# MEDSCI NZ PROGRAMME 2018

#### **ORGANISING COMMITTEE**

Dr Marie Ward (Co-Chair) Dr Joanne Davidson (Co-Chair) Dr Rebecca Campbell (Co-vice chair) Dr Jeff Erickson (Co-vice chair) Dr Justin Dean A/Prof Rajesh Katare (PSNZ) Prof Allan Herbison (CNE) A/Prof Greg Anderson (NZSE) Prof Ahmed Al-Jumaily (Biomed Tech) Dr Andrew Lowe A/Prof Loulin Huang Dr June-Chiew Han (ABI) University of Auckland University of Auckland University of Otago University of Otago University of Auckland University of Otago University of Otago University of Otago Auckland University of Technology Auckland University of Technology University of Auckland <u>m.ward@auckland.ac.nz</u> joanne.davidson@auckland.ac.nz rebecca.campbell@otago.ac.nz jeff.erickson@otago.ac.nz j.dean@auckland.ac.nz rajesh.katare@otago.ac.nz allan.herbison@otago.ac.nz greg.anderson@anatomy.otago.ac.nz ahmed.aljumaily@aut.ac.nz andrew.lowe@aut.ac.nz loulin.huang@aut.ac.nz j.han@auckland.ac.nz

#### CONFERENCE MANAGERS



If you have any queries regarding MedSci or Queenstown, please contact Dinamics at the Registration Desk. Phone: +64 27 450 2611 Email: elizabeth@dinamics.co.nz Website: http://www.dinamics.co.nz/

## MedSci 2018 Programme at a glance

<b>.</b>				
Monday 27 <sup>th</sup> August 2018				
4:00 pm – 6:00 pm	Medsci Poster session			
6.00 pm – 6.10 pm	- 6.10 pm Opening: Peter Shepherd, Queenstown Research Week Chair			
6.10 pm – 6.25pm	25pm Prof. Juliet Gerrard (PM Chief Science Advisor) Official Opening			
6.25 pm – 7.30 pm Queenstown Research Week Plenary Lecture: Prof. Elizabeth Blackburn				
7.30 pm – 9.00 pm	QRW Social			

Tuesday 28 <sup>th</sup> August 2018 – Societies Day			
9.00 am – 10.00 am	MedSci Plenary Lecture: Dee Silverthorn		
10.00 am – 10.30 am	Morning Tea		
10.30 am – 12.30 pm	Session 1A: PSNZ Bullivant Prize Finalists	Session 1B: NZSE Nancy Sirett Lecture and Student Oral Award Finalists	Session 1C IBTec Student Oral Award Finalists and Free Communications
12.30 pm – 1.30 pm	Lunch and separate PSNZ an	d NZSE AGM's	
1:30pm – 2:30pm	Plenary Lecture: James Pear	son	
2.30 pm – 3.30pm	Session 2A: PSNZ Hubbard Prize Finalists	Session 2B: Free Communications	Session 2C: Free Communications
3.30 pm – 4.00 pm	Afternoon Tea		·
4.00 pm – 6.00 pm	Free Communications and PSNZInfoblitz Presentations & free communicationsWorkshop: Ongoing challenge teaching medical sciences		Workshop: Ongoing challenges in
7.00 pm	MedSci Dinner + Prize-giving (Crowne Plaza Hotel 360 Restaurant)		

Wednesday 29 <sup>th</sup> Augu	Wednesday 29 <sup>th</sup> August 2018 – Symposia Day			
9.00 am – 10.00 am	MedSci Plenary Lecture: Simon Malpas			
10.00 am – 10.30 am	Morning Tea			
10.30 am – 12.30 pm	Symposium 1A (PSNZ): Perinatal brain damage & neurotherapeutic strategies	Symposium 1B (IBTec): Respiratory Diagnostics and Therapies		
12.30 pm – 1.30 pm	Lunch and MedSci AGM			
1.30 pm – 3.30 pm	Symposium 2A (PSNZ): Mechanobiology in health & disease	Symposium 2B (CNE): Hormones & social behaviours		
3.30 pm – 4.00 pm	Afternoon Tea			
4.00 pm – 6.00 pm	Symposium 3A (ABI): Super-resolution microscopy: Biology at the nanoscale	Symposium 3B (NZSE): Uterine function and dysfunction		
7.00 pm	Fashionomics			

