

PREDOCTORAL CONTRACT POSITION



Laboratory of Neuropharmacology-Neurophar
Department of Medicine and Life Sciences (MELIS)
Universitat Pompeu Fabra (UPF)
Barcelona Biomedical Research Park (PRBB)

The **Laboratory of Neuropharmacology, Universitat Pompeu Fabra**, in Barcelona, Spain, seeks a **scientist** who has demonstrated (or has strong potential for) innovation and leadership in research, to integrate her/him in their research group which covers a **broad range of topics in neuroscience**.

Open position: **Predoctoral contract.**

Specific issue of the position and Research project: The doctoral thesis project is within a research line in the frame of an **EU-funded H2020 research project** which counts with the collaboration of some remarkable European research groups. The aim of the project is **to discover effective novel combination treatments, using existing drugs in chronic pain treatment** and applying quantitative systems pharmacology pain relief approach, by **developing an *in silico* discovery QSPainRelief platform**.

Our group is in charge of evaluating the analgesic and adverse effects such as sedation, cognitive impairment, drug abuse liability of single drugs and drug combinations in mice models with high translational value. The specific objectives of this doctoral thesis are:

- Prepare pain mice models and perform operant behaviour studies.
- Determine the most appropriate doses of the selected opioid, and compound A, and compound B (compound A and compound B, selected by other partners), in order to obtain an optimal improvement of analgesia, and reduction of sedation, cognitive impairment, and drug abuse liability.
- Assess analgesia, sedation, cognitive impairment, and drug abuse liability for selected doses of the top combinations of the selected opioid with compound A, and the selected opioid with compound B using a mouse operant model with high translational value.

- Determine drug concentration-time profiles of the opioid, compound A and compound B in plasma and in the brain at different time points after drug administration (pharmacokinetics).

Specific requests:

- Candidates should hold a valid **MSc degree** (e.g. **Biology, Biotechnology, Pharmacology, Neurosciences, Medicine, Psychobiology, Pharmacy** or related subjects) or equivalent Degree (e.g. **Medicine**); an average mark (“*nota media*”) of the BSc degree or a combined mark of BSc and MSc degrees of around 7.8 (over 10) or higher is required.
- The candidate must be **ready to work and progress** in her/his **PhD project** on the design, execution and analysis of **behavioural studies of experimental pain** in murine models using **nociceptive paradigms**, including thermal nociceptive models, neuropathic pain models and mechanical perception models, and **complementary behavioural tests** for the evaluation of locomotion, anxiety, depression and cognition.
- A scientific-technical background on **experimental pain in murine models** will be particularly appreciated. She/he should be fluent in English and have an interactive personality. Past experience in international cooperative projects or programs will be positively valued.

Important notice: The candidate **should** have a **valid FELASA-accredited certificate** (Researcher level) to work with experimental animals (rodents).

Group: The selected person will join the **Laboratory of Neuropharmacology**, which is composed of 25 members, will enroll in the PhD Program on Biomedicine of the UPF, will be directly supervised by a postdoctoral fellow and will count on the support of expert technicians of the group and will have a good opportunity to further develop her/his professional career in this field.

References: *J Neurosci* 28:12136 and *J Neurosci* 28:12125, 2008; *Pain* 149:483, 2010; *Pain* 152:1238, 2011; *Br J Pharmacol* 166:2289, 2012; *Pain* 154:160, 2013; *Nat Med* 19:603, 2013; *Pain* 156:2001, 2015; *Neuropharmacology* 148:291, 2019; *Br J Pharmacol*, 176:3939, 2019; *Br J Pharmacol* 2019 Oct 26. doi: 10.1111/bph.14911; *Elife*. 2020 Jan 14;9. pii: e50356. doi: 10.7554/eLife.50356; *Elife*. 2020 Jul 20;9: e55582. doi: 10.7554/eLife.55582.

Offer: the selection is to be carried out immediately, with a **deadline for application on September 15th, 2023**, whilst **start working is planned as early as possible but not later than on December 1st, 2023**. The selected candidate will apply for a 4-years FI fellowship with a competitive salary.

Applications should include:

- A full CV



- **Academic records** of the BSc and of the MSc (“*expediente académico de Grado y de Master con expresión de la nota media*”)
- A statement of research interests and plans (**motivation letter**)
- The **names** (and e-mail addresses) **or the letters of support** of **two scholars** who are willing to serve as references for the applicant

Contact: please, send you application (**letter of intent** plus **updated cv** and two **letters of support** or referees) and your contact data, **stating the reference PREDOCTORAL CONTRACT QSpain Relief NEUROPHAR**, by e-mail to: info.neurophar@upf.edu

Further information: <http://www.upf.edu/neurophar>

All dossiers will be handled with confidentiality.

The University Pompeu Fabra is an equal-opportunity employer.