The Edmond and Lily Safra Center for Brain Sciences is one of the only places in the world where scientists from different fields work closely together in an interdisciplinary approach towards understanding the brain. Research at ELSC encompasses molecular, cellular, circuit and behavioral levels, with particular emphasis on brain theory and modeling.

Research Topics

See all Research Topics

Sensation and Perception
The Sensation & Perception research labs at the Hebrew University focus on how our brain generates a representation of the world around us, combining incoming perceptual information with memory to enable us to act.

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Movement Planning and Control
Scientists at the "Movement Planning and Control" laboratories focus on basic questions such as: How is visual information translated for use by the motor system? How do motor neurons learn new patterns of movement? How and where are learned movements stored in motor memory? A special avenue of research is the development of Brain Machine Interfaces, the control of artificial, robotic limbs through a brain interface.

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Computational Neuroscience
The field of computational neuroscience combines theoretical physics, advanced mathematics and state-of-
the art computer technology to create powerful models of working neural networks.

Consciousness and Cognition
Researchers at ELSC use advanced EEG and fMRI brain mapping tools to understand what happens in the brain when we become aware of something.

Neurological Disorders
Scientists at the Hebrew University are making similar advances in diseases as diverse as schizophrenia, depression, and Alzheimer's, and are starting to unravel the mechanisms underlying these illnesses.

Centers and Units

ELSC Neuroimaging Unit (ENU)

Max Planck Hebrew University Center
New Max-Planck Center with the Hebrew University Jerusalem.

Scientists

See all Investigators

- Prof. Hermona Soreq
  Professor of Molecular Neuroscience
Aviv Mezer, Ph.D.
Mezer Lab's web site

Prof. Merav Ahissar
Perceptual Plasticity and Cognitive Abilities

Prof. Yifat Prut
Laboratory of Motor Control

Prof. Yosef Yarom
Cerebellum Lab

Prof. Amir Amedi
Lab for Multisensory Research
Prof. Yosef Grodzinsky  
Neurolinguistics Lab

Ami Citri, Ph.D.  
Experience-Dependent Plasticity in Reward Circuits

Prof. Idan Segev  
The Lab for Understanding Neurons

Prof. Adi Mizrahi  
Laboratory of neuronal and circuit plasticity

Prof. Israel Nelken  
Laboratory of Auditory Neurophysiology
Prof. Leon Deouell
Human Cognitive Neuroscience Lab

Prof. Eilon Vaadia
Motor Cortex Research Lab

Prof. Leo Joskowicz
CASMIP Laboratory

Prof. Yonatan Loewenstein
Laboratory of Decision Making

Prof. Naftali Tishby
Machine Learning and Computational Biophysics
Prof. Ehud Zohary
Linking Perception, Memory and Action

Inbal Goshen, Ph.D
goshen's lab web site

Mickey London, Ph.D
Laboratory of neural coding

Prof. Hagai Bergman
Basal Ganglia Research Lab.

Positions at ELSC

New Academic, Tenure Track Positions at ELSC
Tenure Track Positions at ELSC
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Interdisciplinary Postdoctoral Program in Brain Sciences

ELSC invites applications for postdoctoral fellows in the following fields: Theoretical and Computational Neuroscience, Systems Neuroscience, Molecular and Cellular Mechanisms, Cognitive Neuroscience, and Neuronal Circuits.

Open positions for a PhD candidate in the laboratories of Prof. Leon Deouell and Dr. Yoni Pertzov

Publications

See All Publications

- Shaham, N, Burak Y. Submitted Slow Diffusive Dynamics in a Chaotic Balanced Neural Network.
- Grodzinsky, Y, Deschamps I, Shapiro LP. In Press Patients with Broca's aphasia and Young Children can reconstruct elided VPs.
- Jaffe-Dax, S, Frenkel O, Ahissar M. 2017 Shorter neural adaptation to sounds accounts for dyslexics' abnormal perceptual and reading dynamics. eLife. 6
- Porat, Y, Zohary E. 2016 Practice Improves Peri-saccadic Shape Judgment but does not Diminish Target Mislocalization.
Proc Natl Acad Sci U S A. 113:46.


ELSC Brochures
Heller Lecture Series in Computational Neuroscience 2010-2011
New Academic, Tenure Track Positions at ELSC
Ph.D. Program in Computational Neuroscience Registration Information
Upcoming Events

Postdoctoral Program

At ELSC, you have the opportunity to be part of our flourishing research environment and community.

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Studying at ELSC

Our Int'l Ph.D. program provides outstanding students with top-notch courses in computational neuroscience.

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The Building

The Jerusalem Brain Sciences Building will provide a state-of-the-art research and teaching facility for the Edmond and Lily Safra Center for Brain Sciences.

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