chair: Israel Nelken*

David Omer: Space, time and others in the bat hippocampus

11:40-13:00 **Session VI – Cutting Edge Techniques to Record Neuronal Dynamics**, *Chair: Yoav Adam*

Ariel Gilad: Mesoscale recording of cortical and sub-cortical neuronal dynamics

Ido Maor: Recording neuronal representations using neuropixels probes

Yoav Adam: All-optical dissection of hippocampal circuits using voltage imaging

13:00-13:15 **Closing remarks**

13:15-14:15 Lunch

14:15 Bus departure to Edmond J. Safra Campus