



TENTATIVE PROGRAM (as of 09/07/2020)

K: Keynote lecture / I: Invited Lecture / O: Oral contribution / FP: FlashPoster contribution



Friday (10/07/2020)

08:50 – 09:00: *Opening - Welcome and Introduction*

Antonio Correia – Phantoms foundation, Spain

Josep Samitier – IBEC, Spain

09:00 – 09:30: **Luis M. Liz-Marzán** (CIC biomaGUNE, Spain)

SERS Detection of Tumor-Related Metabolic Alterations

09:30 – 10:00: **Alberto Bianco** (ibmc/CNRS, France)

Multifunctional 2D materials for cancer therapy and bioimaging

10:00 – 10:20: **Maria De la Fuente** (Oncomet, Spain)

Personalized nanomedicine for improved anticancer therapeutics

10:20– 10:30: *Break*

10:30 – 11:00: **FlashPoster Session**

10:30 – 10:35: **Beatriz Arauzo Gimeno** (Aragon Institute of Nanoscience (INA), Spain)

Alginate microparticles produced by atomization system: Biomedical applications

10:35 – 10:40: **Ashish Avasthi** (Bionand, Spain)

Investigating the effect of a new contrast agent in an orthotopic mice mode

10:40 – 10:45: **Maria Demestre** (IBEC, Spain)

Autism associated shank3 mutations alter skeletal muscle maturation: therapeutic strategies using 3D-bioprinted skeletal

10:45 – 10:50: **Nerea González Pato** (Institut de Ciència de Materials de Barcelona (ICMAB-CSIC), Spain)

Robust electroactive substrates based on gold-nanoparticle arrays electrodeposited on indium tin oxide for reproducible surface-enhanced Raman spectroscopy

10:50 – 10:55: **Pankaj Kapruwan** (Universitat Rovira i Virgili - Campus Sescelades, Spain)

Optical analysis on infiltration of Rhodamine dye inside Nanoporous anodic alumina Gradient-index filters

10:55 – 11:00: **Xavier Rodríguez** (Institut of Materials Science of Barcelona- CSIC, Spain)

Anti-biofilm surfaces based on the immobilization of a novel recombinant antimicrobial protein using SAMs

11:00 – 11:30: **Francesco Stellacci** (EPFL, Switzerland)

Supramolecular Antivirals

11:30 – 12:00: **Arben Merkoci** (ICREA / ICN2, Spain)

Nanobiosensors for point of care applications

12:00 – 12:30: **ePosters Session**

12:30 – 13:15: *Lunch Break*

13:15 – 13:45: **Maria José Alonso** (USC, Spain)

Delivery of biologicals using nanotechnology

13:45 – 14:15: **Giuseppe Battaglia** (UCL, UK)

Multivalent and multiplexed interaction in nanomedicine

14:15 – 14:45: **Samuel Sanchez** (IBEC, Spain)

