

Aarhus, 24 – 27 April 2023

Programme

Monday April 24

Registration opens at 08.30

9.00-12.15	What you need to know about life in the arterial wall Free course for pregraduates, PhDs and postdocs (up to 3 years after PhD):	
10.00-11.30	ESM Board Meeting	
13.00-13.15	Welcome and opening	
	Session 1.1 - Auditorium B	
13.15-13.55	Plenary lecture The cerebral microcirculation: roles in oxygen transport and disease Leif Østergaard, Aarhus Chair: Eszter Farkas	
	Session 1.2 - Auditorium A	Session 1.3 - Auditorium B
14.00-15.30	Inflammation Chairs: Ralf Brandes, Ana Briones	Ischemia of the heart Joint session with the Microcirculatory Society Chairs: Henning Morawietz, Kim Dora
14.00-14.30	Inflammatory mechanisms of vascular remodelling in hypertension Thomasz Guzik, Glasgow	Endothelial Pannexin modulates ischemic injuries Miranda Good, Boston
14.30-15.00	Contribution of oligodendrocyte precursor cells to cerebral small vessel disease Sebastien Foulquier, Maastricht	Coronary microvascular dysfunction in cardiac disease – an overview from the clinical perspective Eva Prescott, Copenhagen

Monday April 24

15.00-15.15	<p>Overexpression of dimethylarginine dimethylaminohydrolase 1 protects from angiotensin II-induced cardiac hypertrophy and vascular remodeling Natalia Jarzebska, Dresden</p>	<p>Asymmetric dimethylarginine augments myogenic tone and inhibits vasodilation in rat coronary arteries Hanson Ng, Oxford</p>
15.15-15.30	<p>Interferon stimulated gene (ISG)15 deletion protects against aldosterone-induced hypertension Raquel González Blázquez, Madrid</p>	<p>Oct-1 is a Key Mediator for Angiotensin II- and Oxidized LDL-Induced Upregulation of Angiotensin-II Type-1 Receptor: New Implications for the Development of Atherosclerosis Nada Al Arawe, Berlin</p>
15.30-16.30	<p>Poster session I Exhibition</p>	
<p>Session 1.4 - Auditorium B</p>		
16.30-17.10	<p>Plenary lecture Vascular-macrophage crosstalk in the muscle Karrien De Bock, Zürich Chair: Karl Swärd</p>	
17.45-18.45	<p>Welcome reception Town Hall</p>	

Tuesday April 25

08:00

Concert Hall opens

Session 2.1 - Auditorium B

8.30-9.10	<p>Plenary lecture Exercise to reverse microvascular dysfunction induced by age and lifestyle Ylva Hellsten, Copenhagen Chair: Stuart Egginton</p>
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Session 2.2 - Auditorium A

Session 2.3 - Auditorium B

9.15-10.45	Cerebral circulation, Alzheimer	Obesity
	Chairs: Vladimir Matchkov, Søren Grubb	Chairs: Ed Eringa, Elena Osto
9.15-9.45	<p>Arterial smooth muscle cells and contractile pericytes are key target cells in cerebral Small Vessel Diseases Anne Joutel, Paris</p>	<p>Inflammation and resistance artery perivascular adipose tissue function in cardiovascular disease Sophie Saxton, Manchester</p>
9.45-10.15	<p>Deciphering the vascular component of Alzheimer's disease Marta Cortes-Canteli, Madrid</p>	<p>Endothelial cells at the spotlight of adipose tissue biology Mariona Graupera, Barcelona</p>
10.15-10.30	<p>Preserved blood-brain barrier and neurovascular coupling in 5xFAD mouse model of Alzheimer's disease in vivo Oleg Zhukoc, Copenhagen</p>	<p>Obesity alters the angiocrine landscape in adipose tissue Andreas Fischer, Göttingen</p>
10.30-10.45	<p>Medin, the most common human amyloid, promotes age-associated neurovascular dysfunction and Aβ deposition Marleen Veit, Tübingen</p>	<p>Effects of obesity on skeletal muscle microvascular function in children Rasmus Kopp Hansen, Aalborg</p>

10.45-11.15

Break - Exhibition

Tuesday April 25

Session 2.4 - Auditorium A

Session 2.5 - Auditorium B

11.15-12.45	Diabetes and the eye Chairs: Jo DeMey, Henner Hanssen	Ion channels Chairs: William Jackson, Akos Koller
11.15-11.45	Retinal microvascular function and type 2 Diabetes: a vicious cycle Boy Houben, Maastricht	Targeting Kv channels in pulmonary arterial hypertension Angel Cogolludo, Madrid
11.45-12.15	Regional variations in vascular lesions in diabetic retinopathy. Problem or advantage? Toke Bek, Aarhus	Rescuing Kv7 channel function in hypertension by targeting the microtubule network Tom Jepps, Copenhagen
12.15-12.30	Is the microvascular responsiveness to the locally delivered glucagon-like peptide-1 analogue, liraglutide, impaired in individuals with type 2 diabetes and retinopathy? Kim Gooding, Exeter	Functional remodeling of arterial tone regulation in postnatal development: switch of the leading potassium channels from less to more calcium-dependent channel types Rudolf Schubert, Augsburg
12.30-12.45	Induction of VEGF-A165a by high glucose in human retinal and endothelial cells and VEGF concentration in vitreous fluid of diabetic patients Henning Morawietz, Dresden	Channel-independent function of Golgi-localized endothelial Pannexin Abigail Wolpe, Virginia
12.45-13.15	Lunch	
13.15-14.30	Posters session II Exhibition	

