



Australian & New Zealand Microcirculation Society

21st Symposium (Virtual) Program

Tuesday 5th of October

13:15 – 13:30 Meeting open: Welcome by Georges Grau – ANZMS President

13:30 – 14:50 Session 1: Microvascular adaptations in pregnancy & perinatal outcomes

Chairs: Sarah Marshall & Marianne Tare

13:30	<i>International Keynote</i> Styliani Goulopoulou (University of North Texas) Perivascular adipose tissue: a local regulator of uterine blood flow during pregnancy (abs# 1)
14:00	Alison Care (University of Adelaide; ECR) Regulatory T cells facilitate maternal vascular adaptation to pregnancy (abs# 2)
14:20	Sarah A Marshall (Monash University; ECR) The soluble prorenin receptor induces hypertension & renal vascular dysfunction in pregnant rats (abs# 3)
14:30	Nathan Luque (University of New South Wales; HDR) Removal of endothelial cholesterol by methyl- β -cyclodextrin enhances endothelial function in myometrial radial arteries in normotensive & pre-eclamptic pregnancies (abs# 4)
14:40	Ryan Sixtus (University of Otago; HDR) Cardiovascular response to thermal extremes in preterm-born guinea pigs (abs# 5)

14:50 – 15:00 Break

15:00 – 16:25 Session 2: Vascular remodelling / smooth muscle / angiogenesis

Chairs: Maria Jelinic & Claudine Bonder

15:00	Antony Vinh (La Trobe University) Single cell transcriptomic analysis of fibrogenic cellular drivers of vascular stiffening (abs# 6)
15:25	Nicole Stupka (The University of Melbourne; ECR) Selenoprotein S is highly expressed in blood vessels & may regulate vascular reactivity (abs# 7)
15:45	Kay Myo Min (University of South Australia; HDR) Vasculogenic mimicry in cancer: a deadly imposter (abs# 8)
16:05	Emily Attrill (University of Tasmania; HDR) Characterisation of pericyte changes in healthy & type 2 diabetic muscles (abs# 9)
16:15	Jake Cashion (University of Tasmania; HDR) Using a PDGFR β -CreERT2 transgenic mouse line to deplete pericytes in the brain (abs# 10)

16:25 End of Day 1

Wednesday 6th of October

13:30 – 14:50 Session 3: Inflammation & the microvasculature

Chairs: Yugeesh Lankadeva & Michael Hickey

13:30	Yugeesh Lankadeva (Florey Institute, The University of Melbourne; ECR) Mega-dose Vitamin C: A new therapeutic to reverse renal microcirculatory dysfunction in sepsis & COVID-19 (abs# 11)
13:50	Shu Wen Wen (Monash University; ECR) Stroke accentuates age-dependent neutrophil impairment (abs# 12)
14:10	Lyn Wise (University of Otago) Biological control of adipose tissue repair - implications for healing of surgical wounds (abs# 13)
14:20	Florentina Leitner (The University of Sydney; HDR) Circulating CCR6+ ILC levels are altered in alemtuzumab-treated multiple sclerosis patients (abs# 14)
14:30	Rachel Ford (The University of Sydney; HDR) Cladribine alters lymphocyte trans-endothelial migration via CD49d expression in multiple sclerosis patients (abs# 15)
14:40	Felix Marsh-Wakefield (The University of Sydney; ECR) BLNK, CD40 & CD210 expression on discrete IgA+ & IgG+ B cell subsets in MS patients: modulation by alemtuzumab & during relapse (abs# 16)

14:50 – 15:00 Break

15:00 – 16:30 Session 4: Extracellular vesicles & the brain microcirculation

Chairs: Georges Grau & Suresh Mathivanan

15:00	<i>International Keynote</i> Yong Song Gho (POSTECH) Extracellular vesicles & mimetic technologies for theranostics (abs# 17)
15:30	Kartika Wardhani (The University of Sydney; HDR) Novel phosphorescent stain for microvesicle penetration through brain microvascular endothelium (abs# 18)
15:50	Georges Grau (The University of Sydney) Interest of imaging flow cytometry for extracellular vesicle phenotyping (abs# 19)
16:00	Dylan Fromentin (University of Otago; HDR) Cerebral ischaemia in haemorrhagic shock: a high-fidelity model of traumatic injury (abs# 20)
16:10	David Wong Zhang (La Trobe University; HDR) Post-stroke learning impairment is augmented in hypertensive mice (abs# 21)
16:20	Kristy Nguyen (The University of Sydney; HDR) High dimensional flow cytometry on immune cells migrating across the blood-brain barrier in multiple sclerosis (abs# 22)

16:30 End of Day 2

Thursday 7th of October

13:30 – 14:50 Session 5: Cerebrovascular biology

Sponsored by:



Chairs: Michael De Silva & Shaun Sandow

13:30	<i>International Keynote</i> Don Welsh (University of Western Ontario) From cells-to-organism: impact of dyslipidemia on inwardly rectifying K ⁺ channels & cerebral vascular function (abs# 23)
14:00	Brad Sutherland (University of Tasmania) Regulation of cerebral blood flow by pericytes & the impact of stroke (abs# 24)
14:20	Vismitha Rajeev (National University of Singapore; HDR) Investigating the cerebral vascular integrity in a chronic cerebral hypoperfusion mouse model of vascular dementia – pathophysiology & the intermittent fasting treatment (abs# 25)
14:30	Alemayehu Jufar (Florey Institute, University of Melbourne; HDR) Influence of mild hypothermia on cerebral & renal microcirculatory perfusion & oxygenation in ovine cardiopulmonary bypass (abs# 26)
14:40	Dino Premilovac (University of Tasmania; ECR) Excessive cerebral perfusion causes increased brain damage following ischaemic stroke in type 2 diabetic rats (abs# 27)

14:50 – 15:00 Break

15:00 – 16:30 Session 4: Control of vascular tone

Chairs: Tim Murphy & Shaun Sandow

15:00	<i>International Keynote</i> Iain Greenwood (St George's University) Arterial Kv7 channels: A modern tale of degradation, manipulation & sex (abs# 28)
15:30	Joanna Kalucka (Aarhus University; ECR) Endothelial cell heterogeneity & perturbations associated with obesity (abs# 29)
15:50	Ashenafi Betrie (Florey Institute, University of Melbourne; ECR) Zinc regulates vascular tone via complementary relaxant mechanisms in sensory nerves, smooth muscle & endothelium (abs# 30)
16:00	Vivian Tran (La Trobe University; HDR) Characterising a new & improved model of diet-induced metabolic syndrome (abs# 31)
16:10	Timothy Murphy (University of New South Wales) Role of RAGE & NOX subtypes in the effects of advanced glycation end-products on relaxation of the rat isolated cremaster muscle artery (abs# 32)
16:20	<i>Awards & Meeting close</i>

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Sarah Marshall, Tim Murphy, Shaun Sandow, Marianne Tare.