MONDAY 12 NOVEMBER

9:00 REGISTRATION

9:30 **OPENING** Imperial Hall

> José Antonio Íñiguez Arboleda, General Directorate of Networks and Cooperative Research Centers, Instituto de Salud Carlos III Matilde Alonso Rodrigo, Head of Research Area, Universidad de Valladolid

Ramón Martínez Mañez. CIBER-BBN Scientific Director

PLENARY LECTURE I Imperial Hall 10:00

Chair: Jordi Aguiló

The Janssen Autism Knowledge Engine (JAKE™): A Set of Tools and Technologies to Assess Treatment Outcomes Nikolay Manyakov, Janssen Research and Development

SCIENTIFIC SESSION I: RARE DISEASES Imperial Hall 10:45

Chair: Jaume Veciana

Research on Rare Diseases: Overview

Pablo Lapunzina, CIBERER Scientific Director, Hospital La Paz

Biotechnology applied to the diagnosis and treatment of rare diseases, Rafael Artuch, Hospital Sant Joan de Deu-CIBERER New challenges in the treatment of hereditary myopathies Jordi Díaz Manera, Hospital Santa Creu i Sant Pau-CIBERER

11:45 **COFFEE BREAK/POSTERS** Azalea, Europa & Simancas Halls

12:30 SCIENTIFIC SESSION II: FRAILTY & HEALTHY AGEING

Imperial Hall

Chair: José Becerra

Novel methods and tools to study frailty

Ander Matheu, Biodonostia Health Research Institute-CIBERFES

Technological solutions to improve healthcare attention for the elderly: Experimentation in real environments

Rodrigo Pérez Rodríguez, Hospital Getafe-CIBERFES

Frailty, what are we talking about?

Marta Checa López, Hospital Getafe-CIBERFES

13:30 LUNCH / POSTERS Azalea, Europa & Simancas Halls **DEBATE ON**

RARE **FRAILTY & HEALTHY AGEING** DISEASES

DEBATE ON

15:00

Castilla Hall Imperial Hall **COFFEE BREAK** / POSTERS

Azalea, Europa & Simancas Halls

16:30 NANBIOSIS INFRASTRUCTURE Imperial Hall

Chair: Simó Schwartz

Nanbiosis: Achievements and further goals

Jaume Veciana, ICMAB-CSIC

Bionand, the new node of NANBIOSIS

María L. García Martín, BIONAND

ALBA: Synchrotron Light for Health and Biomedicine

Nuria Valls, ICTS Sincrotrón ALBA

17:30 INTRAMURAL PROJECTS SESSIONS I & II

DIAGNOSIS & INFECTIOUS DISEASES

Imperial Hall

Chair: M. Pilar Marco

NANOPROBE

Gated sensing materials and devices for the detection of infectious diseases and urological cancer Elena Aznar, IQMA-UPV

PcP-SENS

Development of a biosensor point-of-care diagnostic tool for the fast identification of infection by Pneumocystis Anna Aviñó, IQAC-CSIC

BIOFILM-ATTACK

New highly positively charged nanovesicular structures for the treatment of biofilm formation in lower extremity ulcers

Nora Ventosa, ICMAB-CSIC

OS-PROFILE

Immunochemical diagnostic strategies based on the quorum sensing system M. Pilar Marco, IQAC-CSIC

NANOTLVAC

New nanoparticles and nanocomplexes for tuberculosis and/or listeria vaccination Isabel García. CICBIOMAGUNE

BONE REGENERATION

Castilla Hall

Chair: Julio San Román

CHONDRONANONET-2

Nanopatterned cell carriers for improved architectural communication networks in chondrogenesis towards osteoarthritic joint repair-2 Anna Lagunas, IBEC

COATREG-3D

Bioactive coatings to promote tissue regeneration and ingrowth into 3D custom-made porous titanium endoimplant Leonor Santos, UMA

VASCUMAT

Nanostructured advanced technologies based on hybrid biomaterials for in situ reaeneration to treat congenital pseudarthrosis and nonconsolidatina bone fractures Óscar Castaño, IBEC

OSTEOSILK

Silk/graphene-based biomaterials as scaffolds for orthopaedic surgery and bone tissue engineering Rick Visser, UMA