Tuesday April 25

Session 2.6 - Auditorium A

Session 2.7 - Auditorium B

14.30-16.00	Lymphatics Chairs: Donna B. Bødtkjer, Helge Wiig	Imaging and artificial intelligence Chairs: Gerry Meninger, Stefan Chlopicki
14.30-15.00	Lymphatic endothelial heterogeneity in development and disease Taina Mäkinen, Uppsala	Imaging microvascular stiffness of the brain Dmitry Postnov, Aarhus
15.00-15.30	15-Lipoxygenase drives inflammation resolution and Treg trafficking in lymphedema Barbara Garmy-Susini, Toulouse	Application of AI on medical images for prediction of cardiovascular risk Alexios Antonopoulos, Oxford
15.30-15.45	Exploring co-ordinated regulatory mechanisms driving regenerative responses of vascular and lymphatic networks in the heart after myocardial infarction Bronwyn Berkeley, Edinburgh	'AI' Deep learning detection of vascular disease from photoplethysmography waveforms - new opportunities in vascular optics and analytics for studying the peripheral circulation John Allen, Coventry
15.45-16.00	Inhibitors of hyperpolarisation-activated cyclic nucleotide-gated channels induce positive chronotropy in isolated human collecting lymphatic vessels Donna Marie Briggs Bødtkjer, Aarhus	Spatial uncoupling of Ca ²⁺ sparks from BK channels in cerebral vascular smooth muscle cells underlies cerebral hypoperfusion in hypertension induced vascular dementia Harry Pritchard, Manchester

16.00-16.30

Break - Exhibition

Session 2.8 - Auditorium B

16.30-17.10	Plenary lecture Macro and microcirculation interaction Stephane Laurent, Paris Chair: Ingrid Fleming
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17.10-18.30

Drinks and networking

17.30-18.30

General Assembly

Wednesday April 26

7.15

Concert Hall Opens

7.30-8.15

Meet the editor: Brant Isakson, Editor-in-chief, Journal of Vascular Research

Session 3.1 - Auditorium B

8.30-9.10

Plenary lecture

Metabolic cell-cell communication in vascular homeostasis

Ingrid Fleming, Frankfurt

Chair: Brant Isakson

Session 3.2 - Auditorium A

Session 3.3 - Auditorium B

9.15-10.45

Pulmonary microcirculation

Chairs: Ulf Simonsen, Francisco Perez-Vizcaino

Single cell mRNA analysis

Chairs: Joanna Kalucka, Susanne Fleig

9.15-9.45

Lung barrier regulation by endothelial ion channels in respiratory infections
Wolfgang Kübler, Berlin/Toronto

Awakening vascular smooth muscle cells from quiescence
Helle Jørgensen, Cambridge

9.45-10.15

Ion channels in the pulmonary circulation in health and disease
Andrea Olschewski, Graz

The cardiac microcirculation in health and disease: novel insights by single cell analysis
Stephanie Dimmeler, Frankfurt

10.15-10.30

Trained immunity in pulmonary microvascular endothelial cells promotes cancer cells adhesion
Marta Stojak, Krakow

Multi-omics approaches for novel therapy development to target the microvasculature of the heart
Mairi Brittan, Edinburgh

10.30-10.45

The novel KV7 channel activator URO-K10 exerts enhanced pulmonary vascular effects independent of the KCNE4 regulatory subunit
Belèn Climent, Madrid

TBD
Michael Vanlandewijck, Uppsala

10.45-11.15

Break - Exhibition

Wednesday April 26

Session 3.4 - Auditorium A

Session 3.5 - Auditorium B

11.15-12.45	Renal microvasculature Chairs: Ina Schissl, Charlotte Mehlin	Young investigators Chair: Christian Aalkjær
11.15-11.45	Avenues for glycocalyx repair in the glomerular microcirculation Rebecca Foster, Bristol	The impact of hyperglycaemia on the coronary microcirculation and the vasculoprotective effects of interleukin-36 Juma El-awaisi, Birmingham
11.45-12.15	ADAMTS12 as an extracellular checkpoint in fibrosis that licenses perivascular Gli1+ cell activation and migration Konrad Hoefft, Aachen	Endothelial glycocalyx heparan sulphate contributes to microvascular permeability and can be therapeutically targeted in diabetes Monica Gamez, Bristol
		Resolvin D2 improves cardiovascular alterations induced by aldosterone in mice Naoual Boukich El Jouhari, Madrid

