

Festschrift for Professor Christine Winterbourn

Rolleston Lecture Theatre, University of Otago, Christchurch | 7 December 2015

Monday 7 December 2015

10.00am	Registration for SFRR A+J Conference Delegates	
10.30am	Welcome	
		Chair: Tony Kettle
10.35am	Diana Averill-Bates Professor of Biochemistry, University of Quebec, Montreal	
10.55am	John French Director of Cardiovascular Research, Liverpool Hospital, Sydney	
11.10am	Margreet Vissers Professor, Centre for Free Radical Research, Christchurch	
11.30am	Tony Kettle Professor, Centre for Free Radical Research, Christchurch	
11.45am	Glenn Vile General Manager, NZ Extracts Ltd, Blenheim	
12.00pm	Mark Hampton Professor, Centre for Free Radical Research, Christchurch	
12.20pm	Anitra Carr Senior Research Fellow, Centre for Free Radical Research, Christchurch	
12.35pm	Lunch	
		Chair: Mark Hampton
1.30pm	Maurice Owen Scientific Director, Canterbury Scientific, Christchurch	
1.45pm	Wim Koppenol Professor of Biochemistry, ETH Zurich	
2.05pm	John Windsor Professor of Surgery, Auckland University	
2.20pm	Roland Stocker Professor of Vascular Biology, Victor Chang Cardiac Research Institute, Sydney	
2.40pm	Mike Davies Professor of Biochemistry, University of Copenhagen	
2.55pm	Recorded tributes	
3.05pm	Peter Nagy Professor, National Institute of Oncology, Budapest	
3.25pm	Victor Darley-Usmar Professor of Redox Biology, University of Alabama	
3.40pm	Afternoon tea	
		Chair: Margreet Vissers
4.00pm	Harlene Hayne Vice Chancellor of the University of Otago	
4.10pm	Christine Winterbourn Professor, Centre for Free Radical Research, Christchurch & Guest of Honour	
5.00pm	Refreshments Registration for SFRR A+J Conference Delegates	

Opening of the SFRR A+ J Seventh Joint Meeting		Chair: Tony Kettle
6.00pm	Welcome	
6.05pm	Plenary Lecture: Raman Kalyanaraman Medical College of Wisconsin, USA <i>Identification of NADPH oxidase 2 isoform inhibitors from screening a small library of drug-like molecules: Strategies for discovering novel inhibitors of peroxynitrite</i>	

SFRR A+J Conference Programme – Day 2

Rolleston Lecture Theatre, University of Otago, Christchurch | 7-10 December 2015

Tuesday 8 December 2015

8.30am	Registration	
8.55am	Welcome	
Session 1		Chair: Tony Kettle
9.05am	Rafael Radi University of the Republic, Uruguay <i>Biochemistry of Mn-superoxide dismutase nitration and inactivation</i>	
9.45am	Yorihiro Yamamoto Tokyo University of Technology, Japan <i>Increased oxidative stress in patients with amyotrophic lateral sclerosis and the effect of edaravone administration</i>	
10.10am	Stewart Cordwell University of Sydney, Australia <i>Proteomic-scale approaches for identifying reversible and irreversible cysteine redox post-translational modifications in myocardial ischemia / reperfusion</i>	
10.30am	Morning tea	
Session 2		Chair: Paul Witting
11.00am	Jeffrey Erickson University of Otago, New Zealand <i>Diabetes mellitus enhances apoptosis in the heart following myocardial infarction</i>	
11.25am	Gemma Figtree Royal North Shore Hospital & University of Sydney, Australia <i>Redox modification of caveolar proteins as important mediators in cardiovascular disease</i>	
11.50pm	Sally McCormick University of Otago, New Zealand <i>Ribose-cysteine increases glutathione-based antioxidant status in mouse models of hyperlipidaemia</i>	
12.15pm	Christopher Stanley Victor Chang Cardiac Research Institute, Australia <i>The tryptophan metabolite cis 3-hydroperoxyproloindole causes arterial relaxation in part via oxidative dimerization of protein kinase G1α</i>	
12.35pm	SFRR Australasia and Japan Conference Photo Lunch	
Session 3		Chair: Margreet Vissers
1.35pm	Mike Davies University of Copenhagen, Denmark <i>Peroxynitrous acid modifies the structure and function of the extracellular matrix in vitro and in vivo: implications for atherosclerosis</i>	
2.15pm	Shinya Toyokuni Nagoya University Graduate School of Medicine, Japan <i>Novel fluorescent probe for detecting catalytic ferrous iron</i>	
2.40pm	Greg Giles University of Otago, New Zealand <i>Development of the photoactivated nitric oxide donor drug tDodSNO</i>	
3.00pm	Afternoon tea	
Session 4		Chair: Christine Winterbourn
3.30pm	Annemarie Grindel University of Vienna, Austria <i>Chromosomal damage in female patients with type 2 diabetes depends on HbA1c, diabetes duration and medication</i>	
3.45pm	Naoko Suga University of Hyogo, Japan <i>Modification of cellular proteins and induction of self-defense genes expressions by tryptamine-4,5-dione, a serotonin oxidation product</i>	
4.00pm	Lanfeng Dong Griffith University, Australia <i>Mitochondrial targeting of tamoxifen enhances its activity against Her2^{high} breast cancer via inhibiting mitochondrial complex I function</i>	
4.15pm	Karina O'Connor University of Otago, Christchurch, New Zealand <i>Mitochondrial redox changes during TNF-mediated necroptosis</i>	
4.30pm	Belal Chami University of Sydney, Australia <i>4-Methoxy TEMPO attenuates murine experimental colitis</i>	
4.45pm	Amandeep Kaur University of Sydney, Australia <i>A toolbox of reversible and ratiometric fluorescent probes for imaging cellular oxidative stress</i>	
5.00pm	David Cheng Victor Chang Cardiac Research Institute, Australia	