20:30 DINNER

Restaurante La Parrilla de San Lorenzo, c/Pedro Niño, 1, 47001 Valladolid

TUESDAY 13 NOVEMBER

PLENARY LECTURE II Imperial Hall 9:00

Chair: Ramón Martínez Mañez

Safety and proof-of-concept efficacy of drug loaded nano- and immunonanoparticles in transgenic lung and xenograft prostate cancer models

Jürgen Borlak, Hannover Medicine School

YOUNG RESEARCHERS BEST PAPERS AWARDS 9:45

Imperial Hall

Chair: Jesús Santamaría

Automated detection of epileptic ripples in MEG using beamformer-based virtual sensors

Carolina Migliorelli, UPC

Alginate microcapsules incorporating hyaluronic acid recreate closer in vivo environment for mesenchymal stem cells

Alberto Cañibano-Hernández, UPV-EHU

An OFF-ON two-photon fluorescent probe for tracking cell senescence in vivo

Beatriz Lozano Torres, IQMA-UPV

Peptide-based nanostructured materials with intrinsic proapoptotic activities in CXCR4+ solid tumors

Naroa Serna, UAB

10:45 **COFFEE BREAK / POSTERS** Azalea, Europa & Simancas Halls

11:15 **INTRAMURAL PROJECTS SESSIONS III & IV**

CANCER

Imperial Hall Chair: Ramón Mangues

NANOPROTHER II

Tumor-taraeted nanomedicines based on therapeutic proteinonly nanoparticles

Antonio Villaverde, IBB-UAB

NOTAGLI

Nosological imagina as a tool for adjusting therapy combination to improve glioma management: preclinical studies

Ana Paula Candiota, UAB

GOLIATH

Gold-silica hybrids for lightassisted therapy of melanoma Rafael Castillo, UCM

OPHTHALMOLOGY & CHRONIC DISEASES

Castilla Hall

Chair: Raimon Jané

INT-2-CARE

Intelligent platform for the integral care of complex patients

Elena Hernando, UPM

M-OLDOSA

Multimodal analysis and mhealth tools for diagnostic and monitoring improving of obstructive lung disease and obstructive sleep apnea patients

Raimon Jané, IBEC-UPC

ORDECA

Organic radicals and radical dendrimers to improve the magnetic resonance imaging José Vidal, ICMAB-CSIC

NANOMETS-3

Drug nanconjugates and nanovesicles for targeted therapy in disseminated cancer Isolda Casanova, H. Sant Pau

CLU3

Taking glioblastoma
progression monitoring to the
next level: Clinical use of MR
spectroscopy through a
radiologist-friendly interface
based on unsupervised machine
learning and 3D display
Margarita Juliá, UAB

NANOCANTRI

Cancer stem cell targeted nanomedicines for treating triple negative breast cancers, **Ibane Abasolo**, H.Vall d'Hebron

DUROCAF

Durotaxis of cancer associated fibroblasts

Raimon Sunyer, IBEC

DRUG-DIFF

Prediction of drug diffusion on complex biomimetic environment

Sara Oliván, UNIZAR

NANOHYPERTHERMIA

Development of new nanoparticles and protocols for enhanced hyperthermia **Elena Aznar**, IQMA-UPV

ORASI

Optogenetic approach in visual rehabilitation **Lawrence Humphreys**, UMH

EYEPOC-II

Point of care biosensor devices to detect biomarkers as evaluation end-points for therapeutic clinical trials in ocular surface inflammation Amalia Enríquez de Salamanca. JOBA

MICRO-BRB

Microfluidic model of retinal neurovascular unit to identify new therapeutic targets in diabetic retinopathy José Yeste, CNM



INTERNAL MEETINGS

Monday 12 November

18:30-19:30 NANBIOSIS SCIENTIFIC ADVISORY BOARD

Iberia Hall

Tuesday 13 November

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

Iberia Hall



www.ciber-bbn.es

www.nanbiosis.es

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CIBER-BBN 2018 ANNUAL CONFERENCE 12th- 13th November 2018



HOTEL FELIPE IV

Calle Gamazo, 16, 47004 VALLADOLID