



RESEARCH ASSISTANT POSITION IN DEVELOPMENTAL AND CELL BIOLOGY AT THE DEPARTMENT OF MEDICINE AND LIFE SCIENCES (MELIS), UNIVERSITAT POMPEU FABRA (BARCELONA, SPAIN)

We are interested in understanding how cellular routines can be repurposed in the developing brain to generate cell diversity and regulate cell fate during neurogenesis, i.e., the birth of new neurons. For this, we use the developing posterior part of the vertebrate brain - the hindbrain - as model to study the acquisition of cell identities and tissue-scale population changes.

In particular, we wish to focus on how metabolic and cellular stress could affect cell fate decisions in distinct cell lineages and compartments within the brain. Imaging tools (3D+time imaging), gene expression assessment and genome-editing technology will be combined using zebrafish embryos (for more information go to <https://pujadeslab.upf.edu/>).

Moore D, Pilz G, Araúzo-Bravo M, Barral Y, Jessberger S. A mechanism for the segregation of age in mammalian neural stem cells; *Science* 2015.

Hevia CF, Engel-Pizcueta C, Udina F, Pujades C. The neurogenic fate of the hindbrain boundaries relies on Notch3-dependent asymmetric cell divisions; *Cell Rep* 2022.

Ortiz-Álvarez G, Fortoul A, Srivastava A, Moreau MX, ..., Spassky N. p53/p21 pathway activation contributes to the ependymal fate decision downstream of GemC1; *Cell Rep* 2022.

Döhla J, Kuuluvainen E, Gebert N, Amaral A, ..., Katajisto P. Metabolic determination of cell fate through selective inheritance of mitochondria; *Nat Cell Biol* 2022.

Engel-Pizcueta C, Hevia CF, Voltés A, Livet J, Pujades C. Her9 controls the stemness properties of hindbrain boundary cells; *Development* 2024.

CANDIDATE REQUIREMENTS and OFFER:

We are seeking for highly motivated and enthusiastic candidates with completed Graduate studies related to Biomedicine and some research experience in a laboratory. Candidates are required to have a good command of the English language. Skills in tissue processing and (immuno)staining, *in situ* hybridization and confocal image processing will be a plus.

We can offer a one-year contract, followed by support in fellowship application to perform a PhD in case of interest. Then, they could integrate the International PhD Program in Biomedicine of the Department of Medicine and Life Sciences (UPF), which has been awarded with the María de Maeztu Unit of Excellence recognition (Ministry of Science, Innovation and Universities, Spain).

The candidates will benefit from working in a dynamic group of Neurodevelopmental Dynamics, at a university department that received the Maria de Maetzu Award for its scientific excellence. We are located within the PRBB in Barcelona, a vibrant research park harboring several research institutions and cutting-edge core facilities.

Interested candidates are encouraged to contact Gonzalo Ortiz and Cristina Pujades. To apply, send a letter of interest, the CV, and contact details of 1 or 2 referees to gonzalo.ortiz@upf.edu and cristina.pujades@upf.edu by June 24th.

