

Louise Pinet

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Assistant Professor (MCF) at CRMN - ENS de Lyon

Main expertise

I am a structural biologist specialized in NMR spectroscopy and single-molecule fluorescence of biomolecules. I am particularly interested in intrinsically disordered proteins (IDPs) in the context of cell signalling.

Academic path

2023 - present Assistant Professor (Maîtresse de conférences) at CRMN - ENS de Lyon

Very-high field NMR Center of Lyon (Lyon, France)

2020 - 2023 Post-doctoral researcher

Dissecting chromatin decompaction by poly(ADP-ribose) at the single-molecule level.

Schuler group, Department of Biochemistry, University of Zürich (Zürich, Switzerland)

2016 - 2019 PhD in Biochemistry and Structural Biology

Institut de Chimie des Substances Naturelles, CNRS UPR2301 (Gif-sur-Yvette, France), Université Paris-Saclay. Thesis defended on 17 October 2019.

Structural and functional investigation of the intrinsically disordered C-terminal tail of ErbB2 by NMR
Supervisors : Carine van Heijenoort and Nadine Assrir

Pre-doctoral training

2013-2016 ENS de Paris student, Department of Chemistry

ENS de Paris (Paris, France)

2016 MSc in Biophysics

Université Pierre et Marie Curie (now Sorbonne Université, Paris, France)

February - July 2016 Intern

Institut de Chimie des Substances Naturelles, CNRS UPR2301 (Gif-sur-Yvette, France)

Structural and functional investigation of the intrinsically disordered C-terminal tail of ErbB2 by NMR

Supervisors : Carine van Heijenoort and Nadine Assrir

February - July 2015 Intern

Gierasch Lab, Department of Biochemistry and molecular Biology, Umass Amherst (Amherst, MA, USA)

Mutagenesis of the interface NDB/linker residues of DnaK

Supervisors : Lila Gierasch et Eugenia Clerico

2014 BSc in Chemistry

Université Pierre et Marie Curie (now Sorbonne Université, Paris, France)

2011-2013 Physics and Chemistry intensive training (CPGE PCSI - PC*)

Lycée du Parc (Lyon, France)

Publications

Original research papers

- A1 Wang, B. ; Kronenberg-Tenga, R. ; Rosti, V. ; Di Patrizio Soldateschi, E. ; Luo, Q. ; Iannacchero, U. M. ; Pinet, L. ; Eibauer, M. ; Boujemaa-Paterski, R. ; Schuler, B. ; Lanzuolo, C. ; Medalia, O. The Molecular Basis of Lamin-Specific Chromatin Interactions. Nat Struct Mol Biol 2025, 1–13. <https://doi.org/10.1038/s41594-025-01622-5>.
- A2 Pinet, L. ; Wang, Y.-H. ; Deville, C. ; Lescop, E. ; Guerlesquin, F. ; Badache, A. ; Bontems, F. ; Morellet, N. ; Durand, D. ; Assrir, N. ; van Heijenoort, C. Structural and Dynamic Characterization of the C-Terminal Tail of ErbB2 : Disordered but Not Random. Biophysical Journal 2021, 120 (10), 1869–1882. <https://doi.org/10.1016/j.bpj.2021.03.005>.
- A3 Pinet, L. ; Wang, Y.-H. ; Vogel, A. ; Guerlesquin, F. ; Assrir, N. ; van Heijenoort, C. 1H, 13C and 15N Assignments of Human Grb2 Free of Ligands. Biomol NMR Assign 2020, 14 (2), 323–327. <https://doi.org/10.1007/s12104-020-09970-7>.
- A4 Chan-Yao-Chong, M., Deville, C., Pinet, L., van Heijenoort, C., Durand, D., Ha-Duong, T. Structural Characterization of N-WASP Domain V Using MD Simulations with NMR and SAXS Data. Biophysical Journal 2019, 116 (7), 1216–1227. <https://doi.org/10.1016/j.bpj.2019.02.015>.
- A5 Wang, Y. H., Pinet, L., Assrir, N., Elantak, L., Guerlesquin, F., Badache, A., Lescop, E., van Heijenoort, C. 1H, 13C and 15N Assignments of the C-Terminal Intrinsically Disordered Cytosolic Fragment of the Receptor Tyrosine Kinase ErbB2. Biomol NMR Assign 2018, 12 (1), 23–26. <https://doi.org/10.1007/s12104-017-9773-4>.

Review papers

- R1 Pinet, L. ; Assrir, N. ; van Heijenoort, C. Expanding the Disorder-Function Paradigm in the C-Terminal Tails of Erbbs. Biomolecules 2021, 11 (11), 1690. <https://doi.org/10.3390/biom11111690>.

Teaching

2023-present Lecturer, Department of Chemistry, ENS de Lyon (Lyon, France) - 192 hours / year
2020-2023 Teaching Assistant at the Bachelor level, Department of Biochemistry, University of Zürich (Zürich, Switzerland) - 40 hours
2016 - 2019 Teaching Assistant at the Bachelor and Masters level, Department of Chemistry, Université Paris-Sud (Orsay, France) - 64 hours / year

Other responsibilities

2023 - present Equality correspondent for the CRMN (Lyon, France)
2023 - present International Correspondent for the Department of Chemistry, ENS de Lyon (Lyon, France)