94th WPI IIIS Seminar

Synaptic epitranscriptomics and dynamic RNA imaging

Exquisitely coordinated gene expression underlies persistent structural and functional changes of neurons. To decipher the 4D dynamics of gene expression, we have developed quenching-based fluorescence imaging techniques to monitor RNA in living tissues, opening the possibility to study RNA dynamics in more physiological context than ever before. In addition to pioneering novel imaging techniques, we explore unknown mechanisms used by neurons to regulate RNA. I will discuss a characterization of m6A-epitranscriptome in adult mouse forebrain synaptosomes. Our results indicate that dynamically regulated chemical marks on the local transcriptome at the synapse may play important roles in modifying synaptic function.

Speaker:

Dr. Dan Ohtan Wang

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Date: Monday, November 28, 2016
Time: 10:00 - 11:00
Venue: 1F Auditorium, IIIS Building
University of Tsukuba

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