

Tuesday December 02, 2025

08:00-08:45	Registration	
08:45-09:00	Opening Ceremony	
09:00-09:30	Samuel Sanchez (IBEC, Spain) Self-propelled nanobots crossing biological barriers	K
09:30-10:00	Gianni Ciofani (IIT, Italy) Nanomedicine in space: Models and countermeasures	K
10:00-10:30	Giuseppe Battaglia (IBEC, Spain) Nanoscale transport at the blood brain barrier: mechanism and therapy development	K
10:30-11:15	Coffee Break, Poster Session & Exhibition	
11:15-11:35	Maria Maddalena Calabretta (University of Bologna, Italy) 3D models for biosensing exploiting bioluminescence detection	I
11:35-11:55	Francesco Enrichi (University of Verona, Italy) Luminescent nanostructured materials for biological applications and sensing	I
11:55-12:10	Elisabet Xifre Perez (URV, Spain) Low-cost nanopatterned SERS substrates for very low concentration detection of antibiotics	O
12:10-12:40	Alfredo de la Escosura-Muñiz (University of Oviedo, Spain) Nanochannels in biosensing: a journey from stochastic sensing to diagnostic applications	K
12:40-13:10	Mari Carmen Estévez (ICN2, Spain) Nanophotonic Biosensing: Engineering Sensitive, Rapid, and Multiplexed Platforms for Decentralized Clinical Diagnostics	K
13:10-13:25	Tiago Rafael Marques Pereira (International Iberian Nanotechnology Laboratory, Portugal) Flexible Electrolyte-Gated Graphene FET Arrays Towards Implantable Neurochemical Sensing	O
13:25-14:30	Cocktail Lunch - Poster Session & Exhibition	
14:30-15:00	Poster Session & Exhibition	
15:00-15:30	Danny Porath (The Hebrew University of Jerusalem, Israel) Charge Transport in DNA: From Fundamental Insights to Ultra-Sensitive Detection	K
15:30-15:45	Silvia Hernández Ainsa (Instituto de Nanociencia y Materiales de Aragón (CSIC-Universidad de Zaragoza), Spain) Engineering DNA nanostructures for therapeutic delivery and biomimetic applications	O
15:45-16:00	Laura Ordovas (Instituto de Investigación en Ingeniería de Aragón (I3A), Spain) miR-24-2 modulation in cardiac dysfunction through DNA nanotechnology	O
16:00-16:30	Moran Frenkel-Pinter (The Hebrew University of Jerusalem, Israel) Structure-function guided fabrication of biodegradable polymers	K
16:30-17:00	Coffee Break, Poster Session & Exhibition	
17:00-17:30	Valeria Grazú (INMA,CSIC-UNIZAR, Spain) Advanced Nanomaterials for Remotely Controlled Therapies	K
17:30-18:00	Josep Nogués (ICREA / ICN2, Spain) Magnetoplasmonic nanocapsules as wirelessly controlled nanotherapies	K
18:00-18:15	Aranzazu Villasante (Institute for Bioengineering of Catalonia (IBEC), Spain) Nanoparticle-mediated hyperthermal therapies reveal selective efficacy in 3D neuroblastoma models	O
18:15-18:45	Yossi Paltiel (The Hebrew University of Jerusalem, Israel) Life and quantum spin, are they connected through chirality?	K
20:30	Conference Dinner	

Wednesday December 03, 2025

09:00-09:15	Elena Chiticaru (National University of Science and Technology POLITEHNICA Bucharest, Romania) Efficient bone substitutes and osteogenic biosensors: an integrated approach to regenerative medicine	O
09:15-09:35	Paula Ferreira (University of Aveiro, Portugal) Smart Biomaterial Scaffolds for Tumour Suppression and Bone Tissue Regeneration	I
09:35-09:55	Mariana Ionita (University Politehnica of Bucharest, Romania) Manufacturing approaches for hierarchical scaffolds for functional bone tissue regeneration	I
09:55-10:15	María Concepción Serrano López-Terradas (ICMM/CSIC, Spain) Reduced graphene oxide scaffolds for neural repair at the injured spinal cord, progress from the Piezo4Spine project	I
10:15-11:00	Coffee Break, Poster Session & Exhibition	
11:00-11:30	Vincent Bouchiat (Grapheal, France) Monolayer graphene on parylene for biology and Medicine: from lab to medical devices	K
11:30-11:50	Jose De la Cruz (INBRAIN Neuroelectronics, Spain) Graphene-Based Neurotechnology for Next-Generation Brain Interfaces	I
11:50-12:10	Joana Guerreiro (IPLEXMED / LabRISE/ISEP, Portugal) Innovation at the Interface of Nanotechnology and Diagnostics	I
12:10-12:30	Valerio Pini (Mecwins, Spain) AVAC: an ultrasensitive and versatile plasmonic platform for digital biomarker detection and nanoscale metrology	I
12:30-13:00	Gustavo S. Luengo (L'Oréal, France) A closer look at the Skin's Surface Nanostructure and Barrier Function in Cosmetics	K
13:00-13:20	Miguel Vilaplana (GraphenicaLab, Spain) How AI is already transforming my company and what to expect? A manager point's of view of the use of AI in a R&D-based company	I
13:20-14:30	Lunch	
14:30-14:50	Anna Laromaine (ICMAB-CSIC, Spain) C. elegans: a window to bridge nanotechnology and biology	I
14:50-15:20	Lluís F. Marsal (Universitat Rovira i Virgili, Spain) From Structure to Function: Nanoporous Anodic Alumina for Cutting-Edge Biomedical Applications	K
15:20-15:35	Asier Rodriguez Muguruza (Institut de Ciència de Materials de Barcelona (ICMAB-CSIC), Spain) Chitosan-containing composites for biomedical applications	O
15:35-15:50	Hélène Joisten (SPINTEC- UGA / CNRS / CEA-Grenoble, France) Magnetic Micro-Nano- Particles for Mechanobiology, towards future Biomedical Applications	O
15:50-16:05	Javier Reguera (Universidad de Valladolid, Spain) Heterogeneous Surface Coatings Engineering by Stealth-like Biomimicking	O
16:05-16:20	Mimoza Basholli Salihu (University of Prishtina, Albania) Nanobiotics as sustainable nanoplatforms to overcome antimicrobial resistance and promote green nanomedicine	O
16:20-16:35	Cristina Parisi (University of Catania, Italy) Light-Triggered Nitric Oxide -Releasing Hyaluronic Acid Derivatives and Their Application in Skin Delivery	O
16:35-17:05	Coffee Break, Poster Session & Exhibition	
17:05-17:15	Noelia Soto Gomez (Instituto de Biofisika, Spain) The protein corona of nanoparticles: structure responsiveness upon corona formation.	O
17:15-17:25	Giulia Gigante (Italian Institute of Technology / Sant'Anna School of Advanced Studies, Italy) Physiologically inspired Multi-Organ systems for Nanomedicine Investigations	O

