



Département de psychiatrie
Centre de neurosciences psychiatriques
Site de Cery
CH-1008 Prilly - Lausanne

Centre de Neurosciences Psychiatriques

CNP SEMINAR

ANNOUNCEMENT

Friday, September 13, 2019, 11:00

"Disentangling neural correlates of habits and sequence learning in the dorsal striatum"

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Invited by Benjamin Boutrel
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**Salle de séminaires 1^{er} étage CNP
Hôpital Psychiatrique de Cery
Site de Cery, CH-1008 Prilly-Lausanne**

The dorsomedial (DMS) and dorsolateral (DLS) striatum are necessary for goal-directed and habitual responding, respectively, but these regions also are implicated in sequence learning. Although both habit and sequence learning develop with practice and require dorsal striatum integrity, the relation between these concepts and their specific striatal neural correlates remains unclear. To address this question, we obtained single-unit recordings in the rat DMS and DLS during training in 3 instrumental procedures promoting distinct behaviors differing in terms of habit and sequence learning. We find differences in DMS and DLS neural activity that depend on training procedures, and that are in accordance with differences in expression of habit and behavioral automaticity.

Dorsal striatum is at the crossroads of meso-cortico-striatal circuits and is critically involved in expression of habit and sequence learning. Here, I will show differences in neural activity of dorsomedial and dorsolateral striatum that depend on training, and are in accordance with differences in expression of habit and behavioral automaticity.

Selected publications: