

City University of Hong Kong
Department of Biomedical Sciences &
Centre for Biosystems, Neuroscience, and Nanotechnology
present a joint seminar



“ROLES OF HIPPOCAMPUS AND NEOCORTEX IN LEARNING AND MEMORY IN MICE - FROM SYNAPSE TO BEHAVIOUR”

by

Dr Michael Kohl
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Date : 18 July 2016 (Monday)

Time: 10.00am to 11.30am

Venue: Meeting room 2-130, 1/F, Block 2, To Yuen Building, CityU

Abstract

We recently identified a left-right dissociation of synaptic plasticity in the mouse hippocampus. To investigate possible effects on behaviour, we used optogenetics to unilaterally silence hippocampal CA3 pyramidal cells in mice performing hippocampus-dependent memory tasks. Whilst silencing of either the left or the right CA3 caused a short-term memory deficit, strikingly, only left CA3 silencing impaired long-term memory. Our data suggests that memory is routed via distinct left-right pathways within the mouse hippocampus. We are currently investigating whether this hemispheric specialisation extends to neocortical structures involved in associative memory.

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All are welcome