



POSTDOCTORAL CANDIDATE INTERESTED IN APPLYING FOR A MSCA-IF IN NEUROSCIENCES

Neuropharmacology and Pain

Are you a postdoctoral researcher thinking about your next career move? The Marie Skłodowska-Curie Individual Fellowships ([MSCA-IF](#)) are a great option if you are an experienced researcher looking to give your career a boost by working abroad.

[Institut of Neurosciences](#) of the [University of Barcelona](#) allows you to work in a first class research environment while benefitting from an attractive salary to cover living, travel and family costs.

Group and project information

Applicants will be integrated into the research group "[**Neuropharmacology and Pain**](#)" (P.I. [Francisco Ciruela](#)).

The group.

The [Neuropharmacology and Pain Research Group](#) is a multidisciplinary team implementing the latest neuropharmacology approaches based on the rational design of drugs, the identification of targets and therapeutic agents, and the generation of efficient systems for the drug administration (i.e. photopharmacology). Thus, in recent years we have been evolving into an integrated research team with strong alliances between basic and clinical sciences that has allowed us to identify and evaluate unmet pharmacotherapeutic needs in neurobiology.

The project.

The candidate will join the following project:

[Lighting up GPCRs in Neuropsychiatric diseases.](#)

Specifically, this research line is supported by the project SAF2017-87349-R.

This project aims to understand and control the circuitry behind depression in neuropsychiatric disorders. Depression, when presenting comorbidity with other neurological and neuropsychiatric diseases (i.e. Parkinson's disease and schizophrenia), provides a more adverse prognosis, thus seriously affecting quality of life of patients and preventing proper management. In conclusion, any scientific proposal aimed at deciphering the circuits governing depression will be very useful in the design of a precision pharmacology (i.e. photopharmacology) aiming at alleviating this pathology.

Indeed, depression is considered a non-motor symptom in **Parkinson's disease** prodromal phase, forming part of the premotor phase of the disease. Similarly, when the motor phase of the disease emerges, and the patient is diagnosed with a chronic and debilitating



neurodegenerative disease like this, patient's manifest anxiety and depression. Thus, apart from treating the motor symptoms of Parkinson's disease, the management of depression through appropriate antidepressant therapy is also required. There has been much discussion about the neuronal circuits involved in depression and whether they are affected in Parkinson's disease patients in the same way. Thus, understanding the neuronal circuitry that is altered in depression is an exciting milestone that will undoubtedly impact the therapeutics of this disease in general and in Parkinson's disease patients in particular. Conversely, in **schizophrenia** a strong correlation with depression has been established. Although depressive disorders and schizophrenia are conceived in the clinical classifications as excluding conditions, some studies show that depressive symptoms can appear in the different phases of schizophrenia. Nevertheless, some authors consider that depression is an integral part of psychosis, thus being maintained throughout the course of the disease. Thus, under this clinical dichotomy it is interesting to understand the neuronal circuits involved in depression to ascertain its contribution to the psychotic pathology.

Functions and tasks

The candidate will be responsible and/or contribute to:

- i) The neurochemistry associated to the project
- ii) Immunohistological detection of GPCRs
- iii) The electrophysiology involved in the project
- iv) Photopharmacology needed to remotely control GPCRs
- v) Animal behavior associated to GPCR drug manipulation

Requirements for candidates:

Skills/Qualifications:

- PhD or equivalent (Recognised Researcher R2)

Languages:

English: Excellent

Specific Requirements:

- Candidates must fulfilled eligibility MSCA criteria described in the [Guide for Applicants](#)

Working conditions:

- Full time temporary contract
- Gross salary of about € 50,000
- Duration: ranging from 12 to 36 months depending on the typology of the fellow
- Starting date: flexible from beginning of May 2020



Support for candidates

The [Institute of Neurosciences](#) and the [International Research Projects Office](#) at the University of Barcelona could offer you:

- A travel grant to work on your proposal with your future supervisor
- One day course on “How to work a successful MSCA IF”
- Personalized support on the application
- Support on other national calls such as [Beatriu de Pinós](#) and [Junior Leader](#)
- Mentoring

How to apply

Please submit your CV (if you are interested in further documents mention them here) to:
Francisco Ciruela (fciruela@ub.edu); Reference: MSCA IF Candidate)

Deadline: 24/06/2019

