

13:30-14:30 Lunch time

#### IV Session (Cell Biology and Physiopathology/ Signalling in Cardiovascular Disease)

**Chairpersons: Jose Luis Sánchez Quesada and Noemi Rotllan**

**14:30** Endothelial cell homeostasis in response to shear stress.

**Muriel Laffargue** (INSERM, Toulouse, France)

**15:00** Genomic studies to inform cardiovascular disease.

**Maria Sabater** (IIB Sant Pau, Barcelona, Spain)

**15:30** PCSK9: A Role below lipid lowering.

**Maria Borrell** (IIB Sant Pau; CIBERCV, Barcelona, Spain)

**16:00** PCSK9 inhibitors alter the distribution of macrophage-derived cholesterol efflux to familial hypercholesterolemia lipoproteins and promote in vivo macrophage-specific reverse cholesterol transport.

**Carla Borràs** (IIB Sant Pau; CIBERDEM, Barcelona, Spain)

**16:15-16:45 Coffee break**

**16:45** Lipidomics analysis on plasma HDL, LDL, and VLDL purified from atherosclerotic patients with advanced carotid lesions.

**Antonio J Lepedda** (University of Sassari, Italy)

**17:00** Extraction, characterization, and in vitro anticoagulant activity of acidic glycans purified from marine invertebrates.

**Gabriele Nieddu** (University of Sassari, Italy)

**17:15** Assessment of Tissue Expression of the Oxytocin-Vasopressin Pathway in the placenta of women with a first-episode psychosis during pregnancy.

**Miguel A. Ortega** (University of Alcalá, Spain)

**18:00 LIAC Meeting**

**21:00 Gala Dinner**

**SATURDAY (October 7th, 2023)**

**Visit to CAVA in Sant Sadurni d'Anoia**

### Scientific Organizing Committee

**Brigida Bochicchio**

*(University of Basilicata, Potenza, Italy)*

**Vicenta Llorente Cortes**

*(CSIC-IIB Sant Pau; CIBERCV, Barcelona, Spain)*

**Joan Carles Escolà**

*(IIB Sant Pau; CIBERDEM, Barcelona, Spain)*

**Noemi Rotllan**

*(IIB Sant Pau; CIBERDEM, Barcelona, Spain)*

**José Luís Sánchez Quesada**

*(IIB Sant Pau; CIBERDEM, Barcelona, Spain)*

**José Guerra**

*(IIB Sant Pau; CIBERCV, Barcelona, Spain)*

**Lina Badimon**

*(IIB Sant Pau; CIBERCV, Barcelona, Spain)*

**Cristina Rodríguez**

*(IIB Sant Pau; CIBERCV, Barcelona, Spain)*

**Venue:** IIB Sant Pau - Conference Room of the 11th pavillion (antic Convent)  
c/Sant Antoni M Claret 167  
08025 Barcelona



**L.I.A.C**

Latinorum Investigatorum  
de Arteriis Colloquium

The Latin Society for Vascular Research



**XXXVIII Latinorum  
Investigatorum de  
Arteriis Colloquium  
Research Symposium**

**4th - 7th October 2023  
Barcelona (Spain)**

## WEDNESDAY (October 4th, 2023)

### 16:00 OPENING SESSION "Science and Philosophy"

#### **Antonio Mario Tamburro Inaugural Lecture:**

*Kiss and Run and Social Contacts in Health and Disease.*

**Carles Enrich** (University of Barcelona, Barcelona, Spain)

### 17:00 Visit "Recinte Modernista Sant Pau Barcelona"

**18:30 Wine and Cheese Battle** at the entrance of the Pavillion 11th "antic Convent"

## THURSDAY (October 5th, 2023)

### 09:00 IIB Sant Pau Inaugural Lecture

*The influence of elastin on vascular cell phenotypes during vessel wall development.*

