UNIVERSITAT DE BARCELONA

Institut de neurociències de la Universitat de Barcelona

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PhD CANDIDATE INTERESTED IN APPLYING FOR A FELLOWSHIP IN NEUROSCIENCES

Experimental Neuroimaging

Group and project information

Applicants will be integrated into the research group **Experimental Neuroimaging** (P.I. Guadalupe Soria) at the "Laboratory of Surgical Neuroanatomy", Faculty of Medicine and Health Sciences, Institute of Neurosciences, University of Barcelona (UB).
Our group is focused in studying *in vivo* brain connectivity through MRI techniques in different animal models of neurodegeneration to obtain new non-invasive biomarkers and to diagnose this type of pathologies at earlier phases. We combine MRI longitudinal information with behavioral, biochemical and histological results to validate as much as possible our results.
A second objective of our team is to study the neurobiological basis of cognitive reserve and cognitive compensation in healthy and pathological ageing by using the same techniques described above.
Our team has been recently incorporated in the Institute of Neuroscience of UB. It is a frontrunner in international neuroscience research, being one of the few institutes in the world that investigates the brain at every level. The Institute has been awarded with the María de Maeztu Excellence Unit accreditation and gathers more than 450 researchers from the Faculties of Psychology, Medicine, Pharmacy and Biology, in the multicultural city of Barcelona.
We are located in Campus Clinic, in the city center. And we also belong to IDIBAPS, the research institution associated to Hospital Clínic de Barcelona. Altogether is a fascinating context to develop a cutting edge and translational research.

Functions and tasks

We are looking for a highly motivated and enthusiastic candidate with interest in neuroimaging techniques, structural and functional brain connectivity, resting state networks, neurodegenerative disorders, ageing, behavioral assessment of cognitive function, immunohistochemistry and research with potential clinical impact.
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, designing and carrying out experimental studies with animal models and biological samples, and writing up results for publication in scientific journals. The ideal candidate would also have experience in computer science and be able to be involved in the programming necessary to process and analyze the MR images.

Offer Requirements

- **Experience:**
  - **Multidisciplinary** experience in both MRI image processing and general laboratory techniques for cellular and molecular neuroscience will be highly valued.
  - Some experience with Python is not necessary but recommended.
  - FELASA accreditation.
  - Experience in working with animal models.
- **Studies pursued:** At the time of recruitment, candidates must comply with one of the following options:
  - To have completed the studies that lead to an official university degree adapted to the European Higher Education Area awarding 300 ECTS credits, of which at least 60 ECTS credits must correspond to master level.
  - To have completed a degree in a university not adapted to the European Higher Education Area that gives access to doctoral studies. The verification of an equivalent level of studies to the ones mentioned above will be made by the university when the admission procedure starts.
- **Level of English:** Candidates must have a demonstrable level of English (B2 or higher).
- **Other skills:**
  - Ability to plan and conduct experiments and to record and analyze data, in an independent, efficient, and organized manner.
  - Good teamwork and interpersonal skills.
  - Independent, motivated, and collaborative person.
  - Fluency in English.
  - Experience with lab software: GraphPad, Microsoft Office, R, electronic notebook.
  - Knowledge of Spanish and/or Catalan.

Submission
Please submit your application (CV and letter of interest) to: Guadalupe Soria (gsoria@ub.edu)

Support for applicants
The Institute of Neurosciences offers support to applicants (eligibility check, info sessions, feedback on the draft proposal) and has recently launched a Mentoring program (subject to availability).
Further information Call

Deadline: 30 September 2021