

mCBEEs - Marie Skłodowska-Curie Innovative Training Network

Internal Code: mCBEEs_01_2017

Application Deadline: January 31, 2018 (23h59 GMT)

Job Description

Long-term assessment of nervous tissue response to implantable micro-electrodes

The research project will focus on the evaluation in vitro of the morphological and functional modifications of the neuronal tissue surrounding an implantable micro-electrode. Cell viability, electrical and morphological coupling in long-term experiments with micro-electrode arrays will be conducted. The main goal is to contribute to the design of strategies to prolong the lifetime and efficiency of implantable micro-electrodes.

The work will be conducted at the nBTT Group – nanoBiomaterials for Targeted Therapies of INEB/i3S (<http://www.i3s.up.pt/research-groups/host-interaction-and-response-neurobiology-and-neurologic-disorders/nanobiomaterials>).

The PhD student position is part of a European ITN network consisting of 15 PhD students enrolled at different universities and institutes across Europe called mCBEEs (see www.mcbees.eu). The mCBEEs consortium has the aim to perform research related to corrosion on microscale in applications linked to electronics, energy and biomaterials. Each PhD student in the consortium will focus on a specific project but with a certain level of interconnection and synergy to the others. Inside the consortium, the students will attend common training activities and networking events.

For the present project three (3) research exchanges are planned with the following consortium partners: Magnes AG, Zurich; AGH-University of Science and Technology, Poland and Jozef Stefan Institute, Slovenia.

The candidate will be enrolled in the Doctoral Program of Biomedical Engineering of the Faculty of Engineering of the University of Porto (www.fe.up.pt).

Requirements

The successful candidate is truly interested in experimental work, pays attention to the reliability and quality of the produced work, has passion for research and is not afraid to face new challenges, is self-driven and can teamwork in an international and multicultural environment

We are looking for a candidate with Master Degree or equivalent in bioengineering with specialization in tissue engineering/regenerative medicine or equivalent.

It is meritorious if you have a background in neurosciences. Some previous experience in neural cell cultures and electrophysiology will also be a distinction.

Additional Information

The training network is funded by the MSCA of the European Commission, which has defined the following eligibility criteria:

- Research experience \leq 4 years.

- Diploma granting access to doctorate studies.
- NO PhD.
- Researchers must not have resided or carried out their main activity (work, studies, etc.) in Portugal for more than 12 months in the 3 years immediately prior to their recruitment.
- Short stays, such as holidays and/or compulsory national service, are not taken into account.
- Researchers can be nationals of any country (including all countries outside Europe).

The mcBEEs consortium has the aim to reach a good gender balance.

How to apply

If you meet all of the eligibility criteria, please submit your application at http://portal.i3s.up.pt/gestaocandidaturasineb/index.php?codigo=mcBEEs_01_2017 and to the mcBEEs website (www.mcbees.eu - Job Opportunities), no later than January 31, 2018 (23h59 GMT). Applications will be evaluated continuously and should contain:

- CV
- personal motivation letter
- short summary of the thesis (max 1 page)
- declaration about matching eligibility criteria
- 2 reference letters
- Studies transcripts (=diploma, including list of courses and marks)

About INEB (www.ineb.up.pt)

The Mission of INEB is to generate knowledge, by promoting research, advanced training and technology transfer in biomedical engineering. INEB is an internationally recognized interdisciplinary research institution, where integrative engineering solutions are applied to improve human health, involving specialists in biomaterials, tissue regeneration, nanomedicine, bioimaging, medical signals, biology and medicine.

About i3S (www.i3s.up.pt)

The Institute for Research and Innovation in Health, i3S, headed by the University of Porto (UPorto), brings together four institutions and researchers from several schools of UPorto. i3S results from the long-term collaboration between Instituto de Biologia Molecular e Celular (IBMC), Instituto de Engenharia Biomédica (INEB), Instituto de Patologia e Imunologia Molecular da UPorto (IPATIMUP) and some research groups from Faculdade de Medicina da UPorto (FMUP), encompassing joint projects, co-supervision of PhD students, sharing of large equipment and employment of research staff under coordinated policies. i3S was among the 11 Portuguese research institutions rated as “*Exceptional*” by the National Foundation for Science and Technology. i3S focuses on 3 Integrative Programs:

- Neurobiology and Neurologic Disease
- Cancer;
- Host Response and Interaction;

About U.Porto (www.up.pt)

Founded in 1911, the University of Porto (U.Porto) is a benchmark institution for Higher Education and Scientific Research in Portugal and one of the top 200 European Universities according to the most relevant international ranking systems.

The U.Porto combines high quality education focused on individual vocations and talents as well as market needs with the claim to being the greatest birthplace of science in Portugal. The U.Porto has the richest academic community in Portugal and brings together the country’s highest ranked students, a highly qualified scientific and teaching staff and a growing number of international students, teachers and researchers. Its fully equipped campus embedded within the city guarantees an optimal academic, scientific, and also social and cultural experience.



Horizon 2020
European Union Funding
for Research & Innovation