

# MEDSCI NZ PROGRAMME 2016

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## CONFERENCE MANAGERS



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## MedSci 2016 Programme at a glance

### Monday 29th August 2016

6.00 pm – 6.10 pm	Opening: <b>Hon Steven Joyce</b> , Queenstown Research Week Chair
6.10 pm – 6.40 pm	QRW Lecture: <b>Professor Yaping Zhang</b> ‘Genetics of adaptation to high altitude’
6.40 pm – 7.30 pm	QRW Lecture: <b>Professor John Gurdon (Nobel Laureate)</b> ‘Title TBA’
7.30 pm	QRW Social

### Tuesday 30<sup>th</sup> August 2016 – Societies Day

9.00 am – 10.00 am	MedSci Plenary Lecture: <b>David Eisner, The University of Manchester, UK, ‘Calcium in the heart in health and disease’</b>	
10.00 am – 10.30 am	Morning Tea	
10.30 am – 12.30 pm	Session 1A: <b>PSNZ Bullivant Prize Finalists</b>	Session 1B: <b>NZSE Nancy Sirett Lecture and Free Communications</b>
12.30 pm – 1.30 pm	Lunch and separate PSNZ and NZSE AGM’s	
1.30 pm – 3.30 pm	Session 2A: <b>PSNZ Emerging Researcher and Hubbard Prize Finalists</b>	Session 2B: <b>NZSE and IBtec Student Oral Award Finalists</b>
3.30 pm – 4.00 pm	Afternoon Tea	
4.00 pm – 6.00 pm	Session 3A: <b>Free Communications and Infoblitz</b>	Session 3B: <b>Free Communications</b>
6.00 pm – 8.00 pm	Combined MedSci & QMB Poster Session + Mixer	

### Wednesday 31<sup>st</sup> August 2016 – Symposia Day

9.00 am – 10.00 am	MedSci Plenary Lecture: <b>Javier Stern, Augusta University, USA, ‘Synaptic and non-synaptic mechanisms regulate autonomic-neuroendocrine integration in the hypothalamus’</b>	
10.00 am – 10.30 am	Morning Tea	
10.30 am – 12.30 pm	Symposium 1A (PSNZ): <b>Stress responses in cardiac and skeletal muscle</b>	Symposium 1B (CNE): <b>Neurosecretion: the bigger picture</b>
12.30 pm – 1.30 pm	Lunch and MedSci AGM	
1.30 pm – 3.30 pm	Symposium 2A (PSNZ): <b>Interventional approaches targeting the sympathetic nerves in cardiovascular disease</b>	Symposium 2B (IBtec) <b>Respiratory Diagnostics and Therapies</b>
3.30 pm – 4.00 pm	Afternoon Tea	
4.00 pm – 6.00 pm	Symposium 3A (ABI) <b>State-of-the-art computational modelling tools developed to solve physiology problems</b>	Symposium 3B (NZSE): <b>Female reproduction: control of oocyte development and ovulation</b>
6.00 pm	Closing	
6.00 pm	Fashionomics, <i>sponsored by Thermo Fisher Scientific</i>	
7.30 pm	MedSci Dinner + Prize-giving	

<b>Monday 29th August 2016</b> <b>QRW Opening Night Speaker</b>	
6.00 pm - 6.30 pm	<b>Opening</b>  <b>Peter Shepherd, Queenstown Research Week Chair</b>  <b>Maitia Room 2, Ground Floor, Rutherford Hotel</b>
6.30 pm - 8.00 pm	<b>Queenstown Research Week Lecture</b>  <b>Professor John Gurdon (Nobel Laureate), University of Cambridge, UK</b>  Maitia Room 2, Ground Floor, Rutherford Hotel  <b>Chair: Peter Shepherd</b>
8.00 pm	<b>Queenstown Research Week Welcome Function</b>  Maitia Room 2, Ground Floor, Rutherford Hotel

6.00 pm – 6.10 pm	Opening: <b>Hon Steven Joyce</b> , Queenstown Research Week Chair
6.10 pm – 6.40 pm	QRW Lecture: <b>Professor Yaping Zhang ‘Genetics of adaptation to high altitude’</b>
6.40 pm – 7.30 pm	QRW Lecture: <b>Professor John Gurdon (Nobel Laureate)</b>
7.30 pm	QRW Social

