



**Date of publication of the job offer: March 1<sup>st</sup>, 2020**

Pompeu Fabra University (UPF), PRBB, Barcelona

**Pura Muñoz-Cánoves Lab**

**Technician Position**

**Project: Function and regulation of muscle stem cells**

### **Job description**

Available position for a **Specialized Technician** who can work effectively and execute complex experiments of different projects on-going in the laboratory, aiming to characterize how skeletal muscle regenerative capacity declines with aging, particularly at very advanced geriatric age, during sarcopenia; using a variety of biochemical, cellular and mouse techniques.

We are looking for highly motivated candidate to join our research team, working in coordination at two locations: the National Cardiovascular Research Center (CNIC), in Madrid, and the Department of Experimental and Health Sciences of the Pompeu Fabra University (UPF) at the PRBB, in Barcelona. We study the mechanisms underlying the loss of stem cell regenerative decline with aging, and in particular the failure in proteostasis and entry into senescence of aging stem cells, as well as potential mechanisms to reverse these aging-associated defects.

You will be employed on the **PRESP04819- MUSCLFIX** project and be part of a dedicated team of molecular and cell biologists. You will actively participate in projects that combine molecular biology, transcriptomics, epigenetics and bioinformatics, mouse genetics and tissue injury-regeneration, as well as proteostasis and senescence approaches, to define the intricate regulatory circuitry of stem cell aging, and potential rejuvenating strategies

### **Recent publications from the lab**

- Proteostatic and Metabolic Control of Stemness. García-Prat L, Sousa-Victor P, Muñoz-Cánoves P. **Cell Stem Cell** 20:593-608, 2017
- Solanas G, Peixoto FO, Perdiguero E, Jardí M, Ruiz-Bonilla V, Datta D, Symeonidi A, Castellanos A, Welz PS, Caballero JM, Sassone-Corsi P, Muñoz-Cánoves P\*, Benitah SA\*. Aged Stem Cells Reprogram Their Daily Rhythmic Functions to Adapt to Stress. **Cell** 170:678-692, 2017
- Autophagy maintains stemness by preventing senescence. García-Prat L, Martínez-Vicente M, Perdiguero E, Ortet L, Rodríguez-Ubreva J, Rebollo E, Ruiz-Bonilla V, Gutarra S, Ballestar E, Serrano AL, Sandri M, Muñoz-Cánoves P. **Nature** 529:37-42, 2016
- Geriatric muscle stem cells switch reversible quiescence into senescence. Sousa-Victor P, Gutarra S, García-Prat L, Rodríguez-Ubreva J, Ortet L, Ruiz-Bonilla V, Jardí M, Ballestar E, González S, Serrano AL, Perdiguero E, Muñoz-Cánoves P. **Nature** 506:316-21, 2014

<b>Project and Institution that finance the contract</b> MINECO
<b>Official number reference</b> <i>AEI-PGE/RTI2018 PRES04819 cofunded by FEDER</i>
<b>Information on the minimum requirements</b>  Highly motivated scientist with a strong interest in stem cells and aging are encouraged to apply. PhD in Life sciences is required for postdoctoral applicants. We will appreciate: <ul style="list-style-type: none"><li>• experience in either of the following areas: mouse genetics, stem cells, proteostasis (autophagy, proteasome), metabolism</li><li>• excellent communication skills in written and spoken English;</li><li>• strong analytical skills, and a problem-solving and result-oriented attitude;</li></ul>
<b>Benefits of the opening</b>  To be defined depending on the candidate profile.
<b>Information on the application process</b> CV and contact information for referees should be sent to: <a href="mailto:marina.raya@upf.edu">marina.raya@upf.edu</a>
<b>Deadline to submit applications</b> March 15th, 2020
<b>Contact :</b> <a href="mailto:marina.raya@upf.edu">marina.raya@upf.edu</a>