



Seminar/Talk

A causal link between reward, aversion learning and dopamine neurons

Anton Ilango Micheal

Otto von Guericke University

Host:

Excitation of midbrain dopamine (DA) neurons are known to be positively reinforcing. Such reinforcing signals are arising in the form of phasic bursts and both phasic and tonic firings supports eliciting and strengthening the learning relevant signals. While DA network is unified in eliciting reward, various heterogenous elements within the larger network reads the ongoing task relevant details and underlies the acquisition of action learning even under aversive conditioning. In this talk, I will summarise our work over the last several years utilising optogenetic techniques in self-stimulation, place preference, signaled active avoidance learning and blocking procedures. Briefly, similar role of substantia nigra (SNc) and ventral tegmental area (VTA) in eliciting reward and aversion, impact of silencing VTA DA during prediction and post diction of cues signaled avoidance are presented as well. I will also emphasize various analysis strategies when reading the behavioral measurements coupled with temporally precise optogenetic perturbations.

Tuesday, January 21, 2020 10:30am - 11:00am

Seminar Room, Lab Building East



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