Participating Faculty

Mark Bear, Modification of the Cerebral Cortex by Sensory Experience

Ed Boyden, Development of Neural Control Tools and Application to Brain Disorders

Martha Constantine-Paton, Activity-Dependent Development of Synapses

Michale Fee, How the Brain Learns and Generates Complex Sequential Behaviors

Frank Gertler, Molecular Mechanisms of Axonal Outgrowth and Brain Development

Ki Ann Goosens, Brain Mechanisms that Underlie Fear, Anxiety and Stress

Ann Graybiel, Function of the Basal Ganglia

Leonard Guarente, Effects of SIRT1 on Neurodegenerative Diseases and Cognition

Richard Hynes, Biology of Cell Adhesion in Development and Disease

Robert Horvitz, Genetics of Nervous System Development and Function in *C. elegans*

David Housman, Pathology Mechanisms and Genetic Modifers in Huntington's Disease

Rudolf Jaenisch, Epigenetic Control of Brain Development and Function

Alan Jasanoff, Non-Invasive Functional Imaging Methods to Study Neural Behavior

Yingxi Lin, Development and Function of Inhibitory Circuits in the Brain

Susan L. Lindquist, Correcting the Protein Misfolding of Neurodegenerative Disease

J. Troy Littleton, Synapse Formation, Function and Plasticity in *Drosophila*

Carlos Lois, Neurogenesis and Assembly of Brain Circuits

Christopher Moore, Brain Dynamics Involved in Sensory Perception

Elly Nedivi, Characterization of Genes Involved in CNS Plasticity

William Quinn, Genetic Analysis of Learning and Memory in *Drosophila*

Peter Reddien, Genetic Control of Nervous System Regeneration in Planarians

Morgan Sheng, Molecular Mechanisms of Synaptic Plasticity

Hazel Sive, Brain Patterning and Morphogenesis in Zebrafish

Mriganka Sur, Plasticity Mechanisms in the Developing and Adult Cerebral Cortex

Susumu Tonegawa, Genetic Approaches to Learning and Memory Circuits in Mice

Li-Huei Tsai, Mechanisms of Alzheimer's Disease and Epigenetic Regulation of Learning & Memory

Matthew Wilson, Neuronal Plasticity, Learning & Sleep

Weifeng Xu, Molecular Mechanisms Underlying Hippocampal Synaptic Plasticity

Molecular & Cellular Neuroscience @ MIT

Massachusetts Institute of Technology

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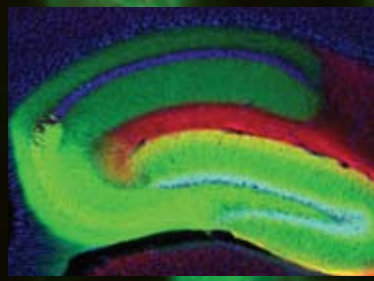
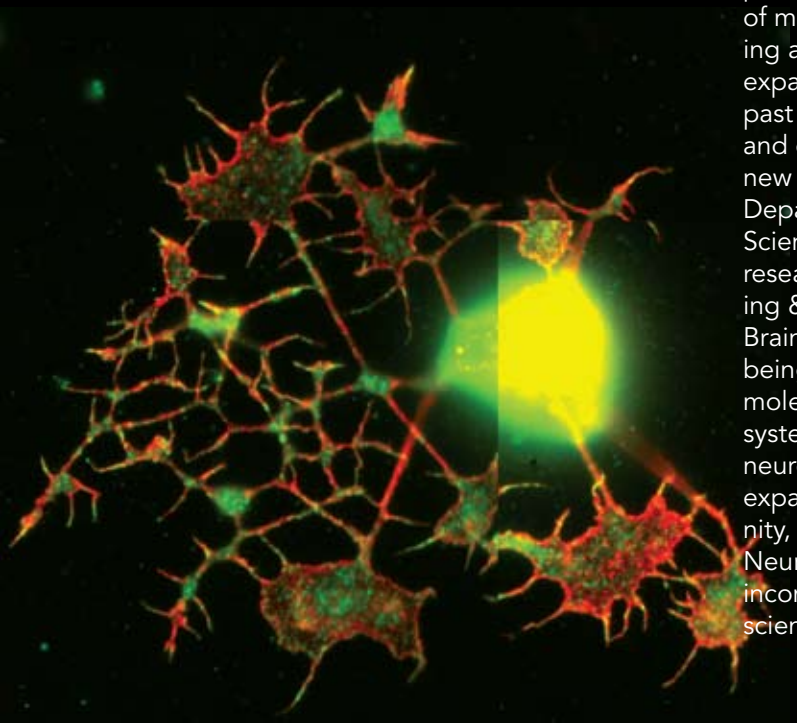
http://web.mit.edu/neuro