## Tuesday 30th August 2016

### MedSci Plenary Lecture, Societies' Free Communications, and MedSci/QMB Poster Session

#### MedSci Plenary Lecture

9.00 am -  
10.00 am

**David Eisner, The University of Manchester, UK**  
Calcium in the Heart in Health and Disease,  
Waimea Room, Level 2

10.00 am -  
10.30 am

**Morning Tea: Trade Exhibition Area, Ground Floor**

#### Societies' Presentations

10.30 am -  
12.30 am

Session 1A:  
**PSNZ Bullivant Prize Finalists**  
Waimea Room, Level 2  
Chair: Dr Daryl Schwenke

Session 1B:  
**NZSE Nancy Sirett Lecture and Free Communications**  
Wairau Room, Level 2  
Chair: Greg Anderson

10.30 am -  
10.45 am

**1A.1 Bullivant Prize Contestant 1:**  
**Christopher Marshall, University of Otago**  
Interrogation of arcuate nucleus GABAergic NPY neural circuitry in prenatally androgenized female mice

**1B.1 Nancy Sirett Lecture:**  
**Vicky Cameron, University of Otago, Christchurch**  
If I can stop one heart from breaking, I shall not live in vain

10.45 am -  
11.00 am

**1A.2 Bullivant Prize Contestant 2:**  
**Zay Yar Win, University of Auckland**  
Patient-specific computational model to optimize mechanical ventilation

11.00 am -  
11.15 am

**1A.3 Bullivant Prize Contestant 3:**  
**Rachel Farquhar, University of Otago**  
The role of the cytoskeleton and Myosin-Vc in the trafficking of KCa3.1 to the basolateral membrane of polarised epithelial cells

11.15 am -  
11.30 am

**1A.4 Bullivant Prize Contestant 4:**  
**Aaron Korpai, University of Otago**  
Vasopressin secretion exacerbates the development of angiotensin II-dependent hypertension

11.30 am -  
11.45 am

**1A.5 Bullivant Prize Contestant 5:**  
**Abdallah Hasaballa, Auckland Bioengineering Institute**  
Three-dimensional quantification of collagen morphology in ventricular tissue

**1B.2**  
**Jo Perry, University of Auckland**  
Growth hormone receptor antagonism suppresses tumour regrowth after radiotherapy in an endometrial cancer model

11.45 am -  
12.00 pm

**1A.6 Bullivant Prize Contestant 6:**  
**Amelia Power, University of Auckland**  
Compromised energy supply in right heart failure

**1B.3**  
**Siew Hoong Yip, University of Otago**  
Changes in dendritic spine density of tuberoinfundibular dopaminergic neurons associated with estrous cyclicity in the rat

12.00 pm -  
12.15 pm

**1A.7 Bullivant Prize Contestant 7:**  
**Lorna Daniels, University of Otago**  
CaMKII inhibition restores contractile performance in cardiac muscle from a rat model of type 2 diabetes

**1B.4**  
**Dave Grattan, University of Otago**  
Conditional deletion of the prolactin receptor reveals functional subpopulations of dopamine neurons in the arcuate nucleus of the hypothalamus

12.15 pm -  
12.30 pm

**1A.8 Bullivant Prize Contestant 8:**  
**Pratik Thakkar, University of Auckland**  
Developing and optimizing strategies to treat post-stroke hypertension in a rat model of ischemic stroke

**1B.5**  
**Maggie Evans, University of Otago**  
Investigating the role of leptin receptor signalling on dopamine neurons in the control of feeding behaviour and body weight in male mice

