PICOWER INSTITUTE FOR LEARNING AND MEMORY

The Picower Institute for Learning and Memory (*http://picower.mit.edu*) is an interdisciplinary research entity within MIT's School of Science, with 16 faculty members holding academic appointments in the Department of Brain and Cognitive Sciences, the Department of Biology, the Institute for Medical Engineering & Science, and the Department of Chemical Engineering.

The Picower Institute is a community of scientists dedicated to understanding the mechanisms that drive learning and memory and related functions such as cognition, behavior, emotion, perception, and consciousness. Institute researchers explore the brain and nervous system at multiple scales, from genes and molecules, to cells and synapses, to circuits, systems, and behaviors, producing novel insights into how disruptions in fundamental mechanisms can lead to developmental, psychiatric, or neurodegenerative disease. The institute offers exciting research opportunities from undergraduate to postdoctoral levels.

Picower Institute investigators explore:

- The genetic, molecular, cellular, circuit and systems means by which memory is formed, stored, recalled, and used in intelligent behavior
- How sleep and dreams affect memory
- How the brain and body communicate
- How neurons form synaptic connections and how those connections transmit information and change with experience
- How nervous systems evolve and are organized
- How different brain regions communicate in decision making, working memory, social behavior, and associating memories with feelings
- The intricacies underlying the executive functions of the cerebral cortex

The institute's highly collaborative, cross-disciplinary strategy spawns exciting joint projects among its various laboratories. Many Picower faculty also are inventors of unique technologies and techniques (*https://picower.mit.edu/research/innovations-inventions*) that are redefining the practice of neuroscience.

Key Picower Institute discoveries are shedding light on conditions including Down syndrome, autism spectrum disorders, Rett syndrome, Alzheimer's and Huntington's diseases, epilepsy, schizophrenia, anxiety, and bipolar disorder.

For more information about undergraduate and graduate academic programs, please visit the Department of Brain and Cognitive Sciences (*https://bcs.mit.edu/academic-program*) or the Department of Biology (*http://biology.mit.edu*).

Candidates interested in postdoctoral positions at the Picower Institute should contact the faculty members directly (*http://picower.mit.edu/faculty*) or search for available positions via the MIT Careers Page (*https://careers.peopleclick.com/careerscp/client_mit/external/search.do*).

For further information, contact the director, Professor Li-Huei Tsai (*tsaiasst@mit.edu*), 617-324-1660.