

**29<sup>th</sup>**

# Kraków Conference on Endothelium



**International Cultural Center,**  
Market Square 25, Kraków

**25<sup>th</sup> - 27<sup>th</sup> SEPTEMBER 2024**

*Alay*

**13:30 – 13:45 Welcome addresses and opening remarks:**  
**Maciej Malecki**, *Vice-Rector Rector of the Jagiellonian University Medical College*  
**Stefan Chlopicki** (*Jagiellonian Centre for Experimental Therapeutics - JCET, Jagiellonian University, Krakow, Poland*),  
**Gabor Csanyi** (*Vascular Biology Center-VBC, Augusta, USA*),  
**Tilman Hackeng** (*Cardiovascular Research Institute Maastricht - CARIM, Maastricht, the Netherlands*)  
**Vicente Andrés** (*Spanish National Centre for Cardiovascular Research Carlos III-CNIC, Madrid, Spain*)

## Keynote lecture

**13:45 – 14:25 Jose J. Fuster, CNIC, Madrid, Spain**  
Clonal hematopoiesis and atherosclerotic disease: from humans to mice and back

**Session I Vascular Ageing (part 1)**  
*Chairs: Stefan Chlopicki (Poland), Tilman M. Hackeng (The Netherlands)*

**14:25 – 14:50 Vicente Andrés, CNIC, Madrid, Spain**  
Endothelial cell and vascular smooth muscle cell dysfunction in Hutchinson-Gilford progeria syndrome

**14:50 – 15:05 Iñigo Ruiz-Polo de Lara, CNIC, Madrid, Spain**  
Role of endothelial cell A-type lamin expression in age-related cardiovascular disease

**15:05 – 15:30 Catherine Shanahan, King's College London, London, UK**  
Senescence and the extracellular matrix in vascular ageing

**15:30 – 15:55 Pauls Shiels, University of Glasgow, Glasgow, Scotland**  
The exposome and vascular ageing

**15:55 – 16:25 Coffee break**

**Session II Vascular Ageing (part 2)**  
*Chairs: Gabor Csanyi (USA), Vicente Andrés (Spain)*

**16:25 – 16:50 Yu Wang, The University of Hong Kong, Hong Kong, China**  
Cardiovascular protective function of SIRT1 - an update

**16:50 – 17:05 Magda R. Hamczyk, Aarhus Institute of Advanced Studies (AIAS), Denmark**  
Endothelial-to-mesenchymal transition in progeria-associated atherosclerosis

**17:05 – 17:20 Anna Grochot-Przeczek, Jagiellonian University, Krakow, Poland**  
Insights into the function of NRF2 / KEAP1 in endothelial biology

**17:20 – 17:35 Anna Bar, JCET, Krakow, Poland**  
Accelerated ageing in endothelial-specific NRF2 knockout mice is linked to increased endothelial permeability, detected by MRI in vivo

**17:35 – 17:50 Soroush Mohammadi Jouabadi, Department of Internal Medicine, Erasmus MC, Rotterdam, The Netherlands**  
Metformin enhances lifespan and endothelial health-span in an ERCC-1 accelerated mouse model of aging

**17:50 – 18:05 Grzegorz Kwiatkowski, JCET, Krakow, Poland**  
Sex-specific phenotype of heart failure in ageing APOE\*3Leiden. CETP dyslipidemic mice

**18.05 – 18:20 Rafal Gulej, University of Oklahoma Health Science Center, USA**  
Young blood rejuvenates cerebrovascular endothelial function in aged mice: Lessons from heterochronic parabiosis experiments

**18:30 – 20:00 Welcome Reception (Collegium Maius Courtyard)**

**08:00 – 08:40** **Keynote lecture**  
**Joseph M. Miano, Vascular Biology Center (VBC), Augusta, USA**  
A new genetic model of accelerated coronary atherosclerosis

**Session III** **Vascular Inflammation (part 1)**  
*Chairs: Cherry Wainwright (UK), Jerzy Zoladz (Poland)*

**08:40 – 09:05** **Gabor Csanyi, VBC, Augusta, USA**  
Mechanisms of foamy monocyte formation in atherosclerosis

**09:05 – 09:30** **David Stepp, VBC, Augusta, USA**  
Impact of skeletal muscle metabolism on vascular function in obesity

**09:30 – 09:55** **Xiaochun Long, VBC, Augusta, USA**  
New Mechanisms for vascular smooth muscle degeneration in vascular disease

**09:55 – 10:20** **Jiliang Zhou, Pharmacology & Toxicology, Augusta, USA**  
Regulation of smooth muscle phenotype by long non-coding RNAs

**10:20 – 10:45** **Tohru Fukai, VBC, Augusta, USA**  
Interplay between ROS and Copper transport protein in Vascular Disease

**10:45 – 11:15** **Coffee break**

**Session IV** **Vascular Inflammation (part 2)**  
*Chairs: Ryszard T. Smolenski (Poland), Anton Roks (The Netherlands)*

