

15th WPI IIIS Seminar

“Large-scale calcium imaging of circadian rhythm in the neuronal network”

In mammals, the master clock of circadian rhythm is located in the suprachiasmatic nucleus (SCN) of the hypothalamus in the brain. The SCN receive direct inputs from the retina and the environmental information is integrated in the SCN network, and finally regulate animal behaviors, such as sleep/wake cycles. Recently we developed a unique time-lapse "calcium" imaging methods using Nipkow-spinning confocal and adeno-associated viral infection of a genetically-encoded calcium sensor in the SCN network (Enoki et al., J.Neurosci Methods, 2012). We successfully visualized spatio-temporal dynamics of neuronal network at single cell resolution and found coupled regional oscillators in the SCN network (Enoki et al., PNAS, 2012).



Speaker: Dr. Ryosuke ENOKI

Research Center for Cooperative Projects
Hokkaido University Graduate School of Medicine

Date: Tuesday, April 23, 2013

Time: 12:00-13:00

**Venue: Room #402, 4F, Health and Medical Science Innovation
Laboratory, University of Tsukuba**

★Pizza and refreshments will be served.



IIIS

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