

Risk and resilience mechanisms for psychiatric disorders

Dr. Andreas Meyer-Lindenberg
Universität Heidelberg
Department of Psychiatry and Psychotherapy
Central Institute of Mental Health
68159 Mannheim
Germany

The size and burden of mental illness should ideally prompt a strategy of preemption and early intervention. On the neuroscientific side, this leads to the question of brain mechanisms of risk and resilience for these common and disabling disorder. In this presentation, we review emerging evidence that combines epidemiology, social psychology and neuroscience to bring neural mechanisms of social risk factors for mental illness into focus. In doing so, we discuss existing evidence on the effects of common genetic risk factors in social neural pathways and outline the need for integrative approaches to identify the converging mechanisms of social environmental and genetic risk in brain. On the environmental side, we focus on exposures that have a presumed social component such as urbanicity, migration/refugee status and social status. We propose a specific risk and resilience circuit mediating these effects that links perigenual cingulate cortex to subcortical structures such as ventral striatum and amygdala as well as dorsolateral and anterior medial prefrontal cortex.

Ref.: Tost, H., Champagne, F. A., & Meyer-Lindenberg, A. (2015). Environmental influence in the brain, human welfare and mental health. *Nat Neurosci*, 18(10), 1421-1431. doi:10.1038/nn.4108