

155th WPI-IIIS Seminar

Reconfiguring memory networks for long-term consolidation

While memories for events may initially depend on the hippocampus, over time they are reorganized in the cortex for long-term storage. Our studies have identified brain-wide networks engaged in memory recall at both recent and remote time points. Using chemogenetic approaches to interrogate these networks, we subsequently showed that hub brain regions within these networks disproportionately influence memory consolidation. In our most recent work, we have focused on the role of white matter plasticity in memory consolidation. Our studies indicate that white matter plasticity is required for learning-induced coupling of hippocampal sharp-wave ripples and cortical spindles and successful memory consolidation. Therefore, these results identify a non-neuronal form of plasticity that fine tunes hippocampal-cortical networks following learning and is required for memory consolidation.



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Date: **Wednesday, July 24, 2019**

Time: **12:00 – 13:00**

Venue: **1F Auditorium, IIIS Building**



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