



## PHD CANDIDATE INTERESTED IN APPLYING FOR A FELLOWSHIP IN NEUROSCIENCES

### Translational Neuropharmacology

#### Group and project information

Applicants will be integrated into the research group “Translational Neuropharmacology” (P.I. Jordi Bonaventura) in the Institute of Neurosciences of the University of Barcelona, and awarded with the seal of excellence María de Maeztu. The *Translational Neuropharmacology laboratory* led by Dr. Bonaventura is focused on the study of complex pharmacological actions of drugs targeting the reward system, with the overall goal to design novel therapeutic strategies for mood disorders and neuropsychiatric diseases. Dr. Bonaventura’s laboratory employs AND develops multimodal cutting-edge techniques (i.e. fiber photometry, chemogenetics, optogenetics, artificial intelligence) to study brain function and its relevance to behavior. In particular, the candidate will be working on projects studying non-canonical activators of opioid receptors (e.g. photoactivable ligands, wide spectrum drugs, biased agonists...) and their functional outcomes.

#### Functions and tasks

We are looking for a candidate with interest in understanding how drugs and their targets work from a mechanistic and integrative perspective. The candidate will be designing, performing, and analyzing experiments to study the consequences of non-canonical activation of opioid receptors. The candidate is expected to learn and use common molecular biology and biochemistry techniques (i.e. cell culture, immunohistochemistry, brain dissection and cutting, etc..) as well as to perform behavioral experiments in mice (including stereotaxic surgeries to deliver viral vectors and fiber optic implants). The candidate will be integrating into an interdisciplinary and highly dynamic environment, as such, a creative mind, a good team spirit and positive enthusiasm are a must. The candidate needs to be motivated to pursue a scientific career at the highest level, and as such, expected to do short stays in international laboratories to learn new tools and techniques as well as present the lab’s research in global scientific meetings.

#### Offer Requirements

- **Experience:** The candidate must have a strong background in molecular and behavioral pharmacology, particularly in neurochemistry and receptor signaling. Experience working with animal models (rodents) and of basic laboratory techniques (histology, cell culture, western blot...) will be highly valued.





- **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:** Other valuable skills would include knowledge of coding languages (i.e. Python, Matlab, Arduino) and understanding of molecular imaging (PET) methods.

### Submission

Please submit your application (CV with academic records and letter of interest) to Jordi Bonaventura ([jbonaventura@ub.edu](mailto:jbonaventura@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 programme (subject to availability).

Further information [Call](#)

**Deadline: 22 October 2021**

