Post-doc position:
Spatiotemporal information processing in the cerebellum.

The cerebellum, which plays a major role in the control, timing and learning of skilled movements, is at the heart of motor coordination. Our goal is to understand the circuit, neuronal and synaptic mechanisms within the cerebellar cortex underlying temporal computations and motor coordination. We will use novel optical mapping methods developed in our lab (Valera et al., eLife 2016) in brain slices in order to establish both excitatory and inhibitory synaptic maps in cerebellar cortical modules. These functional maps will be combined with cell lineage and connectome description using brainbow techniques. Temporal variables enabling multimodal information processing conveyed by mossy fibers will be assessed using optical tools (iGluSnFR) and two-photon microscopy.

Techniques: electrophysiology, imaging and in vivo electroporation.

Requested skills: a background in electrophysiology or in advanced imaging techniques is requested.

We offer a post-doc position for two years with a potential opportunity for renewal.

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