# Monday 27<sup>th</sup> August 2018

4:00pm – 6:00pm

### **MEDSCI POSTER SESSION**

Sponsored by Bio-Rad Laboratories

## **Summary of Poster Abstracts**

No.	Presenter	Title
	NZSE Posters	
M1	Caroline Ancel	Using genetic manipulations to understand the sex-specific role of RFRP-3 in the regulation of reproduction
M2	Papi Gustafson	Suppression of the response to restraint stress in the lactating mouse
M3	Zin Khant Aung	Central prolactin receptor activation contributes to the hyperphagia of lactation
M4	Siew Hoong Yip	Adaptation of tuberoinfundibular dopaminergic neurons to estrous cycle and lactation
M5	Teodora Georgescu	Characterisation of the acute effects of prolactin upon prolactin receptor-expressing neurones in the mouse hypothalamus
	IBTec Posters	
M6	Gautam Anand	Developing tissue simulant to mimic the dielectric behaviour of human blood for multi-frequency bioimpedance analysis
M7	Anubha Kalra	Development of Conductive Polymer Composites for Electrocardiography Sensing
M8	Ekta Dahiya	Estimating reference values of aortic pulse wave velocity for the New Zealand population
M9	Sandra Grau Bartual	Effect of Positive Pressure Oscillations on Cultured Human Epithelial Cells
M10	Kevin Roos	An investigation into the effects of pressure oscillations on airway smooth muscle in chronic asthma
	ABI Posters	
M11	Jarrah Dowrick*	Rested state contraction of cardiac muscle: beyond the contribution from the sarcoplasmic reticulum
	MedSci Posters	
M12	Prisca Mbikou	Characterising the role and therapeutic potential of novel peptide DWORF in heart disease.
M13	Rachael Augustine	Characterisation of periventricular nucleus kisspeptin neuron projections to oxytocin neurons in pregnancy and lactation
M14	Zsuzsanna Barad	Mapping O-linked glycosylation in the brain during pregnancy
M15	Kirsten Carter	Prolactin Acutely Influences Running Wheel Activity But Not Ambulatory Activity in Female Mice
M16	Caroline Decourt	Delay in puberty onset after neonatal underfeeding can be reversed by silencing AgRP neurons in male mice
M17	Devon Nolan	Hyperuricemia driving pancreatic beta cell death through Rictor, a subunit of mTORC2

M18	Aidan	Sexually dimorphic corticosteroid negative feedback in hypothalamic CRH neurons
	Sherrington	
M19	Claire Twyman	Uric acid as a modulator of endothelial sodium channels in the vasculature
M20	Paris Brocherie	Is pancreatic β-cell death under hyperuricemic conditions facilitated by the mTOR-
		Raptor complex?
		iety of New Zealand Posters (*PSNZ Student Poster Presentation Prize candidate, # uroscience and Neuroendocrinology of Australasia (HNNA) Student Poster Prize
M21	Emily Brown* <sup>#</sup>	Mechanosensitivity of transient receptor potential vanilloid channels
M22	Ethan Cain	The emerging role of the antioxidant uric acid in the pancreatic $\beta$ -cell viability
M23	Rebecca Campbell	Selective activation of arcuate nucleus GABA neurons promotes luteinizing hormone secretion in mice
M24	Elodie	Impaired sexual behaviour in a mouse model of PCOS2
	Desroziers	
M25	Tumanu Futi	Soluble klotho changes epithelial sodium channel activity
M26	Nilanjan Ghosh*	Therapeutic modulation of microRNA-320 to prevent diabetic cardiomyopathy using Locked Nucleic Acid oligonucleotides
M27	Sarah Holland*#	Elucidating the effect of prenatal androgen excess on male reproductive function and metabolism
M28	Romy Kerbus*#	Dose dependent central insulin resistance in response to high fat diet
M29	, Luis James	The Role of the Cystine/Glutamate Antiporter in Glutamate Metabolism in the Mouse
	Knight*	Retina
M30	Anna Krstic*	The inotropic response to prostaglandin $F2\alpha$ in a rat model of right ventricular hypertrophy
M31	Shalini Kumar* <sup>#</sup>	Chronic prolactin administration increases kisspeptin expression in virgin mice
M32	Asha Mamgain*	Identifying the role of connexin-43 gap junctions as intracellular transporter of microRNAs
M33	Mridula	
	Pachen*	Carotid chemoreceptor stimulation increases coronary blood flow in heart failure
M34	Puja Paudel*	Epithelial sodium channel in human arteries – an emerging player for blood pressure regulation
M35	Michael Perkinson* <sup>#</sup>	Alpha-Melanocyte-Stimulating Hormone Switches from Inhibition to Excitation of Oxytocin Neurons in Lactation
M36	Shivani Sethi*#	Central regulation of the diabetic heart
M37	Jack Smeeton*	$\alpha$ -adrenergic control of the diabetic heart
M38	William Henry Smith	Comparing continuous and fluctuating high glucose levels on AC16 cardiomyocytes
M39	Luke	
	Worthington*	CaMKII Inhibition as a Novel Target to Control the Early Progression of Atherosclerosis
M40	Eulalia Coutinho	Role of arcuate nucleus AgRP/NPY neurons in LH secretion and fertility
M41	Michi Kasai	Transient loss of very low and low frequency fetal heart rate variability after severe asphyxia in near-term fetal sheep
M42	Christopher Lear	Vasopressin is an early biomarker of neural injury after hypoxia-ischemia in near-term fetal sheep

