

Post-doc M/F in structural biology at Ecole Polytechnique, funded by the FRM

Structural Biology of the Cell Laboratory-CNRS-Ecole Polytechnique-

Ecole Polytechnique offers a unique interdisciplinary environment, including laboratories dedicated to molecular and cellular biology, chemistry, biomechanical engineering, biophysics, optics, computer science and applied mathematics. Ecole Polytechnique is a member of the "Institut Polytechnique de Paris". It is also part of the vibrant Saclay science cluster just south of Paris. These organizations are combining their strengths to develop the excellence of research.

A three-year post-doctoral position funded by the "Fondation pour la Recherche Médicale, FRM" is available at the "Translation mechanisms" team led by [Emmanuelle Schmitt](#) and [Yves Mechulam](#) at the Structural Biology of the Cell laboratory (BIOC) at Ecole Polytechnique, <https://portail.polytechnique.edu/bioc/en/recherche/translation-mechanisms>. The BIOC laboratory is a joint research unit of the CNRS and the Ecole Polytechnique, located on the Palaiseau campus and perfectly equipped for the project. Moreover, the laboratory has a privileged access to the CIMEX (Centre Interdisciplinaire de Microscopie Electronique de l'X) which has a Titan Themis 300kV microscope equipped with a Falcon 3 direct electron detector.

Project: The project focuses on a neurodegenerative disease characterized by specific motor neuron death caused, among others, by an aberrant translation event. The research project aims to characterize, from a functional and structural point of view, the molecular basis of this aberrant protein synthesis. Our consortium is made up of a team specialized in functional studies of translation (Franck Martin, IBMC Strasbourg) and our team, expert in structural studies of translation initiation. The Post-doc recruited will primarily use structural biology, in particular cryo-EM, to identify the ribosomal initiation and elongation complexes responsible for this aberrant translation.

Candidate: The candidate must hold a PhD in biology, chemistry or biophysics, and have a sound knowledge of cryo-EM and purification of macromolecular complexes. Applications should be sent to Emmanuelle Schmitt (emmanuelle.schmitt@polytechnique.edu). Interested candidates should send their CV, a cover letter describing their research interests and motivation, and the names of people who can be contacted for reference.

