Graduate School Seminar

Neural circuit mechanisms for cognitive modularity in medial entorhinal cortex, and role of systems consolidation of memory for development of knowledge

Speaker: **Takashi Kitamura, Ph.D**
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☆注意☆ **時間変更**になりました

Date: **3rd July 2023 (MON.) 15:00～16:30**

Venue: **日医工オーディトリアム**（医薬イノベーションセンター1F）

Entorhinal cortical-hippocampal neural networks are crucial for learning and memory. In my talk, first, I will present the neural circuit mechanisms and functional roles of grid module structure in the medial entorhinal cortex, which is organized by common features of grid cell activity into distinct modules in the anatomical layout. Second, I will demonstrate a novel roles of systems consolidation of memory by using observational contextual fear conditioning model.

Selected Publications:

1) Kitamura et al., ***Cell*** 139, 4, 814-827 (2009)
2) Kitamura et al., ***Science*** 343, 6137, 896-901 (2014)
3) Kitamura et al., ***Neuron*** 87, 6, 1317-1331 (2015)
4) Kitamura et al., ***Science*** 356, 6333, 73-78 (2017)
5) Tonegawa S, Morrissey MD & Kitamura T, The role of engram cells in the systems consolidation of memory. ***Nature Review Neuroscience***, 19(8):485-498 (2018)
6) Terranova JI, Yokose J, Osanai H, Marks WD, Yamamoto Y, Ogawa SK & Kitamura T. Hippocampal-Amygdala Memory Circuits Govern Experience-Dependent Observational Fear. ***Neuron***. 110(8), 1416-1431, (2022)

※ 本セミナーは、大学院博士課程授業「脳科学特論」「生命高次適応科学特論」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。

Sponsor: Research Center for Idling Brain Science (RCIBS)
Organizer: Daisuke Miyamoto (RCIBS/Laboratory for Sleeping-Brain Dynamics) (Ext. 7324)