



## Multiscale organization of ciliated epithelia

The **Kodjabachian** lab at the Institute of Developmental Biology of Marseille (**IBDM**) is seeking a talented **postdoctoral** scientist with strong background in **Cell** and/or **Developmental Biology**, and a keen interest in **integrative quantitative biology** and **interdisciplinary research**. Our lab uses **advanced imaging** techniques (such as confocal videomicroscopy, super-resolution microscopy and 3D electron microscopy) to study the **biology of ciliated epithelia at multiple scales**.

In vertebrate ciliated epithelia, flows of biological fluids are powered by the coordinated beating of myriads of **cilia** harbored by **multiciliated cells (MCC)**. This highly choreographed phenomenon raises many biological as well as physical questions among which, **MCC spatial organization** and at a lower scale **centriole multiplication and orientation**, as cilia stand upon modified centrioles called **basal bodies**. The selected candidate will join efforts to decipher the molecular mechanisms underlying these processes, using *Xenopus* epidermis, **inducible MCC** culture, and **mouse post-natal** brain as models.

IBDM offers a **vibrant, international, and interactive** environment to study the fundamental principles of cell and developmental biology. Furthermore, collaboration with **theoreticians, physicists** and **numerical simulators** are being developed on campus, from which our team has started to benefit.

The ideal candidate must hold a PhD for less than two years, and have skills in cell culture, cell imaging, molecular biology, and biochemistry. The position is opened for **3 years** starting in December 2019. Applicants must email a CV, a statement of interest and contact details for 2-3 references to [laurent.kodjabachian@univ-amu.fr](mailto:laurent.kodjabachian@univ-amu.fr). Applications will be reviewed as received, so motivated applicants are encouraged to apply as soon as possible.

<http://www.ibdm.univ-mrs.fr/equipe/biology-of-ciliated-epithelia/>

### Relevant publications:

- Boutin and Kodjabachian. 2019. *Current Opinion in Genetics and Development*
- Revinski et al. 2018. *Nature Communications*
- Chevalier et al. 2015. *Nature Communications*
- Cibois et al. 2015. *Development*
- Marcet et al. 2011. *Nature Cell Biology*