

LIST OF POSTERS

1. **Bacigaluppi, Marco** - Ospedale san raffaele Milano, Italy - Blood brain barrier modifications in experimental stroke of the elderly
2. **Barettino, Ana** - CNIC, Spain - Subendothelial matrix stiffening and endothelial alterations in aortas from Hutchinson-Gilford progeria syndrome-like mice
3. **Benedicto, Ignacio** - CNIC, Spain - Single cell and bulk transcriptomics to study endothelial ageing and its impact on liver regeneration
4. **Cerón, Carlos** - CNIC, Spain - Long-term dabigatran treatment delays Alzheimer's disease pathogenesis in the TgCRND8 mouse model
5. **Clemente Moragón, Agustín** - CNIC, Spain - Metoprolol reduces cerebral damage in a rat model of ischemic stroke
6. **Del Monte Monge, Alberto** - CNIC, Spain - Aging downregulates lamin A/C expression in human and mouse hematopoietic cells: A potential mechanism contributing to age-dependent atherosclerosis
7. **Espinós Estévez, Carla** - Imperial College London, UK - Cytokine LIGHT deficiency promotes dissecting abdominal aortic aneurysm and hypertension in apoE^{-/-} mice
8. **Fernandez Rojo, Manuel Alejandro** - IMDEA Alimentación - FTH1 activates inflammasome-induced IL-1 β secretion in hepatic stellate cells. Implications in systemic fibrosis during chronic liver diseases
9. **García, Alicia** - UCM-Hospital Universitario 12 de Octubre, Spain - Role of TLR4 IN N1/N2 neutrophil programming after stroke
10. **Gomez Cid, Lidia** - Fundación para la Investigación Biomédica del Hospital Gregorio Marañón, Madrid, Spain - Donor's chronological vs. biological age and the in vitro reparative potency of human cardiosphere-derived cell therapy
11. **Herrero Cervera, Andrea** - Institute of Health Research-INCLIVA - LIGHT deficiency in apoE^{-/-} mice increases the progression and unstability of atheroma plaques
12. **Ikonomopoulou, Maria** - IMDEA-Food Institute - A new class of senolytic compounds derived from animal-venoms
13. **Macías Martínez, Alvaro** - CNIC, Spain - Paclitaxel mitigates structural alterations and cardiac conduction system defects associated with premature aging in Hutchinson-Gilford progeria syndrome
14. **Medina Alonso, Violeta** - UCM, Spain - Immune receptor TLR4 mediates cognitive deficit induced by high sodium diet
15. **Nevado García, Rosa María** - CNIC, Spain - Role of microRNAs in cardiac disease associated with Hutchinson-Gilford progeria syndrome
16. **Pérez Medina, Carlos** - CNIC, Spain - Imaging-assisted nanoimmunotherapy for atherosclerosis in multiple species
17. **Pradillo Justo, Jesus Miguel** - UCM, Spain - Influence of co-morbidities on post-stroke angiogenesis determined by imaging techniques
18. **Hwa, John** - Yale University, USA - Bimodal regulation of redox homeostasis in the aging anucleate platelet: Implications in health and disease
19. **Santamans, Ayelén Melina** - CNIC, Spain - Modulation of mitochondrial activity in heart failure
20. **Toribio-Fernández, Raquel** - CNIC, Spain - Connection between preclinical Alzheimer's disease & subclinical atherosclerosis. The PESA-Brain Study
21. **Torres, Cristina** - UCM, Spain - Post-stroke hippocampal cell alterations: possible mechanisms underlying hippocampal-dependent memory deficits
22. **Ho, Ya-Hsuan, Grockowiak, Elodie** - University of Cambridge and National Health Service Blood and Transplant, Cambridge, UK - Niche remodelling promotes myeloid cell expansion during aging and age-related myeloproliferative disorders
23. **Ostos, Fernando** - Hospital Universitario 12 de Octubre - UCM, Madrid, Spain - Pharmacological modulation of neutrophil extracellular traps reverses thrombotic stroke t-PA-resistance
24. **Paredes, Ana** - CNIC, Spain - Retinoid X Receptors prevent cardiac dysfunction through transcriptional regulation of metabolism
25. **Romero-Becerra, Rafael** - CNIC, Spain - MKK6-deficient mice develop physiological cardiac hypertrophy but an elevated risk of sudden cardiac death
26. **Sánchez López, Amanda** - CNIC, Spain - Lifespan Extension in a New Mouse Model of Progeria after Progerin Elimination and Lamin A Restoration
27. **Silva, Elsa** - i3s, Porto, Portugal - Contributions of systemic cells and mediators to myocardial dysfunction in HFpEF
28. **Viana Huete, Vanesa** - CNIC, Spain - Clonal hematopoiesis driven by TP53 mutations accelerates experimental atherosclerosis
29. **Mas-Peiro, Silvia** - University Hospital Frankfurt, Germany - Clonal hematopoiesis of indeterminate potential (CHIP) in patients with degenerative aortic valve stenosis: incidence, clinical correlates, and prognostic significance following TAVI

