

DAY 1 – 26TH MARCH 2025

Note: Live at *Mariano Gago Auditorium*, livestreamed in *Corino de Andrade Auditorium*.

PRIORITY SEATING for Speakers, Organizers and the Scientific Committee.

REMAINING SEATS are first come, first served.

08:30 – 09:15	REGISTRATION i3S main hall	POSTER MOUNTING i3S main hall	PRESENTATION UPLOAD Mariano Gago Auditorium
09:15 – 09:30	WELCOME SESSION Mariano Gago Auditorium, with livestreaming in Corino de Andrade Auditorium		
	Bruno Sarmiento (i3S-University of Porto) Cláudia Martins (i3S-University of Porto) Cornelia D. Sonntag (Galenus Foundation)		
	SCIENTIFIC SESSION 1 Chair: Christel C. Mueller-Goymann (Technical University of Braunschweig) Co-chair: Ana M. Carvalho (i3S-University of Porto)		
09:30 – 10:00	INVITED SPEAKER Paolo Caliceti (University of Padova) <i>Multifunctional polymers for nucleic acid delivery</i>		
	ABSTRACT SHORT TALKS I		
10:00 – 10:40	Koen Raemdonck (Ghent University) <i>Small molecules and peptides to promote intracellular delivery of RNA therapeutics</i>		
	Kristin Fichna (Institute for Bioengineering of Catalonia) <i>Drug-loaded urease-powered nanomotors to enhance bladder cancer chemotherapy</i>		
	Miguel Xavier (International Iberian Nanotechnology Laboratory) <i>Microfluidics and organ-chips as advanced models for drug delivery studies</i>		
10:40 – 11:10	COFFEE BREAK i3S main hall	PRESENTATION UPLOAD Mariano Gago Auditorium	
	SCIENTIFIC SESSION 2 Chair: Nuno Azevedo (LEPABE-University of Porto) Co-chair: Soraia Pinto (i3S-University of Porto)		
11:10 – 11:40	INVITED SPEAKER Vincent Jannin (Lonza) <i>Revolutionizing enteric delivery; unveiling the performance of Capsugel® Enprotect® capsules</i>		
	ABSTRACT SHORT TALKS II		
11:40 – 13:10	Nathalie Mignet (Université de Paris Cité, CNRS, INSERM) <i>In situ activation of the immune response in colorectal cancers</i>		
	Mina Mehanny (Ain Shams University) <i>Intranasal empagliflozin-loaded PLGA nanoparticles demonstrate neuroprotective effects against chemobrain</i>		
	Gabriella Costabile (University of Napoli Federico II) <i>Exploiting the role of the CD105/Endoglin pathway in lung fibrosis with tailored siRNA-loaded nanoparticles</i>		
	Ramona Jeitler (University of Graz) <i>Molecular insights into lipid composition effects on nanostructured lipid carrier stability and cellular uptake</i>		
	Matteo Tollemeto (Technical University of Denmark) <i>Oxygen-induced modulation of drug release from semipermeable polymersomes</i>		
	Inés Rubio Prego (University of Santiago de Compostela) <i>Pre-targeting approach for theragnosis in glioblastoma multiforme</i>		

Zhanjun Ma (Université Catholique de Louvain)
Lipid nanoparticle-mediated delivery of microRNA-124 reduces neuroinflammation

13:10 – 14:00

LUNCH BREAK

i3S main hall

SCIENTIFIC SESSION 3

Chair: Rita C. Acúrcio (iMed-University of Lisbon)
Co-chair: Catarina Pacheco (i3S-University of Porto)

INVITED SPEAKER

14:00 – 14:30

Miriam Breunig (University of Regensburg)

Temporal control of vaccine presentation

ABSTRACT SHORT TALKS III

Paolo Signorello (University of Pisa)

Mucoadhesive chitosan-coated Fe₃O₄ magnetic nanoparticles for the treatment of intestinal motility dysfunctions

