Most major psychiatric disorders are highly heritable, with a complex, polygenic genetic architecture. Yet, little is known about how genetic variants impart brain dysfunction or pathology. Here, I discuss our work integrating genetic and transcriptomic profiling in human brain to characterize brain-based phenotypes across multiple major psychiatric disorders, including autism, schizophrenia, and bipolar disorder. Using co-expression network analysis, we characterize the systems-level biological processes impacted with top GWAS-associated genetic variants.

Michael Gandal, MD, PhD
Assistant Professor of Psychiatry and Biobehavioral Sciences
UCLA-Semel Institute