Swarming hybrid nanobots and their imaging in vitro and in vivo

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14:45 – 15:00: *Break*

15:00 – 17:50: **Parallel Oral sessions**

ROOM 1

- 15:00 – 15:10: **Annalisa Calò** (Institute for Bioengineering of Catalonia (IBEC), Spain) 0
Scanning probes for enzyme nanopatterning and for the spatial mapping of collagen micro-stiffness in tissue sections
- 15:10 – 15:20: **Veronika Magdanz** (IBEC, Spain) 0
IRONsperm: Sperm-templated flexible magnetic microrobots
- 15:20 – 15:30: **Maria Guix** (Institute for Bioengineering of Catalonia (IBEC), Spain) 0
Compliant 3D scaffold as self-training skeletons for bio-hybrid robots
- 15:30 – 15:40: **Filipa Soares** (REQUIMTE - Rede de Química e Tecnologia, Portugal) 0
Design and statistical modelling of fusogenic magnetoliposomes production for a potential antibacterial application
- 15:40 – 15:50: **Marlene Lúcio** (University of Minho, Portugal) 0
Bio-inspired models and biophysical studies applied in ADMET profiling
- 15:50 – 16:00: **Marc Martínez Miguel** (Institut de Ciència de Materials de Barcelona (ICMAB-CSIC), Spain) 0
Stable Anchoring of Bacteria-based Protein Nanoparticles for Surface Enhanced Cell Guidance
- 16:00 – 16:10: **Rita Rodrigues** (University of Minho, Portugal) 0
Magnetic/plasmonic liposomes as nanocarriers for novel antitumor tricyclic lactones against non small cell lung cancer
- 16:10 – 16:20: **Sandra Giraldo Clemente** (Universitat de Barcelona, Spain) 0
Neurotransmitter's encapsulation on Bipyridinium-functionalized polysilicon microparticles by supramolecular interactions
- 16:20 – 16:30: **Jesús García** (Universitat Internacional de Catalunya, Spain) 0
Development of C75-CoA-loaded polymeric nanomedicines to inhibit CPT1 in specific brain cells
- 16:30 – 16:40: **Sérgio Veloso** (University of Minho, Portugal) 0
Supramolecular plasmonic magnetic gels for controlled drug delivery
- 16:40 – 16:50: **Eduarda Fernandes** (Centre of Physics of University of Minho and Porto (CFUM), Portugal) 0
Lipid Biomimetic Models as an Alternative Platform to Guide the Drug Design Process

ROOM 2

- 15:00 – 15:10: **Verónica Montes García** (Université de Strasbourg & CNRS, France) 0
Gold Nanoparticles Chemiresistors for Selective Potassium Ions Sensing
- 15:10 – 15:20: **Clara García-Astrain** (CICBiomagune, Spain) 0
Plasmonic Scaffolds for 3D SERS sensing
- 15:20 – 15:30: **Priyanka Dey** (University of Exeter, UK) 0
Gold Nano-assemblies as SERS-NIR-PTT theranostic agent: Tentacles more powerful than Satellites
- 15:30 – 15:40: **Sara Abalde-Cela** (International Iberian Nanotechnology Laboratory INL, Portugal) 0
SERS and microdroplets for multiplex phenotyping of cancer single cells
- 15:40 – 15:50: **Beatriz Cardoso** (University of Minho, Portugal) 0
Stealth magnetoliposomes based on calcium-substituted magnesium ferrite nanoparticles for curcumin transport and release
- 15:50 – 16:00: **Eduardo Pérez del Río** (ICMAB-CSIC, Spain) 0
CCL21-loaded synthetic 3D hydrogels for T cell expansion and differentiation
- 16:00 – 16:10: **Irina Rio** (University of Minho, Portugal) 0
Synthesis and characterization of magnetoliposomes containing nickel ferrite nanoparticles covered with gold for applications in phototherapy
- 16:10 – 16:20: **Judit Morlà-Folch** (Institute of Materials Science of Barcelona (ICMAB- CSIC), Spain) 0
Fluorescent Organic Nanoparticles demonstrating high FRET efficiency for their use as bioimaging probes
- 16:20 – 16:30: **Melanie Hannebelle** (EPFL, Switzerland) 0
Exploring the Biophysics of Bacterial Growth and Division with Time-lapse Optical and Atomic Force Microscopy
- 16:30 – 16:40: **Ignasi Casanellas** (Institute for Bioengineering of Catalonia (IBEC), Spain) 0
Stem cell condensation and gap junctional communication on nanopatterned substrates for improved cartilage formation

16:50 – 17:00: *Break*

17:00 – 17:20: **Ofra Benny** (The Hebrew University of Jerusalem, Israel)

Interaction of cancer cells with particles depended on cell deformability

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17:20 – 17:40: **Danny Porath** (The Hebrew University of Jerusalem, Israel)

Surprising Charge Transport in DNA and Properties of Novel DNA-Based Molecules

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17:40 – 18:10: **Victor Puntès** (ICN2, Spain)

Medical Nanoparticles II*: driving new pharmaceutical substances into the medical praxis

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18:10 Closing