

Tuesday November 19, 2019

08:00-08:50	Registration	
08:50-09:00	Opening Ceremony	
09:00-09:30	Arben Merkoçi (ICN2 / ICREA, Spain) Paper-based nanobiosensors: diagnostics going simple	K
09:30-09:45	Morgane Valles (IBEC, Spain) Photometric-based biosensor for PKU and control unit miniaturization for point-of-care diagnostics	O
09:45-10:15	Valerio Pruneri (ICFO, Spain) Detection of particles, micro-organisms and biomarkers using CMOS image sensors	K
10:15-11:00	Coffee Break, Poster Session & Exhibition	
11:00-11:30	Alejandro Sosnik (Technion, Israel) Glycosylated amphiphilic polymeric nanoparticles in active drug targeting	K
11:30-11:50	J.M.J. Paulusse (University of Twente, The Netherlands) Versatile Single Chain Polymer Nanoparticles in Drug Delivery and Targeted Imaging	I
11:50-12:05	Alba García Fernández (Universitat Politècnica de València - IDM, Spain) Mesoporous silica nanoparticles as dual delivery platform for the efficient drug delivery and CRISPR-Cas9 editing machinery to one-shot treatments	O
12:05-12:20	Gabriela Arias-Alpizar (Leiden University, The Netherlands) Fundamental behaviour of nanoparticles revealed in zebrafish embryo	O
12:20-12:40	Ciro Chiappini (King's College London, UK) Nanoneedle Arrays for Intracellular Sensing and Delivery	I
12:40-13:00	Andela Saric (University College London, UK) Curve and cut: membrane trafficking in silico	I
13:00-13:20	Giorgio Volpe (University College London, UK) Role of surface topography on adhesion of motile bacteria	I
13:30-14:30	Cocktail Lunch - Poster Session & Exhibition	
14:30-15:00	Poster Session & Exhibition	
15:00-15:30	Javier Tamayo (IMM-CNM-CSIC, Spain) Nanomechanics and Nanomechanical Systems for Biology and Medicine	K
15:30-15:50	Silvia Pujals (IBEC, Spain) Super resolution microscopy as a tool for tackling nanomedicine challenges	I
15:50-16:10	Adai Colom (University of Geneva, Switzerland) Membrane tension and domains: New method of measurement and visualization	I
16:10-16:25	Aurora Dols-Perez (TU Delft and Kavli Institute of Nanoscience, The Netherlands) Model membranes interfaced with optical tweezers: a versatile microfluidics platform for nanomanipulation and mechanical characterization	O
16:25-16:40	Cristina Simó (CIC BiomaGUNE, Spain) In vivo biodistribution of siRNA-supported by polymer nanoparticles using Positron Emission Tomography (PET) imaging	O

16:40-17:00	Annalisa Caló (University of Barcelona, Spain) Scanning probes for enzyme nanopatterning and for the spatial mapping of collagen micro-stiffness in tissue sections	I
17:00-17:30	Coffee Break, Poster Session & Exhibition	
17:30-18:00	Rodolfo Miranda (IMDEA Nanociencia, Spain) Creating a Bidirectional Bypass for Spinal Cord Injuries with Nanotechnology	K
18:00-18:15	Pierandrea Esposito (SITEC pharmabio , Spain) Lipid-composite particles by liquid-CO2 cryospraying technology: advantages, challenges and pharmaceutical applications	O
18:15-18:30	Valerio Pini (Mecwins S.A., Spain) Ultra-sensitive and multiplexed detection of protein biomarkers using Mecwins technology	O
18:30-18:45	Albert Lorenzo Sanz (R+D Laboratory of The Forest Next, Spain) Control of particle size and drug release of PLA/PLGA microspheres	O
18:45-19:15	Ofra Benny (The Hebrew University of Jerusalem, Israel) Physical properties of particles can control cell specificity	K
21:00	Conference Dinner	

Wednesday November 20, 2019

09:00-09:15	Jaume Esteve (IMB-CNM (CSIC), Spain) Nano harvesting energy applied to cell biology	O
09:15-09:35	Lucia Gemma Delogu (University of Padua, Italy) Characterization of the immunomodulatory properties of graphene-based materials and their application as novel biomedical nanotools	I
09:35-09:55	Vincent Bouchiat (Grapheal, France) Wound care and smart bandage technology based on Graphene monolayers	I
09:55-10:40	Coffee Break, Poster Session & Exhibition	
10:40-11:10	Samuel Sanchez (IBEC, Spain) Nanomotors: Artificial active matter for nanomedicine	K
11:10-11:30	Maria Jose Esplandiu (ICN2, Spain) Electrochemical nanoreactors and nanomotors for potential biomedical applications	I
11:30-12:00	Kostas Kostarelos (The University of Manchester, UK) Translating Graphene into Clinical-Grade Bioelectronic Devices for Recording and Stimulation in Brain Pathologies	K
12:00-12:30	Giuseppe Battaglia (IBEC, Spain) Vesicle chemotaxis at the nanoscale: principles and applications	K
12:30-13:00	Rafael Morales (UPV/EHU, Spain) Nanomagnets for biomedical applications: from spherical shapes to planar geometries	K
13:00-13:15	Amanda Jane Ozin-Hofsaess (Research Executive Agency, Belgium) International nanomaterials for biomedicine projects reaching success with support of EU Research and Innovation Staff Exchange (RISE) programme	O
13:15-15:00	Lunch	
15:00-15:30	Ana Paula Pêgo (INEB / nBTT, Portugal) nanoBiomaterials for Neurology: one (powerful) tool, many applications	K
15:30-15:50	Michael Krieg (The Institute of Photonic Sciences (ICFO), Spain) Nanomechanical properties of the cytoskeleton influence neuronal function in <i>C. elegans</i>	I
15:50-16:05	Monica Mir (IBEC, Spain) Magnetite Nanoparticles a Key player in alzheimer's Disease	O
16:05-16:20	Maria Guix Noguera (Institute for Bioengineering of Catalonia (IBEC), Spain) Complex skeletons for improved tracking and motion of 3D printed biorobots	O

