Universitat Pompeu Fabra Barcelona
Departament de Ciències Experimentals i de la Salut

Date of publication of the job offer: July 9th 2021

Pompeu Fabra University (UPF), PRBB, Barcelona

Pura Muñoz-Cánoves Lab

Postdoctoral Position in

Molecular basis of muscle aging

Job description

We seek for a highly competitive **postdoctoral fellow** to study skeletal muscle aging.
We are looking for highly motivated and ambitious experimental biologists, with a strong background in bioinformatics, to join our research team in the Department of Experimental and Health Sciences of the Pompeu Fabra University (UPF) at the PRBB, in Barcelona.

We study the mechanisms underlying tissue regenerative decline with aging, and in particular the mechanisms controlling **muscle aging (sarcopenia),** with the aim of preventing or delaying sarcopenia through rejuvenating strategies.

You will be employed on a three-years project, and your work will combine transcriptomics, epigenetics, bioinformatics and computational biology, with mouse genetics, to define the intricate regulatory circuitry of muscle aging and potential rejuvenating strategies

Recent publications from the lab

- García-Prat L, Perdiguero E, Alonso-Martín S, Dell'Orso S, Ravichandran K, Brooks SR, Juan AH, Campanario S, Jiang K, Hong X, Ortet L, Moiseeva V, Rebollo E, Sun H-W, Musarò A, Sandri M, del Sol A, Sartorelli V, Muñoz-Cánoves P. FoxO maintains a genuine muscle stem-cell quiescent state until geriatric age. **Nature Cell Biol**, 2020
- Segalés J, Perdiguero R, Serrano AL, Sousa-Victor P, Ortet L, Jardi 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 Commun**, 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**, 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, Rodriguez-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

Information on the minimum requirements

Highly motivated scientist with a strong interest in tissue regeneration, aging and bioinformatics are encouraged to apply. PhD in Life sciences is required for postdoctoral applicants. We will appreciate:

- experience in either of the following areas: bioinformatics and genetics
- excellent communication skills in written and spoken English

Benefits of the opening

To be defined depending on the candidate profile.

Information on the application process

CV, list of publications and contact information for referees should be sent to:
pura.munoz@upf.edu; marina.raya@upf.edu

Deadline to submit applications: August 31st, 2021
Contact: marina.raya@upf.edu