PhD in cognitive neurosciences

Title of the project: Investigation of the mechanisms underlying the cognitive resilience in the field of Alzheimer's Disease.

Keywords
Alzheimer's disease; Resilience; Cognition; Memory; Lou/C/Jall rats

How to apply:
To apply, please provide a detailed resume (university, formations, skills, internships, the name of two references), a motivation letter (one page) and a summary of your last or relevant internship project (one page) and grades of the Master to Pr. Thomas Freret (thomas.freret@unicaen.fr) and Dr. Marianne Leger (marianne.leger@unicaen.fr) with "PhD Application" in the subject line.

Deadline for application: 30th April, 2021.

Description
Applications are invited for a 3-year PhD position in the field of cognitive neurosciences in the laboratory COMETEU1075INSERM/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.
This project is focused on understanding how resilience cerebral processes contribute to preserve cognitive performances in the field of Alzheimer's disease (AD). Resilience describes the ability to preserve cognition, irrespective of the level of neuropathological hallmarks of AD. The overall goal of our project is to understand the early neurobiological mechanisms behind the cognitive resilience to afford new insights in the search for new therapeutic targets for AD. The objectives of our project are 1) to investigate the neural correlates of cognitive resilience in a preclinical model of early stages of human AD and 2) to test the therapeutic relevance of targeted signaling pathways to prevent the development of AD signs.

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)
- Knowledge and/or expertise in neuroscience-related experiments (stereotaxic surgery and intracerebral infusions), basic cellular and/or molecular biology techniques (Western-blot, ELISA, Immunohistochemistry, Immunofluorescence, qPCR)
- 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, 2021

Only those individuals selected for an interview will be contacted. A competitive selection to fund the projects will then be organized by the doctoral school EDnBISE, n°497.