

60th WPI IIS Seminar

“Deconstructing fear”

Classical fear conditioning is one of the most powerful models for studying the neuronal substrates of associative learning and for investigating how plasticity in defined neuronal circuits causes behavioral changes. In animals and humans, the amygdala is a key brain structure within a larger neuronal network mediating the acquisition, expression and extinction of fear memories. In unraveling the substrates of fear conditioning and extinction, the major focus has been the study of excitatory elements. However, interneurons are critical components of neuronal networks and inhibition plays an important role in shaping spatio-temporal patterns of network activity. My presentation will summarize recent progress in understanding how defined local inhibitory circuits contribute to the acquisition and expression of fear and anxiety behavior by multiple mechanisms and at multiple levels. Moreover, I will describe how switches in the activity between distinct types of amygdala output pathways underlie mediate rapid behavioral adaptations.



Speaker: Dr. Andreas Lüthi

Friedrich Miescher Institute,
University of Basel

Date: Wednesday, May 13, 2015

Time: 12:00-13:00

Venue: Room #402, 4F, Health and Medical Science Innovation
Laboratory, University of Tsukuba

★Light refreshments will be served.



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