



PHD CANDIDATE INTERESTED IN APPLYING FOR A FELLOWSHIP  
IN NEUROSCIENCES  
Epitranscriptomic regulation in Brain Disorders

#### Group and project information

We call to apply for a PhD position within the Ministry of Science and Innovation FPI programme. The predoctoral contract will be to carry out the doctoral thesis associated with a specific research project. Applicants will be integrated into the research group "Epitranscriptomic regulation in brain disorders" led by Dr. Veronica Brito, an Assistant Professor who is PI in the research programme "Mechanistic and therapeutic approaches in Neurodegenerative disorders" (Biomedical Sciences Department), Institute of Neuroscience, University of Barcelona.

Dr. Brito's group is interested in studying a novel layer of gene expression regulation that is mediated by post-transcriptional modifications of RNA known as Epitranscriptomics. These chemical marks or RNA modifications are dynamic, can be very abundant in the brain and be involved in different neuronal processes regulating the function of neuronal RNA. Their main objective is to decipher and explore these novel epitranscriptomic mechanisms in the initiation and progression of neurodegenerative diseases, particularly in the pathology of Huntington's disease (HD).

#### Functions and tasks

We are looking for a highly motivated and enthusiastic candidate with interest in RNA biology, neurodegenerative disorders, neuronal plasticity, epitranscriptomics and research with potential clinical impact. The main focus of the PhD project is to identify the epitranscriptomic changes associated with transcriptional dysregulation, alternative splicing, synaptic dysfunction, cognitive and motor deficits in HD. The PhD student will be involved in the development of next-generation detection techniques and functional analysis of RNA base modifications combined with biochemical methods and functional studies in mouse models of the disease.

#### Offer Requirements

- Experience:
  - A strong background in molecular and cellular neuroscience, particularly in RNA biology
  - Experience in working with mouse models
  - Experience with molecular biology techniques is desired.
  - Preferentially has basic experience in bioinformatics tools including pathway analysis
- 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).
- Profile:
  - Highly motivated to conduct basic research and work in an interdisciplinary environment at the cutting edge of science.
  - Excellent interpersonal and communication skills are essential, as is a willingness to work flexibly.
  - Positive and enthusiastic
  - Independent, creative mind yet with a good team spirit
  - Ambition to pursue a scientific career.

### Submission

Please submit your application (CV with academic records and letter of interest) to Veronica Brito (veronica.brito@ub.edu)

### Selection process

The selection process is based on two steps:

1-Evaluation of the documents provided by the Applicant

2-Interview of each candidate having the eligibility requisites (evaluated through the first step). First interview will be organised remotely and second interview will be presential (if possible)

### 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 programme (subject to availability).

Deadline: 30/09/2021





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