**Robert Mecham** (Washington University School of Medicine in St.Louis, USA)

### I Session (Biomaterials and tissue engineering)

**Chairpersons: Valerie Samouillan and Vicenta Llorente.**

**10:00** Hyaluronan-elastin based scaffolds in vascular tissue engineering: A chemical Approach.

**Antonio Laezza** (University of Basilicata, Potenza, Italy)

**10:30** Tissue adhesives based on elastin-like recombinamers.

**Sergio Acosta** (G.I.R. BIOFORGE, University of Valladolid, Spain)

### 11:00 Coffee break

**11:30** Supercharged elastin-like polypeptides with bactericidal properties.

**Maria Puertas** (G.I.R. BIOFORGE, University of Valladolid, Spain)

**12:00** Bioadhesive microcapsules a new cellular treatment for the diffuse cartilage lesions.

**Desiré Venegas** (G.I.R. BIOFORGE, University of Valladolid, Spain)

**12:30** Characterization and validation of the chimeric resilin-elastin-fibroin bioinspired polypeptide as biomaterial for regenerative medicine.

**Antonio Vico** (G.I.R. BIOFORGE, University of Valladolid, Spain)

### 13:00 - 14:00 Lunch time

### II Session (Biomaterial and Tissue Engineering)

**Chairpersons: Brigida Bochicchio and José Carlos Rodríguez Cabello**

**14:00** Morphological aspects and mechanisms of aging of vascular elastic fibers as revealed by early and recent technological advances - A critical overview.

**Michel Spina** (Padua University, Italy)

**14:30** Textile-reinforced elastin-like recombinamers as a platform for cardiovascular implants.

**Alicia Fernández** (RWTH Aachen University, Germany)

**15:00** Improvement of the aorta elastic properties by a synthetic elastic protein in elastin-haploinsufficient mice.

**Gilles Faury** (University of Grenoble, France)

**15:30** Tissue engineered vessels as tridimensional model for biomechanical in vivo studies.

**Èlia Bosch Rué** (IIB Sant Pau, Barcelona, Spain)

### 16:00 Coffe break

**16:30** Bioconjugation of carbohydrates to gelatin sponges as improved scaffolds for 3D cell cultures.

**Antonietta Pepe** (University of Basilicata, Italy)

**17:00** 3D printing and modelling in Cardiology.

**Abdel Hakim Moustafa** (IIB Sant Pau, Barcelona, Spain).

**17:15** Exploring the interactions of elastin peptides with model membranes by numerical simulations

**Manon Ragouilliaux** (Reims Champagne-Ardenne University, France)

**17:30** Effect of electrostatic interactions on protein coacervates based on elastin-like recombinamers.

**Julio Fernández** (G.I.R. BIOFORGE, University of Valladolid, Spain)

**17:45** In vitro and in vivo evaluation of ELR-based membrane as wound dressing.

**Diana Juanes** (G.I.R. BIOFORGE, University of Valladolid, Spain)

## FRIDAY (October 6th, 2023)

### III Session (Cardiovascular Signalling and Modeling)

**Chairpersons: Joan Carles Escolà and Sonia Benítez**

**09:00** Physical and biochemical alterations of heart tissues and lipoproteins induced by hypercholesterolemia; inhibitory effects of the LRP1-based immunotherapy.

**Valerie Samouillan** (Paul Sabatier University, Toulouse, France)

**09:30** Unveiling at nanoscale the elasticity of individual aortic fiber during ageing and pathophysiological conditions: role in aortic stiffness.

**Laurent Duca** (Reims Champagne-Ardenne University, France)

**10:00** Ultrastructural and immunohistochemical detection of hydroxyapatite nucleating role by rRNA and nuclear chromatin derivatives in pro-calcific aortic valve interstitial cell cultures and ex vivo mineralized valve leaflets.

**Antonella Bonetti** (University of Udine, Italy)

**10:30** Targeting cholesteryl ester accumulation in the heart improves cardiac insulin response.

**Aleyda Benitez** (CSIC, Barcelona, Spain)

### 11:00 Coffee break

**12:00** Targeting RhoA isoprenylation and signalling: the cardioprotective power of statins beyond lipid lowering

**Gemma Vilahur** (IIB Sant Pau; CIBERCV, Barcelona, Spain)

**12:30** Novel therapeutic inhibition of miRNAs in an atherosclerosis pre-clinical model.

**Noemi Rotllan** (IIB Sant Pau; CIBERDEM, Barcelona, Spain)

**13:00** The effect of a modified LDL, called electronegative LDL, on cardiomyocytes.

**Sonia Benítez** (IIB Sant Pau; CIBERDEM, Barcelona, Spain)