

MONDAY 21 OCTOBER

8:30 REGISTRATION

9:00 OPENING

Raquel Yotti, Carlos III Health Institute, Director

Ramón Martínez Máñez, CIBER-BBN Scientific Director

9:30 SCIENTIFIC SESSION I: Artificial Intelligence & Big Data

Chair: **Pablo Laguna**

The challenges of computational biology applications in medicine from the Barcelona Supercomputing Center perspective,

Alfonso Valencia, Barcelona Supercomputing Center

Possibilities, challenges and limitations of Big Data and Artificial Intelligence in biomedicine,

Manuel Doblaré, University of Zaragoza

Speaker TBC

11:10 COFFEE BREAK/POSTERS

11:50 SCIENTIFIC SESSION II: Gene editing & CRISPR

Chair: **José Becerra**

CRISPR gene editing tools for in vivo gene therapy: delivery via viral vectors and nanoparticles,

Luis Montoliu, National Center of Biotechnology CSIC-CIBERER

Targeted genome engineering of iPSC for modeling complex human diseases,

Ángel Raya, Center of Regenerative Medicine of Barcelona

Delivery approaches and challenges for CRISPR-Cas9 editing system,

Gustavo Puras, University of Basque Country

13:30 LUNCH / POSTERS

15:00 SCIENTIFIC SESSION III: Liquid Biopsy & Point-of-Care

Chair: **M. Pilar Marco**

Liquid Biopsy in Brain Tumors,

Joan Seoane, Vall d'Hebron Research Institute

Nanoplasmonic toolbox for diagnostics,

Luis Manuel Liz Marzán, CICBiomaGUNE

Nanophotonic point-of-care biosensors for early diagnosis at clinical settings,

Laura Lechuga, Catalan Institute of Nanoscience and Nanotechnology (ICN2)

16:40 COFFEE BREAK/POSTERS

17:10 NANBIOSIS INFRASTRUCTURE

Chair: **Jaume Veciana**

Annual Summary, Jaume Veciana, ICMA-B-CSIC

Oligonucleotide Synthesis Platform,

Ramon Eritja Casadellà, Catalan Institute of Advanced Chemistry- CSIC

Infrastructure for OMICS technologies (OmicsTech ICTS): metabolomics for clinical and nutritional research,

Xavier Domingo-Almenara, Centre for Omics Sciences, EURECAT- Rovira i Virgili University

21:00 DINNER

Claustro de Sant Pau, El Seminari,

Carrer de Sant Pau 4, 43003 Tarragona

TUESDAY 22 OCTOBER

9:00 SCIENTIFIC SESSION IV: Nanobots & Future emerging technologies for nano-delivery

Chair: **Simó Schwartz**

Self-propelled nanobots as future theranostic tools in nanomedicine: sensing, delivery and imaging,

Samuel Sánchez Ordóñez, Institute for Bioengineering of Catalonia (IBEC)

Hijacking intercellular trafficking to deliver a therapeutic cargo: Exosomes as new delivery vehicles,

Jesús Santamaría, University of Zaragoza

Mesoporous silica nanoparticles: a novel weapon for osteoporosis treatment,

Miguel Manzano García, Complutense University of Madrid

10:40 YOUNG RESEARCHERS BEST PAPERS AWARDS

Chair: **Raimon Jané**

Validation of Heart rate monitor polar RS800 for heart rate variability analysis during exercise,

David Hernando, University of Zaragoza

Polyoxometalate-ionic liquids (POM-ILs) as anticorrosion and antibacterial coatings for natural stones,

Isabel Franco Castillo, Materials Science Institute of Aragón-CSIC

Smart gated magnetic silica mesoporous particles for targeted colon drug delivery: New approaches for inflammatory bowel diseases treatment,

Adrián H. Teruel, IDM-Polytechnic University of Valencia

Self-assembling toxin-based nanoparticles as self-delivered antitumoral drug,

Laura Sánchez-García, Biotechnology and Biomedicine Institute, Autònoma University of Barcelona

11:10 COFFEE BREAK / POSTERS

11:50 SCIENTIFIC SESSION V: Senescence & Reprogramming

Chair: **Ramón Martínez Máñez**

Cellular senescence as a pathological cause of multiple diseases,

Manuel Serrano, Institute for Research in Biomedicine, Barcelona

Engineering human pluripotent stem cells derived organoids: challenges and opportunities modelling human disease,

Nuria Montserrat, Institute for Bioengineering of Catalonia (IBEC)

Exploring new avenues for detection and clearance of cell senescence,

José Ramón Murguía Ibáñez, IDM- Polytechnic University of Valencia

13:30 LUNCH / POSTERS

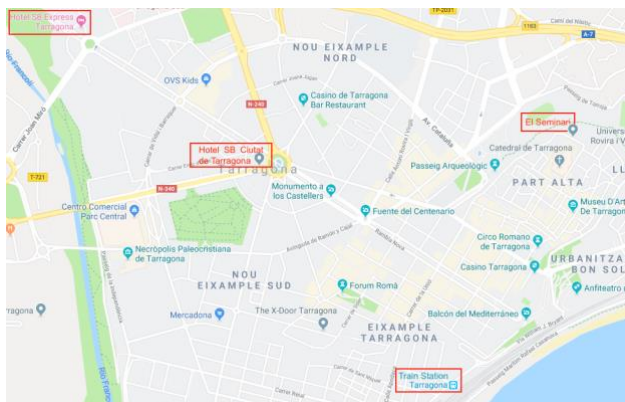
INTERNAL MEETINGS

Monday 21 October

18:30-19:30 NANBIOSIS SCIENTIFIC ADVISORY BOARD
Trajano Hall

Tuesday 22 October

15:30- 18:30 SCIENTIFIC ADVISORY BOARDS & STEERING COMMITTEE ANNUAL MEETING
Trajano Hall



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 Centro de Investigación Biomédica en Red
 Bioingeniería, Biomateriales y Nanomedicina

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CIBER-BBN 2019 ANNUAL CONFERENCE
21st- 22nd October 2019

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Hotel SB Ciutat de Tarragona
 Plaça de la Imperial Tàrraco, 5, 43005
 977 25 09 99

Hotel SB Express Tarragona
 Plaça Corts Catalanes, 4, 43005 Tarragona
 977 22 10 50

Taxi Tarragona: 977 22 14 14



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