Brain Mapping Center

SEMINAR SERIES

Sponsored by the Brain Mapping Medical Research Organization and Brain Mapping Support Foundation

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, Ph.D., Neurology, UCLA

"Identifying the cognitive and neurobiological mechanisms underlying emotional memory in health and disease"



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Emotionally significant events are often better remembered than others. However, a gist versus detail trade-off exists, such that emotional gist information is better retained than detailed information. We have explored this gist versus detail trade-off using memory tasks that tax hippocampal pattern separation, a computation that assists in the reduction of interference across similar experiences and allows us to remember the details of our unique experiences. This pattern separation framework has provided novel insight into how we remember significant events and has important translational applications to memory and mood disorders. My research program aims to uncover the cognitive and neurobiological mechanisms supporting emotional memory and how this system goes awry in conditions such as depression and aging. We develop sensitive memory tasks, use multimodal imaging techniques, and translational applications of these approaches to gain insight into emotional memory in health and disease. We have found unique cognitive and brain activity profiles within hippocampal subregions and amygdala subnuclei using high-resolution fMRI during emotional memory in health and disease states. We examine different approaches toward modifying memory more selectively in depression and aging, which may yield greater precision and accessibility towards altering mood, memory, and medial temporal lobe function.

February 5, 2026 11:00 am - 12:00 pm PST

In-person: Gordon Neuroscience Research Building (NRB 132)
635 Charles E. Young Dr. South
Zoom: https://ucla.in/3LJdbpQ

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