M43	Yoshiki	Fetal heart rate variability: a biomarker for evolving fetal hypoxic-ischaemic brain		
	Maeda*	injury		
M44		Unseen to be seen: A hidden microenvironment regulates ovarian cancer cell		
	Mak Sarwar*	behaviour.		
M45				
	Yadi Chen*	Lens channels regulate intracellular hydrostatic pressure		
M46	Niah Khan*	Role of CaMKII and Alpha-Adrenergic Stimulation in Diabetic Heart Function		
M47		Toward a cell-based model of metastatic prostate cancer: isolation and		
	Rebecca	characterisation of metastatic prostate cancer cells derived from an orthotopically		
	Bower	implanted SCID mouse model		

6.00 pm - 6.10 pm	Welcome and Conference Opening		
	Peter Shepherd, Queenstown Research Week Chair		
	Queenstown Room, Level 5, Rydges Hotel		
6.10 pm – 6.25pm	Queenstown Research Week Official Opening		
	Prof. Juliet Gerrard, Prime Minister's Chief Science Advisor		
	Queenstown Room, Level 5, Rydges Hotel		
6.25 pm - 7.30 pm	Queenstown Research Week Plenary Lecture		
	introduced by Peter Mace		
	<b>Professor Elizabeth Blackburn</b> 2009 Nobel Prize in Physiology or Medicine for discovery of how chromosomes are protected by telomeres and the enzyme telomerase University of California, San Francisco		
	Sponsored by: Health Sciences, University of Otago		
	Queenstown Room, Level 5, Rydges Hotel		
7.30 pm - 9.00 pm	Queenstown Research Week Welcome Function		
	Sponsored by Abacus DX		
	Trades Area, Level 4, Rydges Hotel		

