# MASTER 2 Fundamental and Clinical Neurosciences

# Internship proposal 2026-2027

*(internship from January to June 2027)*

**Host laboratory:**

Impact team, Lyon Neuroscience Research Center (CRNL), *16 avenue du Doyen Lépine, 69500 Bron, France*

**Host team:**

Impact team *https://www.crnl.fr/en/equipe/impact?language=en*

**Internship supervisors:** *name + position + email*
*Chiu-Yueh CHEN and Alessandro Farnè, post-doc and team leader,* chiu-yueh.chen@inserm.fr

**Project title:**
Tool use in fMRI

**Project summary:** *approx 10 lines*
The brain's ability to use tools is crucial in daily life. For example, when you hold a pen or a fork, you quickly sense the location of the tool's contact through your hand. Given the large amounts of spatial and tactile information processed, how does this work? This study aims to observe this sensory process using behavioural and brain imaging techniques, focusing on the neural mechanisms involved in tool use.

This internship offers an exciting opportunity to work with cutting-edge psychophysical and brain imaging techniques, specifically functional Magnetic Resonance Imaging (fMRI) and multi-voxel pattern analysis (MVPA). The primary responsibilities will include collecting behavioral and fMRI data, conducting behavioural data analysis. More advanced tasks will include analysing fMRI data.

**3-5 recent publications :**
Miller, L. E., Montroni, L., Koun, E., Salemme, R., Hayward, V., & Farnè, A. (2018). *Nature.*
Miller, L. E., Fabio, C., Ravenda, V., Bahmad, S., Koun, E., Salemme, R., Luauté, J., Bolognini, N., Hayward, V., & Farnè, A. (2019). *Current Biology.*
M Longo, R Forde, J Joel, LE Miller, A Farnè. Precise tactile localisation on tools in two dimensions. *iScience* 2026 in press