

## Tuesday November 05, 2024

08:00-08:45	<b>Registration</b>	
08:45-09:00	<b>Opening Ceremony</b>	
09:00-09:30	<b>Giuseppe Battaglia</b> (IBEC, Spain) On the design of supramolecular drugs	K
09:30-10:00	<b>Ciro Chiappini</b> (King's College London, UK) Nanoneedles for Cell and Gene Therapy	K
10:00-10:30	<b>Kerstin Göpfrich</b> (Center for Molecular Biology of Heidelberg University (ZMBH), Germany) RNA origami: Building hardware for synthetic cells	K
<b>10:30-11:40</b>	<b>Coffee Break &amp; Poster Session</b>	
11:40-12:10	<b>Samuel Sanchez</b> (IBEC, Spain) Biocompatible chemical nanobots and their applications in biomedicine	K
12:10-12:40	<b>Simone Schuerle-Finke</b> (ETH Zurich, Switzerland) Engineering and controlling synthetic and living microrobots for biomedical applications	K
12:40-13:00	<b>Andras Badacsonyi</b> (European Research Council, Belgium) ERC for Nanosciences	I
<b>13:00-14:00</b>	<b>Cocktail Lunch</b>	
<b>14:00-14:30</b>	<b>Poster Session</b>	
14:30-15:00	<b>Danny Porath</b> (The Hebrew University of Jerusalem, Israel) Molecular Electronics with DNA towards Detection of Nucleic Acids	K
15:00-15:30	<b>Anna Roig Serra</b> (ICMAB-CSIC, Spain) Beyond Intravenous Administration of Therapeutic Nanocarriers	K
15:30-15:50	<b>Xavier Rovira Clavé</b> (BEC, Spain) Tissue and subnuclear neighborhoods uncovered by high-resolution, multiplexed protein imaging	I
<b>15:50-16:30</b>	<b>Coffee Break &amp; Poster Session</b>	
16:30-16:50	<b>Juan Fraire</b> (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	<b>Ruslán R. Alvarez Diduk</b> (ICN2, Spain) Laser Nanostructured Reduced Graphene Oxide Films: A Cost-Effective and Scalable Approach for Biosensing Applications	I
17:10-17:25	<b>itziar Galarreta-Rodriguez</b> (CIC biomaGUNE, Spain) Design, synthesis, and characterization of metallic nanoparticles as amplifiers for the optical readout of a novel SERS-based sensor system	O
17:25-17:55	<b>Jose Antonio Garrido</b> (ICREA/ICN2, Spain) Title to be defined	K
17:55-18:25	<b>Ferruccio Pisanello</b> (IIT, Italy) Multifunctional neural interfaces with tapered optical fibers	K
20:30	<b>Conference Dinner</b>	

## Wednesday November 06, 2024

09:00-09:30	<b>Larysa Baraban</b> (Helmholtz-Zentrum Dresden-Rossendorf, Germany) Nanoreactors for real time monitoring of the biomolecular markers in clinical diagnostics	K
09:30-10:00	<b>Jaap den Toonder</b> (Eindhoven University of Technology, The Netherlands) Biomedical microdevices enabled by microfluidic technology	K
10:00-10:30	<b>Aitziber López Cortajarena</b> (CIC BiomaGUNE, Spain) Engineering Protein-Nanomaterial Composites: Advanced Tools in Nanomedicine	K
<b>10:30-11:10</b>	<b>Coffee Break &amp; Poster Session</b>	
11:10-11:40	<b>Valeria Chiono</b> (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	<b>Sandra Michel-Souzy</b> (University of Twente, The Netherlands) Encapsulin Protein Nanocages for Targeted Drug Delivery	O
11:55-12:10	<b>Jordi Esquena</b> (IQAC-CSIC, Spain) Triggered protein release from calcium alginate/chitosan gastro-resistant capsules	O
12:10-12:25	<b>Magdalena Procner</b> (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	<b>Lorena Ruiz Pérez</b> (UB, Spain) Aggregation Dynamics of Misfolded Proteins in Water using Liquid Phase Transmission Electron Microscopy	I
12:45-13:00	<b>Niccolò Caselli</b> (Universidad Complutense de Madrid, Spain) Red blood cell activity under optical tweezers	O
13:00-13:15	<b>Elisabet Xifre-Perez</b> (Universitat Rovira i Virgili, Spain) Label-free High Amplification SERS Detection with Nanostructured Substrates	O
13:15-13:35	<b>Clara García Astrain</b> (Polymat, Spain) Plasmonic hydrogels; enabling 3d sensing and imaging in breast cancer models	I
<b>13:35-15:00</b>	<b>Lunch</b>	
15:00-15:20	<b>Miguel Dias Castilho</b> (Eindhoven University of Technology, The Netherlands) Title to be defined	I
15:20-15:50	<b>Lluís F. Marsal</b> (Universitat Rovira i Virgili, Spain) Developing optical structures based on nanoporous anodic alumina for biomedical applications	K
15:50-16:20	<b>Jesus M. De la Fuente</b> (INMA/CSIC, Spain) Nanoactuators for Therapy and Diagnosis	K
<b>16:20-17:00</b>	<b>Coffee Break &amp; Poster Session</b>	
<b>Session I – Ph Students (Topics: Bio-nano measurement and microscopy, Drug Delivery, Graphene-based applications)</b>		
17:00-17:15	<b>Pau Castells Coldeforns</b> (Institut Químic de Sarrià (IQS), Spain) PEXM: polyplex expansion microscopy for cell trafficking studies	O
17:15-17:30	<b>Maria José Sánchez</b> (Institut Químic de Sarrià, Spain) Enhanced quantification and cell tracking using dual-fluorescent labelled extracellular vesicles	O
17:30-17:45	<b>Mónica Machado</b> (Nova Medical School, Portugal) PMMA/Graphene drug delivery systems as promising candidates for intraocular devices to improve glaucoma surgery	O
17:45-18:00	<b>Patrick Irigo</b> (University of Hertfordshire, UK) Advancing Nanomaterial Functionalisation: Stability and Dispersion of Metal Nanoclusters on PEGylated Graphene Oxide	O