12.30 pm	PSNZ AGM	NZSE AGM
12.30 pm - 1.30 pm	Lunch: Trade Exhibition Area, Ground Floor, Rutherford Hotel	
Societies' Presentations		
1.30 pm - 3.30 pm	Session 2A PSNZ Emerging Researcher and Hubbard Prize Finalists Waimea Room, Level 2 Chair: Marie Ward	Session 2B NZSE and IBTec Student Oral Award Finalists <i>sponsored by Medi'Ray</i> Wairau Room, Level 2 Chairs: Dr Andrew Lowe, Dr Michael Pankhurst
1.30 pm - 1.45 pm	2A.1 Emerging Researcher Prize Contestant 1: Niranchan Paskaranandavadivel, Auckland Bioengineering Institute Recovery phase dynamics of gastric slow wave activity	2B.1 NZSE Prize Contestant 1: Mauro Silva, University of Otago Development of GABAergic altered wiring and plasticity in a mouse model of Polycystic Ovary Syndrome (PCOS)
1.45 pm - 2.00 pm		2B.2 NZSE Prize Contestant 2: Shaun Stowe, University of Otago Determining the role of RF-amide related peptide neurons in suppression of the preovulatory surge of luteinizing hormone during restraint stress
2.00 pm - 2.15 pm	2A.2 Hubbard Prize Contestant 1: Chris Lear, University of Auckland Myths and challenges of fetal life	2B.3 NZSE Prize Contestant 3: Michele Wilson, Lincoln University Regulation of C-type natriuretic peptide (CNP) in brain tissues: generalised response to dexamethasone
2.15 pm - 2.30 pm		2B.4 IBTec Prize Contestant 1: Dongni Li, University of Auckland Characterizing the effects of general anaesthesia on circadian rhythm and clock gene expression in Drosophila
2.30 pm - 2.45 pm	2A.3 Hubbard Prize Contestant 2: Michelle Munro, University of Auckland Multi-scale cardiomyocyte organisation as a determinant of cardiac function	2B.5 IBTec Prize Contestant 2: Andries Meintjes, Auckland University of Technology Automatic cardiac auscultation decision support system for improved screening and teaching
2.45 pm - 3.00 pm		2B.6 IBTec Prize Contestant 3: Shivani Sethi, Auckland University of Technology, Institute of Biomedical Technologies The vasculoprotective effects of community-based, self-regulated aerobic interval training
3.00 pm - 3.15 pm	2A.4 Hubbard Prize Contestant 3: Xander Seymour, University of Auckland Regulation of oxytocin neurons by central kisspeptin in late-pregnant rats	2B.7 IBTec Prize Contestant 4: Parn Jones, Institute of Biomedical Technologies Feasibility of a novel extra-aortic balloon cuff with peristaltic motion and counterpulsation to assist heart function
3.15 pm - 3.30 pm		2B.8 IBTec Prize Contestant 5: Nargis Afroj Chowdhury, Auckland University of Technology Composite films consisting of regenerated cellulose/polypyrrole/silver nanoparticles/ ionic liquid are potential alternative to wound healing
3.30 pm - 4.00 pm	Coffee Break: Trade Exhibition Area, Ground Floor, Rutherford Hotel	