Madrid,
October 24-26, 2019

New Concepts in Age-related Cardiovascular Disease

V E N U E

CNIC Auditorium - CENTRO NACIONAL DE INVESTIGACIONES CARDIOVASCULARES (CNIC)
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Organizers: Vicente Andrés (CNIC), José J. Fuster (CNIC), Andrés Hidalgo (CNIC), Alan Tall (Columbia University)



Sponsors:



New Concepts in Age-related Cardiovascular Disease

Thursday, October 24, 2019

- 14:30-15:15** Registration
- 15:15-15:30** Opening by CNIC Conference Organizers

Session I - Cellular senescence and CVD

Chairs: *Vicente Andrés (CNIC, Spain) and Esther Lutgens (University of Amsterdam, The Netherlands)*

- 15:30-16:10** **Martin Bennett.** University of Cambridge, UK. Vascular smooth muscle cell senescence in atherosclerosis
- 16:10-16:50** **Kathleen A. Martin.** Yale University, USA. LM07: a novel negative regulator of fibrosis in vascular smooth muscle and beyond
- 16:50-17:05** Short talk: **Magda Hamczyk.** CNIC & Universidad de Oviedo, Spain. Vascular smooth muscle cell alterations trigger increased endothelial permeability and endothelial-to-mesenchymal transition during accelerated atherosclerosis in progeria
- 17:30-18:00** **Esther Lutgens.** University of Amsterdam, The Netherlands. Immune cell communication in atherosclerosis
- 18:00-18:15** Short talk: **John Hwa.** Yale University, USA. Biomodal regulation of redox homeostasis in the aging anucleate platelet: Implications in health and disease
- 18:15-18:55** **Manuel Serrano, EMBO Keynote Lecture.** Institute for Research in Biomedicine, Spain. Vascular defects at the origin of cellular senescence and multiple ageing-associated diseases



Welcome cocktail (19:00-20:00)

Friday, October 25, 2019

Session II - Vascular-neural-immune interactions in age-related diseases

Chairs: *Valentín Fuster (Mount Sinai Medical Center, USA, and CNIC, Spain) and María A. Moro (UCM, Spain)*

- 09:00-09:40** **Valentín Fuster.** Mount Sinai Medical Center, USA, and CNIC, Spain. The heart-brain connection
- 09:40-10:20** **María A. Moro.** UCM, Spain. Adult neurogenesis as a novel target in vascular cognitive impairment
- 10:50-11:30** **Marta Cortés-Canteli.** CNIC, Spain. Pro-thrombotic environment and vascular alterations in Alzheimer’s Disease
- 11:30-12:10** **Costantino Iadecola.** Weill Cornell Medicine, USA. Neurovascular pathways to cognitive impairment: blood flow and beyond
- 13:00-13:15** Short talk: **Giorgia Serena Gullotta.** San Raffaele Scientific Institute, Italy. Age-related alterations of granulocytes in ischemic stroke
- 13:15-13:30** Short talk: **Virginia G de Yébenes.** CNIC, Spain. miR-207 is a biomarker of ageing that promotes cardiovascular dysfunction