16:20-16:50	M. Taher A. Saif (University of Illinois, USA) Force pathway to synaptic clustering at the neuro-muscular junctions of embryonic flies	K
16:50-17:30	Coffee Break, Poster Session & Exhibition	
Parallel Session – PhD Students		
17:30-17:45	Tomás Pinheiro (FCT Nova - CENIMAT, Portugal) 3D multiplex, paper-based rapid diagnostic tests using plasmonic gold nanoprobos	O
17:45-18:00	Aleksandra Ivanova (Universitat Politècnica de Catalunya, Spain) Layer-by-Layer decoration of AgNPs with Aminocellulose and Quorum Quenching Acylase for Controlling Bacterial Pathogens and Their Biofilms	O
18:00-18:15	Laura Karen Acosta Capilla (Universitat Rovira i Virgili, Spain) Complex Nanoporous Anodic Alumina Photonic Structures for Sensing: Design, Fabrication and Applications	O
18:15-18:30	Jan Grzelak (Institut de Ciència de Materials de Barcelona (ICMAB-CSIC), Spain) Mesoporous magnetic nanorods for theranostics	O
18:30-18:45	Ana C. Hortelão (Instute for Bioengineering of Catalonia, Spain) Enzyme-powered nanomotors towards biomedical applications	O
18:45-19:00	Vidhishri Kesarwani (Monash University, Australia) Characterisation of key bio-nano interactions between organosilica nanoparticles and Candida albicans	O
19:00-19:15	Clara Guido (Univ. of Salento - CNR Nanotec, Italy) Polymeric NPs as efficient tool for gene delivery	O
Parallel Session – Seniors		
17:30-17:45	Andreu Blanquer (Czech Academy of Sciences, Czech Republic) Biodegradable nanofibers scaffolds containing platelet lysate for skin wound healing	O
17:45-18:00	Aurore Fraix (University of Catania, Italy) “Three-Bullets” Loaded Mesoporous Silica Nanoparticles for Combined Photo/Chemotherapy	O
18:00-18:15	Jessem Landoulsi (Sorbonne Universite, LRS, France) Collagen at the solid/liquid interface: Self-assembly, supramolecular organization and interaction with inorganic nanoparticles	O
18:15-18:30	Vladimir Mulens-Arias (Centro Nacional de Biotecnología, Spain) Polyethyleneimine as a versatile coating/reducing cationic polymer for metallic nanoparticle-based cancer theranosis	O
18:30-18:45	Carmen Yuste-Calvo (CBGP, Spain) Natural proteinaceous nanoparticles for theranostic purposes	O
18:45-19:00	Francisco Huertas (ITENE, Spain) Nanomaterial Fate and Exposure Modelling	O

Thursday November 21, 2019

09:00-09:30	Peter Zijlstra (Eindhoven University of Technology, The Netherlands) DNA-nanoparticle hybrids for single-molecule sensing	K
09:30-10:00	Danny Porath (The Hebrew University of Jerusalem, Israel) Novel DNA-Based Molecules and Their Charge Transport Properties	K
10:00-10:30	Victor Puntès (ICREA / ICN2, Spain) Medical Nanoparticles; Principles of Design	K
10:30-10:50	Giancarlo Franzese (Universitat de Barcelona, Spain) In silico study of protein-nanoparticle assembly and protein aggregation in crowded environments	I
10:50-11:50	Coffee Break, Poster Session & Exhibition	
11:50-12:20	Meital Rechès (The Hebrew Univ of Jerusalem, Israel) Bio-Inspired Peptide-Based Functional Coating	K
12:20-12:50	Ulyana Shimanovich (Weizmann Institute of Science, Israel) From basic principles of protein self-assembly to rational design of multifunctional fibers	K
12:50-13:10	Loai Abdelmohsen (Eindhoven University of Technology, The Netherlands) Dynamic systems mimicking the systemic complexity of biology	I
13:10	Closing & nanoBioMed2020 announcement	