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VISITING PROGRAM

TSVP TALK

A Hitchhiker's Guide to the Neuronal Universe

2025 THU. **Oct. 09**

15:00–16:00

HYBRID L5D23, ZOOM

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The founding father of modern neuroscience, Santiago Ramón y Cajal, revealed through his drawings a world of breathtaking cellular diversity in the brain. Recent technologies have revealed a neuronal universe far broader than previously imagined, revealing a vast panel of proteomic and transcriptomic profiles that point to one compelling fact: no two neurons are alike. Spectators of this neuronal cosmos are now left to wonder how one can possibly make sense of each unique cell in the great scheme of the brain. In this talk, we will explore how our view on neuronal diversity has evolved, why this diversity is critical for understanding the brain in health and diseases, and most importantly, what tools we have at our disposal today to navigate into this new era of neuroscience.

École supérieure de physique et de chimie industrielles de la ville de Paris

Francois Blot

Dr. Blot began his academic journey with a focus on fundamental genetics at the University of Bordeaux before moving to the Erasmus Medical Center in Rotterdam to transition into the field of neuroscience. His doctoral research investigated the hidden neuronal heterogeneity of the cerebellar cortex. Leveraging his background in molecular and cellular genetics, his work explored the significance of this neuronal diversity for both network dynamics and brain pathologies. This work led him to investigate novel strategies for selectively and independently manipulating complex neuronal ensembles. As a postdoc, he joined the group of Valentina Emiliani at the Institut de la Vision in Paris, a team of optical engineers developing tools to track and selectively activate by holography neurons in the brain. Together with Dr. Nicolò Accanto, he developed the first flexible two-photon fiberscope capable of all-optical brain investigation at near-cellular resolution in freely moving mice. He returned to neurobiology in 2025 by joining the group of Gisella Vetere, where he investigates the role of the cerebellum in emotional memory.

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