



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) seeks a postdoctoral fellow to join the *Sensory and motor circuit development* team. 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 group investigates the cellular and molecular mechanisms wiring neuronal networks. The candidate will join a project aiming at understanding how migrating neurons, developing axons and endothelial cells adapt their behaviors when detecting chemotropic molecules. These cues are key to adjust a variety of complex cell behaviors ranging from axon pathfinding, neuronal migration and angiogenesis during development to cell migration and apoptosis in tumorigenic tissue. Our recent work suggest that each chemotropic cue is associated with a unique combination of subcellular second messenger signals. However, identifying each signaling pattern and its downstream molecular events and cellular behaviors has been out of reach. The successful candidate will join a project aiming at filling this gap. She/He will use a combination of high-end microscopy combined with fluorescent biosensor imaging, optogenetics and genetically-encoded molecular tools enabling subcellular manipulation *in vitro* and *in vivo*. She/He will also work closely with our collaborators to establish a deep learning-based image analysis pipeline.

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

The position is funded for 2 years starting late 2025 and further extension is possible. Applications should be sent to Xavier Nicol (xavier.nicol@cnrs.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>

