Alumni Council ENGAGE Keynote Speaker
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Chair, Department of Psychology
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11:30am-1pm in Sage Room (PSY 1312)

Enhancing prediction and building novel interventions for youth at high risk for psychosis

Up to 1/3rd of adolescents and young adults showing risk signs and subtle symptoms (i.e., those meeting criteria for a clinical high-risk syndrome) will go on to develop a psychotic disorder such as schizophrenia in a two-year period. The syndrome has received a good deal of attention because if clinicians can intervene early, they may be able to lessen or prevent the progression of illness progression all together. But it is currently difficult to determine who is mostly likely to

transition to formal psychosis and further, while treatments that are typically effective for formal psychotic disorders show some promise here, limitations around cost, availability, and side-effects, complexity unique to the risk syndrome (e.g., heterogeneity), and factors related to a characteristically young and developing population (e.g., dynamic and changing treatment targets, equi/multifinality) get in the way of adherence, clinically meaningful efficacy, or wide-spread implementation. Novel risk-markers and treatments are required, but where will these come from? In this presentational I will discuss a series of studies from my laboratory that went from naturalistic and exploratory work (detecting and confirming a signal), to experiments (homing in on the problem), to pilot investigations (testing mechanism engagement and refining parameters), and finally to the eventual implementation of randomized controlled trials aimed at improving prediction and treatment of this critical population. First, I will discuss a program of research that interrogates overlap between mechanisms driving the onset of psychosis and circuits regulating the motor system, and present work that utilizes movement abnormalities to identify high-risk youth mostly likely to later develop psychosis. Next, I will turn toward discussing how findings of progressive hippocampal impairment in those at risk for psychosis eventually lead to the development of an efficacious exercise intervention targeting symptom progression. Finally, I will discuss barriers and resulting opportunities that have come up in the course these projects and provide suggestions for those looking to engage in similar work.

Bio:
Vijay Mittal is the David S. Holmes Professor of Brain Science at Northwestern University. He serves as the Chair of the Department of Psychology and holds an appointment in the Department of Psychiatry in Northwestern Feinberg School of Medicine. He is on the faculty of the Northwestern Intradepartmental Neuroscience Initiative (NUIN) and the Institute for Policy Research (IPR). He also holds a faculty position in the Department of Medical Social Sciences, serves as the Co-Director of the Institute for Developmental Science training core, and is a consultant at The Family Institute. He conducted undergraduate training at the University of California Santa Barbara (UCSB Class of 2001), graduate training at Emory University, and completed a specialized adolescent serious mental illness internship and postdoctoral program at the University of California Los Angeles (UCLA). Over the past several years Dr. Mittal has published over 300 articles working to understand causes behind mental illness among adolescents and young adults, and he specializes in early identification, assessment and treatments for youth at high-risk for psychosis. He founded the ADAPT research lab to help these individuals and their families. This work has garnered large scale extramural funding from federal sources as well as a number of private foundations. Mittal serves as an Associate Editor for the *Journal of Psychopathology and Clinical Science* and *Schizophrenia Bulletin*, is a standing member of the National Institutes of Mental Health (NIMH) Adult Psychopathology and Disorders of Aging (APDA) study panel, and sits on the executive board for the Society for Research in Psychopathology. He has been the recipient of numerous awards and honors including the AT&T Research Chair, National Institute of Mental Health (NIMH) BRAINS award, Society for Research in Psychopathology (SRP) Early Career Award, Federation for Brain and Behavioral Sciences (FABBS) Early Career Award, and Brain and Behavior Research Foundation Independent Investigator Award.