INSTITUTO CAJAL

SEMINARIO PRESENCIAL
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12:30 h. Instituto Cajal (CSIC) Madrid

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NEURONAL CODE OF LONG-TERM MEMORY

Abstract

The Long-term memory plays a crucial role in cognitive processes, encompassing everything from defining an individual's characteristics to fundamental functions such as ensuring survival by contributing, for example, to avoidance of aversive stimuli, or locating rewards.

The field of neuroscience has primarily focused on unraveling the molecular mechanisms underpinning long-term memory. However, the critical question of how to read out memory information from these molecular cues remains unanswered. Concurrently, systems neuroscience has dedicated substantial efforts to decoding memory from neuronal electrical activity. Yet, our understanding of how memories are encoded at the network level, a fundamental aspect of deciphering the brain's computational code, remains limited.

In my seminar, I will delve into recent breakthroughs in long-term memory research and present some of our team's ongoing endeavors to elucidate the code responsible for memory storage and retrieval. Our work aims to demonstrate how memory interference influences the decision-making process during the resolution of long-term memory tasks, serving as a proxy for comprehending the coding mechanisms underlying long-term memory.

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