

## Séminaire

**Mardi 3 juin 2025 à 10h30**  
**Amphithéâtre Henri Benoît**

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# Investigation of biological systems with smart fluorescent probes in combination with quantitative fluorescence microscopy

Fluorescence microscopy is currently the method of choice for studying biological processes because it allows these phenomena to be monitored over time and space under physiological conditions. One of the main limitations is the need to label the biological object of interest with a fluorophore. In the laboratory, we are developing different families of fluorescent markers: (i) molecular probes that are sensitive to their environment and (ii) organic nanomaterials. In this talk, I will discuss the results obtained in the characterization of cellular organelles formed by the liquid-liquid phase separation mechanism using molecular rotors coupled to quantitative fluorescence imaging. I will then present how, inspired by natural photosynthetic systems, we have designed and optimized fluorescent nanomaterials that can be used in biosensing applications.

*Les personnes souhaitant rencontrer P. Didier sont priées de prendre contact avec Antonio Stocco.*