

PhD in cognitive neurosciences

Title of the project: Comodulation of phosphodiesterases and serotonin receptors as a preventive and/or curative treatment for Alzheimer's disease: preclinical proof of concept

Keywords

Alzheimer's disease; Phosphodiesterase; Cognition; Memory; Mice

How to apply:

To apply, please provide a detailed resume (university, formations, skills, internships, the name of two references) and a motivation letter (one page) to Pr. Michel BOULOARD (michel.boulouard@unicaen.fr) and Dr. Marianne Leger (marianne.leger@unicaen.fr) with "PhD Application" in the subject line.

Deadline for application: 10th May, 2024.

Description

Applications are invited for a 3-year PhD position in the field of cognitive neurosciences in the laboratory COMETE/UMR1075INSERM/University of Caen, France.

Across complementary approaches, the COMETE Unit 1075 aims to investigate the fundamental mechanisms involved in mobilities and cognition, with a particular focus on attentional and memory processes, physical activity adaptation, spatial orientation, and how these mechanisms evolve throughout lifespan. Results obtained have impacts on fundamental research as well as in clinics, applied research, economic and technological valorization and public health.

To date, no effective treatment against the development of Alzheimer's disease (AD) is available. Among the innovative therapeutic avenues currently being explored, inhibition of phosphodiesterase type 7 (PDE7) is proving promising. Our hypothesis is that co-modulation of PDE7 and 5-HT4 receptors would not only produce powerful procognitive effects, but also neuroprotective effects of particular interest in the context of AD. The aim of this project is to demonstrate the preclinical value of this new strategy in the preventive and/or curative treatment of AD.

Required qualifications:

Candidates must hold a Master's degree in neuroscience or related field

Required Experience and Skills:

- Experience with behavioral assessment in mouse or rat models (animal care, anxiety, locomotor activity, memory assessment, pharmacological injections) – Holding a personal license to conduct regulated animal research procedures is a plus (Felasa B or C).
- Knowledge and/or expertise in neuroscience-related experiments, basic cellular and/or molecular biology techniques (ELISA, Immunohistochemistry, PCR, electrophysiology)
- Knowledge of neural mechanisms of learning, memory, and/or other aspects of cognition
- Good written and oral communication skills in French and English
- Excellent ability to work both independently and collaboratively.

Start date: 1st October, 2024

Only those individuals selected for an interview will be contacted.