Wednesday April 26

12.15-12.30	<p>Investigating the microvascular pathology of diabetic kidney disease using Super Resolution Ultrasound Scanning</p> <p>Amy Mcdermott, Copenhagen</p>	<p>Endothelial cytochrome P450 reductase-derived cholesterol limits angiogenesis</p> <p>Pedro Malacarne, Frankfurt</p>
12.30-12.45	<p>The Effects of 7-Days High-Salt Diet on Microvascular Local Thermal Hyperemia and Nitric Oxide Synthases Serum Levels in Healthy Individuals</p> <p>Ana Stupin, Osijek</p>	<p>The impact of exercise training on microvascular endothelial metabolism in individuals with type 2 diabetes</p> <p>Sophie Møller, Copenhagen</p>
<p>12.45-13.15 Lunch</p>		
<p>Session 3.6 sponsored by Imedos Health GmbH - - Auditorium B</p>		
13.15-14.15	<p>Retinal microvascular analysis for cardiovascular risk stratification and treatment monitoring</p> <p>Chairs: Boy Houben, Toke Bek</p> <p>Retinal Vessel Analysis in Clinical Practice and Cardiovascular Prevention Henner Hanssen, Basel</p> <p>Micro- vs. macrovascular health screening to monitor therapy progression Lukas Streese, Düsseldorf</p>	
<p>Session 3.7 - Auditorium A</p>		<p>Session 3.8 - Auditorium B</p>
14.20-15.50	<p>Leucocyte adhesion and signaling</p> <p>Chairs: Markus Sperandio, Dean Kavanagh</p>	<p>Angiogenesis, vascular development</p> <p>Chairs: Lopa Leach, Iain Greenwood</p>
14.20-14.50	<p>How leukocytes cross the vascular endothelial barrier: secrets revealed by high-end microscopy</p> <p>Jaap Van Buul, Amsterdam</p>	<p>Organo-typical control of angiogenesis in the nervous system.</p> <p>Ferdinand le Noble, Karlsruhe</p>
14.50-15.20	<p>Preventing Coronary Microcirculatory Disturbances Following Myocardial IR injury</p> <p>Neena Kalia, Birmingham</p>	<p>Guidance of endothelial barrier formation</p> <p>Anne Eichmann, Paris/New Haven</p>

Wednesday April 26

15.20-15.35	<p>Pericyte loss initiates microvascular dysfunction in the development of diastolic dysfunction Steven Simmonds, Leuven</p>	<p>NCoR1 limits specifically endothelial angiogenic capacity by affecting notch signaling via the transcription factor RBPJk Tom Teichmann, Frankfurt</p>
15.35-15.50	<p>A20 and the non-canonical NF-κB pathway are key regulators of neutrophil recruitment during fetal ontogeny Lou Martha Wackerbarth, Munich</p>	<p>TRAIL-TRAIL-R ligation regulates EC-pericyte crosstalk to generate stable microvessel networks in ischaemia Manisha Patil, Sydney</p>
16.00-17.00	Poster Session III	
17.00-18.00	Poster Session IV	
19.00	Conference Dinner	

Thursday April 27

8.00

Concert Hall Opens

Session 4.1 - Auditorium B

8.30-9.10	Plenary lecture Making and breaking symmetry in vascular networks Holger Gerhard, Berlin Chair: Ed van Bavel
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Session 4.2 - Auditorium A

Session 4.3 - Auditorium B

9.15-10.45	Exercise, gender and microcirculation Chairs: Cor de Wit, Ylva Hellsten	Cancer and the microcirculation Chairs: Ebbe Bødtkjær, Nicola Brown
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9.15-9.45	Unpicking the drivers of activity-induced angiogenesis Roger Kissane, Liverpool	Tumour microenvironment to improve immunotherapy Kebs HodiVala-Dilke, London
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9.45-10.15	The microcirculation and menopause – effects of exercise training Lasse Gliemann, Copenhagen	Exploring the role of stroma as immune modulators in the extended tumour microenvironment Jackie Shields, Cambridge
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10.15-10.30	Short-term high-intensity interval training improves micro- but not macrovascular function in hypertensive patients Lukas Streese, Basel	Age and cancer-related endothelial-mesenchymal transition in murine lungs Marta Smęda, Krakow
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10.30-10.45	Effects of diabetic neuropathy on microvascular function across lower leg skeletal muscles in humans Ryan Larsen Aalborg	Tumor feed arteries are specialized towards low resistance Ebbe Bødtkjær, Aarhus
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10.45-11.15

Coffee break

Session 4.4 - Auditorium B

11:15-12:35	Plenary lecture ESM Award Lectures Chair: Christian Aalkjær
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11.15-12.00	ESM, Malpighi Award lecture: Britta Engelhardt, University of Bern
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12.00-12.30	JVR/ESM Award lecture: James Bell, Cardiff Univeristy
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12.30-12.35	Travel, Oral, and Poster Awards and closing
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