

第14回 最先端脳科学セミナー

New Excitatory Input from the Entorhinal Cortex into the Hippocampus Inhibits the Associations of Temporally Discontinuous Events

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at the Picower Institute for Learning and Memory,
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場所: 薬学部研究棟II 7階 セミナー室8

要旨

In humans and animals, episodic memory requires the concerted association of objects, space and time coordinated by the entorhinal cortex (EC)-hippocampal (HPC) network. While the encoding of space and object associations in this network have been well explored, our understanding of the time-related aspect of episodic memory is only very recently coming to light. For instance, the input from medial EC layer III cells to CA1 pyramidal cells is important for the temporal association of discontinuous events. Most cognitive and motor phenomena temporal association memory must be regulated for optimal adaptive benefit. However, virtually nothing is known about the underlying mechanisms of this regulation. In my talk, I will provide the next major step by mapping and characterizing an unsuspected neuronal circuit within the EC-HPC network and examining the effect of its optogenetic manipulations on a temporal association memory.

北村貴司博士(元 生化学講座 助教)は、海馬を中心とした記憶形成のメカニズムの研究を精力的に進めている新進気鋭の神経科学者です。今回は、MIT 利根川進研究室で行われたホットな研究成果(*Science*, in press)をお話し頂きます。

References

Kitamura et al., *Cell*, 139, 814-827, 2009

Kitamura et al., *Science*, in press, 2014

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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。

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