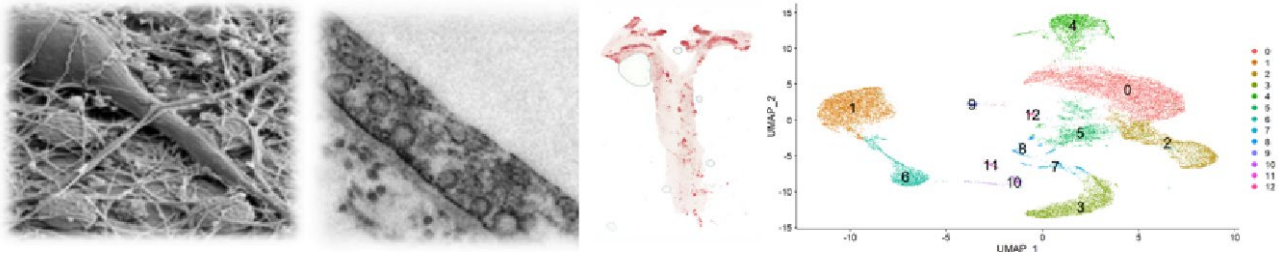
Postdoctoral position: Cell-environment mechanochemical crosstalk in Cardiovascular Disease and aging



The *Mechanoadaptation and Caveolae Biology Lab* at CNIC, led by Miguel Ángel del Pozo is recruiting a postdoctoral fellow to study the principles by which mechanical forces, tissue remodeling, inflammation and aging drive cardiovascular disease. The selected candidate will combine state-of-the-art immunobiology and exosome biology, advanced *omics* and biophysics, with mouse disease models, in collaboration with top laboratories in the field (David Sancho, CNIC-Madrid, Jacob Bentzon, Aarhus U.; Martin Schwartz, Yale U.), to explore how cells respond to mechanical cues stemming from their environment (blood flow, muscle contraction, stiffening associated with aging…) and how this drives tissue remodeling and immunomodulation.

We encourage **highly motivated candidates** to apply to the upcoming **Juan de la Cierva programme** call. Eligible candidates should possess a **strong academic record**, with first authorship of at least **one Q1 publication**. Previous experience in either **extracellular matrix biology, immunity and the biology of inflammation, proteomics**, **metabolism**, **animal models**, and/or **cardiovascular disease** will be very positively valued. A **letter of motivation, CV and contact details of 3 references** should be addressed to anaisabel.martinez@cnic.es & madelpozo@cnic.es stating "***JdC Candidate***" in the subject. Informal inquiries for further information can be requested at +34 914531200, ext. 70488.

This information does not contain a public offer. Job offers for specific vacancies are posted on the job portal
https://www.cnic.es/es/empleo/ofertas-empleo

Links of interest: https://www.cnic.es/en/investigacion/mechanoadaptation-and-caveolae-biology
https://fundacionlacaixa.org/es/convocatoria-caixaresearch-investigacion-salud-2020-proyecto-ateroesclerosis

SELECTED RECENT PUBLICATIONS:

1. FN Lolo, N Walani, […] B Qualmann, M Arroyo & MA del Pozo. *"Caveolin-1 dolines form a distinct and rapid caveolae-independent mechanoadaptation system."* (2023) ***Nat Cell Biol*** Jan 25 (1):120-133.

2. **FN Lolo, […] X Trepat, P Roca-Cusachs, & MA del Pozo**. *"Caveolae couple mechanical stress to integrin recycling and activation."* (2022) ***eLife*** Oct 20;11:e82348.

3. **M García-García, […] D Görlich, A Echarri & MA del Pozo**. *"Mechanical control of nuclear import by Importin-7 is regulated by its dominantcargo YAP."* (2022) ***Nat Commun*** 13(1):1174

4. L Albacete-Albacete, […] & MA del Pozo. "*ECM deposition is driven by caveolin1-dependent regulation of exosomalbiogenesis and cargo sorting.*" (2020) ***J Cell Biol*** Nov 2;219(11):e202006178.

5. MA del Pozo, F Lolo & A Echarri. "*Caveolae: mechanosensing and mechanotransduction devices linking membranetrafficking to mechanoadaptation*" . (2020) ***Curr Op Cell Biol*** Nov 11;68:113-123.

6. A Echarri, […] C Lamaze, RG Parton & MA del Pozo. "*An Abl-FBP17 mechanosensing system couples local plasma membrane curvature andstress fiber remodeling during mechanoadaptation*" . (2019) ***Nat Commun*** 10, 5828

7. R Moreno-Vicente, […] MA del Pozo. "*Caveolin-1 Modulates Mechanotransduction Responses to Substrate Stiffnessthrough Actin-Dependent Control of YAP*" . (2018) ***Cell Rep*** 25(6):1622-1635.e6

8. S Minguet, […] M Reth & MA del Pozo. "*Caveolin-1-dependent BCR nanoscale organization prevents B cell malfunction and autoimmunity*" . (2017) ***Nat Immunol*** (10):1150-1159

9. **I Navarro-Lérida, [...] & MA del Pozo**. "*Rac1 nucleocytoplasmic shuttling drives nuclear shape changes and tumor invasion*" .(2015). ***Dev Cell*** 32:318-334. *# Highlighted by Dev Cell "Previews"*

10. R Strippoli, […] & MA del Pozo. "*Caveolin-1 deficiency induces a MEK-ERK1/2-Snail-1-dependent epithelial-mesenchymaltransition and fibrosis during peritoneal dialysis*" . (2015) ***EMBO Mol Med***. Mar;7(3):357

11. RG Parton & MA del Pozo. *"Caveolae as plasma membrane sensors, protectors and organizers"* (2013) ***Nat Rev Mol CellBiol*** Feb;14(2):98-112

12. JG Goetz, […] & MA del Pozo "*Biomechanical remodeling of the microenvironment by stromal caveolin-1 favors tumorinvasion and metastasis*" (2011) ***Cell*** Jul 8;146(1):148-63