



## **CELLULAR AGING AND METABOLISM SYMPOSIUM (CAM2022)**

### **FLASH TALKS PROGRAMME**

**MONDAY, 18<sup>th</sup> JULY 2022**

**Chair: Juan A. Fafián-Labora**

16.00- 17.00 H

#### **Elucidating the role of A-to-I RNA editing in cellular aging**

David Martinez Delgado

Stem Cells and Human Diseases Group, Center for Research in Molecular Medicine and Chronic Diseases (CiMUS), Universidade de Santiago de Compostela (USC), Santiago de Compostela, Spain

#### **Senescence based on the purine metabolism, new target to treat age-related diseases**

Rocío Mato-Basalo

Therapy Cellular & Medicine Regenerative Group, University of A Coruña (UDC), Advanced Scientific Research Center (CICA), INIBIC - University Hospital Complex A Coruña (CHUAC), A Coruña, Spain

#### **Deciphering the impact of obesity and ageing in cellular rejuvenation**

Tiago Moreira

Stem Cells and Human Diseases Group, Center for Research in Molecular Medicine and Chronic Diseases (CiMUS), Universidade de Santiago de Compostela (USC), Santiago de Compostela 15782, Spain

#### **Decline of the resident macrophage pool underlies age-related cardiomyopathy**

Jose Angel Nicolas-Avila

Centro Nacional de Investigaciones Cardiovasculares (CNIC), Madrid, Spain

#### **Osmolytes accumulation enable non-invasive, in vivo detection of senescent cells**

José Alberto López Domínguez

IRB Barcelona, Barcelona Institute for Science and Technology (BIST), Barcelona, Spain

#### **Epigenetic Biomarkers as Diagnostic Tools for Neurodegenerative Disorders**

Olaia Martínez-Iglesias

EuroEspes Biomedical Research Center, International Center of Neuroscience and Genomic Medicine, Bergondo, 15165 Coruña, Spain.

#### **The Aryl Hydrocarbon Receptor in the reprogramming-senescence axis**

Ana Ordiales-Talavero

Departamento de Bioquímica y Biología Molecular, Facultad de Ciencias, Universidad de Extremadura, Badajoz, Spain. Instituto Universitario de Investigación Biosanitaria de Extremadura (INUBE), Badajoz, Spain



**TUESDAY, 19<sup>th</sup> JULY 2022**

16.00- 17.15 H

**Chair: Ana Rey Rico**

**Development of new non-viral systems for genetic modification of senescent cells**

Diego Miranda-Balbuena

Cell Therapy and Regenerative Medicine Unit, Centro de Investigaci3n Cientificas Avanzadas (CICA), Universidade da Coru2a, A Coru2a, Spain

**Role of the translation elongation factor eIF5A in aging-related pathologies**

Paula Alepuz

Departamento de Bioqu2mica y Biolog2a Molecular, Facultad de Ciencias Biol3gicas, Universitat de Val2ncia, C/ Dr. Moliner 50, E46100 Burjassot, Spain. Instituto Biotecmed, Universitat de Val2ncia, C/Dr. Moliner 50, E46100 Burjassot, Spain

**An overview of Nektarios Tavernarakis research group**

Teresa Rubio-Tom2s

Institute of Molecular Biology and Biotechnology, Foundation for Research and Technology-Hellas, Heraklion, Crete, Greece. Department of Basic Sciences, Faculty of Medicine, University of Crete, Heraklion, Crete, Greece

**New regulators of senescence-associated secretory phenotype mediated by small extracellular vesicles as senomorphics targets to treat age-related disease**

Sergio Lucio Gallego

Therapy Cellular & Medicine Regenerative Group, University of A Coru2a (UDC), Advanced Scientific Research Center (CICA), INIBIC - University Hospital Complex A Coru2a (CHUAC), A Coru2a, Spain

**NLRP3 Inflammasome Upregulation Induced by Aging and Neurodegeneration is reduced by Angiotensin Type-1 Receptor inhibition**

Aloia Quijano

Laboratory of Cellular and Molecular Neurobiology of Parkinson's Disease, Research Center for Molecular Medicine and Chronic Diseases (CIMUS), Department of Morphological Sciences, IDIS, University of Santiago de Compostela, 15782 Santiago de Compostela, Spain

**Inversion of the asymmetric mitotic spindle-MTOCs inheritance pattern accelerates cellular aging**

Javier Manzano L3pez

CABIMER / Spanish National Research Council (CSIC), University of Seville and University Pablo de Olavide. Avda. Am2rico Vespucio, 24. 41092 Seville, Spain



## **Inhibition of the NLRP3 inflammasome improves lifespan in animal murine model of Hutchinson-Gilford Progeria**

Inés Muela

Instituto de Investigación e Innovación Biomédica de Cádiz, INiBICA, Hospital Universitario Puerta del Mar, Cádiz, Spain



## **POSTERS PROGRAMME**

**MONDAY, 18<sup>th</sup> JULY 2022**

### **Loss of AhR enhances liver regeneration after partial hepatectomy through glycolytic and lipid metabolism alterations**

Claudia María Rejano-Gordillo

Departamento de Bioquímica y Biología Molecular, Facultad de Ciencias, Universidad de Extremadura, Badajoz, Spain

### **Glycogen deposition found in elderly-derived adipocytes precursors impacts cell function and promotes inflammation**

Margarida Terrón-Puig

Institut d'Investigació Sanitària Pere Virgili, Endocrinology and Nutrition Service, Hospital Universitari de Tarragona Joan XXIII, Tarragona, 43007, Spain. CIBER de Diabetes y Enfermedades Metabólicas Asociadas (CIBERDEM)- Instituto de Salud Carlos III (ISCIII), Madrid, 28029, Spain . Rovira i Virgili University, Tarragona, 43003, Spain Servei d'Anàlisis clíniques. Laboratori clínic ICS Camp de Tarragona-Terres de Ebre. Hospital Universitari Joan XXIII de Tarragona, Spain

