

Tuesday November 21, 2023

08:00-08:50	Registration	
08:50-09:00	Opening Ceremony	
09:00-09:30	Samuel Sanchez (IBEC, Spain) Treating bladder cancer with self-propelled nanobots	K
09:30-09:45	Cristina Parisi (University of Catania, Italy) Red-Light-Photosensitized NO Release and Its Monitoring in Cancer Cells with Biodegradable Polymeric Nanoparticles	O
09:45-10:05	Lluis F. Marsal (Universitat Rovira i Virgili, Spain) Designing nanoporous anodic alumina for nanomedicine applications	I
10:05-11:00	Coffee Break, Poster Session	
11:00-11:30	Maria Pau Ginebra (Universitat Politècnica de Catalunya (UPC), Spain) Tuning the nanotexture of bioinspired bone substitutes: interaction with proteins and in vivo bone formation	K
11:30-12:00	Shabir Hassan (Khalifa University of Science and Technology, UAE) Micromaterials for reinforcing living implants for applications in wound healing and regenerative medicine	K
12:00-12:30	Francesco Ricci (University of Rome Tor Vergata, Italy) Synthetic DNA-based devices, switches and genes for clinical applications	K
12:30-13:00	César Rodríguez-Emmenegger (IBEC, Spain) Using Nature's engineering principles to design biointerfaces and synthetic cells for nanomedicine	K
13:00-14:00	Cocktail Lunch - Poster Session	
14:00-14:30	Poster Session	
14:30-15:10	Maria Jose Alonso (Universidad de Santiago de Compostela, Spain) Nanotechnology Enables Advanced and Precision Therapies	P
15:10-15:40	Giuseppe Battaglia (IBEC, Spain) Targeting Macromolecular Transport for Alzheimer's Therapy	K
15:40-16:00	Carlotta Pucci (IIT, Italy) Unveiling the Promise of Personalized Therapy: Harnessing Cell Membrane-Coated Nanovectors for Targeted Treatment of Glioblastoma Multiforme	I
16:00-16:15	Antoni Llopis Lorente (Universitat Politècnica de València, Spain) Nanoprogrammed Cross-Kingdom Communication Between Living Microorganisms	O
16:15-16:45	Ramón Martínez Mañez (UPV, Spain) Chemical Communication Principles and Applications	K
16:45-17:20	Coffee Break, Poster Session	
17:20-17:40	Manuel Bañobre (INL, Portugal) Precision Targeting of Solid Tumors Using Smart Magnetic Theranostic Nanocomposites: A Targetless Strategy	I
17:40-18:00	Alejandro Gómez Roca (ICN2, Spain) Fe ₃ O ₄ Nanoparticles as Multifunctional Theranostic Agents	I
18:00-18:20	Laura Gonzalez Macia (Imperial College London, UK) NFC-enabled on-site precision diagnostics powered by a smartphone	I
18:20-18:40	Daniel Quesada (ICN2, Spain) Nanoparticle-based lateral flow assays for diagnostic applications	I
18:40-18:55	Eva Gonzalez Freire (CiMUS, Universidade de Santiago de Compostela, Spain) PEGylated Nanoemulsions as immune-PET imaging agents for early Glioblastoma diagnosis	O

