第 19 回 最先端脳科学セミナー

Protein synthesis is required to enable retrieval of long term memory

演 者: **Professor Karim Nader**

Department of Psychology,
Faculty of Science, McGill University, CANADA

日 時: **2014 年 10 月 2 日（木）17:00～18:30**

場 所: **薬学部研究棟Ⅱ 7 階 セミナー室 8**

Memory retrieval is a process of recalling a previously stored memory. In New York University, Dr Nader showed that consolidated fear memories, when reactivated during retrieval, return to a labile state that require de novo protein synthesis for reconsolidation. Therefore infusion of anisomycin shortly after memory reactivation produces amnesia on later tests (Nature 2000, 406:722-726).

In McGill University, he demonstrated that strong memories initially are resistant to reconsolidation, but after sufficient time will undergo reconsolidation, suggesting that boundary conditions can be transient (Nature Neuroscience 2009, 12(7):905-912).

In another study, Dr Nader found that fear conditioning–induced synaptic enhancements were primarily presynaptic in origin. Moreover, synapses, which are potentiated by learning, must be restabilized during retrieval through a postsynaptic mechanism implicating the mTOR kinase-dependent signaling. This indicates that learning and reconsolidation implicate different synaptic mechanisms (PNAS 2013, 110(12):4798-4803).

In this seminar, Dr Nader will talk about his experience in memory reconsolidation and about his recent data regarding role of protein synthesis in memory retrieval.

※ **本セミナーは、大学院の単位認定の対象となります。**

主催: 医・生化学 井ノ口 馨

第 19 回セミナー世話人: 医・生化学 Kareem Abdou 内線 7227