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16:30~17:30 Auditorium C1F 15:00~16:00 (Updated: Jun. 23)

Spatially asymmetric neuronal connectivity in motion-sensitive circuits

Summary

Inferring the direction of image motion is a fundamental component of visual computation, and essential for visually guided behavior. Even at the front of the visual stream, in the retina, a number of parallel circuits extract information about motion direction. We perform cell-type-specific experiments to understand the development and function of direction-selective circuit in mouse retina.

My talk will have two parts. First I discuss the computational logic of direction selectivity, based on our study in which we recorded the concerted activity of the circuit elements of single direction-selective cells at subcellular resolution while these circuit elements were computing a specific task. Second I show how and when spatially asymmetric synaptic connectivity, which is a key circuit module of direction-selective circuit, is established during development.

Host:

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