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/) 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.
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. For administrative issues concerning the doctoral program, please contact Ms Odegaard (annelene.odegaard@epfl.ch).

Key reference: