

Position: Master position at Caen (France)

Project: The 4-year project PRESAGE (*PRE*dementia motoric cognitive risk *S*yndrome in *AGE*ing) is funded through the European Regional Development Fund, the Normandie Region, and resources from public and private actors of the French pension and health care systems. It is implemented jointly by research centres hosted by the University of Caen Normandie (GIP Cyceron - biomedical imaging platform; CIREVE - centre for interdisciplinary virtual reality; COMETE / UMR-S 1075 - motor control and biotechnologies for health; NIMH / UMR-S 1077 - imaging of human memory) and is also conducted in collaboration with the University of Grenoble (TIMC-IMAG / UMR 5525 - computer sciences and applied mathematics for health; GIPSA-lab / UMR 5216 - theoretical and applied research in signals and systems). Its aim is to identify markers that predict transition to Alzheimer's disease or related dementia. To this end, we collect lifestyle, behavioral and brain indicators in community-dwelling older adults with motoric cognitive risk (MCR) syndrome, a predementia condition characterized by the presence of cognitive complaints and slow gait, and use machine learning to identify indicators that best predict cognitive evolution over time.

Missions: The Master's student will be responsible of: 1/ the data collection in real-world environment, 2/ the processing of sleep quality and rest-activity rhythm data measured by actimetry, sleep diary and questionnaires. He/She will also organize the raw and processed data in a standardized fashion to make it accessible to all the consortium and to the scientific community at large. These missions fall into our commitment to ensuring reproducible science through open code and data.

Profile: The candidate must have an initial degree in Neuroscience of Human Movement or Neurophysiology or Kinesiology (STAPS). He/she should be able to conduct a multimodal evaluation protocol independently, and be motivated to learn technical and computer (R software) skills. He/she must be comfortable working with human patients and have good adaptive skills. Other selection criteria are to be able to work both in a research team and to have good written and oral French and English language skills.

Working environment: The position is based on the campus of the University of Caen Normandie at COMETE, which is hosted in new research facilities inside the Health Education and Research Center (Pôle des Formations et de Recherche en Santé, PFRS). These facilities are located at the heart of EPOPEA Caen Normandie Science and Innovation Park, a site of 300 hectares where entrepreneurs, researchers, students and apprentices innovate and build the solutions of the future in the fields of materials, energy, health and digital sciences. The city of Caen is located on the Atlantic shore and offers great possibilities to enjoy both nature and the French art of Living. Caen is also a vibrant city moulded by its rich culture and several centuries of history. Caen is also only 2h away from Paris, the city of lights.

Salary: The appointment is for 6 months from 03/01/2021 to 03/06/2021, with the goal to prepare for a PhD application (starting 04/10/2021). The candidate will receive a net pay of around 550 to 600 Euros per month.

Application: The application must include: 1/ an application letter describing your motivation, relevant experience, skills and qualifications, 2/a CV including information about education background and work experience, 3/ contact information for two references. eDocuments must be sent to leslie.decker@unicaen.fr, nicolas.bessot@unicaen.fr.

Application deadline: end Novembre 2021

Starting date: 03 January 2022