

PROGRAM 17th December 2025

14.30-15.30 REGISTRATION and Setting up Odd-numbered posters.

15:30-15:45 WELCOME AND INTRODUCTION

Mabel Loza, CiMUS Scientific Director & VI CiMUS Workshop Organizing Committee

15:45-17:05 SESSION 1 (all talks 8 min + 2 min questions)

15:45-15:55 Cristina Ameneiro (Stem Cells and Human Diseases).

Diet-Induced Epitranscriptomic Memory Impairs iPSC Biology

15:55-16:05 Elisa Battistini (Nanomedicine and Drug Delivery).

Advancing T cell immunotherapy: mRNA nanocarrier optimization for ex vivo and in vivo T cell engineering

16:05-16:15 Icíá Bermúdez Fornos (Mitophenomics lab).

Understanding the role of ATF4 in mitochondrial disease.

16:15-16:25 María Blanquer Gárate (Virus & Cancer).

Impact of SUMO on PrP-associated diseases

16:25-16:35 Mireia del Valle Gómez (Natural Polymers and Biomimetics).

Albumin Nanoparticles as Oral Carriers of Anti-TNF- α Antibodies in Inflammatory Bowel Disease

16:35-16:45 Raquel Paredes Paredes (Cell senescence, cancer and aging).

Harnessing the reprogramming secretome for anti-aging interventions

16:45-16:55 Celia Fernandez Rial (Stem Cells and Human Diseases).

Deciphering the role of RNA modifications in induced pluripotency: a comprehensive study of the dietary impact

16:55-17.05 Raquel García-Vílchez (Epitranscriptomics & Ageing).

Epitranscriptomic control of Retroelements: dissecting m6A-m5C crosstalk

17:05-18.30 Coffee break and POSTER Session 1 and Odd-numbered poster evaluation

18:30-19.30 KEYNOTE SPEAKER: Luis Liz Marzán (CINBIO & CIC BIOMAGUNE)

"Biosensing and Bioimaging in 3D Cancer Models"

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09:30-11:00 SESSION 2 (all talks 8 min + 2 min questions)

09:30-09:40 Rafael Garrido Fernández (Mitophenomics lab).

Mitochondrial DNA as a Signaling Molecule in Lung Adenocarcinoma: Implications for Inflammation and Oncogenesis

09:40-09:50 Almudena Gil Rodriguez (Genomics and Bioinformatics).

Optimizing DPYD genotyping to improve clinical care: a call to revise EMA and AEMPS recommendations

09:50-10:00 Soraya Groba de Antas (Molecular Imaging Biomarkers and Theragnosis Lab).

First In Vivo PET Assessment of a TAS1R3-Targeted Antibody-Drug Conjugates (ADCs) in Non-Small Cell Lung Cancer (NSCLC)

10:00-10:10 Miguel Hernández Gamarra (Genomics and Bioinformatics).

Parallel evaluation of CAR-T and CAR-NK: in vitro insights into effector function against solid tumors

10:10-10:20 José Antonio Herrera Gavilán (Virus and Cancer).

A SUMO interacting motif in EBOV VP24 protein is required for modulation of PML

10:20-10:30 Martin Kotrulev (Immunity and Small Molecules Lab).

Immunological Reprogramming: Harnessing Small Molecules to Induce Resistance to Inflammation in Rheumatoid Arthritis

10:30-10:40 Philipp Lapuhs (Nanomedicine and Drug Delivery).

Lipid Chemistry Drives Nanoparticle Brain Penetration: Deformable Nanoemulsions Navigate ECM Barriers for Enhanced Diffusion and Cell-Type-Specific mRNA Delivery

10:40-10:50 Ana Teresa Brito Maduro (Diabetes).

Exploring the role of p107 in pancreatic function during type 2 diabetes

10:50-11:00 David Martínez Delgado (Stem Cells and Human Diseases).

Diet-Induced Obesity Leaves a Persistent Molecular Memory That Alters Polyamine Metabolism and Impairs Somatic Cell Reprogramming

11:00-12.30 POSTER Session 2 and Even-numbered poster evaluation

12:30--13:00 SESSION 3 (all talks 8 min + 2 min questions)

12:30-12:40 Jose Emilio Martinez Rodriguez (Laboratory for Vascular Biology).

Insights from Comparative RNA-Seq Analysis: GCKIII Kinase Loss Amplifies CCM3-Deficiency Effects in Cerebral Cavernous Malformations

12:40-12:50 María Muñoz González (Molecular Imaging Biomarkers and Theragnosis Lab).

PET-based biodistribution of anti-MMP9 LYTACS in inflammation models

12:50-13:00 Manuel Novás (Pharmacology Applied to Drug Discovery (BioFarma)).

Fine tuning novel benzothiazole derivatives for the treatment of neurodegenerative diseases: screening in a phenotypic SH-SY5Y model

13:00-13:10 Alicia Otero Rey (Neuroendocrine Regulation of Metabolism).

Hypothalamic RXRs are necessary to regulate body weight in females

13:10-13:20 Nuria Palomar Alonso (Brain Plasticity).

Unveiling Distal Brain Changes in the Acute Phase of Ischemia

13:20-13:30	Alejandro Failde Fiestras (Cell senescence, cancer and aging). Apoptotic Secreted factors as Drivers of Apoptosis-Induced Senescence (AIS)
13:30-13:40	Nuria Pereira Espasandín (Mobile Genomes). Laser-capture microdissection reveals genetic heterogeneity in a human placenta
13:40-13:50	Laura Piñeiro Alonso (Nanomedicine and Drug Delivery). Breaking barriers: monoclonal antibody-loaded nanosystems to target glioblastoma
13:50-14:00	Miguel Ángel Prados Sánchez (Cell senescence, cancer and aging). Targeting Senescence with Novel Senolytic and Senomorphic Compounds Identified via High-Throughput Screening
14:00-15:00	LUNCH
15:00-16.00	SESSION 4 (all talks 8 min + 2 min questions)
15:00-15:10	Ana Ramírez Iglesias (Immunity and Small Molecules Lab). High-throughput identification of MAIT cell antigens from xenobiotic and natural sources
15:10-15:20	Lucía Ramos Lage (Epitranscriptomics & Ageing). GEN1 is required for genome integrity maintenance in embryonic stem cells
15:20-15:30	Lorena Valverde-Fraga (Natural Polymers and Biomimetics). Development of Protamine-Based Nanocapsules for Gene Delivery. Biocompatibility in <i>C.elegans</i> and anti TNF-α potential
15:30-15:40	Candela Veloso de Simón (Immunity and Small Molecules Lab). Breaking the Cytokine Cascade: Targeting Inflammation Upstream with Small Molecules for the treatment of Autoimmune Diseases
15:40-17:10	COFFEE BREAK, networking
17:15-18:15	KEYNOTE SPEAKER: Guadalupe Sabio (CNIO, Madrid) <i>"From beats to metabolism"</i>
18:15-open	AWARDS AND CONCLUDING REMARKS, PROJECT DISCUSSIONS, FEEDBACK <i>Mabel Loza, CiMUS Scientific Director & V CiMUS Workshop Organizing Committee</i>