



TENTATIVE PROGRAM

Last Update – November 06, 2024

Tuesday November 05, 2024

08:00-08:45	Registration	
08:45-09:00	Opening Ceremony	
09:00-09:30	Giuseppe Battaglia (IBEC, Spain) On the design of supramolecular drugs	K
09:30-10:00	Ciro Chiappini (King's College London, UK) Nanoneedles for Cell and Gene Therapy	K
10:00-10:30	Kerstin Göpfrich (Center for Molecular Biology of Heidelberg University (ZMBH), Germany) RNA origami: Building hardware for synthetic cells	K
10:30-11:40	Coffee Break & Poster Session	
11:40-12:10	Samuel Sanchez (IBEC, Spain) Biocompatible chemical nanobots and their applications in biomedicine	K
12:10-12:40	Simone Schuerle-Finke (ETH Zurich, Switzerland) Engineering and controlling synthetic and living microrobots for biomedical applications	K
12:40-13:00	Andras Badacsonyi (European Research Council, Belgium) ERC for Nanosciences	I
13:00-14:00	Cocktail Lunch	
14:00-14:30	Poster Session	
14:30-15:00	Danny Porath (The Hebrew University of Jerusalem, Israel) Molecular Electronics with DNA towards Detection of Nucleic Acids	K
15:00-15:30	Anna Roig Serra (ICMAB-CSIC, Spain) Beyond Intravenous Administration of Therapeutic Nanocarriers	K
15:30-15:50	Xavier Rovira Clavé (BEC, Spain) Tissue and subnuclear neighborhoods uncovered by high-resolution, multiplexed protein imaging	I
15:50-16:30	Coffee Break & Poster Session	
16:30-16:50	Juan Fraire (IBEC, Spain) Photoporation as a Versatile Tool Against Cancer: From Gentle Immune Cell Transfection to a Powerful Approach for Inducing Anti-Tumor Immunity	I
16:50-17:10	Ruslán R. Alvarez Diduk (ICN2, Spain) Laser Nanostructured Reduced Graphene Oxide Films: A Cost-Effective and Scalable Approach for Biosensing Applications	I
17:10-17:25	itziar Galarreta-Rodriguez (CIC biomaGUNE, Spain) Design, synthesis, and characterization of metallic nanoparticles as amplifiers for the optical readout of a novel SERS-based sensor system	O
17:25-17:45	Eduard Masvidal Codina (ICN2, Spain) Mapping infraslow neural signals with graphene field-effects transistors	I
17:45-18:15	Ferruccio Pisanello (IIT, Italy) Multifunctional neural interfaces with tapered optical fibers	K
20:30	Conference Dinner	

Wednesday November 06, 2024

09:00-09:30	Larysa Baraban (Helmholtz-Zentrum Dresden-Rossendorf, Germany) Nanoreactors for real time monitoring of the biomolecular markers in clinical diagnostics	K
09:30-10:00	Jaap den Toonder (Eindhoven University of Technology, The Netherlands) Biomedical microdevices enabled by microfluidic technology	K
10:00-10:30	Aitziber López Cortajarena (CIC BiomaGUNE, Spain) Engineering Protein-Nanomaterial Composites: Advanced Tools in Nanomedicine	K
10:30-11:10	Coffee Break & Poster Session	
11:10-11:40	Valeria Chiono (Politecnico di Torino, Italy) Hybrid nano-delivery systems for micrnas in cardiac regenerative medicine: design, characterisation and preclinical testing in in vitro 2d and 3d tissue models	K
11:40-11:55	Sandra Michel-Souzy (University of Twente, The Netherlands) Encapsulin Protein Nanocages for Targeted Drug Delivery	O
11:55-12:10	Jordi Esquena (IQAC-CSIC, Spain) Triggered protein release from calcium alginate/chitosan gastro-resistant capsules	O
12:10-12:25	Magdalena Prochner (Jerzy Haber Institute of Catalysis and Surface Chemistry, Polish Academy of Sciences, Poland) Multilayer nanocarriers - a promising tool for delivery of neuroprotective drugs through blood-brain barrier	O
12:25-12:45	Xavier Gallart Palau (Instituto de Investigación Biomédica de Lleida, Spain) Minudik®: A Novel Platform of Extracellular Vesicle-Inspired Nanovectors for Enhancing Compound Administration, Cellular Assimilation, and Crossing of Biological Barriers	I
12:45-14:00	Lunch	
14:00-14:20	Lorena Ruiz Pérez (UB, Spain) Aggregation Dynamics of Misfolded Proteins in Water using Liquid Phase Transmission Electron Microscopy	I
14:20-14:35	Niccolò Caselli (Universidad Complutense de Madrid, Spain) Red blood cell activity under optical tweezers	O
14:35-14:50	Elisabet Xifre-Perez (Universitat Rovira i Virgili, Spain) Label-free High Amplification SERS Detection with Nanostructured Substrates	O
14:50-15:10	Clara Garcia Astrain (Polymat, Spain) Plasmonic hydrogels; enabling 3d sensing and imaging in breast cancer models	I
15:10-15:40	Lluís F. Marsal (Universitat Rovira i Virgili, Spain) Developing optical structures based on nanoporous anodic alumina for biomedical applications	K
15:40-16:00	Oscar Castaño (University of Barcelona / IBEC, Spain) Nanotools for Shaping 3D Microenvironments for Tissue Engineering	I
16:00-16:30	Jesus M. De la Fuente (INMA/CSIC, Spain) Nanoactuators for Therapy and Diagnosis	K
16:30-17:00	Coffee Break & Poster Session	
Session I – Ph Students		
17:00-17:15	Pau Castells Colldeforns (Institut Químic de Sarrià (IQS), Spain) PExM: polyplex expansion microscopy for cell trafficking studies	O
17:15-17:30	Maria José Sánchez (Institut Químic de Sarrià, Spain) Enhanced quantification and cell tracking using dual-fluorescent labelled extracellular vesicles	O
17:30-17:45	Mónica Machado (Nova Medical School, Portugal) PMMA/Graphene drug delivery systems as promising candidates for intraocular devices to improve glaucoma surgery	O

