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Abstract: "Grounding Psychiatry in Scalable Brain-Based Biomarkers"

Over the past two decades, brain imaging studies have defined a set of distributed brain systems that contribute to cognition, emotion, mood and other mental processes. Perturbations in these circuits have been identified in different ways across psychiatric disorders. Yet, these insights have not translated to the development and deployment of treatments in psychiatry. I will discuss work on neural circuit signatures that either define specific biologically-discrete forms of psychopathology, or predict treatment outcome, doing so at the individual patient level through a range of new machine learning-based analyses of electroencephalography (EEG) data. Together, these data suggest that we are now on the brink of scalable and clinically-applied innovations in circuit-based diagnostics and treatments for mental illness, thereby taking us beyond dependence on symptom checklists for diagnosis, and having only one-size-fits-all treatments.

Bio:

Amit Etkin, MD, PhD is the Founder, and CEO of Alto Neuroscience, as well as a Professor in the Department of Psychiatry and Behavioral Sciences at Stanford and a member of the Wu Tsai Neuroscience Institute at Stanford. He has received multiple awards, most notably the NIH Director's Pioneer Award in 2017, for groundbreaking work in clinical psychiatry and neuroscience. Dr. Etkin is trained as both as a neuroscientist and psychiatrist, with scientific experience ranging from molecular biology through machine learning and human clinical trials. The overarching aim of the Dr. Etkin's work has been understanding the neural basis of emotional disorders and their treatment, and leveraging this knowledge to better understand how the brain works and to develop novel treatment interventions. Alto builds on this work in order to advance precision psychiatry with respect to actionable, real-world, clinical and commercial outcomes.