



Newsletter n.4

Dear ARBRE members,

It's the end of 2023 and ARBRE is getting ready to an exciting new coming year. During the last 12 months ARBRE has organised a symposium around its annual General Assembly (June '23) and co-organised a successful parallel session at EBSA2023 in Stockholm (Aug '23).

The association has been also officially presented at the EBSA Executive Committee and there will be the possibility to be accepted as member of the EBSA as a trans-national association. This will be discussed throughout 2024 and a final answer will be given at EBSA2025 in Rome (June '25).

ARBRE has also been officially registered at the European Union participant portal and participated to a EU-WIDERA-Twinning project on the biophysics of extreme marine environment. Fingers crossed until february 2024 ;-)

More to come in 2024 → in the next pages

Remember that the website <https://www.arbre-biophysics.eu> still needs your help to feed its content, send an email to info@arbre-biophysics.eu to get involved.

Last, but not least, in January '24 you will receive a mail to renew your registration fee by bank transfer from wherever you are (even outside SEPA).

With my best wishes for a happy end of the year,

Adriana Erica Miele
President of ARBRE

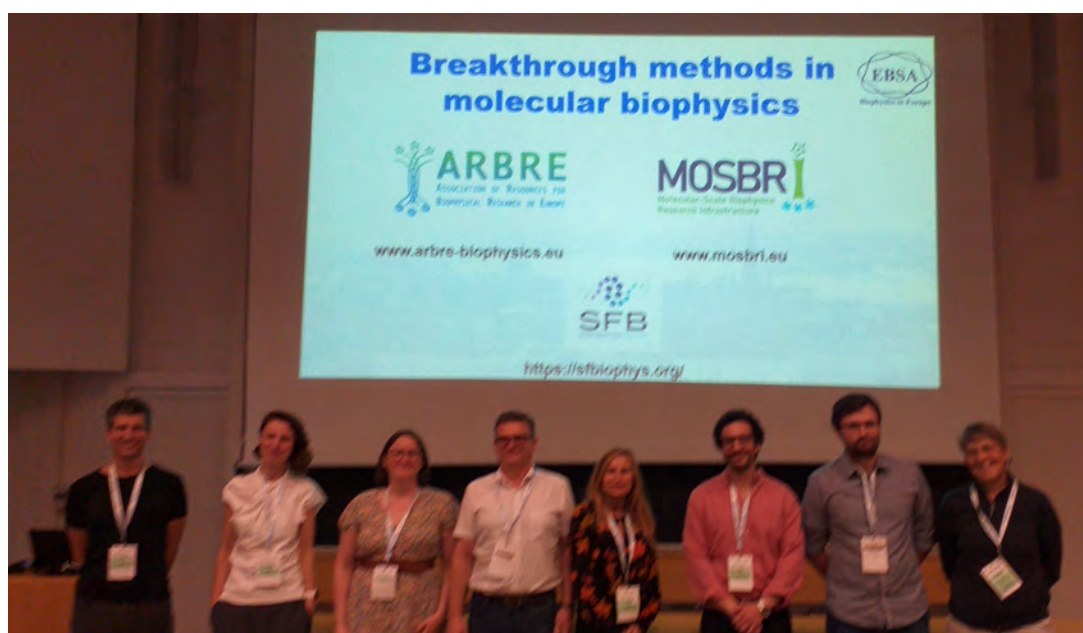
Lyon, December 12th 2023

Report on MOSBRI-ARBRE @ EBSA2023

The parallel session "Breakthrough methods in Molecular biophysics" was held on August 4th, the last morning of the conference. Despite being an early wake up after the social dinner, about 90 people attended the session, which was animated by ARBRE members Isabel Alves and Tomasz Kobiela.

All the six interventions, both invited and selected, were high level and the discussion was very lively. We learned about: label-free microscopy for interaction studies; Tau regulation of microtubules; coupling AFM with infrared spectroscopy; ultrafast optical trapping; single particle profiling; the yin and yang of biosensors.