Introducing a New Interdepartmental Neuroscience Graduate PhD Track Offered Through the Departments of Biology and Brain & Cognitive Sciences

By bridging research labs in multiple departments and centers, the Molecular and Cellular Neuroscience Track will provide an outstanding and unprecedented research and training environment for the top neuroscience undergraduates from around the globe. We hope you join us for this exciting push as we seek to understand the many mysteries of the brain.



Molecular and Cellular Neuroscience @ MIT

MIT is introducing a new Molecular and Cellular Neuroscience (MCN) Track for graduate education. With participating faculty located in the Picower Institute for Learning and Memory, the McGovern Institute for Brain Research, the Whitehead Institute and the Departments of Biology and Brain and Cognitive Sciences, incoming students have access to many of the top neuroscience laboratories in the world. Students will be admitted through the Biology or Brain and Cognitive Sciences graduate programs and can join the MCN Track anytime during their first year, offering access to participating inter-departmental faculty and neuroscience coursework across campus. MIT is at the forefront of molecular and cellular neuroscience research, and incoming students can now access this world-class research community as it strives to understand the biological basis of brain function and neurological disease.

MIT Neurosciences Complex

Molecular and cellular neuroscience is of fundamental importance to MIT's vision to understand nervous system function and the biological basis of brain disorders. MIT is uniquely situated to provide Neuroscience training at the intersection of multiple disciplines. Long a leader in engineering and biotechnology, the Institute has greatly expanded its neuroscience research breadth in the past 10 years, especially in the arena of molecular and cellular neuroscience. MIT has added many new faculty in the field, and interfacing with the Departments of Biology and Brain & Cognitive Sciences, has established two major neuroscience research centers–The Picower Institute for Learning & Memory and the McGovern Institute for Brain Research. Innovative neuroscience research is being carried out across these areas, bridging the molecular and cellular field with neuroengineering, systems neuroscience, neurodevelopment and neurochemistry. To complement this exciting expansion of MIT's neuroscience research community, a new graduate PhD Molecular and Cellular Neuroscience track has been developed to allow incoming students access to the world-class neuroscience faculty across campus.

How to Apply to the Molecular & Cellular Neuroscience Track:

Applicants interested in the MCN track will be admitted through the Biology or Brain and Cognitive Sciences graduate program, details of which can be found at **web.mit.edu/bcs** and **web.mit.edu/biology/www**. Additional information about the MCN Track can be found at **web.mit.edu/neuro**.

In addition to a wide array of faculty research efforts across a spectrum of basic and medical neuroscience interests, incoming students have access to the diverse curriculum offered in the Biology and Brain & Cognitive Sciences Departments, including coursework in Cellular and Molecular Neuroscience, Genetic Neurobiology, Developmental Neuroscience, Systems Neuroscience, Neurobiology of Disease, Neural Plasticity, Neuroanatomy, Biochemistry, Genetics, Neurotechnology, Neuropharmacology, Neurobiology of Aging, Cellular Neurophysiology, Cell Biology, and Development & Evolution.