## Societies' Presentations (over page)

## Societies' Presentations

<b>4.00 pm - 6.00 pm</b>	<p>Session 3A</p> <p><b>Free Communications and Infoblitz Presentations</b></p> <p><b>Waimea Room, Level 2</b></p> <p><b>Chair: Colin Brown</b></p>	<p>Session 3B</p> <p><b>Free Communications</b></p> <p><b>Wairau Room, Level 2</b></p> <p><b>Chair:</b></p>
4.00 pm - 4.15 pm	<p><b>3A.1</b></p> <p><b>David Palmer, Lincoln University</b></p> <p>Viral-mediated gene transfer prevents stereotypical disease development in ovine Batten disease</p>	<p><b>3B.1</b></p> <p><b>Kate Lee, University of Auckland</b></p> <p>Responses to vesiculin identify the existence of a signaling pathway that can bypass insulin resistance</p>
4.15 pm - 4.30 pm	<p><b>3A.2</b></p> <p><b>Vittoria Draghi, University of Auckland</b></p> <p>Does rate of rewarming after hypothermia affect seizure activity and white matter integrity after global cerebral ischaemia in term-equivalent fetal sheep?</p>	<p><b>3B.2</b></p> <p><b>Ruby Langdon, University of Canterbury</b></p> <p>Basis function modelling of respiratory patients with high or low auto-PEEP</p>
4.30 pm - 4.45 pm	<p><b>3A.3</b></p> <p><b>Simerdeep Dhillon, University of Auckland</b></p> <p>Pleurodesis with Picibanil during fetal life is associated with neuroinflammation and white matter injury in the preterm brain</p>	<p><b>3B.3</b></p> <p><b>Ranjan Roy, University of Otago</b></p> <p>Magnocellular neuronal activation in response to acute myocardial infarction</p>
4.45 pm - 5.00 pm	<p><b>3A.4</b></p> <p><b>Joanne Davidson, University of Auckland</b></p> <p>Head cooling for 48 hours is suboptimal for neuroprotection after global cerebral ischemia in term-equivalent fetal sheep</p>	<p><b>3B.4</b></p> <p><b>Rohit Ramchandra, University of Auckland</b></p> <p>An ovine model of renovascular hypertension: role of the carotid body chemoreceptors</p>
5.00 pm - 5.15 pm	<p><b>3A.5</b></p> <p><b>Brian Hyland, University of Otago</b></p> <p>Reward sensitivity of cue responses of single dorsal raphe nucleus neurons may critically depend on background uncertainty</p>	<p><b>3B.5</b></p> <p><b>Jesse Ashton, University of Auckland</b></p> <p>Shift of dominant pacemaker site during reflex vagal stimulation is the result of propagation failure not rate entrainment</p>
5.15 pm - 5.30 pm	<b>Infoblitz Presentations</b>	<p><b>3B.6</b></p> <p><b>Zhinuo Jenny Wang, Auckland Bioengineering Institute</b></p> <p>Quantifying myocardial stiffness uncertainty in heart failure patients using personalised ventricular mechanics</p>
	<p><b>3A.6</b></p> <p><b>Kirsten Carter, University of Otago</b></p> <p>Feeding-induced regulation of Wnt/beta catenin signaling in the mouse hypothalamus</p>	
	<p><b>3A.7</b></p> <p><b>Kendra Boyes, University of Otago</b></p> <p>The role of the prolactin receptor in the developing brain</p>	
	<p><b>3A.8</b></p> <p><b>Dhananjie Chandrasekera, University of Otago</b></p> <p>Effect of diabetes on pro-apoptotic microRNA-532 in heart</p>	
	<p><b>3A.9</b></p> <p><b>Morgan MacLeod, University of Otago</b></p> <p>The effect of prolactin on AgRP neurons in the arcuate nucleus</p>	
	<p><b>3A.10</b></p> <p><b>Mohinder Kaplish, University of Otago</b></p> <p>The effect of pregnancy-induced adaptations on glucagon like-peptide-1 receptor activation-induced stabilisation of beta-catenin in hypothalamic neurons in female rats</p>	
5.30 pm - 5.45 pm	<p><b>3A.11</b></p> <p><b>Joshua Neale, University Of Otago</b></p>	<p><b>3B.7</b></p> <p><b>Denis Loiselle, University of Auckland</b></p>