Session III - Somatic mutations and clonal hematopoiesis in CVD

Chairs: *José J. Fuster (CNIC, Spain) and Chloé James (INSERM, France)*

- 13:30- 14:10** **José J. Fuster.** CNIC, Spain. Acquired mutations in blood cells: potential new drivers of atherosclerotic and metabolic disease
- 14:10-14:50** **Siddharta Jaiswal.** Stanford University, USA. Clonal hematopoiesis and risk of atherosclerotic cardiovascular disease
- 14:50-15:30** **Chloé James.** INSERM, France. Pathogenesis of thrombosis in JAK2V617F myeloproliferative neoplasms
- 16:00-16:40** **Andreas Zeiher.** Frankfurt University, Germany. Prognostic significance of clonal hematopoiesis in chronic heart failure or aortic stenosis
- 16:40-17:10** 6 x 5 minutes Flash presentations
 - Ana Paredes.** CNIC, Spain. Retinoid X Receptors prevent cardiac dysfunction through transcriptional regulation of metabolism
 - Amanda Sánchez López.** CNIC, Spain. Lifespan extension in a new mouse model of progeria after progerin elimination and Lamin A restoration
 - Rafael Romero-Becerra.** CNIC, Spain. MKK6-deficient mice develop physiological cardiac hypertrophy but an elevated risk of sudden cardiac death
 - Vanessa Viana Huete.** CNIC, Spain. Clonal hematopoiesis driven by TP53 mutations accelerates experimental atherosclerosis
 - Fernando Ostos.** Hospital Universitario 12 de Octubre - UCM, Spain. Pharmacological modulation of neutrophil extracellular traps reverses thrombotic stroke t-PA-resistance
 - Elsa Silva.** i3s, Portugal. Contributions of systemic cells and mediators to myocardial dysfunction in HFpEF

Poster Session (17:10-19:15)

Saturday, October 26, 2019

Session IV - Dysfunctional hematopoiesis in aging and CVD

Chairs: *Andrés Hidalgo (CNIC, Spain) and Alan Tall (Columbia University, USA)*

- 09:00-09:40** **Paul Frenette, COB Keynote Lecture.** Albert Einstein College of Medicine, USA. Regulation of the hematopoietic niche with age
- 09:40-10:20** **Hartmut Geiger.** Cincinnati University, USA and Ulm University, Germany. Aging and rejuvenation of stem cells
- 11:00-11:40** **Simon Méndez-Ferrer.** University of Cambridge, UK. Aging of the bone marrow microenvironment promotes myeloid cell expansion
- 11:40-12:20** **Filip K. Swirski.** Harvard, USA. Sleep, metabolism, and cardiovascular disease

Coffee Break (10:20-11:00)
Poster Session (12:35-14:00)
Concluding remarks and farewell (14:00)

Two prizes, financed by **the Company of Biologists**, will be awarded for the best short talk and the best poster. In each case, the prize will include a certificate and reimbursement for travel and accommodation up to a maximum of €500.

Lunch boxes (14:10)

Next CNIC Conferences:

- 2020, April 16-18** Cardiac Regeneration: From Mechanisms to Therapies
Organizers: Mauro Giacca, Nadia Mercader, Hesham Sadek, Elly Tanaka & Miguel Torres
- 2021, April 22-24** Genetic Cardiomyopathies: New Mechanisms, Diagnostic Tools and Treatments
Organizers: Juan A. Bernal, Enrique Lara-Pezzi & Mario Delmar