



POST-DOCTORAL POSITION IN DEVELOPMENTAL NEUROSCIENCE AND CELL BIOLOGY

NICOL & FASSIER LAB

VISION INSTITUTE – PARIS – France

The Nicol & Fassier lab at the Vision Institute (Paris, France) is seeking a postdoctoral fellow to join the “Mechanisms of sensory map development” team and contribute to an ANR-funded project led by Melody Atkins. The Vision Institute is part of Sorbonne University, CNRS and Inserm, and offers a highly multidisciplinary environment with teams active in fields ranging from theoretical neuroscience or developmental biology to the development of retinal prostheses.

Our team investigates the cellular and molecular mechanisms leading to the accurate wiring of neuronal networks. The successful candidate will join our ANR-funded MASTERCIL project, which aims to investigate the role of the primary cilium as a major command centre of neuronal migration. The primary cilium is a sensory antenna located close to soma at the rear of migrating neurons. Our recent work has identified a role for second messenger signals elicited locally within the primary cilium as the steering wheel of migrating neurons. Remarkably, this guiding role is traditionally attributed to the growth cone at the cell front, that actively explores its environment and pulls the soma forwards. The MASTERCIL project aims to identify the specific roles of the primary cilium and growth cone command centres on neuronal migration and to investigate how the two command centres communicate to instruct migration. The successful candidate will address these challenging questions using different cutting-edge imaging techniques, including live videomicroscopy, optogenetics or TIRF imaging, combined with genetically encoded molecular tools enabling the manipulation of subcellular signals in different *in vitro* and *ex vivo* migration models.

The successful applicant should hold a PhD in cell biology or neuroscience. Previous experience in live cell imaging and/or primary cell cultures is welcome but not required. The candidate is expected to work independently for the design and realisation of the experiments.

The position is funded for 3 years, starting in April 2027. Applications should be sent to Melody Atkins (melody.atkins@inserm.fr) and include a statement of research accomplishments and interests, a CV and the contact information of three references.

For more information about our team, please follow these links:

www.xaviernicol.toile-libre.org

<https://www.institut-vision.org/en/research/mechanisms-sensory-map-development>