	Examining the Role of Endogenous Ghrelin in Vascular Homeostasis Using a Murine Model of Hind-Limb Ischaemia	Can dietary supplementation with omega-3 fish-oils really improve the pumping efficiency of the heart?
	<b>3A.12</b> <b>Melanie Wei, University of Otago</b> Preventing changes in coronary blood flow associated with type 2 diabetic heart disease through exercise - assessed using synchrotron radiation microangiography	
	<b>3A.13</b> <b>Luke Worthington, University of Otago</b> CaMKII activation in endothelial dysfunction	
	<b>3A.14</b> <b>Julia McLachlan, University of Otago</b> Development of RyR2-Based Redox Sensor for H2O2 Quantification in Cardiac Dyad Microdomain	
5.45 pm - 6.00 pm		
6.00 pm - 8.00 pm	<b>Combined MedSci &amp; QMB Poster Session</b> <b>Maitai Room 2, Ground Floor</b>	
<b>NZSE Posters</b>		
P1	<b>Hsin-Jui (Regina) Lien, University of Otago.</b> Role of kisspeptin in the prolactin-induced suppression of the pulsatile secretion of luteinizing hormone	
P2	<b>Zin Khant Aung, University of Otago.</b> Impaired pregnancy-induced changes to glucose homeostasis in mice lacking prolactin receptors in the pancreas	
P3	<b>Jade York, University of Otago.</b> Morphological characterization of tyrosine hydroxylase immunoreactive neurons in the rat hypothalamus	
P4	<b>Maria Felicitas Lopez Vicchi, University of Otago.</b> Female mutant mice with selective disruption of lactotrope D2Rs have chronic hyperprolactinemia and altered liver and adipocyte genes related to glucose and lipid balance	
<b>IBTec Posters</b>		
P5	<b>Anubha Kalra, Auckland University of Technology.</b> Quantifying skin stretch induced motion artifact from an electrocardiogram signal-A pilot study	
P6	<b>Gautam Anand, Auckland University of Technology.</b> Parametric electrical modelling of human forearm simulation response using multi-frequency Electrical Bioimpedance	
P7	<b>Ali Adil Ali, Auckland University Of Technology.</b> Functionalised lipid nanoparticles loaded with Paclitaxel for targeted release to ovarian cancer tissue	
P8	<b>KLT Roos, Institute of Biomedical Technologies.</b> Murine models for acute and chronic asthma respiratory outcomes	
P9	<b>Tassanai Parittotokkaporn, Institute of Biomedical Technologies.</b> Finite element modeling of the carotid artery for simulation of the pulse wave velocity measurement	
<b>MedSci Posters</b>		
P10	<b>Farzaneh Shalbaf Hosseinabadi, The University of Auckland.</b> The effect of retinal microstructure on retinal prosthesis performance	
P11	<b>Luis Gonano, University of Otago.</b> Carvedilol and its non-β-blocking analog VK-II-86 prevent digitalis-induced Ca++ waves in cardiac myocytes	
P12	<b>Lynley Lewis, University of Otago.</b> Development of a specific immunoassay to measure BNP1-32 in plasma without the confounding influences of precursor peptides and peptide metabolites: could this improve heart failure diagnosis?	
P13	<b>Ruby Langdon, University of Canterbury.</b> Analysis of pressure dependent resistance and elastance in high auto-PEEP versus low auto-PEEP patients	
<b>Physiological Society of New Zealand Posters (*PSNZ Student Poster Presentation Prize candidate)</b>		
P14	<b>Adam Denny, University of Otago.</b> Oxidised CaMKII – A novel mechanism in the pathophysiology of FSHD	
P15	<b>*Akash Deep Chakraborty, University of Otago.</b> Regulation of RyR2 by Protein Kinase CK2	

