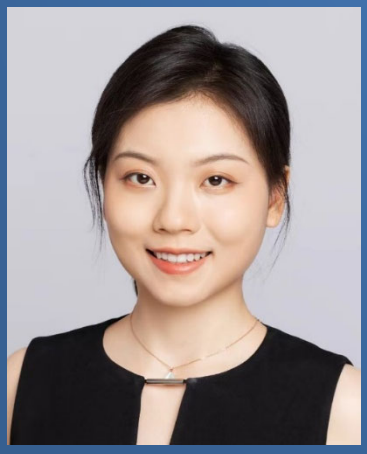
WPI-IIIS Seminar

Special Student Seminar

Investigating the relationship between torpor, sleep, and neural plasticity in Djungarian hamsters (*Phodopus sungorus*)

Torpor is a controlled and reversible state characterized by decreased body temperature, metabolic rate, and physical activity, typically initiated through non-rapid eye movement (NREM) sleep. Djungarian hamsters (*Phodopus sungorus*) exhibit spontaneous daily torpor as a winter adaptation, during which their metabolic rate decreases to 30% of the basal metabolic rate. To explore the relationship between spontaneous daily torpor, sleep, and neural plasticity, we examined the ultrastructural, molecular, and behavioural alterations during daily torpor and subsequent sleep in Djungarian hamsters. This study provides crucial evidence for understanding how short-term torpor bouts may impact the brain.



Ms. Xiao Zhou

DPhil Candidate

Department of Physiology, Anatomy and Genetics, University of Oxford

Date: **Tuesday, November 26, 2024**

Time: **14:15 – 14:30**

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

✻On-site participation only

IIIS
INTERNATIONAL INSTITUTE FOR INTEGRATIVE SLEEP MEDICINE

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MOONSHOT RESEARCH & DEVELOPMENT PROGRAM

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