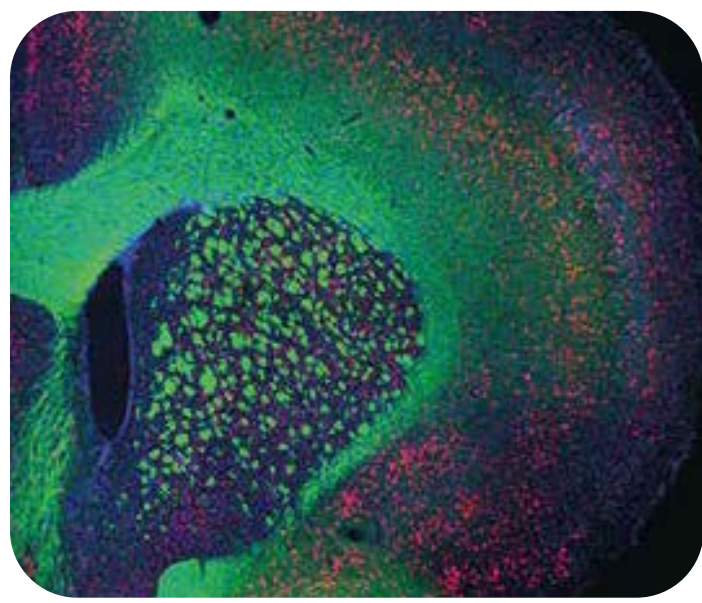




Uncover how neuronal activity shapes myelin remodeling and brain function

4-Year full-time funded PhD position

Mobility allowance - Start date Jan 2027

INSTITUTE FOR NEUROSCIENCE (UMH - CSIC)

How does the brain adapt its wiring to experience?

Can we harness this plasticity to repair injured brain?

Join our team at the Institute for Neuroscience to investigate activity-dependent myelination, an emerging form of brain plasticity that allows neural circuits to adapt to experience.



THE QUESTION

Oligodendrocyte progenitor cells (OPCs) can sense neuronal activity, but how they translate neural signal into adaptive myelin remodeling remains largely unknown.

The goal is defining the cellular/molecular pathways that set activity-dependent OPC plasticity in healthy and diseased brains. From fundamental brain plasticity to therapeutic opportunity.

THE APPROACH

- Genetic lineage tracing / Cell culture / RNA
- Optogenetic and chemogenetic manipulation of neural circuits and non-neuronal cells
- Single-cell and spatial transcriptomics
- Human iPSC-derived OPCs
- Mouse behavior

THE ENVIRONMENT

The IN is one of Europe's leading neuroscience research centers and a Severo Ochoa Centre of Excellence, offering a vibrant, collaborative and international environment, with access to state-of-the-art techniques and excellent opportunities for scientific exchange and career development.

WE ARE WE LOOKING FOR?

Highly motivated candidates with a strong interest in neuroscience.

Required: excellent academic record; Master's degree in Neuroscience or related field; good English.

Valued: research experience in neuroscience, mouse behavior, primary cell culture, RNA/omics, quantitative imaging.

Curiosity, enthusiasm, proactivity, problem-solving.

Apply:



otano@umh.es



CV + 3 references

Application Deadline:
October 31, 2026