17:25-17:35	Nicholas Orlandini (Nanotechnology Institute - CNR NANOTEC, Italy) Digoxin-loaded polymeric nanoparticles as an immunogenic cell death inducer in cancer cells	O
17:35-17:45	Chloé Bazile (Toulouse Cancer Research Center, France) Targeting tumor associated macrophages (TAM) with vectorized magnetic nanoparticles for anticancer therapies	O
17:45-17:55	Angela Agaësse (INSERM, France) Magnetic Hyperthermia and Mechanical Ablation Induce an Anti-Tumour Immune Response in Pancreatic Adenocarcinoma	O
17:55-18:05	Maha Alhosani (Khalifa University, United Arab Emirates) Functionalized carbon dots interactions with the immune system from imaging to biomedical applications	O
18:05-18:15	Ruben Garcia-Costas (Institut de Ciència de Materials de Barcelona (ICMAB-CSIC), Spain) MRI active nanoparticles: towards a future of metal-free contrast agents	O
18:15-18:25	Olla Khatib (Khalifa University, United Arab Emirates) MXene nanomaterials as a new frontier in immunomodulation for human health: from earth to space explorations	O
18:25-18:35	Ludovica Rizzo (CNR-NANOTEC/University of Salento, Italy) Development of advanced genetic tools in combination with nanovectors for T-cell engineering	O
18:35-18:45	Liqiong Li (Institut de Ciència de Materials de Barcelona (ICMAB-CSIC), Spain) Electrospun PVA-Chitosan Nanofiber composites: Molecular Weight-Dependent Antibacterial and Wound-Healing Performance	O

Thursday December 04, 2025

09:00-09:15	Muling Zeng (Institut de Ciència de Materials de Barcelona (ICMAB-CSIC), Spain) Engineered CeO ₂ -Based Nanozymes for Multifunctional Oxidative Stress Regulation and Therapeutic Applications	O
09:15-09:30	Gabriele Maiorano (Institute of Nanotechnology, National Research Council (NANOTEC CNR), Italy) A pathway toward clinically-oriented polymeric nanovectors for cancer immunotherapy	O
09:30-09:45	Margherita Bernardeschi (Istituto Italiano di Tecnologia, Italy) Nanotoxicity Assessment in Freshwater Planarians: A Multilevel Approach	O
09:45-10:00	Mariam Naffeti (Institute of Polymer Science and Technology (ICTP), Spain) Bismuth-Enhanced Silicon Nanowires: Exploring Their Antimicrobial Potential	O
10:00-10:20	Claudio Parolo (ISGlobal/URV, Spain) Nanobiosensor for imported malaria diagnostic and management	I
10:20-11:20	Coffee Break, Poster Session & Exhibition	
11:20-11:35	Alberto Martín-Pérez (TU Delft, The Netherlands) Nanomechanical resonators for multiplexed physical characterization of cells and other biological analytes	O
11:35-11:50	Álvaro Cano Tortajada (IMN-CSIC, Spain) Multiparametric quantification of bacterial cells using digital holographic microscopy	O
11:50-12:10	Xavier Rovira Clavé (IBEC, Spain) Tissue and subnuclear neighborhoods uncovered by high-resolution, multiplexed protein imaging	I
12:10-12:30	Aurélié Bessière (CNRS, France) Nano-PERLs: Brilliant Tools for Biomedical Imaging and Therapy in Deep Tissues	I
12:30-12:50	Juan Pellico (ICMAB/CSIC, Spain) Advanced Nanomaterials for Medical Imaging and Particle Tracking applications	I
12:50-13:20	Gabriel Gomila (IBEC, Spain) Scanning Dielectric Microscopy Applied to Nanoscale Biosamples: beyond electrical nanocharacterization	K
13:20	Concluding remarks	