



PROGRESS IN NEUROSCIENCE PINS

Seminar Series of the
Brain & Mind Research Institute
Weill Cornell Medical College (WCMC)
&

The Graduate Program in Neuroscience of
WCMC and Sloan Kettering Institute



Thursday, 9/25/14, 4 PM, coffee at 3:45 PM
Weill Auditorium

Dissecting Synaptic and Circuitry Mechanisms of Psychiatric Disorders

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Abstract:



Synaptic dysfunction has emerged as a key pathology in several psychiatric disorders. Recently, large scale human genetic studies have also identified hundreds of overlapping risk genes for schizophrenia, bipolar disorder and autism. Using mutant mice as a model system, Dr. Feng will present how different synaptic defects could affect the same circuit and lead to similar behavioral defects and how different mutations of the same gene could affect different circuits and contribute to different disorders.

Recent relevant publications:

1. Welch, JM., Lu, J., Rodriguiz, RM., Trotta, NC., Peca, J., Ding, J-D., Feliciano, C., Chen, M., Adams, JP., Luo, J., Dudek, SM., Weinberg, RJ., Calakos, N., Wetsel, WC., and Feng, G. (2007) Cortico-striatal synaptic defects and OCD-like behaviors in SAPAP3 mutant mice. *Nature* 448:894-900.
2. Peca J, Feliciano C, Ting JT, Wang W, Wells MF, Venkatraman TY, Lascola CD, Fu Z and Feng G. (2011) Shank3 mutant mice display autistic-like behaviours and striatal dysfunction. *Nature*, 472:437-42.
3. Chen Q, Cichon J, Wang W, Qiu L, Lee S-JR, Campbell NR, DeStefino N, Fu Z, Yasuda R, Looger LL, Arenkiel BR, Gan W-B and Feng G. (2012) Imaging Neural Activity Using Thy1-GCaMP Transgenic mice. *Neuron*, 76:297-308.



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