5.15pm	<i>Effects of pharmacological inhibition of myeloperoxidase on endothelial dysfunction in mouse models of inflammation</i> Jereme Spiers University of Queensland, Australia <i>Repeated psychological stress exposure causes inflammation and nitrosative stress in addition to antioxidant gene upregulation in the rat hippocampus</i>
5.30-6.30pm	Poster session A + Refreshments and nibbles

SFRR A+J Conference Programme – Day 3

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Wednesday 9 December 2015

Session 5		Chair: Jiri Neuzil
8.50am	Wim Koppenol Swiss Federal Institute of Technology, Switzerland <i>Kinetics and energetics of cytochrome P450-mediated hydroxylation</i>	
9.30am	Ghassan Maghzal Victor Chang Cardiac Research Institute, Australia <i>Generation of singlet oxygen by indoleamine 2,3 dioxygenase and hydrogen peroxide – A novel path for the metabolism of tryptophan to N-formyl-kynurenine</i>	
9.55am	Tomohisa Takagi Kyoto Prefectural University of Medicine, Japan <i>The role of heme oxygenase-1 in intestinal inflammation using a murine colitis model</i>	
10.15am	Hideo Utsumi Kyushu University, Japan <i>Development of a free radical imaging system for clinical research</i>	
10.35am	Morning tea	
Session 6		Chair: Jan Gebicki
11.05am	Peter Nagy National Institute of Oncology, Hungary <i>Protein persulfides: Insights into the molecular mechanisms of H₂S signaling</i>	
11.45am	Takaaki Akaike Tohoku University Graduate School of Medicine, Japan <i>Antioxidant and redox signalling functions of reactive persulfide species translationally formed on various proteins</i>	
12.10pm	Nina Dickerhof University of Otago, Christchurch, New Zealand <i>Evaluation of glutathione sulphonamide and allantoin as blood and urine based indicators of exacerbations in children with cystic fibrosis</i>	
12.30pm	Lunch Business meeting of the SFRR Australasia and Japan Executive Committee	
Session 7		Chair: Mark Hampton
1.20pm	Leslie Poole Wake Forest School of Medicine, USA <i>Experimentally dissecting the structural origins of peroxiredoxin catalytic prowess</i>	
2.00pm	Liz Ledgerwood University of Otago, New Zealand <i>Examining the role of peroxiredoxin 1 in redox signalling</i>	
2.25pm	Paul Pace University of Otago, Christchurch, New Zealand <i>Interaction of peroxiredoxin 2 with collapsing response mediator protein 2</i>	
2:45pm	Markus Dagnell Karolinska Institute, Sweden & University of Otago, Christchurch, New Zealand <i>TrxR1 protects PTP1B from oxidative inactivation by hydrogen peroxide</i>	
3.05pm	Afternoon tea	
Session 8		Chair: Ghassan Maghzal
3.35pm	Clare Hawkins Heart Research Institute & University of Sydney, Australia <i>Novel pathways of macrophage dysfunction and inflammation induced by myeloperoxidase-derived oxidants</i>	
4.00pm	Yoji Kato University of Hyogo, Japan <i>Myeloperoxidase-derived modification of biomolecules and its prevention</i>	
4.25pm	Guy Jameson University of Otago, New Zealand <i>Ascorbic acid as an essential cofactor in the production of hypothiocyanite by lactoperoxidase</i>	
4.50pm	Louisa Forbes University of Otago, Christchurch, New Zealand <i>Strategies for inhibiting myeloperoxidase and limiting oxidative stress during inflammation</i>	
5.10-6.10pm	Poster session B + Refreshments and nibbles	

