Funded by the EU Horizon 2020 research and innovation programme from July 2021 to June 2025

MOSBRI
Molecular-Scale Biophysics Research Infrastructure

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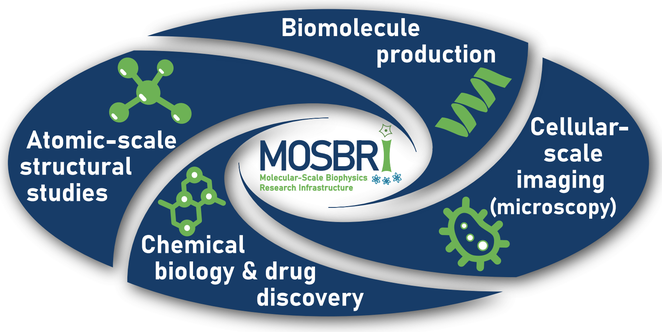
A transnational initiative to structure and consolidate the European molecular biophysics community

MOSBRI enables academic and industrial scientists to carry out ambitious integrative multi-technological studies of biological systems at the crucial intermediate level between atomic-resolution structural descriptions and cellular-scale observations.



Molecular-scale biophysics aims at studying biological systems at an intermediate level between atomic-resolution structural descriptions and cellular-scale observations. It addresses essential questions on how active biomolecular assemblies form and function. These include insights into their architecture, folding, stability and dynamics, as well as into the energy and kinetics of their interactions, both at ensemble and single-event levels. It is a strongly interdisciplinary field involving physicists, biologists, chemists, as well as medical, bioinformatics and materials scientists.

Objectives

- Provide free-of-charge Trans-National Access (**TNA**) to a wide range of outstanding techniques and expertise in molecular-scale biophysics, to scientists worldwide, both from academia and industry.
- Create a wide and interactive community of users.
- Establish and disseminate high quality standards and best practices, through multi-laboratory benchmarking actions.
- Generate and disseminate cutting-edge knowledge through Joint Research Activities (**JRA**) and Networking Activities (**NA**).
- Engage in synergies with a wide variety of European industrial and academic stakeholders, including EBSA and its member societies.

Achievements (up to November 2023)

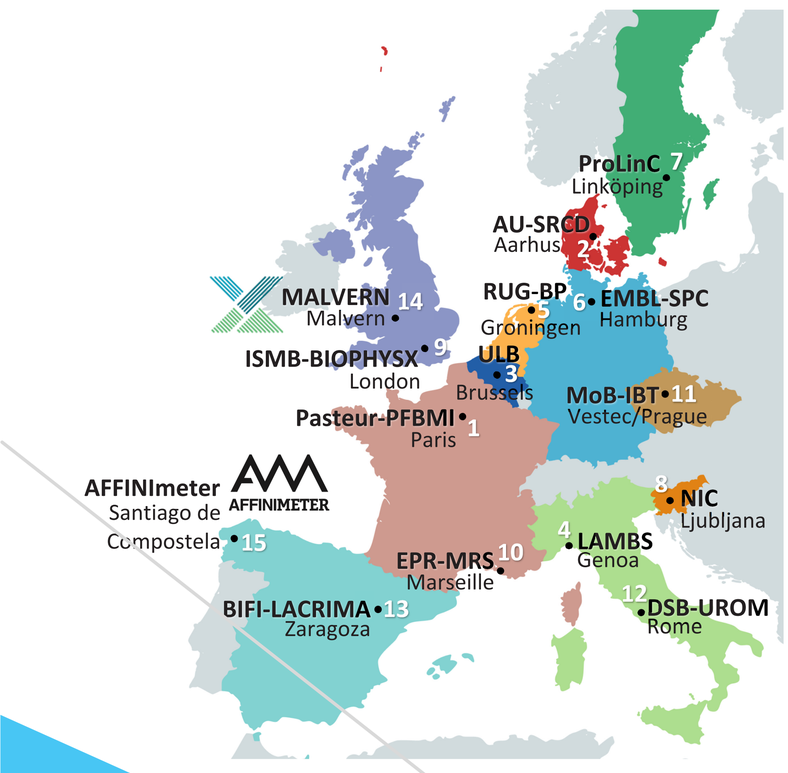
- Close to 200 TNA visits hosted, involving researchers and students from all over Europe and beyond.
- Standard protein samples ready for worldwide dissemination.
- Two international conferences organised: **MOSBRI** 2022 (Paris) and **MOSBRI** 2023 (Zaragoza).
- Nine courses and training schools organised in eight different European countries.
- Development of the first integrative Molecular Biophysics Database prototype.
- Coining of proficiency accreditation schemes for biophysical techniques.

MOSBRI provides access to a truly integrated panel of methodological tools and associated expertise, enabling breakthrough scientific discoveries concerning the molecular basis of biological processes and the development of novel therapeutic and prophylactic treatments.

