**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 groups combine several approaches into a multidisciplinary research. Please visit individual labs for more information.

**List of Research Groups (in alphabetical order):**

[Ehud Ahissar](http://www.weizmann.ac.il/neurobiology/labs/ahissar/), Department of Neurobiology

***Neural mechanisms of adaptive perception***

[Shabtai Barash](http://www.weizmann.ac.il/neurobiology/labs/barash/Shabtai_Barash.pdf), Department of Neurobiology

***Mind-Brain: Neurophysiology***

[Alon Chen](http://www.weizmann.ac.il/neurobiology/labs/chen/), Department of Neurobiology

***Neurobiology of stress***

[Mike Fainzilber](http://www.weizmann.ac.il/Biological_Chemistry/scientist/Fainzilber/Fainzilber.html), Department of Biomolecular Sciences

***Molecular neurobiology***

[Ofer Feinerman](http://www.weizmann.ac.il/complex/feinerman/), Department of Physics of Complex Systems

***Ant collective behavior***

[Tamar Flash](http://www.weizmann.ac.il/math/tamar//), Department of Computer Science And Applied Mathematics

***Motor control in humans and robotic systems***

[Eran Hornstein](http://www.weizmann.ac.il/molgen/members/hornstein/eran_group/main.html), Department of Molecular Genetics

***Regulation of cellular processes by miRNAs***

[Tali Kimchi](http://www.weizmann.ac.il/neurobiology/labs/kimchi/), Department of Neurobiology

***Neuronal basis of sexually dimorphic behaviors***

[Ilan Lampl](http://www.weizmann.ac.il/neurobiology/labs/lampl/home), Department of Neurobiology

***Processing of sensory information in the cerebral cortex***

[Gil Levkowitz](http://www.weizmann.ac.il/mcb/GLevkowitz/index.html), department of Molecular Cell Biology

***Development and function of the hypothalamus***

[Rafi Malach](http://www.weizmann.ac.il/neurobiology/labs/malach/), Department of Neurobiology

***Vision and the human brain***

[Elisha Moses](https://www.weizmann.ac.il/complex/EMoses/index.html), Department of Physics of Complex Systems

***Physics of biological computation***

Meital Oren*,* Department of Neurobiology

***Sexual dimorphism: from molecules and synapses to circuits and behaviors***

[Rony Paz](http://www.weizmann.ac.il/neurobiology/labs/rony/), Department of Neurobiology

***Neural mechanisms of learning***

[Elior Peles](http://www.weizmann.ac.il/mcb/Peles), Department of Molecular Cell Biology

***The development of myelinated nerves***

[Orly Reiner](http://www.weizmann.ac.il/molgen/Reiner/), Department of Molecular Genetics

***Forming the Cortex-translating environmental cues to cellular responses***

[Michal Rivlin](http://www.weizmann.ac.il/neurobiology/labs/rivlin/), Department of Neurobiology

***Dynamic computations in the retina***

[Eitan Reuveny](http://www.weizmann.ac.il/weizsites/reuveny/), Department of Biomolecular Sciences

***Ion channel – signaling Physiology and biophysics***

[Dov Sagi](http://www.weizmann.ac.il/home/masagi/), Department of Neurobiology

***From images to visual perception***

[Elad Schneidman](http://www.weizmann.ac.il/neurobiology/labs/schneidman), Department of Neurobiology

***Neural computation, learning, and collective behavior***

[Michal Schwartz](http://www.weizmann.ac.il/neurobiology/labs/schwartz/), Department of Neurobiology

***The laboratory of the immunology of the mind in health and disease***

[Oren Schuldiner](http://www.weizmann.ac.il/mcb/Schuldiner/), Department of Molecular Cell Biology

***Molecular mechanisms of neuronal remodeling***

[Noam Sobel](http://www.weizmann.ac.il/neurobiology/worg/), Department of Neurobiology

***Olfaction***

[Ivo Spiegel](http://www.weizmann.ac.il/neurobiology/labs/spiegel/), Department of Neurobiology

***How experience regulates brain function***

[Michail Tsodyks](http://www.weizmann.ac.il/neurobiology/labs/tsodyks/), Department of Neurobiology

***Models of brain function***

[Nachum Ulanovsky](http://www.weizmann.ac.il/neurobiology/labs/ulanovsky/), Department of Neurobiology

***Hippocampal neural activity in freely moving echolocating bats***

[Shimon Ullman](http://www.wisdom.weizmann.ac.il/~/shimon/index.html), Department of Computer Science And Applied Mathematics

***Vision***

[Avraham Yaron](http://www.weizmann.ac.il/Biological_Chemistry/scientist/Yaron/), Dept. of Biomolecular Sciences

***Neuronal wiring***

[Ofer Yizhar](http://www.weizmann.ac.il/neurobiology/labs/yizhar/), Dept. of Neurobiology

***Synaptic organization in neural circuits***

[Yaniv Ziv](http://www.weizmann.ac.il/neurobiology/labs/ziv/), Dept. of Neurobiology

***Neural coding of long-term memory***

**Professor emeriti**

[Yadin Dudai](http://www.weizmann.ac.il/neurobiology/labs/dudai), Department of Neurobiology

***Learning and Memory***

[Amiram Grinvald](http://www.weizmann.ac.il/brain/grinvald/), Department of Neurobiology

***Seeing the brain in action***

[Menahem Segal](http://www.weizmann.ac.il/neurobiology/labs/segal/), Department of Neurobiology

***Neuronal plasticity***

[Yitzhak Koch](https://www.weizmann.ac.il/neurobiology/labs/koch/koch.html), Department of Neurobiology

***Gonadotropin-releasing hormone (GnRH)***

[Israel Silman](https://www.weizmann.ac.il/neurobiology/labs/silman/silman.html), Department of Neurobiology

***Acetylcholinesterase, a synaptic enzyme***

[Zvi Vogel](https://www.weizmann.ac.il/neurobiology/labs/vogel/vogel.html), Department of Neurobiology

***Mechanisms of Drug Abuse***

[Ephraim Yavin](https://www.weizmann.ac.il/neurobiology/labs/yavin/yavin.html), Department of Neurobiology

***Oxidative stress, bioactive lipids and cell death***