

# “Dissecting synaptic and circuitry mechanisms of psychiatric disorders”

**Dr Guoping Feng**

**Poitras Professor of Neuroscience**

**McGovern Institute for Brain Research**

**Department of Brain and Cognitive Sciences**

**Massachusetts Institute of Technology**

**Director of Model Systems and Neurobiology**

**Stanley Center for Psychiatric Research**

**Broad Institute of MIT and Harvard**

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**Time: 11:00am to 12:30pm**

**Venue: Meeting Room 2-130, 1/F, Block 2, To Yuen Building**

## **Abstract**

Synaptic dysfunction has emerged as a key pathology in several psychiatric disorders including autism spectrum disorders (ASD) schizophrenia. Recently, large scale human genetic studies have also revealed a significant overlaps of risk genes for schizophrenia, bipolar disorder and autism. However, it is not clear how different mutations of the same gene could contribute to the manifestation of different diseases. Using the postsynaptic scaffolding protein Shank3 as an example, Dr. Feng will discuss: (1) circuitry mechanisms of repetitive behaviors in mouse models of ASD; (2) reversibility of synaptic, circuitry and behavioral abnormalities in adult mouse models of ASD; (3) shared and distinct synaptic and behavioral phenotypes in two lines of Shank3 mutant mice linked to ASD and schizophrenia.

## **Biography**

Dr. Feng is the Poitras Chair Professor of Neuroscience in the McGovern Institute for Brain Research, Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology. He is also the Director of Model Systems and Neurobiology at the Stanley Center for Psychiatric Research at Broad Institute. Dr. Feng's research is devoted to understanding the mechanisms regulating the development and function of synapses in the brain and how synaptic dysfunction may contribute to psychiatric disorders. Using genetically engineered animal models, Dr. Feng's laboratory combines cutting-edge technologies and multidisciplinary approaches to unravel the neurobiological mechanisms of neurodevelopmental and psychiatric disorders.

Dr. Feng studied medicine at Zhejiang University School of Medicine in Hangzhou, China. He did his PhD training with Linda Hall at the State University of New York at Buffalo and postdoctoral training with Joshua Sanes at Washington University in St. Louis. Prior to joining the faculty at MIT, he was a faculty member in the Department of Neurobiology, Duke University School of Medicine.

Enquiry:

Prof Jufang He (3442-7042, [jufanghe@cityu.edu.hk](mailto:jufanghe@cityu.edu.hk))

Ms Irene Wong (3442-4707, [irene.wong@cityu.edu.hk](mailto:irene.wong@cityu.edu.hk))

**All are welcome !**