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.

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**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.

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**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.

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

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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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