26th WPI SIHS Seminar

"Neuronal Communication in the Prefrontal, Hippocampal and Midbrain Networks in Working Memory"

The physiological study of cognitive function requires an understanding not only of single neuron responses to external stimuli but also of circuit computations at the level of networks of neurons. To understand the 'syntax' underlying neuronal communication, methods for monitoring and quantifying cooperative neuronal activity during cognition are required. In this seminar, I will present the results of my recent studies of fine-timescale neuronal communication in cortical microcircuits and across inter-regional networks of behaving rats. These studies involve large-scale high-density recordings of local circuits via multi-channel silicon probes, which enable the observation of simultaneous neuronal firing activities in >100 neurons, as well as local field potentials.



Speaker: Dr. Shigeyoshi Fujisawa

Laboratory for Systems Neurophysiology RIKEN Brain Science Institute

Date: Thursday January 16, 2014

Time: 12:00-13:00

Venue: Room #402, 4F, Health and Medical Science Innovation

Laboratory, University of Tsukuba

☆Light refreshments will be served.



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