Giulia Anderluzzi (University of Milan)

Investigating the effect of cationic polymer on the structure and pDNA transfection efficiency of lipopolyplexes

14:30 – 15:30

Lennart Christe (Goethe University Frankfurt)

Unraveling cellular uptake of biomimetic liposomes by 3D Raman imaging

Paulo Faria (i3S-University of Porto)

Synergistic triple-drug chemotherapy exhibits powerful antitumoral effects against glioblastoma in vitro

SCIENTIFIC SESSION 4

Chair: Bruno Sarmiento (i3S-University of Porto)
Co-chair: Cláudia Martins (i3S-University of Porto)

KEYNOTE

Virtual real-time session

Robert Langer (Massachusetts Institute of Technology)

Long-term strategies in biomedical technologies: priorities and challenges - From the discovery of the first angiogenesis inhibitors to the development of controlled drug delivery systems and the foundation of tissue engineering

15:30 – 16:15

DAY 1 WRAP-UP with musical performance

Tuna TS - Tuna de Tecnologia da Saúde do Porto

16:15 – 16:20

YOUNG SCIENTIST POSTER NETWORKING SESSION

with Porto d'Honra

i3S main hall

16:20 – 18:15

Sponsored by the Young Scientist Forum of the European Society for Biomaterials (YSF-ESB)

18:15 – 19:30

Free time before dinner

Social Dinner at Sancho Panza Restaurant

Meeting point at restaurant's entrance

Address: Avenida Ramos Pinto 250, 4400-261 Vila Nova de Gaia

19:30

DAY 2 – 27TH MARCH 2025

Note: Live at *Mariano Gago Auditorium*, livestreamed in *Corino de Andrade Auditorium*.

PRIORITY SEATING for Speakers, Organizers and the Scientific Committee.

REMAINING SEATS are first come, first served.

08:30 – 08:55	PRESENTATION UPLOAD Mariano Gago Auditorium	POSTER DEMOUNTING i3S main hall
08:55 – 09:00	DAY 2 WELCOME Mariano Gago Auditorium, with livestreaming in Corino de Andrade Auditorium	
SCIENTIFIC SESSION 5 Chair: Antonio J. Guillot (University of Valencia) Co-chair: Juliana Viegas (i3S-University of Porto)		
INVITED SPEAKER		
09:00 – 09:30	Elias Fattal (Université Paris-Saclay) <i>Immunomodulatory nanomedicines</i>	
ABSTRACT SHORT TALKS IV		
Eliana M. Lima (Federal University of Goiás) <i>Optimizing nanoparticle properties to enhance brain drug delivery via intranasal administration</i>		
Pedro Fonte (University of Algarve) <i>CpG oligodeoxynucleotide functionalized camptothecin-loaded mesoporous silica nanoparticles as a new chemo-immunotherapeutic approach for skin cancer treatment</i>		
Vijay Kumar Pal (i3S-University of Porto) <i>Peptide nanotechnology for in situ delivery of key amino acids and revamping metabolic capacities of immune cells against tumor cells</i>		
09:30 – 11:05	Vitor M. Gaspar (CICECO-University of Aveiro) <i>Bottom-up fabricated supra-nanoparticle colloidal gels for focalized therapeutics delivery</i>	
Miguel Ramôa (University College Cork) <i>Development of polymeric nanoparticles for intestinal delivery of RNA as a treatment for ileal Crohn's disease</i>		
Bárbara Carreira (iMed.Ulisboa-University of Lisbon) <i>Targeting melanoma brain metastases with a neoantigen-enhanced nanovaccine</i>		
Sheila Barrios-Esteban (DIVERSA Technologies) <i>Advancements in lipid nanoemulsion technology for enhanced drug delivery</i>		
COFFEE BREAK i3S main hall		
11:05 – 11:35	PRESENTATION UPLOAD Mariano Gago Auditorium	POSTER DEMOUNTING i3S main hall
SCIENTIFIC SESSION 6 Chair: Anne des Rieux (Université Catholique de Louvain) Co-chair: Carlos Fernandes (FCUP-University of Porto)		
GUEST SPEAKER		
11:35 – 12:10	Alessio Malfanti (University of Padova) <i>Part I: Exploring hyaluronic acid-conjugates for glioblastoma local chemo-immunotherapy</i> <i>Part II: My tips for a successful ERC application</i>	
ABSTRACT SHORT TALKS V		
Carla Vitorino (IMS-University of Coimbra) <i>A nanocarrier-based approach for combinatorial drug and gene therapy in glioblastoma</i>		
12:10 – 13:35	Juan Aparicio-Blanco (Complutense University of Madrid) <i>Double trouble to fight glioblastoma: in ovo assessment of cannabidiol and paclitaxel co-loaded lipid nanocapsules</i>	
Mariana Gomes (LEPABE-University of Porto) <i>Amphiphilic dendrimers: a novel approach to NAM delivery in E. coli</i>		

