



Open Pre-Doctoral Position

Pompeu Fabra University (UPF)
Barcelona Biomedical Research Park (PRBB)
Barcelona, Spain

One pre-doctoral position is available in the group of Pura Muñoz-Cánoves at the Pompeu Fabra University (UPF), Department of Experimental and Health Sciences (Cell Biology Unit), in the Barcelona Biomedical Research Park (PRBB), Barcelona, Spain (more information: <http://www.upf.edu/cellbiology/>).

You will be employed on the **RENOIR** project, a European Training Network that aims to develop and implement a PhD programme in the field of muscle regeneration and aging (<https://renoir-itn.eu/>).

Our group studies the mechanisms driving muscle regenerative decline in aging and disease. The selected student will study the molecular mechanisms of cellular plasticity during muscle regeneration and the crosstalk between stem cells and niche cells. In particular, how deregulation of the crosstalk among inflammatory, vascular, mesenchymal and stem cells contribute to fibrosis in aging and pathological conditions.

Publications of the group include:

- Segalés J, Perdiguero R, Serrano AL, Sousa-Victor P, Ortet L, Jardí M, Budanov A, Garcia-Prat L, Sandri M, David M, Thomson DM, Karin M, Lee JH, Muñoz-Cánoves P. Sestrin prevents atrophy of disused and aging muscles by integrating anabolic and catabolic signals. *Nature Comm* 11:189, 2020
- Solanas G, Peixoto FO, Perdiguero E, Jardí M, Ruiz-Bonilla V, Datta D, Symeonidi 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

We are looking for highly motivated candidates with a B.S. in Life Sciences and Master in Biomedical Sciences. The most likely successful candidates will have excellent previous experience in cellular and molecular biology. Previous stages in other laboratories will be highly valued.

Terms of salary and employment: <https://renoir-itn.eu/open-positions/>

Application

Applicants should submit his/her application on <https://renoir-itn.eu/open-positions/> and to marina.raya@upf.edu, pura.munoz@upf.edu; containing a motivation letter, the CV in English (including degree final score), and contact details for two references.