	Tuesday 28 <sup>th</sup> August 2018 MedSci Plenary Lecture, Societies' Free Communications				
		Sci Plenary Lecture			
9.00 am		Dee Silverthorn			
- 10.00 am	Challenges in interactive t	eaching and learning of physiolo Clancy's Room Chair: Tony MacKnight	ogy: how we must all adapt		
10.00 am - 10.30 am	Morning Tea: Trade	Exhibition Area, Leve	el 4		
	Socie	ties' Presentations			
10.30 am - 12.30 pm	Session 1A: <b>PSNZ Bullivant Prize Finalists</b> <b>Room: Clancy's Room</b> <b>Chairs:</b> Joanne Davidson & Michelle Munro	Session 1B: NZSE Nancy Sirett Lecture and Student Oral Award Finalists (sponsored by Medi'Ray) Room: Dart Room, QT Building Chairs: Greg Anderson & Eulalia Coutinho	Session 1C IBTec Student Oral Award Finalists and Free Communications Room: Rees Room, QT Building Chairs: Andrew Lowe & Dr Gautam Anand		
10.30 am - 10.45 am	<b>1A.1 Bullivant Prize Contestant 1:</b> Marco Annandale <i>The impact of glucose and fructose</i> <i>exposure on cardiomyocyte</i> <i>glycogen accumulation and cell</i> <i>viability</i>	<b>1B.1 Nancy Sirett Lecture:</b> Prof Jillian Cornish, University of Auckland Lactoferrin, an endogenous growth factor, immunomodulator and antimicrobial, is anabolic to bone	<b>1C.1 IBTec Prize Contestant 1</b> : Dr Ekta Dahiya Estimating reference values of aortic pulse wave velocity for the New Zealand population		
10.45 am - 11.00 am	<b>1A.2 Bullivant Prize Contestant 2:</b> Benjamin Lear The evolution of neuroinflammation and myelination after hypoxia- ischaemia in preterm fetal sheep		<b>1C.2 IBTec Prize Contestant 2:</b> Srinivasan Govindan Biodegradable polymer blends/composites, with high performance characteristics, for packaging application		
11.00 am - 11.15 am	<b>1A.3 Bullivant Prize Contestant 3:</b> Pinky Lal Elucidating the effect of shear stress on the expression of ENaC in endothelial cells.		<b>1C.3 IBTec Prize Contestant 3:</b> Sandra Grau Bartual <i>Effect of Positive Pressure</i> <i>Oscillations on Cultured Human</i> <i>Epithelial Cells</i>		
11.15am - 11.30 am	<b>1A.4 Bullivant Prize Contestant 4:</b> Shalini S. Kumar Chronic prolactin administration increases kisspeptin expression in virgin mice		<b>1C.4 IBTec Prize Contestant 4:</b> Xiyong Huang Vulnerability of follicular stem cells to sun exposure		
11.30 am - 11.45 am	<b>1A.5 Bullivant Prize Contestant 5:</b> Simerdeep Dhillon Cardiovascular and neural effects of delayed recombinant human erythropoietin treatment after asphyxia in preterm fetal sheep	<b>1B.2 NZSE Prize Contestant 1</b> : Eleni Hackwell Central prolactin action is required for maintaining lactational diestrus in mice	<b>1C.5 IBTec Prize Contestant 5:</b> Mostafa Nikpour <i>Two-wheeled wheelchair stability</i> <i>control using a movable mechanisn</i>		

11.45 am - 12.00 pm 12.00 pm - 12.15 pm	<ul> <li>1A.6 Bullivant Prize Contestant 6: Rachel Lund</li> <li>Optimisation of an Androgen</li> <li>Bioassay for Measurement of</li> <li>Clinically Relevant Samples – Breast</li> <li>Cancer as a Clinical Focus</li> <li>1A.7 Bullivant Prize Contestant 7: Kelly Zhou</li> </ul>	<b>1B.3 NZSE Prize Contestant 2:</b> India         Sawyer         Role of RFRP neurons in puberty         onset and depression <b>1B.4 NZSE Prize Contestant 3:</b> Rachel Nunn	1C.6 IBTec Prize Contestant 6:Kevin RoosAn investigation into the effects ofpressure oscillations on airwaysmooth muscle in chronic asthma.1C.7 IBTec Prize Contestant 7:Huiyang ZhangA Review of Different Methods forSkin Stretch Sensing	
	The effect of ischemia and hypothermia on axonal and myelin integrity	Preoptic neurons are sufficient to mediate at least some of leptin's effects on fertility		
12.15 pm - 12.30 pm	<b>1A.8 Bullivant Prize Contestant 8:</b> Monique Scott Endosomal SNX proteins are required for recycling of the epithelial sodium channel	<b>1B.5 NZSE Prize Contestant 4</b> : Bradley Jamieson Investigating the projections of suprachiasmatic nucleus vasopressin neurons to preoptic kisspeptin neurons	<b>1C.8 IBTec Prize Contestant 8:</b> Elias Ghadam Soltani <i>Modelling Thermoregulation of The</i> <i>Human Body Upper Limb</i>	
12.30 pm 12.30 pm -	PSNZ AGM – Clancys Room	ion Area, Level 4, Ryc	t Room, QT Building	
1.30 pm				
	Socie	ties' Presentations		
1.30 pm – 2.30pm	Plenary Lecture James Pearson <i>Effects of early programmed insulin resistance on adult cardiac function in</i> Clancy's Room Chair: Daryl Schwenke			
	Session 2A: <b>PSNZ Hubbard Prize Finalists</b> <b>Room: Clancy's Room</b> <b>Chairs:</b> Rajesh Katare & Rebecca Campbell	Session 2B: Free Communications Room: Dart Room, QT Building Chairs: Gus Grey & Rohit Ramchandra	Session 2C: Free Communications Room: Rees Room, QT Building Chairs: Adam Denny and Teodora Georgescu	
2:30 – 3:00	<b>2A.1 Hubbard Prize Contestant 1</b> , Amelia Power Impaired Ca <sup>2+</sup> handling precedes mitochondrial dysfunction in right ventricular hypertrophy	<ul> <li>2B.1 Joon Kim</li> <li>A duet of stress adaptation and negative feedback tunes stress neuron activity dynamics</li> <li>2B.2 Rohit Ramchandra</li> <li>The role of carotid chemoreceptors</li> </ul>	<ul> <li>2C.1 Fiona McDonald Annexin II light chain p11 interacts with ENaC to increase functional activity at the membrane</li> <li>2C.2 Chidinma Okolo Regulation of RyR2 by O-linked</li> </ul>	
3:00 – 3:30	<b>2A.2 Hubbard Prize Contestant 2</b> , Toan Pham <i>Cardiac mechanoenergetics in right-</i> <i>ventricular failure induced by</i> <i>pulmonary arterial hypertension</i>	in the maintenance of hypertension <b>2B.3</b> Yonis Abukar Targeting the Brain for the Treatment of Heart Failure <b>2B.4</b> Daryl Schwenke Oxytocin is Sympathetic to a broken heart	glycosylation <b>2C.3</b> Victoria King The effect of chronic inflammation on the circadian development of fetal EEG activity in preterm fetal sheep <b>2C.4</b> Anthony Davies Rewarming after therapeutic hypothermia for neonatal hypoxic- ischemic encephalopathy - is fast or slow rewarming better?	

