

Inserm Workshop 252

DNA/RNA nanotechnology: biological and biomedical applications

REGISTRATION DEADLINE: June 29, 2018

ORGANIZERS: Gaëtan BELLOT (Inserm U1191, Montpellier), André ESTEVEZ-TORRES (UMR 8237-Laboratoire Jean Perrin, Paris), Didier GASPARUTTO (CEA, Grenoble)

AIMS: Learn to design nucleic acid structures and devices that are sufficiently sophisticated for asking biologically relevant questions and solve problems of medical interest. Focus on devices that are functional in living cells and in clinical samples.



PHASE I – CRITICAL ASSESSMENT

September 26-28, 2018 in Bordeaux

ENGINEERING NUCLEIC ACID STRUCTURES

Yonggang KE (Georgia Tech, USA), Kirill AFONIN (UNC Charlotte, USA)

FUNCTIONAL DEVICES FOR CELL BIOLOGY

Björn HÖGBERG (Karolinska Institute, SWE), Mingxu YOU (UMass Amherst, USA)

DETECTING WITH NUCLEIC ACIDS

Frédéric DUCONGÉ (CEA- MIRCen, FRA), Laura Na LIU (Max Planck Institute, DEU), Guillaume GINES (ESPCI, FRA)

NEXT GENERATION DNA SYNTHESIS AND ETHICS

Piet HERDEWYN (KU Leuven, BEL), Bernadette BENSUADE-VINCENT (Université Panthéon-Sorbonne, FRA)



PHASE II – TECHNICAL WORKSHOP

October 15-19, 2018 - Montpellier and Paris

The practical phase will be split into three themes and two locations. In Montpellier, it will provide an introduction to the computer design and electron microscopy characterization of 3D DNA nanostructures and to the conception and manipulation of DNA-based nanosensors (aptamers, molecular beacons) to detect small molecules or enzymatic targets. In Paris, it will make you acquainted with high-throughput, isothermal, digital PCR techniques.

SELECTION: 5 trainees on 3D DNA and 5 trainees on DNA sensors for Montpellier and 5 trainees for Paris will be selected among Phase I participants.

Information and registration:

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