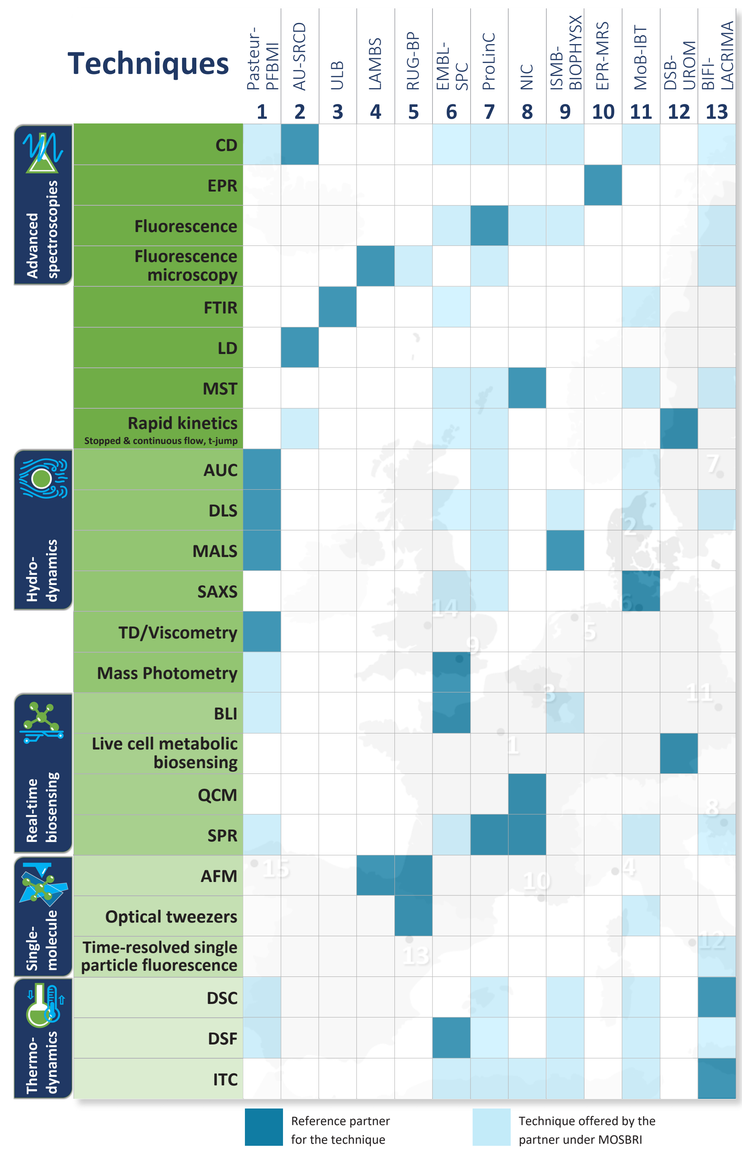
Apply for access to laboratories of excellence in MOSBRI: https://www.mosbri.eu/apply-for-tna/

MOSBRI partners

MOSBRI is a consortium of **13 academic centres of excellence and 2 industrial partners** from 11 different European countries, coordinated by Institut Pasteur (Paris, France). **MOSBRI** aims to address the pressing need for a truly integrated and multi-methodological taskforce, combining the best up-to-date instrumentation and the best expertise available in Europe, to the benefit of all researchers in the fields of biomedicine, biotechnology, biomaterials and beyond, from both academia and industry.



1 **Pasteur-PFBMI** – Molecular Biophysics core facility, Institut Pasteur, *Paris, FR*
2 **AU-SRCD** – SRCD facility at ASTRID2, Aarhus University, *Aarhus, DK*
3 **ULB** – Centre for Structural Biology and Bioinformatics, Université Libre de Bruxelles, *Brussels, BE*
4 **LAMBS** – Laboratory for Advanced Microscopy Bioimaging Spectroscopy, Universita Degli Studi Di Genova, *Genoa, IT*
5 **RUG-BP** – Zernike Institute for Advanced Materials, Rijksuniversiteit Groningen, *Groningen, NL*
6 **EMBL-SPC** – Sample Preparation and Characterisation Facility, EMBL Hamburg (HH), *Hamburg, DE*
7 **ProLinC** – PROtein folding and Ligand INteraction Core facility, Linköpings Universitet, *Linköping, SE*
8 **NIC** – Molecular Interactions, Department of Molecular Biology and Nanobiotechnology, National Institute of Chemistry, *Ljubljana, SI*
9 **ISMB-BIOPHYSX** – Protein Crystallography and Biophysics Centre, Birkbeck College, University of London, *London, UK*
10 **EPR-MRS** – EPR-Facility Bioénergétique et Ingénierie des Protéines, CNRS & Aix-Marseille University, *Marseille, FR*
11 **MoB-IBT** – Centre of Molecular Structure, Institute of Biotechnology of the Czech Academy of Sciences, *Vestec, CZ*
12 **DSB-UROM** – Sapienza University of Rome, *Rome, IT*
13 **BIFI-LACRIMA** – Institute for Biocomputation and Physics of Complex Systems, University of Zaragoza, *Zaragoza, ES*
14 **Malvern** – Malvern Panalytical Limited, *Malvern, UK*
15 **AFFINImeter** – AFFINImeter (S4SD), *Santiago de Compostela, ES*



Upcoming MOSBRI events

"Techniques to study single molecule/particle interactions" course (Vestec, 13-17 May 2024)
3rd MOSBRI international scientific conference (Ljubljana, 10-13 June 2024)
"Basic and advanced protocols in biological calorimetry" course (Zaragoza, 8-10 July 2024)

www.mosbri.eu

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