

# 42<sup>nd</sup> WPI IIIS Seminar

## & World-science Leaders' Seminar

### “Hippocampal memory: Mechanisms for consolidating and forgetting”

My lab is interested in how we learn, remember and forget, and how these processes might be altered in disease. Our studies are predominantly conducted in mice, where we use transgenic, imaging and behavioral approaches. In the first part of my talk, I will present data showing that hippocampal neurogenesis regulates memory stability (or forgetting), and that higher levels of neurogenesis in the postnatal brain might account for excessive forgetting (infantile amnesia) observed at this early developmental stage. In the second part of my talk I will discuss how long-term memories are organized in the brain. Here I will highlight our recent work using activity-dependent gene mapping approaches to generate whole brain models of memory networks, and how we subsequently have used targeted pharmacogenetic silencing strategies to ask how network structure impacts function.



### Speaker: Dr. Paul W. Frankland

Program in Neurosciences & Mental Health Hospital  
for Sick Children Research Institute /  
University of Toronto, Canada

**Date:** Tuesday, September 9, 2014

**Time:** 10:00-11:00

**Venue:** 8F Hall, Health and Medical Science Innovation  
Laboratory, University of Tsukuba

\*Note: This seminar is held as part of  
WSLS series from the Human Biology Program.



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