



Haifa Forum for Brain and Behavior

The 5th Brain and Behavior meeting of the Haifa Forum for Brain and Behavior

"Good stress, Bad stress and Very Bad stress"

9-11 February 2014

Organizers: Mouna Maroun and Gal Richter-Levin

Sunday 9.2

09:30-09:40 Welcome greetings

09:40-11:20 Neuromodulators and stress

Chairs: Orly Weinreb (Israel) / Nicolas Singewald (Austria)

Patrizia Campolongo (Italy) - [Endocannabinoids in the Modulation of Memory for Stressful Experiences: New Players in an Old Game.](#)

Carsten Wotjak (Germany) – [PTSD, endocannabinoids and cognition – a “ménage a trois”](#)

Irit Akirav (Haifa) – [Cannabinoids prevent the effects of stress on emotional memory and plasticity.](#)

Aline Desmedt (France) - [Neural system dysfunction and underlying epigenetic factors of PTSD-like memory.](#)

11:20-11:40 Break

11:40-13:20 The HPA Axis & Cortisol

Chairs: Haim Belmaker (Israel) / Jessica Teeling (UK)

James Herman (USA) – [The Stress Connectome.](#)

Antonio Armario (Spain) – [Stress-induced neuroendocrine sensitization: the hypothalamic-pituitary-adrenal axis and beyond.](#)

Megan Holmes (United Kingdom) - [Perinatal programming of stress-related behavior by glucocorticoids.](#)

Marian Joels (The Netherlands) - [Waves and multiple hits.](#)

13:20-14:30 Lunch

14:40-16:20 Neural activity and plasticity

Chairs: Daniel Gitler (Israel) / Uwe Heinemann (Germany)

Edi Barkai (Haifa) - [A cellular mechanism underlying complex learning.](#)

The Institute for the Study of Affective Neuroscience (ISAN).

Email: isan@research.haifa.ac.il

Tel: +972-4-8249172



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Roman Schusterman (Haifa) - [Neural representation of perceived odor](#)

[intensity.](#)

Dori Derdikman (Haifa-Technion) – [Synchronization in grid cell networks.](#)

Genela Morris (Haifa) - [Dopamine dependent shifts in hippocampal representation.](#)

16:20-16:40 Break

16:40-18:20 Neural plasticity and memory

Chairs: Inbal Goshen (Israel) / Marian Joels (The Netherlands)

Asya Rolls (Haifa –Technion) – [Sleep to remember, Sleep to forget.](#)

Noam Meiri (Israel) - [Epigenetic regulatory mechanisms of thermal stress adaptation and memory.](#)

Inna Gaisler-Salomon (Haifa) - [Learning-induced changes in RNA editing of glutamate receptor subunits in hippocampus and amygdala.](#)

Avi Karni (Haifa) - [A second look at critical periods: a question of time in procedural memory consolidation.](#)

18:30-19:30 Plenary Lecture I: Menahem Segal (Israel) –

[Stress, calcium stores and synaptic plasticity](#)

Introduced by Avi Avital

Get together dinner for invited lecturers.

Monday 10.2

09:00-10:40 Molecular plasticity and pathology

Chairs: Ehud Klein (Israel) / Inga Neumann (Germany)

Anthony Isels (UK) - [Imprinted Cdkn1c is a mediator of the effects of maternal nutritional stress on offspring brain development and function.](#)

Dorit Ben Shachar (Eyal Asor) (Israel) - [Variations in a Stress Paradigm on top of Early Interference with the Expression of Multiple Genes Leads to Disparate Behavioral Responses in Rats; A Possible Role for Essential Amino Acids](#)

Hanoch Kaphzan (Haifa) - [Axon initial segment alterations in the autistic mouse model of Angelman syndrome.](#)

Alon Chen and Orna Issler (Israel) – [The role of microRNAs in regulating the central stress response and related psychopathologies.](#)

10:40-11:00 Break

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11:00-12:40 The Prefrontal cortex and stress

Chairs: Hava Golan (Israel) / James Herman (USA)

Cara Wellman (USA) - [Mechanisms of stress-induced dendritic remodeling in medial prefrontal cortex.](#)

Andrew Holmes (USA) - [Genetic factors moderating extinction of fear memories?](#)

Nicolas Singewald (Austria) - [Novel strategies to promote long-term rescue of fear extinction deficits.](#)

Mouna Maroun (Haifa) - [Developmental differences in the mechanisms of extinction.](#)

