

Institute for **Advanced Biosciences**

**2-year POST-DOC POSITION
IN DYNAMICS OF CELLULAR ADHESIVE STRUCTURES
funded by French Agency for Research (ANR)**

Regenerative medicine is predicated on understanding the molecular basis of tissue-specific differentiation and then applying the appropriate soluble and physical cues to drive stem cell fate. Integrins are adhesive receptors which are key players in the sensing of chemical, physical and mechanical cues of the microenvironment. The differentiation of cells, leading to cell identity and tissue formation, is controlled both by growth factor receptors and by the adhesive receptors integrins. Our previous studies (Fourel et al, J Cell Biol 2016) have reported synergistic effects between the BMP receptors and integrin receptors to couple cell migration and cell differentiation. To understand how integrin and BMP receptors work together to orchestrate cell identity and tissue specificity, we need to decipher their organization, their interactions at the molecular scale and their spatio-temporal coordination.

Our team has set up innovative molecular tools to control at high spatio-temporal resolution various aspects of adhesive receptors. We will benefit from the IAB imaging platform to unravel the interplay between receptors at the molecular scale by adapting super-resolution microscopy. The dynamic of adhesion sites on cell differentiation will be investigated by integrating transcriptomic and proteomic profiling. This work will be performed in collaboration with the group of Catherine Picart (Grenoble) and Benoit Ladoux (Paris).

Your background: We are looking for a highly motivated, talented and self-driven candidate with a good knowledge of cellular signaling and mechanobiology. The candidate should have a background in cell biology and/or in biophysics with excellent practice of optical microscopies.

The project will be conducted in a stimulating, highly interdisciplinary and international environment at the Institute for Advanced Biosciences, Grenoble, France. Grenoble is a fun and sporty city known for its high quality of life.

Please send CV and the names of 2 references (with email address and phone numbers) to:
Corinne.albiges-rizo@univ-grenoble-alpes.fr

Review of applications will start immediately and continue until the position is filled.

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