

International Symposium on Biomolecular Condensates And Coacervates: From Medicine To Agriculture.

MSCA-BIOCOCOMER Mid-Term Symposium

Engineering biofunctional materials, nanomedicine, and biomacromolecule-based systems

Padova, Italy

10–11 September 2026



Horizon 2020
European Union Funding
for Research & Innovation



TOPICS

- Drug delivery and Theranostics
- Biomacromolecule-based nanomaterials
- Colloids, Modelling and Advanced Technologies

SCIENTIFIC COMMITTEE

Francesca Cavalieri
Margherita Morpurgo
Frank Caruso
Verónica Salgueiriño

ORGANIZERS

Margherita Morpurgo
Francesca Cavalieri
Simone Bernardotto
Martina Stocco

KEYNOTE SPEAKERS

- SOPHIA ANTIMISIARIS, Patras University, Greece
- PAOLO BIGINI- Marion Negri Institute, Milano, Italy
- JIWEI CUI-Shandong University

VENUE

The Pharmaceutical and Pharmacological Sciences Department, University of Padova, Padova-Italy
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Scientific Program

Engineering biofunctional materials, nanomedicine, and
biomacromolecule-based systems

10–11 September 2026

KEYNOTE

YOUNG

BREAK / EVENT

All times shown in local symposium time

Day 1 · Thursday, September 10, 2026

Time	Session / Presentation
09:00–09:20	Welcome to the BIOCOCOMER Mid-Term Symposium Margherita Morpurgo and Francesca Cavalieri
Morning Session I: Engineering drug delivery systems for precise nanomedicine Chair(s): Ashokkumar Muthupandian and Chan-Jin Kim	
09:20–09:50	#01 KEYNOTE Paolo Bigini Istituto di Ricerche Farmacologiche Mario Negri, Italy <i>The impact of physicochemical parameters on bio-nano interactions</i>
09:50–10:10	#02 Frank Caruso University of Melbourne, Australia <i>Engineering Sticky Particles to Drive Biological Interactions</i>
10:10–10:30	#03 Nitin Mantri Royal Melbourne Institute of Technology (RMIT University), Australia <i>Fabrication of phytoglycogen-based nanoparticles for precise liver-targeted delivery of a hydrophobic drug</i>
10:30–11:00	Coffee break
11:00–11:30	#04 KEYNOTE Jiwei Cui Shandong University, China <i>Precision Design of Nanoparticles for Drug Delivery.</i>
11:30–11:50	#05 Marco Lattuada Université de Fribourg, Switzerland <i>Multiscale modeling of protein-nucleic acid interactions.</i>
11:50–12:10	#06 YOUNG Simone Bernardotto Università di Padova, Italy <i>Computational and Experimental Investigation of Avidin–DNA Interactions for the Rational Design of DNA Delivery Platforms</i>
12:10–12:30	#07 YOUNG Martina Stocco Università di Padova, Italy <i>Development of therapeutic siRNA delivery platforms: formulation and in vitro evaluation</i>
12:30–14:00	Lunch
Afternoon Session I: Engineering drug delivery systems for precise nanomedicine Chair(s): Nitin Mantri	

Time	Session / Presentation
14:00–14:30	#08 KEYNOTE Sophia Antimisiaris University of Patras, Greece <i>Lipid-based targeted drug delivery systems: Examples of applications in Theranostics and Agriculture</i>
14:30–14:50	#09 Monica Dettin Università di Padova, Italy <i>Peptide/Peptide-Nucleic-Acid nanoassemblies as effective mRNA delivery systems</i>
14:50–15:10	#10 Hilda Garay Centro de Ingeniería Genética y Biotecnología, Cuba <i>TBD</i>
15:10–15:40	Coffee break
Afternoon Session II: Biomacromolecule-based nanomaterials Chair(s): Quinn A. Besford	
15:40–16:00	#11 KEYNOTE Ashokkumar Muthupandian University of Melbourne, Australia <i>Sonochemical synthesis of biofunctional materials</i>
16:00–16:20	#12 Francesca Cavalieri Università di Roma Tor Vergata, Italy <i>Engineering carrier-free nanodrugs using ultrasound-responsive biomolecules</i>
16:20–16:40	#13 Verónica Salgueiriño Maceira Universidad de Vigo, Spain <i>Magnetic manipulation of nanostructures</i>
16:40–17:00	#14 Manuel Banobre International Iberian Nanotechnology Laboratory, Portugal <i>Engineering Magnetic Nanohybrids for Theranostic Applications</i>
19:45	Social dinner

Time	Session / Presentation
Morning Session II: Biomacromolecule-based nanomaterials	
Chair(s): Manuel Banobre and Verónica Salgueiriño Maceira	
09:00–09:30	#15 Chan-Jin Kim Gyeongsang National University, Korea <i>Molecularly Engineered Polyphenol–Macromolecule–Metal Assemblies for Single-Cell Probiotic Encapsulation.</i>
09:30–09:50	#16 YOUNG Vaidehi Londhe Leibniz-Institut für Polymerforschung Dresden e.V., Germany <i>Engineering the Nano-Bio Interface to Modulate Immune Responses</i>
09:50–10:10	#17 YOUNG Elena Colusso Università di Padova, Italy <i>Silk-based nanocomposites for biocompatible devices</i>
10:10–10:40	Coffee break
Afternoon Session III: Biomacromolecule-based nanomaterials	
10:40–11:00	#18 Quinn A. Besford Leibniz-Institut für Polymerforschung Dresden e.V., Germany <i>Leveraging Conformationally Fluorescent Polymers for In Situ Sensing of Physicochemical Phenomena</i>
11:00–11:20	#19 Osmany Guirola Centro de Ingeniería Genética y Biotecnología, Cuba <i>TBD</i>
11:20–11:40	#20 Speaker to be confirmed <i>Title/details to be announced</i>
11:40–12:10	Discussion and one-to-one meetings
12:10–13:40	Lunch
13:40–15:10	BIOCOCOMER Consortium meeting
15:10	Goodbye