The 1st HBP Education Workshop on New Frontiers in Neuroscience and Methods of Transdisciplinary Education

18th-20th June 2014, Tel Aviv University, Tel Aviv, Israel
Venue: Hall 201, Sackler Building, Faculty of Medicine

Contact: education@humanbrainproject.eu
Wednesday, 18th June

08:30-09:30 Registration

09:30-09:50 Opening
Joseph Klafter, President, Tel Aviv University
Alois Saria, HBP Education Programme Director
Christine Bandtlow, Vice-Rector of Innsbruck Medical University
Mira Marcus-Kalish, HBP, Medical Informatics

Opening Lectures
09:55-10:25 The Human Brain Project: From Dream to Reality – Idan Segev (HUJI)
10:25-10:40 Educating the Next Generation of Neuroscientists - The Sagol School of Neuroscience Approach – Uri Ashery (Sagol School, TAU)

10:40-10:55 Coffee Break

First Session
New Frontiers in Neuroscience I
Chair: Galit Yovel (The Sagol School of Neuroscience)
11:55-12:25 Neurovascular Coupling in the Omic Era – Pablo Blinder (TAU)
12:25-12:55 The Role of Neuroimaging in Redefining Neuroplasticity Beyond the Synapse – Yaniv Assaf (TAU)

12:55-14:20 Lunch Break + Poster session I
Posters with uneven numbers. Poster number = Poster board number.
Location of Poster Session: Lobby in front of lecture hall

Second Session
New Frontiers in Neuroscience II
Chair: Yadin Dudai (WIS)
14:20-14:50 Epigenetic History: Beyond the Blueprint – Oded Rechavi (TAU)
14:50-15:20 Cognitive Neuroscience – Rafi Malach (WIS)
15:20-15:50 Ethics in Neuroscience – Yadin Dudai (WIS)
15:50-16:20 Medical Informatics and Data Mining – Yoav Benjamini (TAU)
16:20 -16:50 Coffee Break

16:50-18:35 Special Student Session

Chair: Daniel Voisin (Neurasmus, Bordeaux University)

Conceptual Association of Object-Pairs Overcomes the Cost of Clutter in Object-Category Selective Cortex – Michal Bernstein, Merav Lutzky, Yaara Erez & Galit Yovel,

Towards a Model of Motivation and Decision Making, Based on Human Data from Single Units Through LFP to fMRI – Feldesh, R., Gonen T., Fried I., Hendler T., Gazit T.

Transient But Consistent Motor Cortex Activity Modulations as a Reliable Signature for Prior Motor Experience – Ella Gabitov, David Manor and Avi Karni

The Dendextend R Package: Visualizing Clusters of Alzheimer Patients – Tal Galili, Alexis Mitelpunkt, Netta Shachar, Mira Marcus-Kalish, Yoav Benjamini

Understanding Synaptic Pathways – Modelling Parkinson’s Disease – KF Heil, OS Sorokina, J Hellgren Kotalessi, JD Armstrong

Neural Signatures of Processing Faces and Objects as Manifested in Steady-State Visual Evoked Potentials – Libi Kliger, Leon Y Deouell, Shlomo Bentin

Dissecting the Effects of Iron and Ageing on Automated Brain Tissue Classification – Lorio S., Lutti A., Kherif F., Ruef A., Helms G., Weiskopf N. & Draganski B.

Successful Rescue of Impaired Fear Extinction Induces Dynamic Regulation of miRNAs in the Amygdala – Conor Murphy, Ronald Gstir, Verena Maurer Simon Schafferer, Nigel Whittle, Alexander Hüttelhofer, Nicolas Singewald

Human CORD7 RIM Mutation Modulates Presynaptic Plasticity in Drosophila – Mila Paul, Manfred Heckmann, Jennifer Gehring, Robert J. Kittel, Aaron DiAntonio, Georgios Hatzopoulos, Jonathan Shiroma, Ioannis Vakonakis, Tobias Langenhan

19:00 Get-together, Reception
Location: Beit Hatfuzut, Details will be announced onsite
Thursday, 19th June
Education in Neuroscience in the 21st Century

09:00-10:30 Panel A:
Neuroscience Education, the Future: Online Tools and Public Involvement
This panel will discuss the online educational approach and existing platforms including the large-scale involvement of the public.