21:00

Conference Dinner

Wednesday November 22, 2023

09:00-09:30	Fabiana Arduini (Università Di Roma "Tor Vergata", Italy)	K
	Smart paper-based electrochemical (bio)sensors for sustainable detection of biomarkers	
09:30-09:50	Pedro Alpuim (INL, Portugal)	I
	Different Approaches to Graphene Electrochemical Biosensors	
09:50-10:05	Elisabet Prats-Alfonso (Institute of Microelectronics (CIBER/CSIC), Spain)	O
	Graphene microtransistor array derivatized with modified aptamers as a functionalization alternative for biosensing applications	
10:05-10:35	Arzum Erdem Gürsan (Ege University, Turkey)	K
	Carbon nanomaterials based biosensors for electrochemical detection of biointeractions	
10:35-11:15	Coffee Break, Poster Session	
11:15-11:45	Laura Lechuga (ICN2, Spain)	K
	Nanophotonics Biosensors for the clinical management of bacterial infectious diseases	
11:45-12:00	Eduardo Martínez Castellano (Bioherent, Spain)	O
	Ultrasensitive interferometric detection of beta-lactam specific IgE antibodies	
12:00-12:15	Alejandro Hernández-Albors (ITENE, Spain)	O
	Introducing NIAGARA project. Safeguarding Human Health through Real-time Assessment of Water Pollutants.	
12:15-12:45	Alexander Zelikin (Aarhus University, Denmark)	K
	Artificial receptors and signaling cascades in synthetic cells	
12:45-14:30	Lunch	
14:30-14:50	Andrea Idili (University of Rome Tor Vergata, Italy)	I
	Convenient and Rapid Quantification of Therapeutic Biological Drugs in Undiluted Bodily Fluids	
14:50-15:20	Sergio Moya (CIC BiomaGUNE, Spain)	K
	Biological Fate and In vivo Degradation Studies of Hybrid Nanomaterials for Drug delivery	
15:20-15:50	Gianni Ciofani (IIT, Italy)	K
	Patient-specific nanovectors against glioblastoma multiforme	
15:50-16:05	Daniele De Pasquale (Istituto Italiano di Tecnologia, Italy)	O
	A patient-personalized lipid-based magnetic nanovector for a selective glioblastoma multiforme treatment through oxidative stress induction and metabolic impairment	
16:05-16:25	Artur M. Pinto (LEPABE - University of Porto, Portugal)	I
	Carbon nanomaterials and 2D nanomaterials in biomedicine: applications, main challenges, and opportunities	
16:25-17:00	Coffee Break, Poster Session	
17:00-18:50	Parallel Sessions	
	Parallel Session – Students I (Bio-Inspired nanotechnologies / nanofabrication / Drug Delivery / Far Future Challenges / Molecular Imaging and Biophotonics / Nanoassemblies / Surfaces / NanoBioSensors)	
17:00-17:10	Barbara Borges Fernandes (IBEC, Spain)	O
	Chemotaxis of porated liposomes with encapsulated enzymes	
17:10-17:20	Ariana Rueda Matas (Institut de Recerca de l'Hospital de la Santa Creu i Sant Pau, Spain)	O
	Biofabrication of Self-assembling Protein Nanomaterials through a Histidine-templated Cysteine tag	
17:20-17:30	Lara Victoria Aiassa (IBEC, Spain)	O
	Targeting macrophage polarization states for precision immunotherapy	
17:30-17:40	Fahad Khan Tareen (Università di Pavia, Italy)	O
	Development of Essential Oil based Nanoemulsions loaded with Dimethyl Fumarate for Intranasal Drug Delivery	
17:40-17:50	Ane Sogaard (Aarhus University, Denmark)	O
	Artificial internalizing receptors for mammalian cells	

