

Synergy between Chemists and Biologists: Advancing Frontiers of Science

(Summer School 2023)

July 10th : Day 1

- **9h: Opening Lecture:** *Chemical challenges of Life: A historical perspective*, L. Julien (ENS Ulm, Paris)

Theme 1: Medicinal Chemistry: New therapeutic target for epigenetics and genomics

- **Impact of the RNA methylation on viral infection**, B. Sargueil (CitCOM, Univ. Paris Cité)
- **Upcoming Title**, S. Medjkane, PU CNRS UMR7216 – Épigénétique et Destin Cellulaire – Univ. Paris Cité
- **Bisubstrate strategy to target m6A RNA methyltransferase**, L. Iannazzo (LCPBT, Univ. Paris Cité)

Theme 2: Vectorization

- **Non viral nucleic acid vectorization for therapeutic applications**, P. Bigey (ENSCP, Paris)
- **Bio-engineering of Extracellular Vesicle-based Delivery Vectors**, G. Lavieu (U1316, Univ. Paris Cité)
- **Surface functionalization for targeting**, M. Hemadi (ITODYS, Univ. Paris Cité)

15h30: Social Activity Student Challenge:

Treasure hunt in the forest of Fontainbleau



17h30: **Tutored Collaborative Workshop (Part 1)** *Synergy between Biologists and Chemists : What's next?*

19h30 : **Garden Party and BBQ**

July 11th : Day 2

Thème 3 : Single Biomolecule Sensing

- **Single-molecule approaches to the study of biological systems**, T. Strick (ENS Ulm, PSL)
- **Modeling membrane proteins to understand the synapse**, A. Taly, (LBT, Univ. Paris Cité)
- **Electrochemical detection and imaging of single biomacromolecules and functional bioparticles**, A. Chovin (LEM, U. Paris Cité)

Social Activity Student Challenge: Cast Away



Thème 4 : Chimie in-vivo (bioorthogonal) et chimie du vivant (pro-drug)

- **Recent trends in chemical biology**, L. Micouin (LCPBT, Univ. Paris Cité)
- **Upcoming Title**, M. Bouzon Bloch (Institut de biologie François Jacob CEA)
- **Bioorthogonality in protein modification**, A. Maruani (LCPBT, Univ. Paris Cité)

14h00 **Tutored Collaborative Workshop (Part 2)** *Synergy between Biologists and Chemists: What's next?*

- 16h : *Go back to Paris*

July 11th : Day 3

- **9h00 - 9h30 : Welcoming coffee, distribution of badges**

- 9h30 Virus-based nanomaterials: from synthesis to biological applications, T. Ha Dong (ITODYS, Univ. Paris Cité)
- 10h Advanced nanotools based on gold and silver nanoparticles for imaging and biosensing, C. Mangeney (LCPBT, Univ. Paris Cité)
- 10h30 *Upcoming Title, Institut Jacques Monod*

- **11h00 Coffee Break**

- 11h20 Climate, Chemistry and Biology, Upcoming title (LISA, Univ Paris Cité)
- 11h50 Printed Biosensors for Biological Applications : Vincent NOEL (ITODYS, Univ. Paris Cité)
- 12h10 **Tutored Collaborative Workshop (oral presentation)**

- **12h40 Lunch**

- 14h00 Bernd Schollorn: Tracking natural fluorescence of insects (LEM, Univ. Paris Cité)
- 14h30 Upcoming Title , Institut Jacques Monod, Univ. Paris Cité
- 15h Upcoming Title , Institut Jacques Monod, Univ. Paris Cité
- 15h30 Upcoming Title I. Barbarin-Bocahu, Lab. BIOC, CNRS, Ecole polytechnique

- **16h – Conclusive remark**