



Regulation of gene expression during development Lab of Dr. Marian Ros

(<https://web.unican.es/ibbttec/Paginas/Groups/regulation.aspx>)

Se busca un estudiante en su último año del grado interesado en seguir una carrera investigadora para solicitar una beca **JAE-INTRO**

Requisitos: terminar el grado en el curso 2018-2019 y solicitar la preadmisión, admisión o matrícula a un Máster Universitario oficial para el curso 2019-2020.

https://www.boe.es/diario_boe/txt.php?id=BOE-B-2019-13509

Proyecto: Analysis of the nail stem cells.

The cells responsible for the continuous growth of the nails are the nail stem cells, that reside in the proximal nail matrix and are characterized by the expression of Lgr6, an agonist of Wnt signaling. The aim of the study is to understand how the nail stem cells are specified. This implies the identification of the factors controlling their induction, maintenance and renewal. The nail stem cells are essential for the regeneration of the digit tip, the only epimorphic regeneration present in mammals.

The research is highly multidisciplinary and integrative and uses transcriptomics and epigenomics analysis, Chip-seq, CRISPR and classical developmental genetics approaches. The lab counts with several animal models with a nail phenotype and are generating additional animal models by CRISPR/CAS direct zygote electroporation.

The Ros's lab is part of the Institute of Biomedicine and Biotechnology of Cantabria (IBBTEC, <http://web.unican.es/ibbttec/Paginas/default.aspx>). The IBBTEC is a new research institute of the CSIC, University of Cantabria and SODERCAN located in the Scientific and Technologic Park of Santander that provides an enthusiastic and supportive environment with state-of-the-art research facilities.

Contact Marian Ros (rosm@unican.es) Plazo de presentación: **9 de abril a 7 de mayo 2019.**

Selected publications:

- Roselló, A., Ros M.A. and Torres, M. (2011) *Science* 332:1086-1088
- Cooper K, Hu J, ten Berge D, Fernandez-Teran M, Ros M and Tabin C (2011) *Science* 332:1083.
- Sheth R, Marcon L, Bastida MF, Junco M, Kmita M, Sharpe J, Ros M. (2012) *Science* 338:1476
- Haro E, Delgado I, Junco M, Yamada Y, Mansouri A, Oberg KC, Ros M (2014) *PLoS Genet.* Aug 28;10(8):e1004468
- Saiz-Lopez P, Chinnaiya K, Delgado I, Ros* MA, Towers* M (2015) *Nat Commun.* Sep 18;6:8108.
- Ros MA (2016) *Genes Dev.* 30(10):1135-7.
- Saiz-Lopez P, Chinnaiya K, Towers M, Ros MA, (2017) *Development* 144(3):479-486.
- Pickering J, Rich CA, Stainton H...Saiz-Lopez P, Ros MA, Towers M. *Elife.* 2018 Sep 3;7. pii: e37429.