



## Postdoctoral position in Developmental Cell Biology and Bioengineering at Institut Jacques Monod (Paris, France)

### Impact of the tissue properties in epithelial morphogenesis

In monolayered epithelia, differentiated cells display a specific apico-basal organization. To maintain cell polarization and cohesion of neighbouring cells, cells developed diverse adhesion complexes. However, the epithelial monolayer is subjected to remodelling during organism development or tissue repair. In addition, cell renewal, cell rearrangements and cell extrusion occur to maintain the monolayer homeostasis. Consequently, the epithelium has to constantly maintain its apico-basal compartmentation and to collectively adapt to its microenvironment to maintain its polarized and cohesive state.

Based on the recent development of a biomimetic 3D culture system in our lab (Nature Communications, 8 :13998), we study the impact of the physical properties of the microenvironment on epithelial behaviour and global tissue morphogenesis, and to determine the regulatory mechanisms.

We are seeking to recruit a post-doctoral researcher with background in cell/developmental biology, biophysics, and/or bioengineering. The postdoc will benefit from an interdisciplinary environment with expertise in cell biology, biochemistry, developmental biology and imaging, and will have access to leading edge equipment.

#### Requirements :

- PhD in cell/developmental biology or in biophysics
- High degree of motivation and strong interest towards interdisciplinary work
- Good level in image analysis (ImageJ, Matlab)
- Skills in confocal and/or biphoton microscopy and live imaging.

**Starting date:** Summer/Fall 2017. **Deadline for application:** open until filled.

Applicants should send a motivation letter, a CV including a full list of publications, a statement of research interests and names of three referees to :

**Contact :** Delphine Delacour [delphine.delacour@ijm.fr](mailto:delphine.delacour@ijm.fr), Institut Jacques Monod, « Cell Adhesion and Mechanics » team

(<http://www.ijm.fr/recherche/equipes/adhesion-cellulaire-et-mecanique/>).



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