

**Dr. Eloi Montañez Miralles**  
Department of Physiological Sciences  
Faculty of Medicine and Health Sciences  
University of Barcelona  
Feixa Llarga s/n, 08907, L'Hospitalet del Llobregat, Spain  
Tel: +34 934029088  
emontanez@ub.edu



## PhD student position

is available at the Department of Physiological Sciences,  
Faculty of Medicine and Health Sciences, University of Barcelona.

### **Project description – Role of TDP-43 in blood vessel function and vascular homeostasis**

Cardio- and neuro-vascular diseases are the leading causes of death in the European Union. The homeostasis of the central nervous system depends on the dynamic interactions between neurons, blood vessels and glia cells, the so-called neurovascular unit (NVU), and the alteration of the integrity of the NVU is associated with neurological pathologies such as amyotrophic lateral sclerosis (ALS). The aim of the project is to understand, at a molecular level but in the context of a living organism, the functions of the TDP-43, a protein associated to ALS, in the regulation of blood vessel growth and vascular homeostasis. The project is funded by the Spanish Ministry of Science, Innovation and Universities for the next three years (2021-2023).

### **Conditions – Position filled for 3 years**

The position is open starting from the 15<sup>th</sup> October 2020 and will be filled for 3 years, including a trial period of up to 4 month. We can offer:

- 6-month contract (aprox. 13.000€ net/year).
- Dynamic working conditions.
- Funding to cover stages and seminars to expand scientific training.

### **Requirements - Enthusiastic and skillful candidates**

We are looking for candidates with a master's degree in life sciences or a master's degree in medicine with a good academic background and fluency in English. Work in the group encompasses mouse genetics, cell biology, molecular biology, as well as immunological techniques. The successful applicant will work in an interdisciplinary research environment and will have the opportunity to participate

in seminars and lectures offered by the University of Barcelona. For more information, please contact Dr. Eloi Montanez Miralles ([emontanez@ub.edu](mailto:emontanez@ub.edu)).

To apply, please send your application including curriculum vitae and a statement outlining your research interest to Dr. Eloi Montanez Miralles ([emontanez@ub.edu](mailto:emontanez@ub.edu)).

### **Selected publications**

Werner AC, Weckbach LT, Salvermoser M, Pitter B, Cao J, Maier D, Forné I, Schnittler HJ, Walzog B, Montanez E (2020) Coronin 1B controls endothelial actin dynamics at cell-cell junctions and is required 1 for endothelial network assembly. **Front Cell Dev Biol.** 31:708. (*Impact factor year of publication: 5.201*)

Park H, Yamamoto H, Mohn L, Ambühl L, Kanai K, Schmidt I, Kim KP, Fraccaroli A, Feil S, Montanez E, Berger W, Adams RH (2019). Integrin-linked kinase controls retinal angiogenesis and is linked to Wnt signaling and exudative vitreoretinopathy. **Nat. Commun.** 10:5243. (*Impact factor year of publication: 12.124*)

Pitter B, Werner AC and Montanez E (2018) Parvins are required for endothelial cell-cell junctions and cell polarity during embryonic blood vessel formation. **Arterioscler Thromb Vasc Biol.** 38:1-12. (*Impact factor year of publication: 6.607*)

Cao J, Ehling M, März S, Seebach J, Tarbashevich K, Sixta T, Pitulescu M, Werner A, Flach B, Montanez E, Raz E, Adams RH, Schnittler H (2017) Polarized actin and VE-Cadherin dynamics regulate junctional remodelling and cell migration during sprouting angiogenesis. **Nat. Commun.** 8:1-20. (*Impact factor year of publication: 12.124*)

Fraccaroli A, Pitter B, Taha A, Seebach J, Huvneers S, Kirsch J, Casaroli-Marano RP, Zahler S, Pohl U, Gerhardt H, Schnittler HJ, Montanez E (2015) Endothelial alpha-parvin controls integrity of developing vasculature and is required for maintenance of cell-cell junctions. **Circ. Res.** 117:29-40. (*Impact factor year of publication: 11.551*)