

PROGRAM

MOBILisE 1st Symposium in Molecular Bioengineering:
Immunoengineering: from molecules to biomaterials and cell therapies
16-18 June 2025 | i3S, Porto

Day 1: 16 th June 2025	
14:30-15:00	Registration & poster hanging
15:00-15:15	Opening remarks Helena Azevedo, i3S - MOBILisE ERA Chair holder, Meeting Chair Claudio Sunkel, i3S - Institute Director
Session 1: Engineered Biomaterials and Proteins for Immunomodulation Chair: Ana Paula Pêgo, i3S & Cristina Barrias, i3S	
15:15-16:15	PLENARY TALK Jeffrey A. Hubbell - Tandon School of Engineering, NYU, USA <i>Molecular Engineering to Turn Immunity On and Off</i>
16:15-16:45	SELECTED TALKS Océane Ricloux - Université Grenoble Alpes, FR <i>Design and characterization of monoclonal antibody peptide mimics</i> Miguel Morais - i3S, PT <i>Engineered Matrix Mechanics Regulate Microglial Activation and Inflammation</i>
16:45-17:30	Coffee break & poster view
17:30-18:15	SELECTED TALKS Consuelo Coser - University of Nottingham, UK <i>The Role of Stiffness and Viscoelasticity in Macrophage Polarization</i> Carolina Vieira - i3S, PT <i>Multi-Compartmental On-Chip Platform for Investigating Immune-Metabolic Modulation in Osteosarcoma Metastatic Capacity</i> Carla Cunha - i3S, PT <i>Peptide/hyaluronan injectable matrix for immune cell modulation and delivery to the intervertebral disc</i>
18:30-19:30	Welcome cocktail



Day 2: 17th June 2025
Session 2: Nanomedicine platforms for Precision Immunotherapy
Chair: Rui Pereira, i3s & Bruno Sarmento, i3S

09:30-10:30	KEYNOTE TALK Roy van der Meel - Eindhoven University of Technology, NL <i>Nature-inspired platform nanotechnology for RNA delivery to immune cells</i>
10:30-11:30	Coffee break & poster view
11:30-12:30	SELECTED TALKS Jari Scheerstra, Eindhoven University of Technology, NL <i>Polymersomes with splenic avidity target red pulp myeloid cells for cancer immunotherapy.</i> Sara Reis Moura - INEB/i3S, PT <i>miR-195 Antagonists: Molecular Architects of Regeneration.</i> Chiara Gentili - University of Genova, IT <i>Anti-inflammatory effect and redox potential of extracellular vesicles derived from induced MSC and their miRNA content on an in vitro osteoarthritis model.</i> Andreia Fernandes - Centro de Biotecnologia e Química Fina, PT <i>Exploring Alpha-Glucan-Enriched Mushroom Extracts for Wound Healing, Immunomodulation, and Skin Regeneration.</i>
12:30	Group Picture
12:40-14:00	Lunch break
Session 3: Immunomodulation for Tissue Regeneration Chair: Carla Cunha, i3S & Susana Santos, i3S	
14:00-15:00	KEYNOTE TALK Jennifer H. Elisseeff - Translational Tissue Engineering Center, Johns Hopkins University, USA <i>Regenerative immunotherapies across lifespan</i>
15:00-16:30	Coffee break & poster view



16:30-17:30	<p>SELECTED TALKS</p> <p>Sinead A. O'Rourke - Trinity College Dublin, IE <i>Identification of novel Nrf2 activators as modulators of macrophage function and tissue repair.</i></p> <p>Irene Mallor-Solís - UPC-Universitat Politècnica de Catalunya, ES <i>Immunomodulation of oral keratinocyte cytokine response on transepithelial implants with peptide nanocoatings.</i></p> <p>Silvia A. Ferreira - i3S, PT <i>Engineered matrix for effective MPC delivery and immunomodulation boosts neovascularization.</i></p> <p>Mariana V. Magalhães - i3S, PT <i>Mimicking the Spleen: Developing a Vascularized 3D Microenvironment for In Vitro Research.</i></p>
20:00	Networking dinner at UVA by Calem, Cais de Gaia
Day 3: 18th June 2025	
Session 4: Cancer vaccines and adjuvant therapies Chair: Helena Azevedo, i3S & Meriem Lamghari, i3S	
09:30-10:30	<p>KEYNOTE TALK</p> <p>Juliane Walz - University Hospital Tübingen, Department of Peptide-based Immunotherapy, DE <i>Peptide-based immunotherapy - Bench to bedside developments.</i></p>
10:30-11:00	Coffee break
11:00-11:30	<p>SELECTED TALKS</p> <p>Sofia T. Quintas - i3S, PT <i>Exploring the immunomodulatory potential of dendritic cells-derived extracellular vesicles to design an hybrid cancer vaccine.</i></p> <p>Vijay Kumar Pal - i3S, PT <i>Supramolecular Peptide Nanotechnology for Metabolic Reprogramming of Immune Cells in the Tumor Microenvironment.</i></p>
11:30-12:00	<p>INVITED TALK</p> <p>Helena F. Florindo - Imed ULisboa, PT</p>

	<i>Rewriting the Rules: Navigating Solid Tumors for Smart Nano-Vaccine Therapies.</i>
12.00-13.30	Lunch break
Session 5: Cell-based cancer immunotherapies Chair: Maria José Oliveira, i3s & Elva Bonifácio Andrade, i3s	
13:30-14:30	KEYNOTE TALK Filipe Pereira - Lund Stem Cell Centre and Centre for Molecular Medicine, Lund University, SE <i>Empowering Immunotherapy with Cellular Reprogramming</i>
14:30-15:00	SELECTED TALKS Rui C. Pereira - i3S, PT <i>Hyaluronan-filled self-sealing sac as immunomodulatory environment for the encapsulation and delivery of natural killer (NK) cells for medulloblastoma immunotherapy</i>
15:00-15:30	INVITED TALK Dario Venetz - ROCHE, CH <i>Synthetic cytokine receptors for CAR-T cell therapy</i>
15:15-15:45	Coffee break
15:45-17:15	ROUND TABLE DISCUSSION How can molecular bioengineering transform immunotherapies? <i>past, present and future contributions of molecular bioengineering for the development of immunotherapies</i> Susana Monteiro - University of Minho, PT Pedro Madureira - Immunethep, PT Sérgio Chacim - IPOPorto, PT Dario Venetz - Roche, CH , Helena F. Florindo , Imed ULisboa, PT
17:15-17:35	Announce Best Talk and Best Poster MOBILiSE project and closing remarks

	<p>Cristina Martins, i3S – MOBILisE project Coordinator</p> <p>Cristina Ribeiro, i3S – INEB Director</p>
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