

第32回 最先端脳科学セミナー

Overlapping memory trace indispensable for linking, but not recalling, individual memories

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今回は横瀬博士に Science 誌に in press の論文の内容を紹介していただきます。

要旨

Memories are not stored in isolation from other memories but are integrated into associative networks. However, the mechanisms underlying memory association remains elusive. Using two amygdala-dependent behavioral paradigms, conditioned taste aversion (CTA) and auditory-cued fear conditioning (AFC) in mice, we found presenting the conditioned stimulus used for the CTA task triggered the conditioned response of the AFC task after natural co-reactivation of the memories. This was accompanied by an increase in the overlapping neuronal ensemble in the basolateral amygdala. Silencing of the overlapping ensemble suppressed CTA retrieval-induced freezing. However, retrieval of the original CTA or AFC memory was not affected. A small population of co-shared neurons thus mediates the link between memories. They are not necessary for recalling individual memories.

※ 本セミナーは、大学院医学薬学教育部「脳科学特論」の一環です。
履修者は、**レポートの提出**が必要です。
また、大学院の単位認定の対象となります。

主催・世話人: 医・生化学 井ノ口 馨