17:45-18:00	Patrick Irigo (University of Hertfordshire, UK) Advancing Nanomaterial Functionalisation: Stability and Dispersion of Metal Nanoclusters on PEGylated Graphene Oxide	O
18:00-18:15	Elena Haro (Institut Químic de Sarrià, Spain) Design of polymeric nanoparticles selectively directed to the blood-brain barrier	O
18:15-18:30	Ines Macias Tarrio (IBEC, Spain) Urease powered PLGA nanomotors as a new approach for bladder cancer treatment	O
18:30-18:45	Mireia Vilar Hernández (LipoCoat / University of Twente, The Netherlands) Immobilization of MUC-1 peptides on Supported Lipid Bilayers for Early Pancreatic Cancer Detection	O
Session II – Ph Students		
17:00-17:15	Claudia De Stradis (Università del Salento- CNR NANOTEC, Italy) Non-viral nanovectors to engineer T cells	O
17:15-17:30	Bruna My (CNR-NANOTEC, Italy) CRISPR/Cas9-mediated genome editing in T-cells using non-viral nanovectors	O
17:30-17:45	Asier R. Muguruza (Institut de Ciència de Materials de Barcelona (ICMAB-CSIC), Spain) Bioinorganic functionalization to enhance the uptake of nanoparticles in Gram-negative bacterial cells	O
17:45-18:00	Cláudio Ferro (Universidade de Lisboa, Portugal) Preclinical anti-tumor immune-mediated synergy of selenium nanoparticles and a nanovaccine against luminal B breast cancer	O
18:00-18:15	Ângela Queirós (Instituto Superior de Engenharia do Porto, Portugal) Antibacterial activity study of copper oxide nanofluids for infection control in hospital environment	O
18:15-18:30	Ramon Gonzalez (Institut Català de Nanociència i Nanotecnologia, Spain) Highly effective and safe non-viral ionizable lipid nanoparticle as universal transfection vectors	O
18:30-18:45	Gema Quiñonero López (Institute for Bioengineering of Catalonia (IBEC), Spain) Effect of nanoparticle-driven hyperthermia in biomimetic neuroblastoma models	O

Thursday November 07, 2024

09:00-09:15	Filipa Pires (Instituto de Telecomunicações, Portugal) Biodegradable Light-Emitting Diodes (LED's) for biophotonic applications	O
09:15-09:30	Fernando Lahoz (Universidad de La Laguna, Spain) Random laser applications in biomedicine	O
09:30-09:45	Caroline Tyavambiza (University of the Western Cape, South Africa) The Antimicrobial, Anti-Inflammatory and Wound healing Effects of Silver Nanoparticles Synthesized from Cotyledon Orbiculata	O
09:45-10:00	Ramón Perera (ProtoQSAR, Spain) Nano-QSAR Models on the Toxicity of Nanomaterials	O
10:00-10:20	Noemí Marina (Mecwins, Spain) Mecwins AVAC, a window opened on the world of proteins: from invading pathogens to fighter cytokines	I
10:20-11:00	Coffee Break & Poster Session	
11:00-11:30	Javier Tamayo (INM-CNM-CSIC, Spain) Exploring cancer cells through the lens of physics: the role of optomechanical technologies	K
12:30-12:00	Pilar Rivera Gil (Universitat Pompeu Fabra Barcelona, Spain) Plasmonic hollow nanocapsules as a versatile platform for cancer management	K
12:00-12:30	Victor Puentes (ICREA / ICN2, Spain) Cerium oxide Nanoparticles protecting tumoral cells and restoring immunosurveillance cure cancer	K
12:30-12:50	Claudio Parolo (ISGlobal/URV, Spain) Implementing user-friendly electrochemical nanobiosensors to improve the management of malaria	I
12:50-13:20	Jose Antonio Garrido (ICREA/ICN2, Spain) Next generation neural interfaces based on graphene technology	K
13:20	Closing	