### **Analysis of senescence markers in liquid biopsies to guide cancer treatment**

Sabela Da Silva-Álvarez

Health Research Institute of Santiago de Compostela (IDIS), Xerencia de Xestión Integrada de Santiago (XXIS/SERGAS), E15706 Santiago de Compostela, Spain

### **Expression of senescence markers cdkn1a and cdkn2b during different stages of development in killifish (*Nothobranchius furzeri*) embryos.**

Álvaro Arana

University of Santiago de Compostela, Health Research Institute of Santiago de Compostela (IDIS), Spain

### **Estrogen Deficiency and Colonic Function: Surgical Menopause and Sex Differences in Angiotensin and Dopamine Receptor Interaction**

Lucía Lage Pita

Laboratory of Cellular and Molecular Neurobiology of Parkinson's Disease, Research Center for Molecular Medicine and Chronic Diseases (CIMUS), Department of Morphological Sciences, IDIS, University of Santiago de Compostela, 15782 Santiago de Compostela, Spain

### **Characterizing cancer cells' response to chemically-induced senescence**

Lucía Antelo Iglesias

Health Research Institute of Santiago de Compostela (IDIS), Spain

### **New molecular insights in the aging of human adipose tissue through the direct study of a cohort of healthy elderly individuals**

Joan Villaroya

Departament de Bioquímica i Biomedicina Molecular. Facultat de Biologia. Universitat de Barcelona. Spain. CIBER Fisiopatologia de la Obesidad y Nutrición. Spain



## **A prognostic model to predict knee osteoarthritis based on clinical features and protein biomarkers**

Rocío Paz-González

Grupo de Investigación de Reumatología (GIR), Unidad de Proteómica. INIBIC-Hospital Universitario A Coruña, SERGAS, 15006 A Coruña, Spain

**TUESDAY, 19<sup>th</sup> JULY 2022**

## **Altered 5-methylcytosine patterns on mRNA in aged cells**

Alba Coego

Epitranscriptomics & Ageing Group. Center for Research in Molecular Medicine and Chronic Diseases (CiMUS), Universidade de Santiago de Compostela (USC), Spain

## **Cellular senescence in intestinal stenotic and penetrating complications of Crohn's disease**

Sara Calatayud

Department of Pharmacology, Faculty of Medicine, University of Valencia, Valencia, Spain

## **GEN1 plays an important role in the maintenance of a youth pluripotent cell state**

Lucía Ramos Lage

Center for research in Molecular Medicine and Chronic Diseases (CiMUS). University of Santiago de Compostela, Spain

## **Brain-derived neurotrophic factor (BDNF) as a serum biomarker for successful Aging**

Begoña Sanz

Department of Physiology, Faculty of Medicine and Nursing, UPV/EHU; Biocruces Research Institute, Spain

## **Structure, reaction mechanism and chlorination activity of MPO: a key player in inflammation**

Daniel R. Ramos

Department of Chemistry, CICA & Faculty of Sciences, Universidade da Coruña, A Zapateira s/n, E-15071 A Coruña, Spain

Departamento de Química Física, Universidade de Vigo, Campus Universitario Lagoas-Marcosende, E-36310 Vigo, Spain

## **Heterophagy adapts to the skeletal muscle's metabolic demands**

Laura Pena-Couso

Spanish National Cardiovascular Research Centre (CNIC), Spain

## **Identification of cardiac glycosides as a novel class of senolytic compounds**

Pilar Picallos Rabina

Fundación Instituto de investigacionsanitaria de Santiago de Compostela (FIDIS), Complexohospitalariode Santiago de Compostela (CHUS), E15706, Spain



## **PBMC reflect altered gene expression observed in hippocampus of young rats with normal-weight obesity and cognitive impairment**

Carmen García-Ruano

Nutrigenomics, Biomarkers and Risk Evaluation (NuBE) group, University of the Balearic Islands, Palma, Spain; Health Research Institute of the Balearic Islands (IdISBa), Palma, Spain; CIBER of Physiopathology of Obesity and Nutrition (CIBEROBN), Instituto de Salud Carlos III, Madrid, Spain

**WEDNESDAY, 20<sup>th</sup> JULY 2022**

## **Dissecting the relative contribution of extracellular vesicles to paracrine senescence during cancer chemotherapy**

Valentín Estévez-Souto

Health Research Institute of Santiago de Compostela (IDIS), Spain

## **Identification of senescent cell surface markers as immunotherapeutic targets**

Mohamad Rima

StarkAge Therapeutics, Campus de l'Institut Pasteur de Lille, 59000 Lille, France

## **Small extracellular vesicles in senescence and metabolism of astrocytes**

José Antonio Rodríguez Navarro

Servicio de Neurobiología, Departamento de Investigación, Hospital Ramón y Cajal, Instituto Ramón y Cajal de Investigaciones Sanitarias, IRYCIS, Madrid, Spain

## **Characterization of Immortalized fibroblasts from young and old mice as in vitro models of ageing**

Cristina de la Parte

Center for Research in Molecular Medicine and Chronic Diseases (CiMUS), Universidade de Santiago de Compostela (USC)-Health Research Institute (IDIS), Santiago de Compostela, 15782, Spain

## **Role of miR-21 in Therapy free of cells vs mesenchymal stem cells to treat the inflammation in OA model**

Rocío Mato-Basalo

Therapy Cellular & Medicine Regenerative Group, University of A Coruña (UDC), Advanced Scientific Research Center (CICA), INIBIC - University Hospital Complex A Coruña (CHUAC), A Coruña, Spain