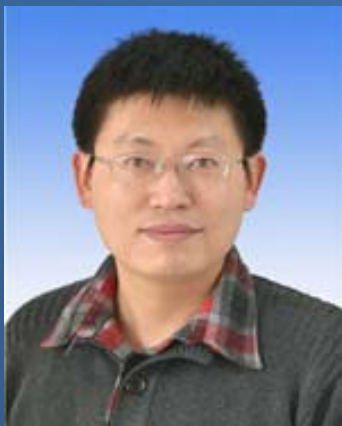


# 144<sup>th</sup> WPI-IIIS Seminar & WILLDYNAMICS Seminar

## How do mice detect and catch their prey?

Appetitive behaviors, such as prey capture, play a fundamental role in animal survival. Little is known about the neural circuits that convert incentive sensory stimuli into neural signals to drive appetitive behaviors. Here we identified an excitatory subcortical neural pathway from the superior colliculus (SC) to the zona incerta to provoke predatory hunting. The SC neurons that form this pathway integrate prey-derived visual and vibrissal somatosensory cues. During hunting, these neurons send out neural signals temporally correlated with predatory attacks but not with feeding after prey capture. Synaptic inactivation of this pathway selectively blocks hunting for prey without impairing other sensory-guided behaviors. These data reveal a subcortical neural circuit specifically engaged in translating incentive sensory cues into neural signals to provoke appetitive behaviors.



### Dr. Peng Cao

National Institute of Biological Sciences,  
Beijing, China

Date: **Friday, December 21, 2018**

Time: **13:45 – 14:30**

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



**IIIS**

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