

Session Program

May 18 - 23, 2026

Microfluidic Horizons 2026

Poster 19/05

Sat, May 23

12:00 AM

Poster 19/05

Session

12:00 - 12:20 AM **Zero-leakage sealing systems for storable propellants**

12:20 - 12:40 AM

Modelling red blood cell flow through geometric disturbances to alter their cross-sectional distribution

12:40 - 1:00 AM

Numerical Investigation of a Cristae-Inspired Passive Micromixer for Microfluidic Applications

1:00 - 1:20 AM

Deep learning based segmentation of microfluidic impedance cytometry signals: the first demonstration of cross-setup generalizability

Speaker

Federica Caselli

1:20 - 1:40 AM

Modular Comb-Shaped Fluorosurfactants for Functional Droplet-Based Microfluidics

1:40 - 2:00 AM

Sustainable Amidation of Polyhydroxyalkanoates: From Green Synthesis to Dynamic Antimicrobial Testing in Microfluidic Platforms

2:00 - 2:20 AM

Study of the transmembrane transport of ions into lipid vesicles prepared using different methods

2:20 - 2:40 AM

NANOFORMULATIONS OF CU COMPLEXES FOR MEDICAL USE: A PRELIMINARY STUDY

2:40 - 3:00 AM

EFFECT OF DIFFERENT PHOSPHOLIPIDS ON BIOPHARMACEUTICAL PROFILE OF PEPTIDE-LOADED LNPs FOR ORAL ADMINISTRATION

3:00 - 3:20 AM

Simple tunable ionic memristor based on access resistance to a cation-selective membrane

Speaker

Mr Alexandre Chhu

3:20 - 3:40 AM **Microfluidic focusing, rolling and sorting of pollen grains**

3:40 – 4:00 AM **Microfluidic studies in hemorrhagic shock of varying degrees**

4:00 – 4:20 AM **Microscale impact of bacterial activity on evaporating interfaces**

4:20 – 4:28 AM

Deciphering and controlling biofilm formation in functionalized porous matrices

4:28 – 4:48 AM

Microfluidic Single-Cell Analysis of CAR-Induced Modulation of NK Cell Cytotoxicity

4:48 – 5:08 AM

Investigating the antimicrobial activity of free and encapsulated Green Tea in microfluidic environments

5:08 – 5:28 AM

Dynamics of Perception-induced Heat Shock responses in Caenorhabditis elegans

Speaker

Miguel Sambrano-Lopez

5:28 – 5:36 AM

Microfluidic GUV Sizing and Sorting for Synthetic Cells Sabine

5:40 – 6:00 AM

Contactless Droplet Manipulation Using Lithium Niobate-Based Liquid Marbles

6:00 – 6:20 AM

Microfluidic Fabrication of Biopolymer Microdroplets for Photodynamic Antimicrobial Therapy

6:20 – 6:40 AM

Formulation of Hydrocolloids and rheometry on-chip

Speaker

Kaixin XU

6:40 – 7:00 AM

Controlling and optimising deformation modes of a pneumatically actuated single-layer PDMS device

7:00 – 7:20 AM

Engineering of a device for the measurement of the optical out-of-plane surface conductivity in two-dimensional materials

7:20 – 7:40 AM

Step emulsification device for high-throughput droplet generation for biomedical applications

7:40 – 8:00 AM

In-Vitro Microfluidic Platform for Localized Controlled Brain Drug Delivery

Speaker

Latifah Almulla

8:00 – 8:20 AM

Contact Line Instabilities in Sliding Viscoelastic Drops

Speaker

Léa Delance

8:20 - 8:40 AM **Spontaneous Coulomb fissions of drops on lubricated surfaces****Speaker**

Dr Aaron Ratschow

8:40 - 9:00 AM

Friction Force Measurements on Molecularly Mixed Hydrophilic-Hydrophobic Slippery Covalently-attached Liquid-like Surfaces**Speaker**

Hui Ling Ong

9:00 - 9:20 AM **High-Resolution Dielectric Spectroscopy of Single Flowing Cells****Speaker**

Riccardo Reale

9:20 - 9:40 AM **Slippery Liquid-Like Surfaces with Tunable Wettability****Speaker**

Chiara Neto

9:40 - 10:00 AM

An Integrated Wideband Electrorotation Platform for Automated Single-Cell Dielectric Characterization10:00 - 10:20 AM **Transport of microalgae in curved channels at finite flow inertia**10:20 - 10:40 AM **Anomalous diffusion in 2D interconnected microstructures**

10:40 - 11:00 AM

Fickian Non-Gaussian Diffusion Induced by Structural Heterogeneity

11:00 - 11:20 AM

Cubosome penetration in pancreatic tumor spheroids using a microfluidic chip

11:20 - 11:40 AM

Affinity Characterization of the GreenB1 Aptamer in Pancreatic Ductal Adenocarcinoma Using 2D, Organoid, and Organ-on-Chip Models**Speaker**

Laura Sproge

11:40 AM - 12:00 PM

An Automated and parallelized microfluidic cell culture device using three-layer Ostemer-322 devices with an integrated NOA-84 membrane

12:00 PM