

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

## The ponto-medullary neural circuit of REM atonia and REM sleep behavior disorder

Rapid eye movement (REM) sleep behavior disorder (RBD) is a parasomnia featured by a loss of skeletal muscle atonia and an excess of tonic/phasic muscle twitches during REM sleep. Previous studies demonstrated that sublaterodorsal tegmental nucleus (SLD) is crucial for the maintenance of muscle atonia during REM sleep. I used the Cre-LoxP system-based virus to induce selective neuron apoptosis within SLD and, as a result, recapitulated typical RBD-like behaviors in mice. Thus, the SLD orchestrated with downstream gigantocellular nucleus to form a ponto-medullary muscle tone gating valve. In this seminar, I will present recent studies and outlook for future research.



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Date: **Friday, October 18, 2024**

Time: **15:15 – 16:00**

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

*\* On-site participation only*



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