



## Life Sciences Seminar

# Hippocampal CA2 control of social behaviors.

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Although the hippocampus is known to be important for declarative memory, it is less clear how hippocampal output regulates motivated behaviours, such as social aggression. I will report that pyramidal neurons in the CA2 region of the hippocampus, which are important for social memory, promote social aggression in mice. This action depends on output from CA2 to the lateral septum, which is selectively enhanced immediately before an attack. Activation of the lateral septum by CA2 recruits a circuit that disinhibits a subnucleus of the ventromedial hypothalamus that is known to trigger attack. The social hormone arginine vasopressin enhances social aggression by acting on arginine vasopressin 1b receptors on CA2 presynaptic terminals in the lateral septum to facilitate excitatory synaptic transmission. In this manner, release of arginine-vasopressin in the lateral septum, driven by an animals internal state, may serve as a modulatory control that determines whether CA2 activity leads to declarative memory of a social encounter and/or promotes motivated social aggression.

**Thursday, January 24, 2019 10:00am - 11:00am**

Mondi Seminar Room 2, Central Building



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.

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