

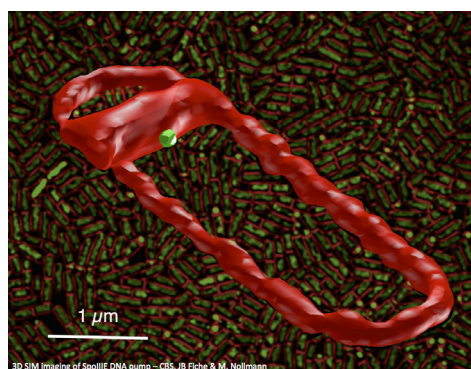
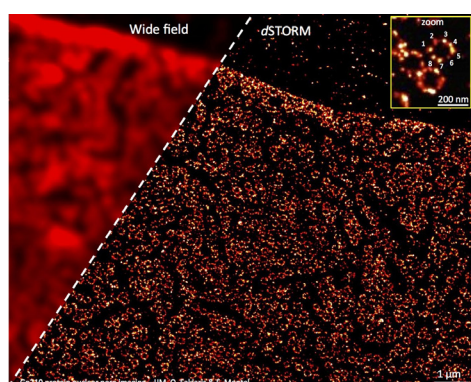
Inserm Workshop 237

New trends in super-resolution optical microscopy: unraveling the ultra-structure and dynamics of molecular assemblies in cells and tissues

REGISTRATION DEADLINE: March 27, 2015

ORGANIZERS: Maxime DAHAN (Institut Curie, Paris), Orestis FAKLARIS (Institut Jacques Monod, Paris) and Marcelo NOLLMANN (Centre de Biochimie Structurale, Montpellier)

AIMS: Present the theoretical basis, the latest technological developments, and the acquisition and data analysis procedures on super-resolution microscopy techniques used to investigate the ultra-structure of molecular assemblies and their dynamics in living cells and tissues.



PHASE I – CRITICAL ASSESSMENT

September 30 - October 2, 2015 in Bordeaux

INTRODUCTION TO SUPER-RESOLUTION TECHNIQUES

With Markus Sauer (University of Wurtzburg, DEU), Heintzmann Rainer (Jena University, DEU & King's College London, GBR), Christian Eggeling (University of Oxford, GBR) and Joerg Enderlein (Göttingen University, DEU)

APPLICATIONS AND NEW DEVELOPMENTS IN SINGLE-MOLECULE SUPER-RESOLUTION MICROSCOPY

With Maxime Dahan (Institut Curie, FRA), Bo Huang (University of California, USA), Marcelo Nollmann (Centre de Biochimie Structurale, FRA) and Laurent Cognet (LP2N - Institut d'Optique Graduate School, FRA)

LABELING, THEORETICAL AND COMPUTATIONAL METHODS

With Raimund Ober (Texas University, USA), Susan Cox (King's College London, GBR), Max Ulrich (University of Freiburg, DEU), Vladislav Verkusha (University Albert Einstein, USA) and Luke Lavis (Howard Hughes Medical Institute, USA)

IN DEPTH SUPER-RESOLUTION MICROSCOPY, STED, SIM MICROSCOPIES

With Andrew York (National Institute of Biomedical Imaging and Bioengineering, USA), Orestis Faklaris (Institut Jacques Monod, FRA) and Schermelleh Lothar (University of Oxford, GBR)



PHASE II – TECHNICAL WORKSHOP

November 2015, Montpellier (MARS imaging facility - Centre de Biochimie Structurale, MRI imaging facility Institut Genomique Humaine) - Paris (ImagoSeine imaging facility - Institut Jacques Monod)

The objectives of Phase II are to provide basic training in the utilization of super-resolution microscopies. Training sessions will include in depth practicals in STED, 3D multi-color SIM and 3D-PALM/STORM microscopies. Emphasis will be given on sample preparation, comprehension of the optical setup, alignment and proper instrument calibration, and proper data analysis methods and interpretation of results.

SELECTION: 18 trainees will be selected among phase I participants.

Information and registration:

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