

SCIENTIFIC PROGRAM

I YOUNG RESEARCHERS MEETING

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21-22 NOVEMBER 2022
BARCELONA



With the collaboration of:



"la Caixa" Foundation



21st of NOVEMBER 2022

13:30h | **Registration**

15:00h | **Welcome (Ágora Room)**

- **Rosa Villa**, *CIBER-BBN Training coordinator.*
- **Jordi Alonso**, *CIBERESP Scientific Assistant Director.*

15:30h | **Plenary Lecture (Ágora Room)**

Chairs: Alejandra Estepa and Marta Solans

- **Abi J Vázquez, DIVERSA Technologies.** Nanotechnology in the era of precision medicine: from the laboratory to the market to maximize impact.

16:15h | **Session 1: Oncology (Ágora Room)**

Chairs: Alejandra Estepa and Inma García

- **Sefora Conti (CIBER-BBN, BI).** Distinct mechanical phenotypes are associated to cancer differentiation states in colorectal cancer patient-derived organoids.
- **Natalia Navarro (CIBER-BBN, NM).** Customized DNA origami for delivery of therapeutic cargoes.

16:45h | **Session 2: COVID-19 (Ágora Room)**

Chairs: Ayelén Rojas and José Tapia

- **Lucía Alonso (CIBERESP, P3).** Investigating associated factors of COVID-19 vaccine acceptability using a machine learning algorithm in adolescent and parents of Catalonia sentinel schools.
- **Irene Visos Varela (CIBERESP, P1).** Effect of selective serotonin reuptake inhibitors (SSRIs) on the prognosis of COVID-19.

17:15h | **Coffee Break (Lynn Margulis Room, floor -5)**

17:45h | **Round table: "Artificial intelligence in precision medicine: believing in data" (Ágora Room)**

Chairs: Javier Plou, Daniel Redondo and José Tapia

- **María Aragón, Information System for Research in Primary Care (SIDIAP).** SIDIAP and the Real World Data.
- **Karim Lekadir, Universitat de Barcelona.** From Risky to Trustworthy Artificial Intelligence in Medicine.
- **Miguel Luengo, Spotlab.** AI for Diseases that are not yet in the digital world.

21st of NOVEMBER 2022

18:45h | **Session 3: Reproductive and Sexual health (Ágora Room)**

Chairs: Andreu Bruguera and Víctor Zamora

- **Héctor Martínez-Riveros (CIBERESP, P3).** Feasibility and acceptability of a self-sampling intervention in asymptomatic and unrecognized symptomatic cases of monkeypox recruited at a community center.
- **David Palma (CIBERESP, P2).** Characteristics of men who have sex with men and woman in Barcelona and Madrid (2018-2021).

19:15h | **Poster party session (Lynn Margulis Room, floor -5)**

Chairs: Inma García, Ana Gámez, Javier Plou and Ayelén Rojas

Poster programme at the end of the present document.

22nd of NOVEMBER 2022

8:45h | **Welcome**

9:15h | **Session 4: Chronic Diseases (Ágora Room)**

Chairs: Alba Martín and Daniel Redondo

- **Eulàlia Forner (CIBER-BBN, BI)**. Bioelectrochemical microsensor for acetate short chain fatty acid monitoring in a Gut-on-a-Chip.
- **Belén Peñalver-Argüeso (CIBERESP, P1)**. Prevalence of hypertension and diabetes in Spain: data from the nationwide, population-based ENECOVID-study.

9:45h | **Session 5: Methodology (Ágora Room)**

Chairs: Miguel Ángel Lerma and Javier Plou

- **Marina Fuente-Moreno (CIBERESP, P6)**. Impact of data preparation strategies on antipsychotics adherence estimates using real-world data.
- **Nadia García-Parra (CIBER-BBN, BM)**. Osteogenic differentiation of mesenchymal stem cells under magnetoelectric stimulation in a microgel 3D environment.

10:15h | **Plenary lecture (Ágora Room)**

Chairs: Ana Gámez and Marta Solans

- **Sònia Estradé, Universidad de Barcelona**. Women in science: addressing the anomaly.

11:00h | **Coffee Break (Lynn Margulis Room, floor -5)**

11:30h | **Session 6: Epidemiology and Public health (Ágora Room)**

Chairs: Daniel Redondo and Víctor Zamora

- **Mario Delgado-Velandia (CIBERESP, P1)**. The mediation role of lifestyle in the association between frailty and mortality in the UK Biobank.
- **Verónica Vega-Cabello (CIBERESP, P1)**. Micronutrient index and incident multimorbidity in older adults.

