

## Open position in Chemical Biology / Biophysical Chemistry

Our **laboratory of Biophysical Chemistry of Macromolecules (LCBM)** at the EPFL in Lausanne, Switzerland ([www.epfl.ch/labs/lcbm/](http://www.epfl.ch/labs/lcbm/)) offers several PhD positions in the fields of **chemical biology** and **biophysical chemistry**.

Our main focus is to understand the regulation of critical cell structures (chromatin, cytoskeleton) using a combination of chemistry and biophysics.

For the chromatin project, our laboratory observed how pioneer transcription factors (pTFs) can access closed chromatin ([Mivelaz et al., Molecular Cell 2020](#)). Based on this study and the methods developed therein, we are now investigating molecular mechanisms of chromatin remodeling controlled by pTFs, using genetics, chemical biology, and single-molecule assays.

For the cytoskeleton project, we recently developed a new method to chemically introduce post-translational modifications into tubulin, the major component of microtubules. This allows our laboratory, to dissect the mysterious **tubulin code** ([Janke & Magiera, Nat Rev Mol Cell Biol 2020](#)), a regulatory mechanism that controls the dynamics of the microtubule cytoskeleton.

### Your profile (for the PhD position):

- A master in chemistry, biochemistry, biophysics or chemical biology
- Experience in working in a chemistry, biochemistry or biophysics (imaging) laboratory.
- Good knowledge in written and oral English.
- Highly motivated for discovering molecular mechanisms in a challenging environment.
- Interest for interdisciplinary projects.
- A passion for biophysical chemistry and genetic regulation at the highest level.

### Application/selection procedure:

1. Send a **Letter of motivation**, a **CV**, a **summary of previously done research** and the **contact information of 3 referees** to [beat.fierz@epfl.ch](mailto:beat.fierz@epfl.ch).
2. Selected candidates will be invited for a (virtual) interview, and, in a second round a virtual visit (including a seminar and meetings with PhD students and postdocs).
3. If you need further information, visit <https://lcbm.epfl.ch/fierz/>, or contact [beat.fierz@epfl.ch](mailto:beat.fierz@epfl.ch). For administrative issues concerning the doctoral program, please contact Ms Odegaard ([annelene.odegaard@epfl.ch](mailto:annelene.odegaard@epfl.ch)).

### Key reference:

The mechanistic basis for chromatin invasion and remodeling by the yeast pioneer transcription factor Rap1, Mivelaz, M., Cao, A.-M., Kubik, S., Zencir, S., Hovius, R., Boichenko, I., Stachowicz, A.M., Kurat, C.F., Shore, D., *Fierz B.\**, 2020, *Mol Cell.*, <https://doi.org/10.1016/j.molcel.2019.10.025>