

Preliminary Program

September 24, 2026

Biological, Pharmaceutical and Cosmetic Complex Fluids IV

October 25 - 29, 2026

Calabria, Italy

Conference Chairs:

Samiul Amin

University of Miami, USA



Engineering Conferences International

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Sunday, October 25, 2026

17:00 – 18:30	Conference check-in
18:30 – 19:30	Welcome reception
19:30 – 21:00	Dinner

Monday, October 26, 2026

07:30 – 09:00 Breakfast

09:00 – 09:15 Welcome and Conference Opening

Session 1: Biotherapeutic Protein Interactions

09:15 – 09:50 **Resolving Heterogeneity in Protein Self-Assembly Across Scales**
Vito Fodera, Copenhagen University, Denmark

09:50 – 10:25 **From Monospecific to Bispecific: Predicting and Validating Colloidal Stability Using B22-Driven Design Heuristics**
Hasan Shafar, University of Delaware, USA

10:25 – 11:00 Coffee Break

11:00 – 11:35 **Concentration-gradient self-interaction nanoparticle spectroscopy (CG-SINS) as a high-throughput tool for early assessment of monoclonal antibody self-association and developability**
Angela Develin, Boehringer Ingelheim, USA

Session 2: Self Assembly & Gelation

11:35 – 12:10 **Engineering β -sheet peptide supramolecular materials for biomedical applications**
Alberto Saiani, University of Manchester, UK

12:10 – 12:45 **Multi-step gelation pathways of food proteins from pea seeds**
David Schirone, Lund University, Sweden

12:45 – 14:30 Lunch

14:30 – 15:05 **Understanding the self-assembly of the amphiphilic block copolymer soluplus**
Gerardo Palazzo, University of Bari, Italy

15:05 – 15:40 **Rhamnolipid microstructured formulations: From physicochemical to functional properties**
Gerardino Derrico, University of Naples, Italy

15:40 – 16:25 Coffee Break

Free time / Networking

19:30 – 21:00 Dinner

Tuesday, October 27, 2026

07:30 – 09:00 Breakfast

Session 3: Biotherapeutic Formulation, Bioprocessing & Administration

09:00 – 09:35 **From Models to Molecules: A "Smart" Integrated Framework for Development of Bioprocesses for High-Concentration Biotherapeutic Formulations**
Tarik Khan, Roche, Germany

09:35 – 10:10 **A local formulative approach changes the perspective of biotherapeutics administration**
Simone Aleandri, University of Bern, Switzerland

10:10 – 10:55 Coffee Break

10:55 – 11:30 **Droplet-driven surface waves reveal protein formulation stability by encoding material stress responses**
Alexandra Amoruso, Apoha Limited, UK

11:30 – 12:05 **Innovative approaches to therapeutic protein formulations to improve patients' outcomes**
Jan Jazek, Arecor, UK

12:05 – 12:40 **Stability and Rheology Control of High-Concentration Biotherapeutic Formulations through Advanced Characterization and AI/ML**
Samiul Amin, University of Miami, USA

12:45 – 13:45 Lunch

13:45 – 17:30 Excursion to Diamonte

19:30 – 21:00 Dinner

Wednesday, October 28, 2026

07:30 – 09:00 Breakfast

Session 4: Peptides, Nanoparticles & Biomaterials

09:00 – 09:35 **Biomolecules for non-biological things: Peptide ‘Bundlemer’ design for model nanoparticle creation and hierarchical solution assembly**
Darrin Pochan, University of Delaware, USA

09:35 – 10:10 **Peptide recognition of ligand-bound protein complexes enables targeted delivery strategies**
Iris Da Luz Batalha, University of Bath, UK

10:10 – 10:55 Coffee Break

10:55 – 11:30 **High-throughput biomaterial encapsulation of cells and cellular components for diagnostic and therapeutic applications**
James Harden, University of Ottawa, Canada

11:30 – 12:05 **Beyond the surface: Lipoprotein corona drives structural remodeling of lipid nanoparticles**
Jacopo Cardellini, University of Florence, Italy

12:40 – 14:00 Lunch

Session 5: Advanced Characterization Session

14:00 – 14:35 **Multiplex quantification of extracellular vesicle markers using Ifia and libs**
Helena Mateos Cuadrado, Università Degli Studi Di Bari, Italy

14:35 – 15:10 **Acoustics and Electroacoustics for Characterization of Complex Fluids**
Andriy Yaroshchuk, ICREA and Polytechnic University of Catalonia, Spain

15:10 – 15:55 Coffee Break

15:55 – 16:30 **Probing liquid-liquid phase separation kinetics by microfluidics time-resolved small angle x-ray scattering and molecular simulations**
Marco Polimeni, Copenhagen University, Denmark

16:30 – 16:45 Closing Remarks

19:30 – 20:00 Reception

20:00 - 22:00 Gala dinner

Thursday, October 29, 2026

07:30 – 09:30 Breakfast

Departures