

# Expansion Microscopy workshop

## Protocols and applications

October 2<sup>nd</sup> 2023

Centre Broca Nouvelle-Aquitaine, 146 rue Léo Saignat, 33076 Bordeaux

Amphithéâtre Broca

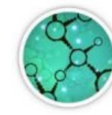
### PROGRAM

- 9h00 **Welcome to participants**
- 9h15 **Introduction of WG Expansion from the rtMFM-** Mónica Fernández Monreal
- 9h30 **Introduction of France BioImaging** - Caroline Thiriet
- 9h45 **Session 1 : Chemistry of expansion hydrogels-** Chaired by Sophie Abélanet.
- Rational design for expansion microscopy: what makes polymers gel and swell?** Sven Truckenbrodt- E11 Bio, Alameda, California, US.
- 10h30 **Coffee break**
- 11h00 **Short talks (15 min + 5 min Q&A)**
- Super-resolution expansion microscopy applied at tissue scale in plants** Magali Grison- LBM Bordeaux, France
- Localization of mitochondrial proteins and visualization of mitochondrial membranes by Expansion Microscopy** Manuel Rojo- Équipe BioDynaMit IBGC Bordeaux, France
- Expansion microscopy on mouse cerebellum tissue slices: increased resolution to decipher synapse substructure** Pierre Hener- INCI Strasbourg, France
- 12h00 **Lunch (on-site buffet) and posters.**
- 13h30 **Session 2 : Correlative ExM** - Chaired by Mónica Fernández Monreal
- Toward High Spatially Resolved Proteomics Using Expansion Microscopy** Maxence Wisztorski- University of Lille, Inserm, CHU Lille, U1192, France
- 14h15 **Short talks (15 min + 5 min Q&A)**
- Structural and molecular profiling of large tissue samples** Alvaro Crevenna- EMBL Rome, Neurobiology and Epigenetics Unit, Rome, Italy
- Nanoscale organization of the midbody revealed by expansion microscopy** Nadja Hümpfer- Institute for Chemistry and Biochemistry, Freie Universität Berlin, Germany
- 14h45 **Coffee break and posters**



**MITI**

Mission pour les Initiatives  
Transverses et Interdisciplinaires



**FRANCE-BIOIMAGING**

15h15 **Session 3 : Innovative protocols in ExM-** Chaired by Jim Dompierre

**Visualizing the native cellular organization by coupling cryo-fixation with expansion microscopy (Cryo-ExM)** Marine Laporte- Institut NeuroMyoGène, Université Claude Bernard, Lyon, France

16h00 **Short talks (15 min + 5 min Q&A)**

**Microtubule reorganization in epidermal keratinocytes** Keying Guo- MCD/CBI, University Toulouse III, Toulouse, France

**Unveiling the biogenesis of an essential cytoskeleton structure in *T. brucei*: The Game-Changing Role of ExM** Melanie Bonhivers- MFP, Bordeaux, France

16h40 **Round table-** Animated by the organizers