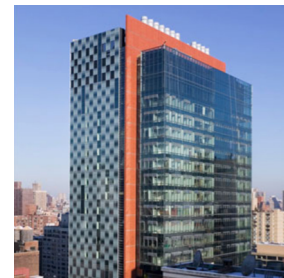




# PROGRESS IN NEUROSCIENCE PINS



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, 5/5/16, 4 PM, coffee at 3:45 PM

**Weill Auditorium**

## “Unraveling Schizophrenia with Genetics and Genomics”

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Chief Division of Psychiatric Genomics

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### Abstract:

Advances in human genetics are reshaping the way we understand many mental illnesses including schizophrenia. We know infinitely more about the DNA changes that are part of the risk of becoming ill, with a key finding being their overall number, type and pleiotropy. Layering on top of genetic observations functional data from gene expression and protein interactions is critical to reveal genes and pathways of importance. Unfortunately, we are missing deep information from the tissue of interest, the human brain. Several large public-private partnerships are underway to remedy this and data from these projects will be discussed.

### Recent relevant publications:

1. Neale BM, Sklar P. Genetic analysis of schizophrenia and bipolar disorder reveals polygenicity but also suggests new directions for molecular interrogation. *Curr Opin Neurobiol*. 2015 Feb;30:131-8. Epub 2014 Dec 24. Review. PubMed PMID: 25544106.
2. Purcell SM, Moran JL, Fromer M, Ruderfer D, Solovieff N, Roussos P, O'Dushlaine C, Chambert K, Bergen SE, Kähler A, Duncan L, Stahl E, Genovese G, Fernández E, Collins MO, Komiyama NH, Choudhary JS, Magnusson PK, Banks E, Shakir K, Garimella K, Fennell T, DePristo M, Grant SG, Haggarty SJ, Gabriel S, Scolnick EM, Lander ES, Hultman CM, Sullivan PF, McCarroll SA, Sklar P. A polygenic burden of rare disruptive mutations in schizophrenia. *Nature*. 2014 Feb 13;506(7487):185-90. Epub 2014 Jan 22. PubMed PMID: 24463508; PubMed Central PMCID: PMC4136494.
3. International Schizophrenia Consortium, Purcell SM, Wray NR, Stone JL, Visscher PM, O'Donovan MC, Sullivan PF, Sklar P. Common polygenic variation contributes to risk of schizophrenia and bipolar disorder. *Nature*. 2009 Aug 6;460(7256):748-52. doi: 10.1038/nature08185. Epub 2009 Jul 1. PubMed PMID: 19571811; PubMed Central PMCID: PMC3912837.



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