



MASTER 2 Fundamental and Clinical Neurosciences

Internship proposal 2024-2025

(internship from January to June 2025)

Host laboratory: CRNL - CH Le Vinatier - Bâtiment 462 - Neurocampus, 95 Bd Pinel, 69500 Bron

Host team : PSYR2 <https://www.psy2team.com/>

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Project title : Investigating the effects of stress on reality monitoring processes

Project summary:

Misattributions between imagination and reality are commonly reported across the psychosis continuum. This so-called reality-monitoring deficit pre-exists in individuals at risk of psychosis and is exacerbated during the transition to psychosis. Given the crucial role of stress in the onset and persistence of psychiatric disorders, we hypothesize a detrimental effect of stress on reality-monitoring. Indeed, exposure to stress is known to alter a wide range of cognitive functions, such as attention and working memory, mainly through a detrimental effect on PFC functioning. Some studies suggest that stress may also affect reality monitoring. However, further studies are needed to better characterize the effects of stress on reality monitoring, to identify their neurophysiological basis, and to determine their link with the risk of psychosis. To better understand the relationship between stress exposure, reality monitoring deficits and neural activity, we will investigate the effects of acute stress on reality monitoring performance and brain activity measured by electroencephalography (EEG) in healthy participants.

3-5 recent publications:

Lavallé L, Dondé C, Gawęda L, Brunelin J, Mondino M. Impaired self-recognition in individuals with no full-blown psychotic symptoms represented across the continuum of psychosis: a meta-analysis. *Psychological Medicine* 2021; 51(16):2864-2874

Lavallé L, Brunelin J, Jardri R, Haesebaert F, Mondino M. The neural signature of reality-monitoring: A meta-analysis of functional neuroimaging studies. *Human Brain Mapping* 2023; 44(11):4372-4389.

Perret M, Neige C, Brunelin J, Mondino M. Unraveling the brain mechanisms of source monitoring with non-invasive brain stimulation: A systematic review. *Int J Clin Health Psychol.* 2024 ; 24(2):100449.