Moderator:
Charles Guttmann (Harvard University)

Panellists:
Charles Guttmann (Harvard University) Leveraging Synergies Between Science and Education: The SPINE Virtual Laboratory and Citizen Science Platform for Image-Driven Neuroscience
Reuven Babai (The Sagol School of Neuroscience) Neuroscience & Education: Mutual Challenges and Hopes
Shani Ben-Ari Fuchs (LifeMap Science) Compiling the Knowledge Base for Neuroscience Education: Extending LifeMap's Models and Online Tools by the Scientific Community
Hugo Vrenken (VU, Amsterdam) How Education and Public Involvement in Human Neuroimaging Could Help Patients
David Horrigan (HBP Chief Communications Officer, EPFL) Why Neuroscience Education is Special

10:30 -10:45 Coffee Break

10:45-12:15 Panel B:
Industry-Academy Education: What Should Be Done to Enhance Such a Collaboration?
This panel will include example of several modes of operation to increase industry and academy collaboration and integration of courses aimed at providing complementary skills for students such as patent issuing, IP management, FDA and CE regulation and ethics.

Moderator:
Uri Ashery (Sagol School, TAU)

Panellists:
Michale Rosen-Zvi (IBM) A New Era of Cognitive: IBM View
Liat Hayardeny (Scientific Director, Teva) Why Are Basic Science and Mechanisms Important for Licensing New Molecules to Clinical Trials Design: The Case of Laquinimod
Shlomo Nimrodi (Ramot, TAU) From Basic Science to Industry… What Does it Take?
Dani Offen (TAU) Benefits and Challenges of Academia Industry Collaboration
Uri Ashery (Sagol School, TAU) BrainBoost, a New Concept to Accelerate Industry Academy Cooperation

12:30-14:15 Lunch Break + Poster Session II
Posters with even numbers. Poster number = Poster board number.
Location of Poster Session: Lobby in front of lecture hall
14:15-15:45 **Panel C:**
**Academic Programs & Career Development: Undergraduate and Graduate Programs and What Next?**
This panel will focus on shaping the next generation of neuroscientists, based on existing interdisciplinary programs and new tailored ones.

**Moderators:**
Alois Saria (HBP Education Programme Director, IMU)
Uri Ashery (Sagol School, TAU)

**Panellists:**
Alois Saria (HBP Education Programme Director, IMU) *A Curriculum for Teaching Students in the Human Brain Project: Needs and Challenges*
Menno Witter (Chair Education and Training Committee, Federation of European Neuroscience Societies) *FENS and European Training: The Cajal European Training Programme*
Daniel Voisin (Neurasmus, Bordeaux University) *Neurasmus, an Erasmus Mundus Master in Neuroscience: Lessons and Promises*
Uri Ashery (Sagol School, TAU) *Neuroscience, Is it Already a Standalone Discipline?*

15:45-16:15 **Special Lecture**
The HBP Mixed Doubles: Computing for Neuroscience and Neuroscience for Computing
Karlheinz Meier (UHEI)

16:15-16:45 **Coffee Break**

16:45-18:15 **Panel D:**
**Clinical Neuroscience Education**
This panel will focus on subjects of Clinical Neurosciences education for students aiming to be clinicians or clinical researchers, the inter-phase between Clinical Neurosciences and the medical pharma and Ethical issues in Clinical Neurosciences

**Moderator:**
Nir Giladi (Soursky Medical Center)

**Panellists:**
Anat Achiron (Sheba Medical Center) *The Arrow Project Incorporating Research into Medical Studies*
Ilana Gozes (TAU) *From Bench to Biotech: Davunetide’s Clinical Development*
Hilik Levkovitz (Shalvata Mental Health Center) *Bridging the Impossible Gap between Clinical Neuroscience and Psychiatry*
Nir Giladi (Soursky Medical Center) *Exposing Students Who Will Not Be Clinicians to Clinical Neuroscience*
Friday, 20th June
Special Open Public Session
Brain Research - Education and Public Outreach
Britania building, Hall 14, 9:00-12:00

Chair: Mira Marcus-Kalish, HBP, Medical Informatics

Special Lectures:

An International Approach Towards Brain Research Public Education
David Horrigan, HBP Chief Communications Officer, EPFL

The Science Museum as a Lab and Hub
Maya Halevy, The Bloomfield Science Museum Jerusalem

Exceptional Young Minds – The Challenge
Shira Shofty & Or Sagy, The Lautman Unit for Science-Oriented Youth, TAU

Break

From Bat Behavior to Robot Cognition
Yossi Yovel, Zoology, Sagol School of Neuroscience, TAU

Alzheimer Disease Risk and Hopes
Danny Michaelson, Neurobiology, Sagol School, TAU