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| **Job title:** PhD position at the Laboratory of Molecular Physiology (Department of Experimental and Health Sciences, University Pompeu Fabra, Barcelona, Spain). The position is linked to the project “HYPOGLYCOSYLATION OF CaV2.1 AND PIEZO CHANNELS: NEW PATHOLOGICAL MECHANISMS AND THERAPEUTIC TARGETS FOR NEUROLOGICAL DISORDERS IN PHOSPHOMANNOMUTASE 2 DEFICIENCY (PMM2-CDG)” |
| **Job description:** The overall objective of this proposal is to study how hypoglycosylation affect the function of neuronal CaV2.1 and Piezo channels, and its relevance in neurological alterations linked to PMM2-CDG , such as stroke-like episodes (SLEs) and cerebral syndrome, by using heterologous expression systems and cultured neurons endogenously expressing these channels (obtained from both wild-type and PMM2-CDG knock-in mice). Similar analysis will be performed in fibroblasts of patients with PMM2-CDG and healthy volunteers, and iPSC-derived neurons from those fibroblasts, to directly assess the degree of hypoglycosylation and dysfunction of CaV2.1 and Piezos in patients with distinct neurological phenotypes (moderate versus severe), and initiate a study of correlation with their clinical and genetic report. Finally, we will test the capability of novel CaV2.1 modulators to revert hypoglycosylation effects, thus establishing a proof of concept to develop in the future a specific treatment for neurological events in PMM2-CDG. |
| **Project and Institution that finance the contract**  “HYPOGLYCOSYLATION OF CaV2.1 AND PIEZO CHANNELS: NEW PATHOLOGICAL MECHANISMS AND THERAPEUTIC TARGETS FOR NEUROLOGICAL DISORDERS IN PHOSPHOMANNOMUTASE 2 DEFICIENCY”, funded by “The Ministry of Science, Innovation and Universities” (cofunded by FEDER, UE)  **Official number reference**  RTI2018-094809-B-I00 |
| **Information on the minimum requirements**  Candidates must have obtained a University Degree and a Master’s Degree in natural or medical sciences (Biology, Medicine, Biochemistry, Biomedicine, Biophysics,…), within the European Higher Education System (min. 300 ECTS), or an equivalent university degree, of at least 300 ECTS, that would allow the candidate to start a PhD thesis in their home country by May-June 2020; candidates who expect to be awarded such degree in order to be accepted in our PhD Programme in Biomedicine by May-June 2020 are eligible to apply. Candidates are advised to check that they fulfil the requirements for admission to the UPF PhD in Biomedicine as those who do not fulfil these requirements will be considered ineligible.  Candidates will be required to present their academic record and those who obtained their degree and/ or Master’s in a country other than Spain will have to include the conversion of their grades to the Spanish 0-10 scale. Candidates must have excellent academic qualifications and good command of English. Research experience in the field of ion channels and/or induced Pluripotent Stem Cells (iPSCs) along with authorship of scientific publications will be a plus. |
| **Benefits of the opening**  The UPF’s PhD programme in Biomedicine follows the latest regulations for doctoral studies in Spain, the so-called Royal Decree (RD) 99/2011, which were introduced to comply with the guidelines and recommendations of the European Higher Education Area (EHEA) on doctoral studies. The contents of this doctoral programme have been accredited by the Catalan University Quality Assurance Agency (AQU Catalonia) with the highest qualification of progressing towards excellence. Successful candidates will have access to a wide range of academic activities, as well as ad hoc training in specific scientific skills; UPF and PRBB seminars, conferences and symposia; and career development courses, not only at UPF, but also through the PRBB Intervals Programme, an interdisciplinary education programme for professionals working in the PRBB.  Fellowship will be funded by the Spanish National Sub-Programme for Training during 4 years, and the successful candidate will be registered in the Spanish Social Security System, which provides health and occupational insurance coverage. Academic costs (except fees) are also covered. |
| **Information on the application process:** please,follow instructions at <http://www.ciencia.gob.es/portal/site/MICINN/menuitem.d20caeda35a0c5dc7c68b11001432ea0/?vgnextoid=bfe8865dd69b2610VgnVCM1000001d04140aRCRD>.  **Call is expected to open by September 2019**  **Deadline to submit applications: 02/September/2019**  **Contact:**  Applicants should submit an application containing: motivation letter, CV and contact details for two referees to **jmanuel.fernandez@upf.edu** |