12:40-14:00 Lunch

14:00-15:40 Social Neuroscience

Chairs: Dino Levy (Israel) / Megan Holmes (United Kingdom)

Simone Shamay-Tsoory (Haifa) - [The social salience hypothesis of oxytocin.](#)

Inga Neumann (Germany) - [Oxytocin: promotion of social preference and reversal of social fear.](#)

Shlomo Wagner (Haifa) - [Long-term social recognition memory of rats is mediated by protein synthesis and oxytocin-dependent LTD in the medial amygdala.](#)

Markus Woehr (Germany) - [Ultrasonic Communication in Rodents.](#)

15:40-16:00 Break

16:00-17:40 Understanding Depression

Chairs: Ronit Avitsur (Israel) / Antonio Armario (Spain)

Raz Yirmia (Israel) - [The role of microglia in stress-induced depression.](#)

Aron Weller (Israel) - [Brain Architecture assessed by Diffusion-Tensor-Imaging in a genetic model of early onset depression and anxiety.](#)

Paul Lucassen (The Netherlands) - [Structural plasticity in relation to early life stress, nutrition and depression.](#)

Mathias Schmidt (Germany) - [The match/mismatch hypothesis: Are physiological alterations following stress exposure adaptive?](#)

18:00-19:00 Plenary Lecture II Carmen Sandi (Switzerland) –

Neurobiological pathways linking adversity with antisocial behaviors

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19:00-21:00 Wine & Cheese poster session

Tuesday 11.2

09:00-11:00 Integrative modulation

Chairs: Dan Frenkel (Israel) / Lin Xu (China)

David Jessop (United Kingdom) - [Health benefits of a robust response to stress in child development.](#)

Andrea Sgoifo (Italy) - [The socially stressed heart.](#)

Oliver Stork (Germany) - [Molecular factors in the circadian regulation of fear and anxiety.](#)

Uwe Heinemann and Guersel Caliskan (Germany) - [Gamma activity induced by acute inescapable stress in rodents.](#)

Delia Belevi (UK) – [Dysregulation of GABAAR-mediated inhibitory mechanisms in psychiatric disorders.](#)

11:00-11:15 Break

11:15-13:30 Amygdala after all

Chairs: Segev Barak (Israel) / Oliver Stork (Germany)

Rafi Lamprecht (Haifa) - [The roles of Eph receptors and actin cytoskeleton in the regulation of synaptic morphology and memory formation](#)

Rony Paz (Israel) - [From \[mal\]adaptive learning to anxiety in primate networks.](#)

Lin Xu (China) - [Dynamic activity of the hippocampus and amygdala in the processes of contextual fear memory: a FDG PET study in rats.](#)

Guillaume Ferreira (France) - [Juvenile obesity affects amygdala memory system: special emphasis on glucocorticoids.](#)

Gal Richter-Levin (Haifa) - [The PAG - A novel role in mediating amygdala functioning and emotional memory.](#)

13:30 **Closing notes**



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Towards Horizon 2020 in PHC

A workshop in partnership with the British
Embassy (Israel)

To be held at the University of Haifa on the 11th of February 2014

In association with

The 5th Brain and Behavior meeting of the Haifa Forum for Brain and Behavior

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UK Science
& Innovation
Network

The workshop is aimed to promote the submission of joint research proposals to the **Horizon 2020** program already in 2014-2015. Specifically (though not exclusively) and related to the topic of the Brain and Behavior meeting that precedes the workshop, the following call will be discussed:
PHC-03-2015 - Understanding common mechanisms of diseases and their relevance in co-morbidities.

The program

- 14:00 Light lunch at "**Rabin**" Observatory
- 14:30 British Embassy Scientific attaché: Welcome
- 14:35 The Israel-Europe R&D Directorate: Horizon 2020 Overview
- 15:00 Haifa University Research Authority: Applying for Horizon 2020 from Haifa
- 15:15 The Israel-Europe R&D Directorate: The PHC call for proposals
- 15:30 UK researchers, Israeli and EU researchers: Brief presentation of work relevant to the call
- 16:30 Tea Break
- 17:00 UK researchers, Israeli and EU researchers: Brief presentation of work relevant to the call (Continued).
- 18:00 Group discussion of consortia and preparation for application.

19:30 Dinner hosted by the British Embassy



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The Haifa Forum for Brain and Behavior wishes to thank those who contributed and supported the event –

