



## Seeking PhD Candidates-2016

We are seeking PhD candidates within the **Neuropharmacology and Pain** research group (<http://www.ub.edu/neuropharmpain/>) at the Institute of Neurosciences, University of Barcelona.

**Research project:** *"Lighting up the brain: Optopharmacology and beyond"*

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### **Summary of the project:**

Neurodegenerative diseases and Pain are highly disabling human conditions. Thus, we are currently developing new pharmacological strategies using the light for the spatiotemporal manipulation of G protein-coupled receptors (GPCRs) involved in these pathological conditions (i.e. dopamine, glutamate, adenosine and opioid receptors). Accordingly, we introduced a new class of molecules targeting these GPCRs that can be switched on by light, thus allowing the delivery of the drug at precise points of the body at an exact time by illuminating with appropriate optical fibres. Hence, these light-controlled molecules, either orthosteric agonists/antagonists or positive/negative allosteric modulators, are photochemically triggered and can therefore interact with GPCRs only at sites (i.e. peripheral or central) that are spatiotemporally exposed to light. Overall, our project may represent a golden opportunity to train a new generation of researchers in a truly inter-disciplinary setting with particular emphasis on translational research, thus driving students to conceive projects from the lab to bench side and vice-versa.

### **Candidate\*:**

- The holder of the grant will be expected to complete a PhD degree in the Doctoral Program in Biomedicine ([www.ub.edu/doctorat\\_biomedicina/cas/](http://www.ub.edu/doctorat_biomedicina/cas/)) during his/her grant tenure.
- Candidates with a Master degree in Biomedicine, Neurosciences or relatives holding an average score  $\geq 8.5/10$  are welcome
- Good English level
- Experience in biomedical research will be valued

**Deadline:** October 31, 2016

\*We may offer six months contract during 2016 to support competitive PhD applications.

