

255th WPI-IIIS Seminar

Predictive coding of future locations by grid cells

Grid cells in the medial entorhinal cortex (MEC) have long been recognized as the neural basis for encoding spatial coordinates. However, it has remained unclear whether they contribute to predicting future locations. Here, we have discovered “predictive grid cells” in the MEC that encode future spatial information and show that assemblies of predictive and other grid cells in the MEC together temporally organize and represent trajectory information spanning from current to future locations. These findings are expected to advance our understanding of the neural basis of spatial navigation and episodic memory in animals and humans.



Dr. Ayako Ouchi

RIKEN Center for Brain Science

Date: **Wednesday, June 10, 2026**

Time: **13:00 – 14:00**

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

*** On-site participation only**



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