

116th WPI-IIIS Seminar

Activity dependent myelin regulation in information processing

Myelination increases conduction velocity and promotes brain functions. Myelin dysregulation is frequently associated with learning and cognition deficits, ultimately causing psychiatric disorders. Although the underlying molecular mechanisms of activity-dependent myelination have been identified, the nature of the neural activity changes and the behavior output caused by myelin dysregulation remains unknown. In this research, we visualized neural activity in the motor cortex during motor learning using in vivo two photon microscope to understand the abnormality of neural activity associated with impaired behavior output with myelin dysregulation. We further demonstrate the optogenetic stimulation to compensate the abnormal activity of neural activity to rescue the learning disability.



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Date: **Wednesday, August 23, 2017**

Time: **12:00 – 13:00**

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



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