

# POSTDOC OFFER

## Junta de Castilla y León

Universidad de Salamanca - Instituto de Neurociencias de Castilla y León (INCyL)

### Laboratory of Neural Plasticity and Neurorepair

Contract associated to the research project **SA112P24** (Junta de Castilla y León, Consejería de Educación)

IPs: Dr. Eduardo Weruaga ([ewp@usal.es](mailto:ewp@usal.es)) and Dr. David Díaz ([ddiaz@usal.es](mailto:ddiaz@usal.es))

Date of start and length: January 2025 - 3 years



**Junta de  
Castilla y León**

Consejería de Educación



**Europa impulsa  
nuestro crecimiento**



Cofinanciado por  
la Unión Europea

#### **Purpose of the contract:**

Our group has extensive experience in the analysis of the **PCD mouse**, a murine model with different degenerative scenarios of varying severity. The neuronal death affecting the **olfactory bulb** of this model mimics the most prevalent human neurodegenerative processes: late and prolonged in time. Furthermore, this slow degenerative pattern facilitates the development of **new therapeutic strategies**.

In this project we aim to demonstrate the neuroprotective capacity of a substance little known in neuroscience, **VEGF-B**, based on preliminary data from our laboratory. We want to know whether the systemic application of this neurotrophic factor in our model can reduce neuronal death, under the hypothesis that **neuroprotection is not only neural but also peripheral in origin**. Two therapeutic approaches will be compared: (A) a continuous (classical) intraperitoneal administration of VEGF-B, and (B) a transplantation of healthy bone marrow cells enriched with VEGF-B-producing cells under a ubiquitous promoter.

#### **Objectives to be achieved by the candidate:**

- To fine-tune the optimal dose of administration of a neuroprotective factor (VEGF-B) in a model of selective neurodegeneration.
- To culture hematopoietic cells and perform their genetic transformation, as a cell therapy strategy for the same model.
- To compare the potential benefits of both therapeutic approaches.
- To perform a gene analysis (by RNA bulk sequencing) of the microglia derived from the transplanted cells.

#### **Specific requirements:**

1. PhD in biological or health sciences.
2. Degree or Bachelor's degree in biological or health sciences.
3. Training for work with experimental animals in category C.
4. At least one letter of recommendation from previous supervisors.

#### **Documentation to be submitted and scale:**

1. Photocopy of the DNI or equivalent document in the case of foreigners.
2. Copy of the PhD degree or the corresponding academic certification.
3. Complete Curriculum Vitae reflecting the curricular merits and experience.
4. Documentary evidence of the merits reflected in the CV.
5. Work Life.

Complete  
documentation  
(Annex No. 2)  
and submission of  
applications

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**SUBMISSION OF APPLICATIONS: from 08/10/2024 to 22/10/2024**