**11:15 – 11:40** **Eric Belin de Chantemele, VBC, Augusta, USA**  
CD4+ T cells expressing HIV proteins induced endothelial dysfunction and hypertension via IL-1 $\alpha$ -mediated, Nox1-derived ROS production

**11:40 – 12:05** **Philippe Vangrieken, CARIM, Maastricht, The Netherlands**  
Methylglyoxal as a driver of vasculopathy in diabetes and prediabetes

**12:05 – 12:30** **Masuko Ushio-Fukai, VBC, Augusta, USA**  
Integrating redox signaling, mitochondrial dynamics, and endothelial metabolism: driving angiogenesis

**12:30 – 12:55** **Jaime Millán, Centro de Biología Molecular Severo Ochoa, Spanish National Research Council (CSIC), Madrid, Spain**  
Harnessing Rho GTPases to preserve human endothelial barrier function during inflammation

**12:55 – 13:10** **Marta Smeda, JCET, Krakow, Poland**  
Impact of platelet-derived TGF $\beta$ 1 on integrity of murine lung microvascular endothelial barrier: age-related disruption and effect of platelet releasate milieu

**13:10 – 13:25** **Andrew Guilfoyle-Speese, VBC, Augusta, USA**  
Prevention of Sarcopenic Obesity Maintains Angiogenic Capacity in PAD

**13:25 – 13:40** **Lukasz Mateuszuk, JCET, Krakow, Poland**  
Effect of spermidine on vascular function and endothelial phenotype

**13.40 – 14:10** **Invitation to Poster Session 1 (rapid fire presentations)**  
*Chairs: Magdalena Sternak, Marek Grosicki*

**14.10 – 15.55** **Lunch and Poster Viewing – Poster Session (part 1)**

## Session V

### Platelets and Thrombosis

*Chairs: Gabor Csanyi (USA), Tilman M. Hackeng (The Netherlands)*

- 15:55 – 16:20 **Judith Cosemans, CARIM, Maastricht, The Netherlands**  
Platelet-endothelial interaction in health and disease
- 16:20 – 16:45 **Paola van der Meijden, CARIM, Maastricht, The Netherlands**  
Monitoring antiplatelet therapy and associated bleeding risk in high-risk patients
- 16:45 – 17:00 **Patrycja Kaczara, JCET, Krakow, Poland**  
Pharmacological inhibition of platelet energy metabolism as a way to potentiate antiplatelet drug action
- 17:00 – 17:15 **Kamil Przyborowski, JCET, Krakow, Poland**  
PDIA1 and PDIA3 differentially regulate platelet function
- 17:15 – 17:45 **Coffee break**

## Session VI

### Tissue Factor Pathway Inhibitor (TFPI) and Vascular Wall

*Chairs: Stefan Chlopicki (Poland), Vicente Andrés (Spain)*

- 17:45 – 18:10 **Tilman M. Hackeng, CARIM, Maastricht, The Netherlands**  
Tissue factor pathway inhibitor (TFPI) and the attenuation of venous thrombosis
- 18:10 – 18:35 **Rory Koenen, CARIM, Maastricht, The Netherlands**  
Regulation of TFPI by neutrophil extracellular traps (NETs)
- 18:35 – 18:50 **Vanessa Bröker, CARIM, Maastricht, The Netherlands**  
The effects of tissue factor pathway inhibitor on the proliferation and phenotype of vascular cells
- 18:50 – 19:15 **Leon Schurgers, CARIM, Maastricht, The Netherlands**  
Using the young to study the old: iPS cells to study vascular ageing and cardiovascular disease
- 19:30 **Get Together - Party, Venue: Pałac pod Baranami, Market Square 27**

# 27<sup>th</sup> September 2024

### Keynote lecture

- 08:00 – 08:40 **Csaba Szabo, University of Fribourg, Switzerland**  
Hydrogen cyanide, the next mammalian gaseous

## Session VII

### Inflammation Resolution

*Chairs: Magnus Bäck (Sweden), Zoltán Ungvári (USA)*

- 08:40 – 09:05 **Jesmond Dalli, Queen Mary University of London, London, UK**  
Unveiling common pathways: Tackling joint and vascular inflammation to resolve multimorbidities
- 09:05 – 09:30 **Mauro Perretti, The William Harvey Research Institute, Queen Mary University of London, London, UK**  
Resolution pharmacology to control comorbidities in arthritis
- 09:30 – 09:55 **Ana Briones Alonso, Universidad Autónoma de Madrid, Madrid, Spain**  
Role of Resolvin D2 in vascular dysfunction and remodeling in hypertension
- 09:55 – 10:10 **Agnieszka Kij, JCET, Krakow, Poland**  
Systemic and local lipid mediator status reflecting vascular health
- 10:10 – 10:40 **Coffee break**

