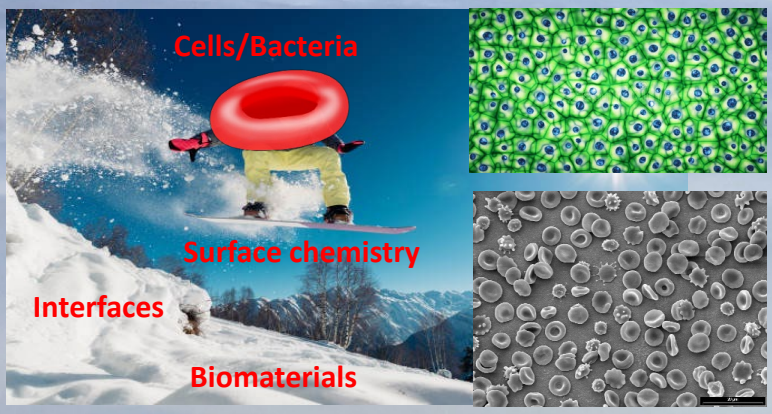
GDR Groupement de recherche
B2i
Bio-ingénierie des interfaces

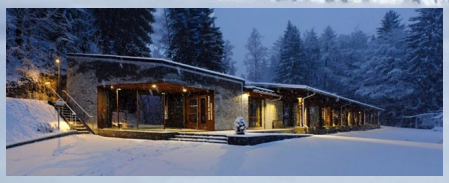
The winter school SNOSCELLS

Surfaces and New Original Strategies for CELL Studies

January 22-27, 2023, Les Houches (Haute-Savoie, France)

Explore the properties of surfaces and their action on cell (eukaryote or prokaryote) behaviour





A winter school to provide the scientific and technical basis for understanding the issues, the proposed solutions and the scientific obstacles to be overcome in the field of surface-cell interactions

The winter school programme

The scientific programme focuses on four main areas:

1. **Development of active surfaces for the control of cell activity:** focus on how to create and produce materials and surfaces that can have a physiological action on the cell (e.g. stimulus-responsive surfaces, promotion or prevention of cell adhesion for medical devices);
2. **Development of bacteriostatic and bactericidal surfaces:** presentation of the various aspects to be control in order to propose innovative solutions for new synthetic materials, or treatment of materials to control ("biofilm control") or inhibit bacterial proliferation (fight against nosocomial infections). This area meets a very strong societal demand in various fields (medical, agri-food, textile, etc.);
3. **Design of diagnostic devices (biosensors, microsystems) for the study of cellular biological samples:** introduction of the challenges in the development of new technical solutions for the study of eukaryotic cellular samples (CTCs: "circulating tumor cells" in blood) or prokaryotes (detection of pathogenic bacteria in blood, food or the environment);
4. **Raising awareness on three cross-cutting themes:** a) bioethical issues related to the use of human samples, b) scientific integrity and scientific communication and c) the pathway between the production of a laboratory result and the marketing of a product.

Invited speakers

- Julien Gautrot (Professor, Queen Mary University of London, UK)
- Philippe Barthélémy (Professor, ARNA, INSERM U 1212, Université de Bordeaux, France)
- Marie-Christine Durrieu (Professor, INSERM-CBMN UMR CNRS 5248, Univ. de Bordeaux, France)
- Gaëtan Laroche (Professor, Univ. Laval, Québec, Canada)
- Fouzia Boulmedais (PhD, ICS UPR22 CNRS, Strasbourg, France)
- Thérèse Leblois (Professor, FEMTO-ST, UMR CNRS 6174, Besançon, France)
- Pierre Weiss (Professor, Université de Nantes, INSERM, France)
- Raphaël Levy (Professor, Univ. Paris Sorbonne, Nord Paris, France)
- Emmanuelle Laurenceau (Assistant Professor, Ecole Centrale de Lyon, France)
- Nicolas Aumonier (PhD, Paris Sorbonne et Univ Grenoble Alpes, France)

Organizing committee

- **Yoann Roupioz** (main organizer), SyMMES, UMR 5819 CEA - CNRS - UGA, IRIG/CEA-Grenoble, France
- **Lydie Ploux**, U1121 INSERM/Université de Strasbourg, Strasbourg, France
- **Karine Glinel**, Institute of Condensed Matter and Nanosciences, Université catholique de Louvain, Louvain-la-Neuve, Belgium
- **Vincent Humblot**, Institut FEMTO-ST UMR CNRS 6174, Besançon, France
- **Luc Vellutini**, Institut des Sciences Moléculaires UMR 5255, Université de Bordeaux, France

- ✓ 70 attendees, including industrialists - 12 invited speakers - 3 soft skills (bioethics, scientific publications and valorisation)
- ✓ 5 consecutive days - 3 round tables - 1 poster session (with prize-giving) - 4 free exchange sessions

Sponsors : GDR Groupement de recherche B2i Bio-ingénierie des interfaces

https://events.femto-st.fr/GdR_B2i/fr