



## POST-DOC POSITION IN CELL BIOLOGY AND PHYSIOLOGY. CDD 3 ans / 3 years in Nice, France.

Position available (starting sept-dec. 2019) to functionally characterize the role of Hedgehog in the inter-cellular and inter-organ communication in *Drosophila*.

Hedgehog proteins are known key signaling mediators that govern tissue patterning and homeostasis during both development and adult life. The laboratory is interested in how Hedgehog proteins traffic in the producing tissue and exert their function in the receiving tissue, both in a paracrine and hormonal manner.

We have shown that the Endosomal Sorting Complex Required for Transport (ESCRT) promotes Hedgehog proteins loading on exo-vesicles to exert their effect at long distances. We also have shown recently that circulating Hedgehog has a protective role and have identified targets of Hedgehog signaling in glial cells involved in this process. This newly identified role for Hedgehog is important to provide protection during the ageing process. The post-doctoral project aims to gain further insight into the trafficking, vesicular secretion and the extracellular spread of Hedgehog proteins, both at the intercellular and inter-organ level, using cell biology and genetic technics. *In vivo* imaging and single molecule tracking (in collaboration with computational science lab) has also been developed on our tissue models and will be further used to investigate the dynamics of Hedgehog release and spreading.

Interested candidates should have strong knowledge of, and experience in fly genetics, cell biology and optic microscopy (confocal/spinning disc). The position is funded for 3 years in duration. Candidates must have a Ph.D. degree, and can be nationals of any country.

**Selected references:** Ayers et al., *Dev. Cell* 2010 vol18, 605-620; Briscoe and Théron, *Nat Rev Mol Cell Biol.* Vol. 14, 2013; Matusek et al., *Nature* 2014 Dec 4;516(7529): 99-103; D'Angelo et al., *Dev. Cell* 2015 Feb. 9 ; 32, 290-303.

Candidates should send a Curriculum Vitae and a list of three referees to:  
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