



## Looking for a Ph.D. (F.P.I.) Candidate for the University of Barcelona

[The University of Barcelona \(UB\)](#) offers a vacant position for a **PhD candidate** within the **Neuropharmacology and Pain group** within the [Institute of Neurosciences \(UBneuro\)](#).

**Principal Investigator:** Francisco Ciruela [fciruela@ub.edu](mailto:fciruela@ub.edu)

**Research project:** Lighting-up dopamine-related disorders: Towards a GPCR oligomer-tailored pharmacotherapy

### JOB DESCRIPTION

We are looking for a motivated, hard-working, and enthusiastic PhD student to join the Neuropharmacology and Pain research group at the University of Barcelona (<http://www.ub.edu/neuropharmpain/>). The selected candidate will apply for a 4-year FPI fellowship associated with the project entitled “Lighting-up dopamine-related disorders: Towards a GPCR oligomer-tailored pharmacotherapy”, recently granted by the Ministerio de Ciencia, Innovación y Universidades.

Dopamine (DA) plays a crucial role in several brain functions and is involved in the pathogenesis of numerous psychiatric and neurological disorders. While restoring dysregulated dopaminergic neurotransmission through DA receptor-based pharmacotherapy, using antagonist (antipsychotics) and agonist (i.e. antiparkinsonian drugs), constitutes first-line treatment for schizophrenia and Parkinson’s disease, respectively, the advent of new pharmacological possibilities (i.e. D2R oligomer-tailored agents, photopharmacology or nanobodies) would open new avenues for the refinement of interventions in chronic treatment regimes. Aligned with this context, this project seeks to investigate the functional interaction of dopaminergic neurotransmission (i.e., D2R) with other signaling systems (i.e., A2AR, mGlu5R and GPR37). These novel targets, particularly the orphan GPR37, serve not only as subjects for the development of new drugs for the pharmacological tool kit but also as potential biomarkers for early diagnosis. In general, the results obtained from this project are expected to provide a deep understanding of the pharmacology of the D2R-A2AR-mGlu5R-GPR37 interaction and help to identify potential biomarkers or design combined therapies in the future.

### REQUIREMENTS

#### Essential

- Bachelor's and Master's degrees in Biomedicine, Neuroscience, or a related field
- Average score  $\geq 8.2/10$
- Good level of English

#### Desirable

- Experience in biomedical research
- Publications or conference participation
- Familiarity with advanced pharmacological techniques



### EMPLOYMENT CONDITIONS

Full-time position

The grant will cover stages abroad to expand scientific training

Possibility of a 3-month contract to support competitive PhD applications until the FPI fellowship is resolved

Opportunity to complete a PhD degree in the Doctoral Program in Biomedicine or in Medicine and Translational Research at the University of Barcelona

### HOW TO APPLY

Interested applicants should send a letter of interest via email to Francisco Ciruela at [fciruela@ub.edu](mailto:fciruela@ub.edu), including CV and academic records (Bachelor's and Master's degrees)

### DEADLINE

Applications must be submitted by September 20, 2024.

### FUNDING

The position is associated with a 4-year FPI fellowship granted by the Ministerio de Ciencia, Innovación y Universidades, covering stages abroad to expand scientific training.

### ABOUT UBneuro

The Institute of Neurosciences (UBneuro) was created under the premise to gather all research at the University of Barcelona that focused on a common goal: understanding the nervous system as a whole to give response to society challenges. Being one of the few institutes in the world that investigates the brain at every level, we're established as a frontrunner in international neuroscience research. Recognized with the prestigious María de Maeztu Excellence Unit accreditation, we house diverse research groups in neurobiology, neuropharmacology, pathophysiology, neurology, psychiatry, clinical psychology, neuropsychobiology, and cognitive neurosciences. Join us as we contribute to cutting-edge discoveries in neuroscience.

List of publications: <https://pubmed.ncbi.nlm.nih.gov/?term=ciruela+f&sort=date>