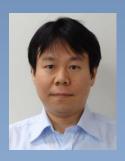
37th WPI SIHS Seminar

"Cooperation and specialization of the bilateral hippocampi in rodents"

While rodent hippocampi are interhemispherically connected, little is known about the anatomical and functional significance. We show that rat CA3-CA1 spine synapses differ in morphology and glutamate receptor subunit composition, depending on the laterality. At the systems level, theta-associated gamma oscillations in CA1 stratum radiatum in anesthetized rats become larger in power and bilateral synchrony after a month of enriched environment housing. This experience-dependent gamma power enhancement is more prominent on the right side and coincided with laterally-biased synaptogenesis in CA1 stratum radiatum. We are currently characterizing the dynamic properties of the experience-dependent gamma oscillation enhancement and how it relates to animals' cognition.



Speaker: <u>Dr. Yoshiaki Shinohara</u> Laboratory for Neuron-Glia Circuitry, RIKEN Brain Science Institute

Date: Tuesday, July 22, 2014

Time: 12:00-13:00

Venue: Room #402, 4F, Health and Medical Science Innovation

Laboratory, University of Tsukuba



★Light refreshments will be served.