18:00-18:15	<b>Elena Haro</b> (Institut Químic de Sarrià, Spain) Design of polymeric nanoparticles selectively directed to the blood-brain barrier	O
18:15-18:30	<b>Mireia Vilar Hernández</b> (LipoCoat / University of Twente, The Netherlands) Immobilization of MUC-1 peptides on Supported Lipid Bilayers for Early Pancreatic Cancer Detection	O
<b>Session II – Ph Students (Topics: Nanomaterials for Bio and Medical Applications, NanoMaterials for Medicine)</b>		
17:00-17:15	<b>Claudia De Stradis</b> (Università del Salento- CNR NANOTEC, Italy) Non-viral nanovectors to engineer T cells	O
17:15-17:30	<b>Bruna My</b> (CNR-NANOTEC, Italy) CRISPR/Cas9-mediated genome editing in T-cells using non-viral nanovectors	O
17:30-17:45	<b>Asier R. Muguruza</b> (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	<b>Cláudio Ferro</b> (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	<b>Ângela Queirós</b> (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	<b>Ramon Gonzalez</b> (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	<b>Gema Quiñonero López</b> (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	<b>Filipa Pires</b> (Instituto de Telecomunicações, Portugal) Biodegradable Light-Emitting Diodes (LED's) for biophotonic applications	O
09:15-09:30	<b>Fernando Lahoz</b> (Universidad de La Laguna, Spain) Random laser applications in biomedicine	O
09:30-09:45	<b>Caroline Tyavambiza</b> (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	<b>Rafael Garcia Meseguer</b> (ProtoQSAR, Spain) Nano-QSAR Models on the Toxicity of Nanomaterials	O
10:00-10:15	<b>Aisha Alsenousy</b> (Medical Research Institute, Egypt) Targeted Multi-functioning RNA-based nanoparticles as a new ap-proach for treatment of chronic kidney disease in experimental model	O
10:15-10:35	<b>Noemí Marina</b> (Mecwins, Spain) Mecwins AVAC, a window opened on the world of proteins: from invading pathogens to fighter cytokines	I
10:35-11:05	<b>Tae-Eun Park</b> (UNIST, South Korea) Leveraging organ-on-a-chip technology to imitate and address tissue barriers	K
<b>11:05-11:40</b>	<b>Coffee Break &amp; Poster Session</b>	
11:40-12:10	<b>Javier Tamayo</b> (INM-CNM-CSIC, Spain) Exploring cancer cells through the lens of physics: the role of optomechanical technologies	K
12:10-12:40	<b>Pilar Rivera Gil</b> (Universitat Pompeu Fabra Barcelona, Spain) Plasmonic hollow nanocapsules as a versatile platform for cancer management	K
12:40-12:55	<b>Attila Szenasi</b> (University of North Carolina at Chapel Hill, USA) Targeting SOD1 via RNAi with a PEGylated graphene oxide nanoparticle in platinum-resistant ovarian cancer	O
12:55-13:25	<b>Victor Puentes</b> (ICREA / ICN2, Spain) Cerium oxide Nanoparticles protecting tumoral cells and restoring immunosurveillance cure cancer	K
13:25-13:45	<b>Claudio Parolo</b> (ISGlobal/URV, Spain) Implementing user-friendly electrochemical nanobiosensors to improve the management of malaria	I
13:45	Closing	