

**Pompeu Fabra University (UPF), PRBB, Barcelona
National Cardiovascular Research Center (CNIC), Madrid**

Pura Muñoz-Cánoves lab

PhD student Positions in stem cell aging

Positions are available for **PhD students** to study cellular and molecular 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: Department of Experimental and Health Sciences of the Pompeu Fabra University (UPF) at the PRBB, in Barcelona, and the National Cardiovascular Research Center (CNIC), in Madrid. 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 (starting November 2017) 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. We will appreciate:

- experience in either of the following areas: mouse genetics, stem cells, transcription, epigenetics, bioinformatics, senescence, proteostasis, metabolism;
- communication skills in written and spoken English;
- analytical skills, and a problem-solving and result-oriented attitude;
- the ability to work and interact with others in an energetic and supportive research group.

CV, list of publications and contact information for referees should be sent to: marina.raya@upf.edu and aquesada@cnic.es

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)
- Autophagy maintains stemness by preventing senescence. García-Prat L, Martínez-Vicente M, Perdiguero E, Ortet L, Rodríguez-Ubrea J, Rebollo E, Ruiz-Bonilla V, Gutarra S, Ballestar E, Serrano AL, Sandri M, Muñoz-Cánoves P. **Nature** 529:37-42 (2016)
- Muscle stem cell aging: regulation and rejuvenation. Sousa-Victor P, García-Prat L, Serrano AL, Perdiguero E, Muñoz-Cánoves P. **Trends Endocrinol Metab** 26:287-96 (2015)
- Geriatric muscle stem cells switch reversible quiescence into senescence. Sousa-Victor P, Gutarra S, García-Prat L, Rodríguez-Ubrea J, Ortet L, Ruiz-Bonilla V, Jardí M, Ballestar E, González S, Serrano AL, Perdiguero E, Muñoz-Cánoves P. **Nature** 506:316-21 (2014)