SFRR A+J Conference Programme – Day 4

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Thursday 10 December 2015

Session 9		Chair: Alfons Lawen
9.00 am	Stavros Selemidis Monash University, Australia <i>Endosomal NOX2 oxidase exacerbates virus pathogenicity</i>	
9.25 am	Mike Berridge Malaghan Institute of Medical Research, New Zealand <i>Is mitochondrial transfer between cells a normal physiological process? Implications for cellular stress responses and free radical generation</i>	
9.45 am	Jiri Neuzil Griffith University, Australia & Czech Academy of Sciences, Czech Republic <i>Acquisition of mitochondrial DNA by cancer cells devoid of mitochondrial genome is a prerequisite for tumor initiation</i>	
10.05 am	Jianhua Zhang University of Alabama at Birmingham, USA <i>Expected and unexpected impact of Nrf2 knockout and endurance exercise on autophagy and mitochondria in aging mouse brain</i>	
10.25am	Morning tea	
Session 10		Chair: Andrew Bulmer
11.05am	Yuji Naito Kyoto Prefectural University of Medicine, Japan <i>Multiple targets of carbon monoxide gas in the intestinal inflammation</i>	
11.30am	Alison Heather University of Otago, New Zealand <i>3β-Hydroxysteroid-24-reductase (DHCR24): a key protein involved in protecting human coronary artery endothelial cells from inflammatory stress</i>	
11.50pm	Andrew Bahn University of Otago, New Zealand <i>GLUT9 alleviates the development of type 2 diabetes mellitus under hyperuricemic conditions</i>	
12.10pm	Kazuhiko Uchiyama Kyoto Prefectural University of Medicine, Japan <i>Heme oxygenase-1 prevents intestinal ischemia-reperfusion injury via the regulation of the inflammasome</i>	
12.30pm	Lunch SFRR Australasia AGM	
Session 11		Chair: Anitra Carr
1.30pm	Alan Crozier University of California, Davis, USA <i>New insights into the bioavailability of dietary flavonoids</i>	
1.50pm	Kevin Croft University of Western Australia, Australia <i>The acute effect of quercetin-3-O-glucoside on blood pressure, endothelial function and no production in healthy men and women</i>	
2.10pm	Nicola Brasch Auckland University of Technology, New Zealand <i>Pulse radiolysis and ultra-high performance liquid chromatography/high resolution mass spectrometry (UHPLC/HRMS) studies on the reactions of the carbonate radical with vitamin B₁₂ complexes</i>	
2.30pm	Steven Giesege University of Canterbury, New Zealand <i>Is plasma neopterin the product of intracellular oxidant scavenging by 7,8-dihydroneopterin?</i>	
2.50pm	Afternoon Tea	
Session 12		Chair: Tony Kettle
3.20pm	Victor Darley-Usmar University of Alabama at Birmingham, USA <i>The interface between bioenergetics and redox biology; from bench to bedside</i>	
4.00pm	Roland Stocker Victor Chang Cardiac Research Institute, Australia <i>Heme oxygenase-1 and metabolic reprogramming in response to ischemia</i>	
4.25pm	Margreet Vissers University of Otago, Christchurch, New Zealand <i>Intracellular ascorbate availability in health and disease and effects on the regulation of the HIF hydroxylases</i>	
4.45pm	Summary	
Dinner		
7.00pm	Conference Dinner at ilex, Christchurch Botanical Gardens	

