



Looking for Postdoctoral Candidate for Stem Cell Biology Modeling of Neurodevelopment and Neurodegeneration

The **Lab of Human Modeling of Neurological Disorders** (Neurodevelopmental Disorders Group at Institut de Neurociències, University of Barcelona) directed by **Alberto Ortega PhD**, are seeking for a motivated and enthusiastic postdoctoral candidate to apply for 2024 Tatiana Guzman Postdoctoral Fellowship in Neuroscience.

PROJECT DESCRIPTION

The objective the project is to refine induced pluripotent stem cell (iPSC)-neuronal models by providing developmentally appropriate extracellular matrix (ECM) cues. We aim to characterize the dynamic changes occurred in the ECM along the development of the central nervous system (CNS) in rodents and humans. We will utilize the obtained information to design distinct bioengineering-based platforms that better resemble context-specific ECM signals and study the response of human iPSC-derived neural cells.

HOST INSTITUTION

The candidates will work at the University of Barcelona Faculty of Medicine and Health Sciences. The University of Barcelona is one of Spain's top research universities. According to the Ibero-American SIR Ranking, it generates more scientific output than any other Spanish university.

Specifically, Alberto Ortega's is located at Campus de Bellvitge, which is composed of a set of spaces for teaching and research at the Faculty of Medicine and Health Sciences. The hosting group will be part of the Bellvitge Biomedical Research Institute (IDIBELL), one of the three major research foundations at University of Barcelona.

PROFILE OF THE CANDIDATES

- We are seeking a candidate in possession of a PhD in Health Science related areas including Biomedicine, Biomedical Sciences, Biology, Pharmacology, Biotechnology, Biomedical Engineering, Biochemistry or Bioinformatics.
- The candidate should have good interpersonal skills, be able to carry out inter-dependent research activities within multiple and international teams, enjoy challenging experimental work and be willing to develop new projects.
- Expertise in any of the following approaches: stem cell culture techniques, omic techniques, bioinformatics, neurobiology.

HOW TO APPLY

Applications should be sent **at latest by November 1st** to jalbertoortega@ub.edu with the subject "Postdoctoral job application", and a single .pdf file as attachment with:

- (1) Brief (1 page max) **cover letter** describing previous lab research experience and what motivates you to work in this project.
- (2) Full **CV**

PROJECTS

- *Refining iPSC-Based Spinal Cord Model Systems by Fabricating Developmentally Programmed Extracellular Matrix Cues.* NIH/NINDS. PI: Alberto Ortega in collaboration with Evangelos Kiskinis (Northwestern University) and Zaida Álvarez (IBEC).
- *Advancing in the research of traumatic injuries and neurodegeneration of the nervous system.* MICIU. PI: Alberto Ortega.
- *Proteomic characterization of the human cerebral cortex microenvironments during development: evolutionary and clinical relevance.* Ministerio de Ciencia e Innovación. PI: Alberto Ortega.

PUBLICATIONS

<https://www.ncbi.nlm.nih.gov/myncbi/1ralxaOe9kmku/bibliography/public/>