		ties' Presentations	
4:00 – 6:00 pm	Session 3A PSNZ Prizes Room: Clancys Room Chairs: Marie Ward & Jeff Erickson	Session 3B: Free communications & Infoblitz Presentations Room: Dart Room, QT Building Chairs: Gus Grey & Lorna Daniels	Session 3C Workshop: Ongoing challenges in teaching medical sciences & Free Communications Continued. Room: Rees Room, QT Building Chair: Grant Butt
4:00 - 4:30	<b>3A.1: Early-Career Prize Contestant</b> <b>1:</b> Elodie Desroziers <i>The impact of chronic activation of</i> <i>arcuate GABA neurons on fertility</i>	<ul> <li><b>3B.1</b> June-Chiew Han</li> <li><i>A century-old cardiac conundrum</i></li> <li><i>regarding the force-length relation</i></li> <li><b>3B.2</b> Sarbjot Kaur</li> <li><i>Role of cAMP binding protein Epac</i></li> <li><i>in excitation-contraction (E-C)</i></li> <li><i>coupling in rat cardiac muscle</i></li> </ul>	<b>3C.</b> A/Prof Diane Kenwright Dr Amanda Charlton
4:30 – 5:00	<b>3A.2: Early-Career Prize Contestant</b> <b>2:</b> Joanne Davidson <i>Can we further refine therapeutic</i> <i>hypothermia for perinatal hypoxic-</i> <i>ischaemic brain injury?</i>	<ul> <li>3B.3 Denis Loiselle Heretical Thoughts Regarding Cardiac Muscle</li> <li>3B.4 Lorna Daniels Impaired cardiomyocyte diastolic function is linked with glycogen accumulation in the diabetic heart</li> </ul>	
5:00 – 5:30	<b>3A.3</b> Mid Career Award Johanna Montgomery <i>Plasticity in the central and</i> <i>peripheral nervous systems and its</i> <i>role in disorders of the brain and</i> <i>heart</i>	<ul> <li>3B.5 Amy Garrett</li> <li>Cardiac muscle samples working against a real-time model of the vasculature dynamic impedance</li> <li>3B.6 Gus Grey</li> <li>Ocular lens function and aging visualised with mass spectrometry</li> </ul>	
5:30 – 6:00	<b>3A.4</b> Bjorn Knollman Targeting RyR2 Ca release channels for preventing cardiac arrhythmia – a bench to bedside story	<ul><li>3B.7 Amy Ruddenklau</li><li>3B.8 Ireland Jacobs:</li><li>3B.9 Luke Orange</li></ul>	Free Communications Continued: 3C.2 Sama Mugloo Characterising the role of vascular ENaC for blood pressure regulation 3C.3 Adam Denny
		<ul><li><b>3B.410</b> Yasmin Tawngdee</li><li><b>3B.11</b> Phoebe Ross</li></ul>	High-density Lipoprotein Cholesterol: towards reversing the pathology of Facioscapulohumeral Muscular Dystrophy
		3B.12 Mehwish Abbasi	

