

# 120<sup>th</sup> WPI-IIIS Seminar

## Regulatory mechanism of sleep/wakefulness by the hypothalamic neuropeptide-producing neurons

The neurons in the hypothalamus produce neuropeptide and release them as a neurotransmitter. Recent study revealed that neuropeptides have important role in the regulation of instinctive behaviors such as sleep/wakefulness, feeding and drinking behavior. These instinctive behaviors are exhibited only in the whole animal. Recently developed experimental techniques to control the activity of specific type of neurons such as optogenetics and pharmacogenetics enables us studying neural regulatory mechanism of instinctive behaviors in freely behaving animals. In this seminar, I will show recent progress of our study which applied these techniques to the hypothalamic neuropeptide producing neurons such as orexin neurons, melanin concentrating hormone (MCH) neurons and corticotropin releasing factor (CRF) neurons.



## Dr. Akihiro Yamanaka

Research Institute of Environmental  
Medicine, Nagoya University

Date: **Monday, December 4, 2017**

Time: **12:00 – 13:00**

Venue: **1F Auditorium, IIIS Building**



Contact: International Institute for Integrative Sleep Medicine, University of Tsukuba  
029-853-8080 (ext. 8080) | [wpi-iiis-alliance@ml.cc.tsukuba.ac.jp](mailto:wpi-iiis-alliance@ml.cc.tsukuba.ac.jp)