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.

**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.

**Computational Neuroscience**
The field of computational neuroscience combines theoretical physics, advanced mathematics and state-of-
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. Yifat Prut
Laboratory of Motor Control
Inbal Goshen, Ph.D
Goshen's lab website

Prof. Amir Amedi
Lab for Multisensory Research

Prof. Yosef Grodzinsky
Neurolinguistics Lab

Prof. Baruch Minke
Baruch Minke's website

Aviv Mezer, Ph.D.
Mezer Lab's website
Prof. Adi Mizrahi
Laboratory of neuronal and circuit plasticity

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

Prof. Yonatan Loewenstein
Laboratory of Decision Making

Prof. Hanoch Gutfreund
ELSC Faculty member

Prof. Shaul Hochstein
Hochstein's web site
Prof. Hermona Soreq
Professor of Molecular Neuroscience

Alexander Binshtok, PhD
Pain Plasticity Research Group

Prof. Hagai Bergman
Basal Ganglia Research Lab.

Prof. Yosef Yarom
Cerebellum Lab

Yoram Burak, Ph.D
Computational Neuroscience and Biophysics
Prof. Chaya Kalcheim
Developmental Neurobiology Lab

Prof. Haim Sompolinsky
The Neurophysics Lab

Mati Joshua, Ph.D.
Mati Joshua’s Lab

Prof. Naftali Tishby
Machine Learning and Computational Biophysics

Prof. Idan Segev
The Lab for Understanding Neurons
Prof. Leon Deouell
Human Cognitive Neuroscience Lab

Prof. Ehud Zohary
Linking Perception, Memory and Action

Prof. Eilon Vaadia
Motor Cortex Research Lab

Mickey London, Ph.D
Laboratory of neural coding

Prof. Yair Weiss
Human and machine vision
Prof. Israel Nelken
Laboratory of Auditory Neurophysiology

Prof. Merav Ahissar
Perceptual Plasticity and Cognitive Abilities

Prof. Leo Joskowicz
CASMIP Laboratory

Prof. Eran Meshorer
meshorer's web site

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

- Elber-Dorozko, L, Loewenstein Y. Submitted Striatal action-value neurons reconsidered.
- Jaffe-Dax, S, Frenkel O, Ahissar M. 2017 Shorter neural adaptation to sounds accounts for dyslexics' abnormal perceptual and reading dynamics.
Berman, S, West, K, Does, MD, Yeatman, JD, Mezer, AA. 2017. Evaluating g-ratio weighted changes in the corpus callosum as a function of age and sex.