

Programme Scientifique

Mardi, 21 septembre Amphithéâtre Toulouse-Garonne 11 boulevard des Récollets, 31400 Toulouse

8h30-9h00 : Accueil des participants, remise des badges

9h00-9h30 : Présentation des journées,
Accueil du directeur du GDR

9h30 – 12h00 : Session 1 : Interfaces biologiques et leur caractérisation

9h30-10h00 : Conférencier invité : Dr. Orane Guillaume Gentil – Fluidic force microscopy : opening new avenues for single cell analysis

10h00-10h15 Cécile Formosa-Dague - Comprendre les mécanismes de floculation naturelle chez les microalgues pour améliorer l'efficacité de récolte par flottation

10h15-10h30 Sylvain Midrouet - Biointerfaces à base d'une protéine de synthèse analogue du collagène : conception et tests fonctionnels.

10h30-10h45 Harris Hussain Syed - Comparative analysis between conventional carbodiimide/NHS coupling and copper-free click chemistry: Surface characterization and biological efficiency

10h45-11h : Poster Session / Installation / Discussion

11h-11h15 Olivia Ben M'Barek - Elaboration of a Lithium Niobate biosensor for specific E. coli biodetection

11h15-11h30 Manon Saget - Optimization of laser manufacturing conditions to improve lubricant retention of slippery liquid-infused surface

11h30-11h45 Mickael Castelain - Pili drive homotypic interactions to form biofilm in *Lactococcus lactis*: A single-molecule force spectroscopy study.

11h45-12h Dimitri Mercier - Role of the extracellular polymeric substances in the early stages of biofilm formation on chromium surfaces

14h00 – 18h00 : Session 2 : NanoBioArchitecture et Capteurs

14h00-14h30 : Conférencier invité : Pr. Gilles Subra – Sol-Gel is a bioorthogonal process to get bioactive surfaces and biomimetic materials

14h30-14h45 Yannick Coffinier - Nanoneedle arrays fabrication via nanosphere lithography and top-down approaches for intracellular detections of neurodegenerative diseases' biomarkers.

14h45-15h00 Antonin Lavigne - Chemical functionalization of nanoporous silicon for the selective Adsorption of Sepsis Metabolites

15h00-15h15 Florent Barbault - DockSurf, A new software for predicting protein structure adsorbed on surfaces.

15h15-15h30 Sunyoung Hur - Biomineralization study on functionalized Au with adhesive cement protein

15h30-15h45 Maxime Artico - Grafting of enzymes onto elastic surfaces to assess enzyme synergies

15h45-16h45 : Session Poster / Pause café

16h45-17h15 Conférencier invité : Lylian Challier - Biocapteurs électrochimiques & technique diélectrophorétique pour la surveillance du milieu marin.

17h15-17h30 Charlène Gadroy - Elaboration d'un capteur électrochimique afin de détecter et de quantifier le gadolinium(III).

17h30-17h45 Yacine Mazouzi - Design and analytical performances of a diclofenac biosensor for water resources monitoring

17h45-18h00 Olivia Peytral - A microfabricated device dedicated to the RadioFrequency characterization of spheroids through vector-analysis derived conductance and capacitance measurements

20h00 : Diner de Gala : <https://www.toulouse-croisieres.com/fr/>

Mercredi 22 septembre 8h00-13h30

Session 3 : Médecine régénérative aux interfaces et surfaces antimicrobiennes

8h30-9h00 : Conférencier invité : Prof. Juan Pelta -Nanopores in biodetection and understanding of biomolecules

9h00-9h15 Karine Glinel - Biofunctionalized polymer microcarriers for stem cell expansion

9h15-9h30 Adrien Rousselle - Bottoms Up 3D organoid bioprinting based on precellurized PLGA microscaffolds.

9h30-9h45 Juliette Fitremann - Hydrogels supramoléculaires saccharidiques pour la culture cellulaire et l'impression 3D

9h45-10h00 Emilie Prouvé - Interplay of hydrogel stiffness and stress relaxation in directing mesenchymal stem cells osteogenic commitment

10h00-10h15 Océane Senepart - Stimulation de la croissance axonale par un champ électrique localisé

10h15-10h45 : Session Poster / Café

10h45-11h00 Zhang Yujie - Assisted spraying of mimetic peptide for the osteogenic of human mesenchymal stem cell

11h00-11h15 Ophélie Thomas-Chemin - Towards automation of mechanobiological measurements by atomic force microscopy (AFM)

11h15-11h30 Gregory Francius - Impacts of Mechanical Stiffness of Bacteriophages-Loaded Hydrogels on Their Antibacterial Activity

11h30-11h45 Mylan Lam - Influence of poly(styrene sodium sulfonate) grafted silicone breast implant's surface on the biological response and its mechanical properties

11h45-12h00 Eloïse Lebaudy - Hydrogels composed of Polyethylene glycol diacrylate and poly epsilon L-lysine with intrinsic antibacterial properties

12h00-12h15 Mathieu Nicolas - Exploring the conformation of antibacterial peptides adsorbed on plasmonic metasurfaces by polarized light