## Session VIII **Cardio-vasco-oncology**

*Chairs: Rafał Olszanecki (Poland), Tomasz Rutkowski (Poland)*

- 10:40 – 11:05** **Laura Cádiz Barrera, CNIC, Madrid, Spain**  
Anthracycline cardiotoxicity: Pathophysiological mechanisms and novel therapeutic targets
- 11:05 – 11:30** **Pieter-Jan Guns, University of Antwerp, Antwerp, Belgium**  
SERPINA3, a novel marker of endothelial cell dysfunction in chemotherapy-related cardiovascular dysfunction?
- 11:30 – 11:55** **Jeanette Woolard, University of Nottingham, Nottingham, UK**  
Role of Endothelial Receptors in the Hypertension Induced by VEGFR-2 Inhibitors
- 11:55 – 12:20** **Zoltán V. Varga, Semmelweis University, Budapest, Hungary**  
Immune checkpoint signaling and heart failure
- 12:20 – 12:45** **Marijke J E Kuijpers, CARIM, Maastricht, The Netherlands**  
Tyrosine kinase inhibitors for treatment of solid tumors: effects on platelet function and signalling
- 12:45 – 13:00** **Elzbieta Buczek, JCET, Krakow, Poland**  
BRAF and MEK inhibitors: investigating the mechanisms of vascular toxicity
- 13.00 – 13.30** **Invitation to Poster Session 2** (rapid fire presentations)  
*Chairs: Marta Stojak, Marta Pacia*

## **Lunch and Poster Viewing – Poster Session (part 2)**

## Session IX **Heterogeneity of Vascular Beds**

*Chairs: Zoltan Benyó (Hungary), Yu Wang (Hong Kong)*

- 15:15 – 15:40** **Aernout Lutun, Centre for Molecular and Vascular Biology, Catholic University of Leuven, Leuven, Belgium**  
Transcriptional regulation of endothelial heterogeneity in health and disease
- 15:40 – 16:05** **David Fulton, VBC, Augusta, USA**  
The role of PBK in pulmonary vascular remodeling
- 16:05 – 16:20** **Ignacio Benedicto Español, Centro de Investigaciones Biológicas Margarita Salas (CIB Margarita Salas), Madrid, Spain**  
Role of endothelial cells in age-related defective liver regeneration
- 16:20 – 16:35** **Izabela Czyzyska-Cichon, JCET, Krakow, Poland**  
Liver sinusoidal endothelial cells (LSECs) and hepatocyte metabolism in chronic heart failure
- 16:35 – 16:50** **Katarzyna Mleczko-Sanecka, International Institute of Molecular and Cell Biology in Warsaw, Poland**  
Liver sinusoidal endothelial cells constitute a major route for hemoglobin clearance
- 17:50 – 17:05** **Mateusz Gawrysiak, Medical University of Lodz, Poland**  
The involvement of the lung vascular endothelium in antiviral immunity during respiratory viral infections
- 17:05 – 17:20** **Elisabeth Fließer, Medical University of Graz, Austria**  
Unveiling the role of Lung Endothelial Cell Dynamics in the progression of pulmonary fibrosis
- 17:20 – 18:00** **Closing lecture**  
**Rhian M Touyz, Institute of the McGill University Health Centre (RI-MUHC), Montreal, Canada**  
Aging and the vasculature in health and disease
- 18.00 – 18.15** **Conference closing and poster awards ceremony**
- 18:30 – 20:00** **Wawel Castle Visit** (special tour after Wawel is closed)

## CONFERENCE CHAIRS

Stefan Chlopicki (Poland) - Chair

Gabor Csanyi (USA) - Co-Chair

Tilman Hackeng (the Netherlands) - Co-Chair

Vicente Andrés (Spain) - Co-Chair

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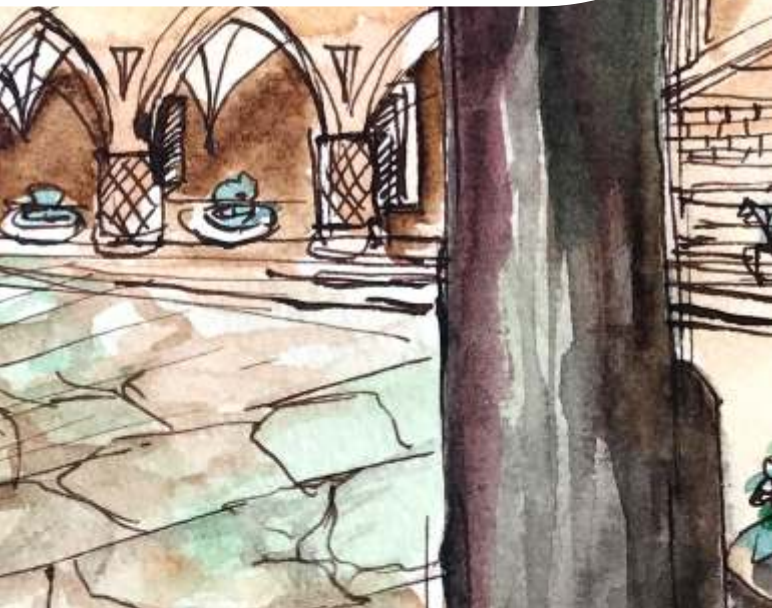
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