



**Shaar-Menashe  
Mental Health  
Center**



## Invitation

# Advanced Seminar for Psychiatric Neuroscience

Join a journey into the neuronal networks of the brain

10 monthly meetings (first Friday of each month) lecture & discussion about the neuroscientific basis of mental disorders

Seminar intended for clinicians, psychiatrists psychologists (residents and seniors) biologists, neuroscientists and engineers.






Venue Sha'ar Menashe MHC





Lecturers (in order of lecture schedule below)

B.Sc and M.Sc. of engineering from Ben Gurion University of the Negev, M.B.A .Tel Aviv university. Ph.D .neuroscience from the Gonda Brain Research Center Post-doctorate from the physics dept. Hebrew University, Post-doctorate from Haifa University learning disability brain research. Post-doctorate in psychology UCLA.  
Involved in research of dynamic complex brain systems of healthy subjects and mental disorders such as ADHD mental retardations and others.



יוסי ארזואן

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| <p>B.Sc. Hebrew University, Ph.D. Psychobiology, University SUNY at Stony Brook, Ny, USA. M.D. Tel-Aviv University, Psychiatry residency at Sheba Medical Center, Tel-Hashomer, NIMH research fellowship. Founder and director of the Brain Imaging Center at Tel-Aviv Medical Center. Brain researcher in the field of psychiatric disorders and schizophrenia.</p>   |  <p>תלמה הנדלר</p>   |
| <p>Idan Segev is the David &amp; Inez Myers Professor in Computational Neuroscience and former director of the Interdisciplinary Center for Neural Computation (ICNC) at the Hebrew University of Jerusalem, where he received his B.Sc (1973) in Math and Ph.D (1982) in experimental and theoretical neurobiology. He initiated the prestigious international EU course in Computational Neuroscience His work is published in the top journal such as <i>Science</i>, <i>Nature</i>, <i>PNAS</i> and he received several awards including “best teacher” in international brain-courses. His research team utilizes computational and theoretical tools to study how neurons, the elementary microchips of the brain, compute and dynamically adapt to our ever-changing environment. In recent years, his group worked jointly with several experimental groups worldwide in an endeavor to model a whole piece of the mammalian cortex with the ultimate goal to unravel how local fine variations within the cortical network underlie specific behavioral function and may give rise to certain brain diseases or to healthy and “individual” brains.</p> |  <p>עידן שגב</p>    |
| <p>Graduate Psychology (University of Haifa), MD (Technion) and PhD in physiology and biophysics (Technion). Professor of Medicine and Faculty of Electrical Engineering. Investigating physical and functional aspects of excitability ion channels, neurons and networks. Special emphasis is placed on processes in long time scales the underlying mechanisms and the impact of these mechanisms on cognitive abilities.</p>   |  <p>שמעון מרום</p> |
| <p>Biology graduate of the Hebrew University, Doctorate in molecular neurobiology from Tel Aviv University. Senior researcher at the Weizmann Institute's Neurobiology Department, which develops optogenetic technology to control neural activity using light and application of these methods to understand the mechanisms of action of the prefrontal cortex - frontal dysfunction and psychiatric disease models.</p>   |  <p>עופר יזהר</p> |
| <p>Lecturer and researcher in the field of signal processing and identification form biomedical forms in general and brain waves in particular, in electrical engineering and computing at Ben Gurion University and biomedical engineering in the Technion, spearheaded a number of breakthroughs in medical software in the field of sleep medicine and the treatment of brain. Currently CTO and Chairman of Alminda Co. that deals with functional imaging and treatment with electrical stimulation of the brain.</p>   |  <p>אמיר גבע</p>  |

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| <p>Graduate of the School of Psychology and Biology at Bar Ilan University<br/>         PhD in Experimental Psychology from Bar Ilan University in the field of the influence of the location of stimuli in the visual field on the comprehension of words. Post Doctorate at the Beckman Institute University of Illinois in electrophysiology and evoked potentials. Head of the MEG Simulation Laboratory at Bar Ilan University.</p>                                  |  <p>אבי גולדשטין</p>     |
| <p>Graduate biology (Technion) and PhD in pharmacology and neurochemistry (Technion). Associate Professor at the Technion Faculty of Medicine and Head of the Psychobiology laboratory (Rambam Hospital). Currently investigating the biochemical and molecular aspects related to pathological behaviors and psychiatric diseases. Particular emphasis is placed on changes in the mitochondria and their relationship to neuronal development in schizophrenia.</p>     |  <p>דורית בן שחר</p>     |
| <p>Physics graduate (Hebrew University), neuroscience (Weizmann Institute) and a doctorate in neuroscience from the Weizmann Institute. Researcher and lecturer in the Unit for Applied Research in neuroscience at the Interdisciplinary Center (IDC) in Herzliya. Uses TMS combined with EEG to investigate the dynamics of brain networks in schizophrenia stemming from interest in more general questions of durability and brain sensitivity in psychopathology</p> |  <p>נאוה לויט-בן נון</p> |
| <p>Graduate Medicine University of Rome, psychiatric residency at Rambam Medical Center, Post-doctoral training at UCD California USA. Department Head at Sha'ar Menashe Mental Health Center. Interested in a combination of neural computation and the theory of Complex systems in psychiatry</p>  |  <p>אבי פלד</p>        |

## Schedule

| Dates   | Lecturer             | topic  |
|---------|----------------------|--|
| 4.10.13 | Yossi Arzuan         | The brain as a complex system of neuronal networks                                 |
| 1.11.13 | Talma Hendler        | Brain imaging and neuronal networks  |
| 6.12.13 | Idan Segev           | The human brain project  |
| 3.1.14  | Shimon Marom         | Dialog between psychology and neuroscience   |
| 7.2.14  | Ofer Yizhar          | Advanced technologies to control brain functions                                   |
| 7.3.14  | Amir Geva            | A method for displaying neuronal network activity, examples &uses                  |
| 4.4.14  | Avi Goldstein        | Neuroscience MEG research  |
| 2.5.14  | Dorit Ben Shahr      | Induced pluripotent stem cells-iPSC as a tool for the research of mental disorders |
| 30.5.14 | Nava Levitt Bin-Noon | The brain sensitive to perturbations   |
| 6.6.13  | Abraham Peled        | Clinical; Brain profiling and its relation to psychiatry                           |

## Organizers



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