

259th WPI-IIIS Seminar

~Mini Symposium~ Student Seminar

Broad strokes or fine brushes? Shaping sleep globally versus locally

Cortical neuronal activity has long been known to reflect sleep states. More recently, it has also been shown to actively regulate sleep. Yet cortical activity operates across many different spatial scales, raising the question: How is sleep influenced by variations in ‘global’ cortical activity (associated with sleep states) versus ‘local’ cortical activity (associated with sleep pressure)? In this talk, I will introduce the cortex’s emerging role in sleep regulation and show unpublished data suggesting that global cortical inhibition may induce an unphysiological form of sleep, whereas local cortical modulation can more finely alter sleep while leaving its naturalistic features intact.



Mr. Jack Hamilton

University of Oxford

Date: **Tuesday, August 4, 2026**

Time: **17:30 – 18:00**

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

*** On-site participation only**



Contact: International Institute for Integrative Sleep Medicine, University of Tsukuba
029-853-5859 (ext.5859) | wpi-iiis-alliance@ml.cc.tsukuba.ac.jp