

NOLLMANN LAB

Center for Structural Biology





Centre National de la Recherche Scientifique Institut National de la Santé et la Recherche Médicale Université de Montpellier, Montpellier, France

Engineering position on spatial genomics

The Center for Structural Biochemistry (CBS) carries out research at the forefront of structural biology and biophysics as a means to reveal the fundamental physical mechanisms underlying biological activity and its regulation. The CBS is located at the heart of a world-class research campus in Biology in the vibrant city of Montpellier in the French Riviera.

Our interdisciplinary group is interested in understanding the mechanisms of DNA organization and remodeling by building state-of-the-art microscopes, and image analysis tools. We have recently developed a novel spatial genomics methodology (Hi-M) to acquire tens/hundreds color images. We are looking for highly motivated candidates to fill two engineer positions: (project 1) use spatial genomics to investigate the mechanisms driving chromatin organization during meiosis in mice, and (project 2) develop imaging-based spatial multi-omics to visualize epigenetic marks and 3D chromatin organization in Drosophila, mouse and human samples. Candidate 1 will have expertise in microscopy and/or molecular biology, and will be in charge of amplifying oligopaint libraries, performing DNA-FISH, preparing chromosome spreads/squash from spermatocytes, and acquiring and analyzing spatial genomics datasets. Candidates for project 2 will have experience in molecular biology and sequencing-based technologies, and will be in charge of designing and validating spatial multi-omics strategies to image epigenetic marks in cancer models. Candidates are expected to express a strong interest in working at the interface between biology, bioinformatics and physics. Work will involve active collaborations with Thomas Robert (CBS, Montpellier), Cedric Maurange (IBDM Marseille) and Celine Vallot (Institut Curie). Positions are funded by the ANR (Comore) and the PEPR Cell-ID. Contracts can start as early as 1 January 2026 (1 year with the possibility of renewal). Minimum time of experience requested: none.

Further details: http://nollmannlab.org/ and https://www.pepr-cell-id.fr/

Applicants should apply with their CV with letter of motivation at https://emploi.cnrs.fr/Offres/CDD/UMR5048-FLOLEP-117/Default.aspx

Relevant Publications

Devos, et al., **Genome Biology**, 2024, vol 25: 47.

Messina, et al. BioRxiv 2024 DOI: 10.1101/2024.09.18.613689

Espinola, Goetz, et al. **Nature Genetics**, 2021, 53, pages 477-486.

Cardozo Gizzi, et al., **Mol Cell**, 2019, 74, Issue 1, p1-222.



