



## National Cardiovascular Research Center (CNIC), Madrid

Pura Muñoz-Cánoves lab

### Postdoc Position in Stem Cell Aging

One position is available for a **postdoc** to study cellular and molecular proteostatic mechanisms controlling **stem cell aging**.

We are looking for highly motivated and ambitious experimental biologists 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 **ERC Advanced Grant 'Stem-Aging'** 5-year 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.

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:

- experience in either of the following areas: mouse genetics, stem cells, proteostasis (autophagy, proteasome), metabolism
- excellent communication skills in written and spoken English;
- strong analytical skills, and a problem-solving and result-oriented attitude;

CV, list of publications and contact information for referees should be sent to:

[alvaro.cuesta@cnic.es](mailto:alvaro.cuesta@cnic.es) and [marina.raya@upf.edu](mailto:marina.raya@upf.edu)

#### 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