The optogenetic revolution in memory research.

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Goshen, I. 2014.

Abstract:

Over the past 5 years, the incorporation of optogenetics into the study of memory has resulted in a tremendous leap in this field, initiating a revolution in our understanding of the networks underlying cognitive processes. This review will present recent breakthroughs in which optogenetics was applied to illuminate, both literally and figuratively, memory research, and describe the technical approach, together with the opportunities it offers. Specifically, a large body of literature has been generated, setting the foundation for deciphering the spatiotemporal organization of hippocampal-based memory processing and its underlying mechanisms, as well as the contribution of cortical and amygdalar regions to cognition.

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