
グローバル COE 特別セミナー

日時：平成21年6月23日（火） 16:00～18:00

場所：東京大学 医学部1号館 1階講堂

演者：Prof. Michael Häusser

Wolfson Institute for Biomedical Research, University
College London

演題：Dendritic computation

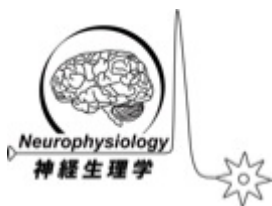
The detection and computation of temporal sequences is fundamental to brain function and underlies perception, cognition, and motor output. The basis for this sequence detection in cortical networks remains controversial. I will describe experiments using multi-site two-photon glutamate uncaging showing that single dendrites of cortical pyramidal neurons exhibit sensitivity to the sequence of synaptic activation, allowing them to read out both the direction and velocity of synaptic input patterns. Single pyramidal cell dendrites can thus act as independent processing compartments for detection of sequences, demonstrating how dendritic mechanisms can be useful for implementing fundamental cortical computations.

演者：Prof. Greg Stuart

John Curtin School of Medical Research, Australian National
University

演題：The action potential

The action potential is the fundamental electrical signal used by the brain for communication. In my lecture I will review recent work on action potentials using both experimental and modeling approaches to investigate their site of generation, their modulation by subthreshold synaptic input, and their role in synaptic plasticity.



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