UNIVERSITAT POMPEU FABRA

Barcelona Biomedical Research Park

The lab of **Morphogenesis and Cell Signaling in Sensory Systems at UPF-PRBB** is seeking outstanding Postdoctoral Fellows to apply for the two modalities of Juan de la Cierva Grants, FORMACION and INCORPORACION. 2-year contracts.

Keywords: epithelia, apico-basal polarity, microtubule extension, cell shape, morphogenesis, FGF signaling

During the formation of columnar epithelia, cells elongate, acquire adhesive contacts and apical polarity and nuclei display interkinetic nuclear migration (IKNM). The sequence of events leading to this particular epithelial organization is not well-defined neither their possible inter-dependance. FGF pathway is an evolutionary innovation in multicellular organisms and we have observed that during the formation of the otic placode, high levels of FGF promote epithelial organization (Hoijman et al., 2017).

The formation of the otic placode is a good system to investigate how cells transit from a squamous to a columnar phenotype. By high spatiotemporal resolution time-lapse imaging the postdoctoral fellow will investigate the cellular requirements for distinct epithelia organization and the implication of FGF signaling in epithelialization in zebrafish. Our laboratory has more than 15 years of experience studying inner ear organogenesis (see list of publications) and recent data using supraresolution 4D imaging and biomechanical manipulations by microsurgery experiments indicate that the inner ear epithelial cells suffer complex remodelling events (Hoijman et al., Nature Commun 2015). The project will provide novel cues that can be extended to human diseases related to aberrant epithelialization.

The Alsina´s lab, Universitat Pompeu Fabra is located at the Barcelona Biomedical Research Park (http://www.prbb.org) with excellent research facilities and a large research community in the fields of developmental biology, systems biology and computational biology.

Applications for the above opening should include CV, letter of motivation and should be sent by e-mail to berta.alsina@upf.edu before the 30th of December 2018.

For applying to **JdC Formación**: **Thesis defended between 2016-2017,** count with at least one paper as first-author in a high-impact journal

For applying to **JdC Incorporación**: **Thesis defended between January 2013 and December 2016,** count with at least two papers as first-author in a high-impact journal.

The use of animal models, as well as experience in molecular and cell biology techniques will be considered.