Institut Clínic de Malalties del Sistema Nervios

PhD CANDIDATE INTERESTED IN APPLYING FOR AN AGAUR FELLOWSHIP IN NEUROSCIENCES

Molecular alterations of genetic Parkinson’s disease

Group and project information
Applicants will be integrated into the research group Lab of Parkinson disease and Other Neurodegenerative Movement Disorders: Clinical and Experimental Research, Department of Neurology, Hospital Clínic of Barcelona, Institut d'Investigacions Biomèdiques August Pi i Sunyer. Our group is part of the Institute of Neuroscience of UB and we belong and are financed by the excellence groups of “recerca de la Generalitat de Catalunya” (SGR), Maria de Maetzu, and CIBERNED.

Our group is focused in studying LRRK2 mutation carriers to assess the influence of factors determining the factors before the manifestation of the motor symptoms of Parkinson disease (PD). We combine studies using clinical, genetic, transcriptomic, epigenomic, and phosphoproteome data using cell models and patient’s tissues. In this project we will use a PD fibroblast cell model to study the phosphoproteome changes occurring in sporadic PD, LRRK2-associated PD and asymptomatic LRRK2 mutation carriers. We expect to use these data, combined with the phosphoproteome data obtained from blood cells (PBMCs) to find direct or downstream targets of the LRRK2 kinase, that could have clinical implications in the knowledge of LRRK2-associated PD pathogenic cascade and potential consequences in clinical treatments.

Functions and tasks
We are looking for a highly motivated and enthusiastic candidate with interest in neurosciences, OMICS biochemical techniques and research with potential clinical impact, in order to apply for the PhD fellowship 2022 (FI-DGR) - FI AGAUR 2022. The successful candidate will carry out tasks and responsibilities associated with carrying out a PhD. This will involve carrying out critical surveys of the existing literature in the field, forming hypotheses for study, analyse results of phosphoproteome (SWATH-MS) and transcriptomic data and related experiments, and writing up results for publication in scientific journals.

Experience
Multidisciplinary experience general laboratory techniques, cell models, or biochemistry, cellular and molecular neuroscience will be highly valued. Studies pursued: At the time of recruitment, candidates must comply to have completed a degree in a university in 2019, 2020 or 2021 that gives access to doctoral studies. University degree mean qualification should be at least 8,5/10.
• Started a Universitary Master in 2021-2022.
• Good level of English.
• Other skills:
  o Ability to plan and conduct experiments and to record and analyze data, in an independent, efficient, and organized manner.
  o Good teamwork and interpersonal skills.
  o Independent, motivated, and collaborative person.
  o Fluency in English, Spanish and/or Catalan.

Submission
Please submit your application (CV and letter of interest) to: Mario Ezquerra (ezquerra@clinic.cat)