Wednesday November 22, 2023

17:50-18:00	Roger Gómez (ICN2, Spain) Intranasal Administration of Pt(IV) nanoparticles for Glioblastoma treatment	O
18:00-18:10	Francisco Rodríguez-Gómez (Universitat Pompeu Fabra Barcelona (PRBB), Spain) Implementing Horizon Scanning as a Tool for the Strategic Development of Regulatory Guidelines for Nanotechnology-Enabled Health Products	O
18:10-18:20	Yufei Wu (Institute of Materials Science of Barcelona (ICMAB-CSIC), Spain) Radical Dendrimer-Based MRI Contrast Agents: In Vivo Applications and Studies on Influencing Relaxivity Factors	O
18:20-18:30	Santiago Gimenez Reyes (CIC biomaGUNE, Spain) Polyallylamine-plasmid complex: A physico chemical study	O
18:30-18:40	Roberta Maria Banciu (International Centre of Biodynamics, Romania) Inhibition of the photosynthesis of <i>Coccomyxa subellipsoidea</i> TL4 algae by diuron– comparison with the cyanobacteria <i>Synechococcus elongatus</i> PCC 7942 and analytical exploitation	O
18:40-18:50	Andreea-Iuliana Ftodiev (International Center of Biodynamics, Romania) Sensitivity of the ice cave microalgae <i>Coccomyxa subellipsoidea</i> TL4 to marine water pollutants: potential for biosensors	O
Parallel Session – Students II (Nanomaterials for Bio and Medical Applications / NanoMaterials for Medicine)		
17:00-17:10	Agata Henschke (Adam Mickiewicz University, Poland) Nano-intervention to stop therapy-induced cellular senescence	O
17:10-17:20	Francesca Laneri (University of Catania, Italy) Green Synthesis of Near-Infrared Plasmonic Gold Nanostructures by Pomegranate Extract and Their Supramolecular Assembling with Chemo- and Photo-Therapeutics	O
17:20-17:30	Lena Witzdam (DWI - Leibniz Institute for Interactive Materials, Germany) Interactive coatings direct blood components to modulate coagulation in medical devices	O
17:30-17:40	Manuela Garay-Sarmiento (DWI-Leibniz Institute for Interactive Materials, Germany) Nature-inspired biomaterials: from interactive coatings to granular hydrogels exhibiting specific interactions with living matter	O
17:40-17:50	Sofia Zuffi (CIC biomaGUNE, Spain) Polyallylamine functionalized with dextran for siRNA delivery	O
17:50-18:00	Francesca Buco (University of Florence, Italy) Glyco-Gold Nanoparticles: Exploiting Multivalent Sugars for Addressing Rare Lysosomal Storage Disorders	O
18:00-18:10	Josep Maria Cantons Pérez (Universitat Rovira i Virgili, Spain) Engineering gold nanoclusters decorated on nanoporous anodic alumina for biosensing applications	O
18:10-18:20	Ting Zhou (University of Pompeu Fabra, Spain) plasmonic nanosensors for optical monitoring of labile zinc inside metastasis cells	O
18:20-18:30	Christopher James (IBEC, Spain) Biomaterial incorporated human mesenchymal stem cell secretome for cardiac regeneration	O
18:30-18:40	Cláudio Ferro (Universidade de Lisboa, Portugal) Anticancer and immunological properties of selenium nanoparticles in 3D Breast Cancer Spheroids	O
18:40-18:50	Alejandro Fábrega-Puentes (CIC BiomaGUNE, Spain) Hemoglobin based Oxygen Nanocarriers: An exogenous supply of O ₂ for applications in photodynamic therapy	O

Thursday November 23, 2023

09:00-09:30	Miguel Manzano García (Universidad Complutense de Madrid, Spain) Mesoporous Silica Nanoparticles for Nanomedicine	K
09:30-09:50	Patricia Mora Raimundo (Technion, Israel) Breaking barriers in brain's health: liposomes against neurodegeneration	I
09:50-10:20	Victor Puentes (ICREA / ICN2, Spain) Is the future of antioxidants mineral? Nanozymes and other nanotechnology solutions	K
10:20-11:20	Coffee Break, Poster Session	

11:20-11:40	Félix Sauvage (Ghent University, Belgium)	I
	Photoporation for enhanced mRNA delivery to the ocular surface	
11:40-11:55	Aurora Dols Perez (IBEC, Spain)	O
	Effect of surface functionalization and loading on the mechanical properties of soft polymeric nanoparticles used as delivery systems	
11:55-12:10	Pilar Ferré-Pujol (Okayama University, Japan)	O
	Surface functionalization of graphene oxide with alkyl chains allows high rates of capture and release of viral particles in aqueous solutions	
12:10-12:25	Elżbieta Gumieniczek-Chłopek (AGH University of Krakow, Poland)	O
	Magnetically Navigated Polysaccharides-based Capsules as Smart Delivery Systems	
12:25-12:40	Jos Paulusse (University of Twente, The Netherlands)	O
	Transport of Single-Chain Polymer Nanoparticles across the Blood-Brain Barrier	
12:40-12:55	Tara Chand Yadav (Universitat Rovira i Virgili, Spain)	O
	Effect of Tyrosol Functionalized Gold Nanocomposite on Biofilm Milieu and Wound Healing	
12:55-13:10	Stéphanie Andrade (University of Porto (FEUP), Portugal)	O
	Engineered Nanoparticles as An Emerging Platform to Fight Antimicrobial Resistance	
13:10	Concluding remarks	