Maria Angela Motta (POLYMAT-University of the Basque Country)
Surface-decorated multilayer nanoparticles with inherent wound healing properties

Lisa Casagrande (University of Padova)
Physical PEGylation of siRNA for corneal delivery

SPONSOR: Joshua Karam (Izon Science)
Nanoparticles for drug delivery: scale-up purification and single-particle characterisation

13:35 – 14:20

LUNCH BREAK
i3S main hall

POSTER DEMOUNTING
i3S main hall

SCIENTIFIC SESSION 7

Chair: José das Neves (i3S-University of Porto)
Co-chair: Sarah Hester (University of Muenster)

INVITED SPEAKER

14:20 – 14:50

Samuel Sánchez (Institute for Bioengineering of Catalonia)
Biocompatible chemical nanobots and their applications in biomedicine

PHOSPHOLIPID RESEARCH CENTER SESSION

14:50 – 15:35

SPONSOR: Richard Wibel (Phospholipid Research Center)
Phospholipid Research Center – introductory talk

Sandra Klein (University of Greifswald)
Oral mixed micelle formulations – a novel phospholipid-based platform for safe and effective pediatric drug delivery

SCIENTIFIC SESSION 8

Chair: Paula Parreira (i3S-University of Porto)

INVITED SPEAKER

15:35 – 16:05

Anette Müllertz (University of Copenhagen)
Tuning self-nanoemulsifying drug delivery systems for increasing oral peptide absorption after oral administration

COFFEE BREAK
i3S main hall

16:05 – 16:35

PRESENTATION UPLOAD
Mariano Gago Auditorium

POSTER DEMOUNTING
i3S main hall

SCIENTIFIC SESSION 9

Chair: Eliana M. Lima (Federal University of Goiás)
Co-chair: Mariana Hugo Silva (Ghent University)

GUEST SPEAKER

16:35 – 17:05

Ana Melero (University of Valencia)
Skin drug delivery of big-sized anti-inflammatory agents: challenges and solutions

TRANSLATION-DRIVEN SESSION: FROM BENCH TO BEDSIDE

Roundtable

17:05 – 17:55

Meritxell Teixidó (Gate2Brain)
Gate2Brain blood-brain barrier shuttle peptides: From discovery to applications and going beyond small molecules

Patrícia C. Henriques (GOTECH Antimicrobial)
From the lab to a medtech company – the GOcap® story

Teófilo Vasconcelos (BIAL)
Translation from the perspective of pharmaceutical product development

SCIENTIFIC SESSION 10

Chair: Catarina L. Pereira (i3S-University of Porto)

INVITED SPEAKER

17:55 – 18:25

João Mano (CICECO-University of Aveiro)
Bioengineering organotypic in vitro cancer models

18:25 – 18:30

AWARDS AND CLOSING SESSION