In the official feedback forms, the session was very much appreciated: thanx to all the attendees and responders!



From left to right: Zdenek Lansky, Barbora Spakova, Cécile Feuillié, Tomasz Kobiela, Isabel Alves, Giulio Bianchi, Taras Sych and Helena Danielson

Announcements

Registration deadline is approaching for the **28th School of Pure and Applied Biophysics "Molecules IN(ter)ACTION"** → December 16th

<https://venice2024.ibf.cnr.it>

The school will be in the beautiful Palazzo Franchetti in central Venice from February 5th to 9th 2024.

A range of experimental techniques for tracking both *in vitro* and *in vivo* biochemical reactions and other processes crucial to life will be explored.

SIBPA
Società Italiana di Biofisica, Fisica e Microscopia

Istituto Veneto di Scienze Lettere ed Arti

MOSBRI
Molecular-Scale Biophysics Research Infrastructure

XXVIII School of Pure and Applied Biophysics
February 5-9, 2024

MOLECULE IN(ter)ACTION

VENICE - Palazzo Franchetti

venice2024.ibf.cnr.it

The aim of this course is to delve into the structure, conformation, dynamics, and interactions of biomolecules in diverse environments, from solutions to living cells and biological tissues.

We will explore a range of experimental techniques for tracking both *in vitro* and *in vivo* biochemical reactions and other processes crucial to life.

Deadline for applications - December 16th 2023

Confirmed Speakers:

Alberto Diaspro	Advancing Perspectives in Optical Microscopy: from quantum to label free bioimaging
Hans Ulrich Dodt	15 years of Ultramicroscopy - from mice to man
Giorgio Schirò	Probing protein structural dynamics by time-resolved X-ray techniques
Francesco Cardarelli	Spatiotemporal image correlation spectroscopy to study dynamic molecular processes at the nanoscale
Peter Hinterdorfer	Avidity Amplification of Spike Variants of Concern explored at Single-Molecule Resolution
Don Lamb	FRET: From single-molecules to cells
Daniel Aili	Real-time biosensing for biomolecular interaction analysis
Valerie Belle	How to explore protein dynamics and interactions using Electron Paramagnetic Resonance spectroscopy
Debora Berti	Leveraging biomolecular interactions from nano to meso-scale to build hybrid systems
Chiara Stringari	Label-free multimodal multiphoton microscopy of living tissues
Paolo Swuec	Imaging what's smaller than light: the Electron Microscopy toolkit
Peter Hinterdorfer	Avidity Amplification of Spike Variants of Concern explored at Single-Molecule Resolution
Claudio Canale	AFM assisted STED microscopy. Looking at the dark side.

Scientific Coordinators: Luca Lanzaò , Valeria Vetri
Scientific Committee: Sara Anselmo, Claudio Canale, Paolo Canepa, Delia Francesca Chillura Martino, Irene Costantini, Giuseppe Sancataldo
Webmaster: Francesco impallari

ARBRE will be present at the **3rd MOSBRI Annual Conference** in beautiful Ljubljana (June 10th – 13th 2024).

Members Josef Houser and Patrick England will be in charge of the organization of the session "Emerging approaches in Biophysics". There are bursaries available to PhD students and reduced fees for early bird registration.

ARBRE will offer a prize to the best poster presentation → submit your abstract.

Visit the website for more info:

<https://www.mosbri.eu/events/conferences/ljubljana-2024/>



Practical courses announcements

MOSBRI basic level school (BLS2) on "Single molecule biophysics in cell lysates" at the Institute of Biotechnology, Czech Academy of Sciences, Vestec (Czechia)

<https://www.mosbri.eu/training/basic-level-schools/bls2/>

May 13th - 17th 2024

MOSBRI end user short course (ESC8) on "Basic and advanced protocols in biological calorimetry" at BIFI-Lacrima, Zaragoza (Spain)

July 8th -10th 2024