

## WIN (Weizmann Institute Neuroscience) Research

Neuroscience research at the Weizmann Institute employs various cutting-edge disciplines, including molecular, computation, systems, cellular, and cognition. Many of the labs combine several approaches into a multidisciplinary research. Please visit individual labs for more information.

### List of labs:

[Ehud Ahissar Dept. of Brain Sciences](#)

*Neural mechanisms of adaptive perception*

[Shabtai Barash, Dept. of Brain Sciences](#)

*Mind-Brain: Neurophysiology*

[Alon Chen, Dept. of Brain Sciences](#)

*Neurobiology of stress*

[Yarden Cohen, Dept. of Brain Sciences](#)

*The Neural Language of Song*

[Mike Fainzilber, Dept. of Biomolecular Sciences](#)

*Molecular neurobiology*

[Ofer Feinerman, Department of Physics of Complex Systems](#)

*Ant collective behavior*

[Tamar Flash, Department of Computer Science And Applied Mathematics](#)

*Motor control in humans and robotic systems*

[Eran Hornstein, Dept. of Molecular Genetics](#)

*Regulation of cellular processes by miRNAs*

[Takashi Kawashima, Dept. of Brain Sciences](#)

*Whole-brain deconstruction of behavioral mechanisms*

[Tali Kimchi, Dept. of Brain Sciences](#)

*Neuronal basis of sexually dimorphic behaviors*

[Ilan Lampl, Dept. of Brain Sciences](#)

*Processing of sensory information in the cerebral cortex*

[Gil Levkowitz, Dept. of Molecular Cell Biology](#)

*Development and function of the hypothalamus.*

[Yoav Livneh, Dept. of Brain Sciences](#)

*Neuroscience of brain-body communication*

Elisha Moses, Department of Physics of Complex Systems  
*Physics of biological computation*

Meital Oren, Dept. of Brain Sciences  
*The synaptic basis of sexually dimorphic behaviors*

Rony Paz, Dept. of Brain Sciences  
*Neural mechanisms of learning*

Elior Peles, Dept. of Molecular Cell Biology  
*The development of myelinated nerves*

Michal Ramot, Dept. of Brain Sciences  
*Integration across large scale networks and behaviour in humans*

Orly Reiner, Dept. of Molecular Genetics  
*Forming the Cortex-translating environmental cues to cellular responses*

Michal Rivlin, Dept. of Brain Sciences  
*Dynamic computations in the retina*

Eitan Reuveny, Dept. of Biomolecular Sciences  
*Ion channel – signaling Physiology and biophysics*

Rita Schmidt, Dept. of Brain Sciences  
*Imaging the human brain: ultra-high field MRI and new biomarkers for brain function*

Elad Schneidman, Dept. of Brain Sciences  
*Neural computation, learning, and collective behavior*

Michal Schwartz, Dept. of Brain Sciences  
*The laboratory of the immunology of the mind in health and disease*

Oren Schuldiner, Dept. of Molecular Cell Biology  
*Molecular mechanisms of neuronal remodeling*

Noam Sobel, Dept. of Brain Sciences  
*Olfaction*

Ivo Spiegel, Dept. of Brain Sciences  
*How experience regulates brain function*

Assaf Tal, Dept of Chemical Physics  
*Imaging brain neurochemistry in humans*

Michail Tsodyks, Dept. of Brain Sciences  
*Models of brain function*

Nachum Ulanovsky, Dept. of Brain Sciences

*Hippocampal neural activity in freely moving echolocating bats*

Igor Ulitsky, Dept. of Biological Regulation

*Regulatory roles of noncoding RNAs in the nervous system*

Shimon Ullman, Department of Computer Science and Applied Mathematics

*Vision*

Avraham Yaron, Dept. of Biomolecular Sciences

*Neuronal wiring*

Ofer Yizhar, Dept. of Brain Sciences

*Synaptic organization in neural circuits*

Yaniv Ziv, Dept. of Brain Sciences

*Neural coding of long-term memory*