P16	<b>*Belvin Thomas, Auckland Bioengineering Institute.</b> A high resolution reconstruction of 3D atrial tissue architecture following tachypacing-induced heart failure in the sheep
P17	<b>*Brian Shin, University of Otago.</b> Is ferroptosis the driver for the onset of type-2 diabetes under hyperuricemic conditions?
P18	<b>*Chidinma Okolo, University of Otago.</b> O-GlcNAcylation regulates RyR2 function directly
P19	<b>Cindy Cheakhun, University of Otago.</b> Role of uric acid in cardiac stem cell function
P20	<b>Elodie Desroziere, University of Otago.</b> Sexually differentiated co-expression of neuronal nitric oxide synthase (nNOS) in arcuate nucleus GABA neurons
P21	<b>*Hamed Minaeizadeh, University of Auckland.</b> Non-rigid lung image registration using finite element methods
P22	<b>*Jan-Peter Baldin, University of Otago.</b> Shear force activation of the epithelial sodium channel (ENaC): role of the $\beta$ and $\gamma$ subunits
P23	<b>*Nazanin Ebrahimi, The University of Auckland.</b> How the heart grows - from multiscale data to multiscale computational model
P24	<b>*Oby Ebenebe, University of Otago.</b> 17 $\beta$ -Estradiol induced calcification and alters CaMKII expression in a mouse model of atherosclerosis
P25	<b>Rachael Augustine, University of Otago.</b> Increase in kisspeptin fibre projections to the oxytocin system in late pregnancy in the mouse
P26	<b>*Ramakanth Satthenapalli, University of Otago.</b> Ventricular specific cardiomyocyte differentiation of mouse embryonic stem cells through modulation of molecular pathways
P27	<b>*Rojan Saghian, Auckland Bioengineering Institute.</b> Predicting the impact of trophoblast plugs on the utero-placental circulation in early pregnancy
P28	<b>*Sama Mugloo, University of Otago.</b> Characterising ENaC expression in vasculature
P29	<b>*Shruti Rawal, University of Otago.</b> microRNA-126 and microRNA-132 are the early modulators of diabetic microangiopathy in heart
P30	<b>*Toan Pham, University of Auckland.</b> New insights on cardiac activation heat
P31	<b>Vicky Benson, University of Auckland.</b> Effects of diet composition on development of high fat diet-induced obesity and insulin resistance in rodents
P32	<b>*Yuwen Zhang, Auckland Bioengineering Institute.</b> Automatic principal component based lung lobe segmentation from computed tomography scans
P33	<b>*Nima Afshar, Auckland Bioengineering Institute.</b> Computational modelling of glucose uptake in enterocytes using CellML
P34	<b>*Bram Soliman, University of Otago.</b> Photo-curable thiol-ene gelatin based hydrogels as bioinks for bioprinting
P35	<b>*Win Tun, Auckland Bioengineering Institute.</b> Role of wall shear stress in placental pathology
P36	<b>*Mahyar Osanlouy, University of Auckland.</b> A statistical shape model of the lung to predict pulmonary fissures: Towards a fully automated lung lobe segmentation method
P37	<b>Prisca Mbikou, University of Otago.</b> Role of B-type natriuretic signal peptide on AKT and ERK1/2 activity in myocardial rat ischemia



## Wednesday 2nd September 2015

### MedSci Plenary Lecture and Societies' Symposia

#### MedSci/AWCBR Plenary Lecture

9.00 am - 10.00 am	<b>Javier Stern, Augusta University, USA</b> Synaptic and non-synaptic mechanisms regulate autonomic-neuroendocrine integration in the hypothalamus', Waimea Room, Level 2
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10.00 am - 10.30 am	<b>Morning Tea: Trade Exhibition Area, Ground Floor</b>
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#### Societies' Symposia

10.30 am - 12.30 pm	Symposium 1A <b>Stress responses in cardiac and skeletal muscle</b> Waimea Room, Level 2 Chairs: Kim Mellor	Symposium 1B <b>Neurosecretion: the bigger picture</b> Wairau Room, Level 2 Chairs: Stephen Bunn, Dave Grattan
10.30 am - 11.00 am	<b>S1A.1 Rebecca Ritchie, Baker IDI Institute, Australia</b> Approaches for overcoming diabetes - induced cardiovascular nitric oxide resistance	<b>S1B.1 Paul Le Tissier, University of Edinburgh, UK</b> Neurosecretion and novel mechanisms for its in vivo measurement
11.00 am - 11.30 am	<b>S1A.2 Lea Delbridge, University of Melbourne, Australia</b> Paradoxical cardiac responses to metabolic stress	<b>S1B.2 Peter Thorn, University of Sydney, Australia</b> Neurosecretion from pancreatic beta cells
11.30 am - 12.00 pm	<b>S1A.3 Rajesh Katore, University of Otago</b> Diabetes increases autophagy in the human heart through promotion of Beclin-1 mediated pathway	11.30am- 11.50am <b>S1B.3 Stephen Bunn, University of Otago, NZ</b> Neurosecretion: a view from the adrenal chromaffin cell
12.00 pm - 12.30 pm	<b>S1A.4 Dr Troy Merry, University of Auckland, NZ</b> ROS and metabolic signaling in skeletal muscle	11.50am- 12.10pm <b>S1B.4 Brie Sorrenson, University of Auckland, NZ</b> Critical role for $\beta$ -catenin in insulin secretion from $\beta$ -cells by regulating insulin vesicle localization
		12.10pm- 12.30pm <b>S1B.5 Merja Joensuu, The University of Queensland, Australia</b> Sub-diffractive tracking of internalized molecules reveals heterogeneous diffusive states of synaptic vesicles
12.30 pm	<b>MedSci AGM</b>	