12:00h | **Session 7: Mental health and Neurology (Ágora Room)**

Chairs: Ana Gámez and Alba Martín

- **Marina Botello-Marabotto (CIBER-BBN, NM)**. Identification of potential biomarkers of Alzheimer's disease progression through 1H-NMR metabolomics.
- **Marina Herrero-Lorenzo (CIBERESP, P5)**. Deregulated plasma extracellular small RNAs are a promising biosignature for premanifest Huntington's disease.

22nd of NOVEMBER 2022

12:30h | **Round table: "Mental health before, during and after PhD: How can we survive?" (Ágora Room)**

Chairs: Alejandra Estepa, José Tapia and Víctor Zamora

- **Amaia Ayala-García, Universitat Pompeu Fabra.** Impacto de las condiciones de empleo y trabajo en la salud mental de doctorandxs durante el desarrollo de la tesis.
- **Ramón Nogueras, Divulgador en Psicología.** El contexto es todo.
- **Elvira Reche, Facultad de Psicología, Universitat Autònoma de Barcelona.** Research Yourself: Programa de acompañamiento a profesionales de la ciencia y la investigación basado en aplicar y transferir lo que ya domina el personal investigador a su propia autogestión.

13:30h | **Lunch (Lynn Margulis Room, floor -5)**

15:00h | **Session 8: Infectious diseases and Microbiology (Ágora Room)**

Chairs: Andreu Bruguera and Ayelén Rojas

- **Andy Hernández-Montoto (CIBER-BBN, NM).** Pathogen detection based on oligonucleotide gated nanoporous anodic alumina films: optimization of biosensor synthesis and sensing assay.
- **Sergio Moreno-Fornes (CIBERESP, P3).** Who is lost to follow-up in the PISCIS Cohort of HIV of Catalonia and Balearic Islands? Analysis of the last 15 years and impact of the COVID19 pandemic.

15:30h | **Session 9: Environmental Health (Ágora Room)**

Chairs: Marta Solans and Víctor Zamora

- **Dora Cserbik (CIBERESP, P1).** Exposure assessment of per- and polyfluoroalkyl substances (PFAS) and disinfection by-products (DBPs) in drinking water during pregnancy.
- **Nicolás Francisco Fernández Martínez (CIBERESP, P1).** Relation between exposure to parabens and benzophenones and prostate cancer risk in the EPIC-Spain cohort.

16:00h | **Awards (Ágora Room)**

16:15h | **Closure (Ágora Room)**

16:30h | **Social Event "CosmoCaixa tour"**

POSTER PROGRAMME

CHRONIC DISEASES (CD)

CD1: Sleep apnea causally contributes to metabolic syndrome in prepubertal children. *Armañac-Julián, P.*

CD2: Fabrication and characterisation of lactate releasing PLGA particles for cardiac regeneration. *James, C.*

CD3: Analysis of P-wave changes for prediction of atrial fibrillation episodes. *Moreno, C.*

CD4: 3D microenvironments of gelatin and chondroitin sulfate for the culture of hepatic cells. *Naranjo-Alcázar, R.*

CD5: Cost-effectiveness of the initial medication adherence intervention versus usual care for cardiovascular disease and diabetes treatments in Primary Care. *Sánchez-Viñas, A.*

COVID-19 (CV)

CV1: Feasibility of SARS-CoV-2 antigen self-testing in school and summer camp attendees in Catalonia. *Martínez-Riveros, H.*

CV2: Pandemics impact on access to health services and vulnerability: the case of the COVID-19. *Moreno-Vásquez, MA.*

CV3: Exploring COVID-19 vaccine resistance in the middle of a pandemic: findings from a focus group study in Spain. *Prieto Campo, A.*

CV4: A longitudinal analysis of temporal trends and inequalities in mental health during the COVID-19 pandemic. *Robles, B.*

CV5: Impact of prior statin use on the severity of COVID-19. *Zapata-Cachafeiro, M.*

CV6: Confidence in a vaccine against COVID-19 among registered nurses in Barcelona, Spain across two time periods. *Palma, D.*

