

# 4<sup>th</sup> Annual Scientific Meeting of GDR RNA

June 14 and 15, 2023 in Montpellier

RNA as a tool and a target for medicinal  
chemistry and chemical biology  
GDR 2083



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## June 14 and 15, 2023 in Montpellier

Wednesday June 14, 2023 – DAY 1



12:00 Welcome and Lunch

14:00 **Opening & Introduction**

Carine TISNE, Françoise DEBART, Alexandre DAVID

### Session 1. Biocomputing

14:15 **Quadruplexes are everywhere... on RNA too!**

Jean-Louis MERGNY

Laboratoire d'Optique et Biosciences (LOB), Palaiseau

14:45 **SHAMAN: a mixed-solvent Molecular Dynamic protocol to identify binding pockets on RNA conformational ensembles**

Francesco PANEI

Département de Biologie Structurale et Chimie, Institut Pasteur, Paris

15:05 **Design by artificial intelligence and screening of artificial SAM aptamer**

Pierre HARDOUIN

Cibles Thérapeutiques et Conception de Médicaments (CITCOM), Paris

15:25 **Impact of conformational shifts on the hairpin ribozyme reactivity**

Solène FROGET

Institut de Biologie Physico-Chimique (IBPC), Paris

15:45 **Exploring the Role of Divalent Cations in the Hammerhead Ribozyme with Molecular Simulations**

Julie PUY-FOURTINE

Institut de Biologie Physico-Chimique (IBPC), Paris

16:05 Coffee break



### Session 2. Chemical Biology (I)

16:30 **Dynamic Covalent Polymers for RNA Delivery**

Sébastien ULRICH

Institut des Biomolécules Max Mousseron (IBMM), Montpellier

17:00 **Synthesis of bisubstrate analogues for RNA methylation studies using two transition metal-catalyzed reactions**

Emmanuelle BRAUD

Laboratoire de Chimie et Biochimie Pharmacologiques et Toxicologiques (LCBPT), Paris

17:30 **Design and synthesis of novel RNA ligands as inhibitors of oncogenic microRNAs production**

Jihed AZZOUZ

Institut de Chimie de Nice (ICN), Nice

17:50 – 19:00 **Poster session and End of day 1**

Thursday June 15, 2023 – DAY 2

### Session 3. Structural and Cellular Biology

- 09:00 **Unveiling the Mechanism of Calcium-Dependent EndoU Ribonuclease Activation**  
Sébastien CAMPAGNE  
Acides nucléiques : Régulations naturelles et artificielles (ARNA), Bordeaux
- 09:30 **Decoding the Translatome: Identifying a Serine-Dependent Pancreatic Cancer Subtype and Its Metabolic Relationship with CAFs**  
Yvan MARTINEAU  
Centre de Recherches en Cancérologie de Toulouse (CRCT), Toulouse
- 10:00 **Characterization of METTL5 pathogenic mutants responsible for intellectual disorders** Laurianne TAY  
Structures Biomoléculaires et Cellulaires (BIOC), Palaiseau
- 10:20 **Silencing of miR-200c-3p promotes radioresistance in prostate cancer**  
Maureen LABBE  
Centre de Recherche en Cancérologie et Immunologie, ITMI, Nantes
- 10:40 Coffee break
- 11:10 **The interaction of HIV-1 Integrase with TAR RNA induces structural changes that promote the binding of cellular and viral factors**  
Francesca FIORINI  
Institut de Biologie et Chimie des Protéines (IBCP), Lyon
- 11:40 **A model for SAGA assembly from nascent proteins to functional complex**  
Bérengère PRADET-BALADE  
Centre de Recherche en Biologie cellulaire de Montpellier (CRBM), Montpellier
- 12:10 Lunch break

### Session 4. Chemical Biology (II)

- 13:45 **RNA binders and strategies to fight antimicrobial resistance**  
Dominique FOURMY  
Laboratoire de Biologie et Pharmacologie Appliquée (LBPA), Gif sur Yvette
- 14:15 **Biochemistry-informed design selects potent siRNAs against SARS-CoV-2**  
Hervé SEITZ  
Institut de Génétique Humaine (IGH), Montpellier
- 14:45 **Peptidic vectors for siRNA delivery in vitro and in vivo**  
Nadir BETTACHE  
Institut des Biomolécules Max Mousseron (IBMM), Montpellier
- 15:15 Awards to young researchers and Closing Remarks

