



Joshua A. Gordon, MD, PhD

Director

Opportunities and Challenges in Mental Health Research

Joshua A. Gordon, M.D., Ph.D. is the Director of the National Institute of Mental Health (NIMH), the lead federal agency for research on mental disorders. He oversees an extensive research portfolio of basic and clinical research that seeks to transform the understanding and treatment of mental illnesses, paving the way for prevention, recovery, and cure. Dr. Gordon pursued a combined M.D.-Ph.D. degree at the University of California, San Francisco (UCSF). Medical school coursework in psychiatry and neuroscience convinced him that the greatest need, and greatest promise, for biomedical science was in these areas.

During his Ph.D. thesis with Dr. Michael Stryker, Dr. Gordon pioneered the methods necessary to study brain plasticity in the mouse visual system. Upon completion of the dual degree program at UCSF, Dr. Gordon went to Columbia University for his psychiatry residency and research fellowship because of the breadth and depth of the research opportunities there. Working with Dr. Rene Hen, Dr. Gordon and colleagues studied the role of the hippocampus, a brain structure known to be important for memory and emotional processes associated with anxiety and depression. He joined the Columbia faculty in 2004 as an assistant professor in the Department of Psychiatry.

Dr. Gordon's research focuses on the analysis of neural activity in mice carrying mutations of relevance to psychiatric disease. His lab studied genetic models of these diseases from an integrative neuroscience perspective, focused on understanding how a given disease mutation leads to a behavioral phenotype across multiple levels of analysis. To this end, he employs a range of systems neuroscience techniques, including in vivo imaging, anesthetized and awake behavioral recordings, and optogenetics, which is the use of light to control neural activity. His research has direct relevance to schizophrenia, anxiety disorders, and depression.

In addition to his research, Dr. Gordon was an associate director of the Columbia University/New York State Psychiatric Institute Adult Psychiatry Residency Program, where he directed the neuroscience curriculum and administered research training

programs for residents. Dr. Gordon also maintained a general psychiatric practice, caring for patients who suffer from the illnesses he studied in his lab at Columbia.

Dr. Gordon's work has been recognized by several prestigious awards, including the Brain and Behavior Research Foundation – NARSAD Young Investigator Award, the Rising Star Award from the International Mental Health Research Organization, the A.E. Bennett Research Award from the Society of Biological Psychiatry, and the Daniel H. Efron Research Award from the American College of Neuropsychopharmacology.

Abstract: Joshua Gordon, M.D., Ph.D., Director of the National Institute of Mental Health, will provide an overview of challenges and opportunities in mental health research. Dr. Gordon will present emerging approaches and technologies, and future directions for this multidisciplinary field. In this era of unprecedented opportunity, Dr. Gordon will highlight the importance of cross-disciplinary, integrative approaches to address the vast complexities associated with mental illnesses as we move closer to our goal of finding effective treatments and therapies.