CV7: Nanoporous anodic alumina gated material as a diagnostic tool for the rapid and accurate detection of SARS-CoV-2 spike protein. *Caballos, I.*

CV8: Direct detection of SARS-CoV-2 RNA using triple helix structures. *Domínguez, A.*

EPIDEMIOLOGY AND PUBLIC HEALTH (EP)

EP1: Ethnic disparities in the prevalence of molar-incisor-hypomineralization (MIH) and caries among 6-12-year-old children in Catalonia. *Cots, E.*

EP2: Demands and labor resources that impact the intention to leave workers, the case of Chilean teachers. *Palma-Vásquez, C.*

EP3: Duration and quality of sleep and risk of hearing loss: The UK Biobank Study. *Yévenes-Briones, H.*

EP4: The analysis of routinely acquired PET/TC images to quantify body composition and tumor burden in patients with multiple myeloma. *Hermosa-García, S.*

POSTER PROGRAMME

ENVIRONMENTAL HEALTH (EE)

EE1: Are prenatal exposures to bisphenols associated with enamel Hypomineralization? A prospective cohort study. *Cots, E.*

EE2: Association between Mediterranean diet and metal exposure in 4–5-year-old children living in Spain. *Notario-Barandiaran, L.*

EE3: Epidemiological study on exposure to micro(nano)plastics and their impact on the gut microbiome and inflammation, and kidney function in Spanish population. *Vargas-Donat, C.*

INFECTIOUS DISEASES AND MICROBIOLOGY (IM)

IM1: Using the data of the PISCIS cohort of Catalonia and Balearic Islands to validate a clinical risk score to predict losses of HIV care. *Díaz, Y.*

IM2: Hepatitis C seroprevalence, and acute incidence, in undiagnosed-HIV men who have sex with men in Madrid and Barcelona, Spain (2018-2021). *Palma, D.*

MENTAL HEALTH AND NEUROLOGY (MN)

MN1: Satisfaction with a mental health preventive intervention through feedback reports among university students in the PROMES-U study. *Ballester-Coma, L.*

MN2: Smartphone PPG validation for a depression assessment protocol. *Cajal, D.*

MN3: Graphene-based sensors on a high-density electrophysiology platform for in-vivo recordings. *Cisneros-Fernández, J.*

MN4: Graphene microtransistors for multimodal electrophysiology recording. *Fernández, E.*

MN5: Proteomic and transcriptomic content of plasma extracellular vesicles from AD patients differs from healthy controls. *Solaguren-Beascoa Negre, M.*

MN6: Mental health approaches in sexual health services for men who have sex with men: A systematic review protocol. *Palma, D.*

POSTER PROGRAMME

METHODOLOGY (MT)

MT1: A smartphone for home sleep apnea monitoring. *Castillo Escario, Y.*

MT2: Mobile mental health research method (M&M): a protocol to validate an objective tool to assess mental wellbeing. *Ribeiro, T.*

MT3: Modeling infectious disease dynamics: A bayesian machine learning approach. *Chaudhuri, S.*

MT4: The initial medication adherence intervention: study protocol of a cluster randomized controlled trial with an embedded process evaluation. *Corral-Partearroyo, C.*

MT5: Design of a ternary platform based of niosome/protamine/DNA complex for gene delivery applications. *Maldonado, I.*

MT6: Validation of a process evaluation instrument of the IMA-cRCT intervention, based on the Normalization Process Theory. *Palma-Vásquez, C.*

ONCOLOGY (OC)

OC1: Cell interaction of multiple myeloma cells and human mesenchymal stem cells in an in vitro disease model. *Plá Salom, J.*

OC2: Site-directed conjugation of multivalent protein nanomaterials for cancer targeted therapies. *Rueda, A.*

OC3: Population-based incidence of childhood leukaemias and lymphomas in Spain (1973-2014). *Trallero, J.*

OC4: MRSI-detected pattern in glioblastoma patients one month after concomitant chemoradiotherapy. *Ungun, G.*

REPRODUCTIVE AND SEXUAL HEALTH (RS)

RS1: Effectiveness of online offer of STI self-sampling for gay, bisexual and other men who have sex with men and transgender women. *Martínez-Riveros, H.*

RS2: Influence of internalized homonegativity on sexual risk behavior of men who have sex with men in Spain. *Sönmez, I.*

SCIENTIFIC COMMITTEE



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FOR MORE INFORMATION



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