Multiscale physics of living systems (LPENS)

Members of the team

D. Amor (CPJ PSL)
JF Allemand (PR ENS)
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Indicate in which axis your team relates to:

Axis 1: Controlling and programming biological living matter.
Axis 2: Emergence of spatial and temporal organization in living matter.
Axis 3: Information processing and dynamics of biological active matter.
Axis 4: Driving evolution within living systems.

Team expertise:

- Micromanipulations, single molecules
- Live microscopy, image analysis,
- Cell microbiology
- Ecology and Evolution of Microbial Communities
- Antibiotic Resistance
- Swimming microalgae, active hydrodynamics
- Light control of microorganisms
- Optogenetics in zebrafish/bacteria
- Quantitative genomics
- Culture of marine organisms

Question of Interest and/or Collaboration wanted:

- Nucleic acid structures/molecular motors
- Bacterial colonies
- Evolution
- Soft matter (lipid domains)
- Multiscale biological engineering for the management of microbiotas and ecosystems.
- How do we drive microbial communities towards desired (healthy) stable states?
- Collective behavior, active matter
- Development of marine organisms
- Cell reprogramming in living systems
- Cancer initiation/induction and monitoring