12.30 pm - 1.30 pm	<b>Lunch: Trade Exhibition Area, Ground Floor, Rutherford Hotel</b>
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#### Societies' Symposia

1.30 pm - 3.30 pm	Symposium 2A <b>Interventional approaches targeting the sympathetic nerves in cardiovascular disease</b> Waimea Room, Level 2 Chairs: Rohit Ramchandra, Carolyn Barrett	Symposium 2B <b>Respiratory Diagnostics and Therapies</b> Wairau Room, Level 2 Chair: Ahmed Al-Jumaily <i>sponsored by, Institute of Biomedical Technologies, Auckland University of Technology</i>
1.30 pm - 2.00 pm	<b>S2A.1 Ivan Sammut, University of Otago, NZ</b> Renal denervation in diabetes	<b>S2B.1 Jason Bates, University of Vermont, USA</b>

		Modeling the Force-Length Dynamics of Airway Smooth Muscle
2.00 pm - 2.30 pm	<b>S2A.2 Maximilian Pinkham, University of Auckland, NZ</b> Heart Failure: are women less sympathetic than males?	<b>S2B.2 Frank Bloomfield, Liggins Institute, NZ</b> Gas flows and lung injury in ventilated preterm babies
2.30 pm - 3.00 pm	<b>S2A.3 Lindsea Booth, Florey Institute of Neuroscience and Mental Health, Australia</b> Renal function in normotensive sheep in the first eight weeks after catheter-based renal denervation	<b>S2B.3 Paul Young, University of Sydney, Australia</b> Innovative devices and therapies for respiratory diseases
3.00 pm - 3.30 pm	<b>S2A.4 David Jardine, Christchurch Hospital, NZ</b> Renal endovascular denervation in end-stage kidney disease patients: Cardiovascular protection – proof of concept study	<b>S2B.4 Stanislav Tatkov, Fisher &amp; Paykel Healthcare, NZ</b> Respiratory therapy with nasal high flow
3.30 pm - 4.00 pm	<b>Coffee Break: Trade Exhibition Area, Ground Floor</b>	
<b>Societies’ Symposia</b>		
4.00pm-6.00pm	Symposium 3A <b>State-of-the-art computational modelling tools developed to solve physiology problems</b> <b>Waimea Room, Level 2</b> <b>Chairs: Vicky Wang, Alys Clark</b>	Symposium 3B <b>Female reproduction: control of oocyte development and ovulation</b> <b>Wairau Room, Level 2</b> <b>Chairs: Jenny Juengel, Greg Anderson</b>
4.00 pm - 4.30 pm	<b>S3A.1 Edmund Crampin, University of Melbourne, Australia</b> An energy-based modelling framework for computational cell physiology	<b>S3B.1 Karla Hutt, Monash University, Australia</b> Mechanisms of quality control in the female germ line
4.30 pm - 5.00 pm	<b>S3A.2 Vijay Rajagopal, University of Melbourne, Australia</b> Investigating sub-cellular structure-function relationships in cardiac cells	<b>S3B.2 Michael Pankhurst, University of Otago, NZ</b> Transgenic overexpression of AMH reduces female fertility
5.00 pm - 5.30 pm	<b>S3A.3 Alys Clark, Auckland Bioengineering Institute, NZ</b> Capturing complexity in models of blood flow and oxygen exchange	<b>S3B.3 Rebecca Robker, University of Adelaide, Australia</b> Effects of obesity on offspring
5.30 pm - 6.00 pm	<b>S3A.4 Thor Besier, Auckland Bioengineering Institute, NZ</b> Real-time gait retraining to slow the progression of knee osteoarthritis	<b>S3B.4 Jenny Juengel, AgResearch Limited, NZ</b> Reproductive characteristics of sheep with mutations in the leptin receptor
6.00 - 7.00 pm	<b>Fashionomics</b> <i>Thermo Fisher Scientific</i> <b>Reception area, Ground Floor, Rutherford Hotel</b> <b>(with drinks)</b>	
7.30 pm	<b>MedSci Dinner and Prize-giving</b> <b>Waimea Room, Level 2</b>	