

Brain Mapping Center SEMINAR SERIES

Sponsored by the UCLA Brain Mapping Center Faculty

The focus of these talks is on advancing the use of brain mapping methods in neuroscience with an emphasis on contemporary issues of neuroplasticity, neurodevelopment, and biomarker development in neuropsychiatric disease.

Hosted By: Shantanu Joshi, PhD, Neurology, UCLA

“Stress biomarkers in adolescent depression: toward predictors of treatment response”



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Adolescent-onset depression is a debilitating condition that is often triggered by stressful experiences that influence fronto-cingulate-limbic brain circuitry. Adolescence itself is a time where fronto-cingulate-limbic circuitry undergoes significant maturation; thus, it is critical that models of adolescent depression center neurodevelopmental processes if we are to improve our ability to treat this disorder more effectively. Prior research in animals has identified inflammatory and glutamatergic pathways through which stress affects neurodevelopment, with emerging evidence that these stress biomarkers are implicated in humans with depression. In this talk, I will present recent data demonstrating that many of the same fronto-cingulate-limbic circuits impacted by adolescent depression are also targets of inflammation. I will also show that higher levels of inflammation are associated with higher levels of glutamate in these circuits in depressed adolescents, with evidence that these factors may predict clinical course and treatment response to selective serotonin reuptake inhibitors (which are the first-line pharmacological treatments for this population). Finally, I will present recent data from an ongoing mechanistic study designed to predict treatment response to first-line antidepressants from stress-related changes in peripheral inflammation and levels of glutamate

October 2, 2025 11:00am - 12:00pm PDT

In-person: Neuroscience Research Building (NRB 132) 635 Charles E. Young Dr. South

Zoom: <https://ucla.in/4mVorgn>

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