am- 12.30 pm       and Neurotherapeutic Strategies Room: Clancy's Room Chairs: Dr. Guido Wassink & Dr. Joanne Davidson       -12.30 pm       Therapies Room: Clancy's Room Chairs: Ahmed Al-Jumaily & Andrew Lowe         10.30 am - 10.00 am       S1A.1: Associate Professor Suzie Miller, Ritchie Centre, Hudson Institute of Medical Research, Joustralia       10.30 am - Preclinical studies to inform the use of cord blood stem cells for preterm brain injury       11.00 am       S1B.1: David Kaczka, University of Iowa, US Optimizing ventilation in the injured lung us multifrequency oscillation         11.00 am       Preclinical studies to inform the use of cord blood stem cells for preterm brain injury       11.00 am       S1B.2: Peter Noble, University of Western A sponsored by Thermo Fisher Scientific         11.30 am - 12.30 pm       S1A.3: Dr Tim Foster, University of Otago, educational outcomes: Life outcomes to adolescence for premature infants in New Zealand       11.30 am - 4.       S1B.3: Prudence Murray, Fisher and Paykel Healthcare         12.30 pm       S1A.4: Dr Guido Wassink, University of Auckland       12.00 pm - 4.       12.00 pm - 5.       S1B.4: Ian Sun, Fisher and Paykel Healthcar New Trends in CPAP development         12.30 pm       MedSci AGM - Clancy's Room pm       1.30 pm - 8.       1.30 pm - 8.       1.30 pm - 8.       Symposium 24 (PSNZ): Mechanobiology in health and disease 3.30 pm       1.30 pm - 8.       1.30 pm - 8.       1.30 pm - 8.       Symposium 24 (CNE): Hormones and socia behaviours		Wednesday MedSci Plenary Lecture and Societies' Symposia,			
10.00 am       Clancy's Room Chair: Colin Brown         10.00 am       Morning Tea: Trade Exhibition Area, Ground Floor         10.00 am       Symposium 1A (PSN2): Perinatal Brain Damage and Neurotherapeutic Strategies       10.30 am         10.30 am       Symposium 1A (PSN2): Perinatal Brain Damage and Neurotherapeutic Strategies       10.30 am         12.30 Pm       Room: Clancy's Room Chairs: Dr. Guido Wassink & Dr. Joanne       10.30 am         10.30       SIA.1: Associate Professor Suzie Miller, Ritchie Davidson       10.30 am         11.00       SIA.2: Dr Bobbi Fleiss, Centre for the Dalod stem cells for preterm brain injury       11.00 am         11.30       Sin A2: Dr Bobbi Fleiss, Centre for the Station outcomes: Life outcomes to adolescence for premature infonts in New Zealand       11.30 am         12.00       Sin A2: Dr Guido Wassink, University of Otago, m       11.30 am         12.00       Sin A2: Dr Guido Wassink, University of Melligton       11.30 am         12.00       Sin A2: Dr Guido Wassink, University of Auckland       11.30 am         12.00       Sin A2: Dr Tim Fole of microglia in perinatal brain injury Detecting the newborn brain – are cocktails pm       11.30 am         12.30       MedSci AGM – Clancy's Room pm       11.30 am         12.30       MedSci AGM – Clancy's Room pm       11.30 am         13.30       Sin Tim Fole of microglia in perinatal brain injury		MedSo	i Plena	ry Lecture	
am - 10.30 am       Withorning Tea: Trade Exmitition Area, Ground Floor         Societies' Symposium 1A (PSNZ): Perinatal Brain Damage and Neurotherapeutic Strategies Rom: Clarcy's Room Davidson       10.30 am -12.30 pm       Symposium 1B (IBTec): Respiratory Diagno Therapies Room: Dart Room, QT Building Chairs: Dr. Guido Wassink & Dr. Joanne       Symposium 1B (IBTec): Respiratory Diagno Therapies Room: Dart Room, QT Building Chairs: Dr. Guido Wassink & Dr. Joanne         10.30 am       S1A.1: Associate Professor Suzie Miller, Ritchie Davidson       10.30 am - 12.30 pm       S1B.1: David Kaczka, University of Iowa, US Optimizing ventilotion in the injured lung us multifrequency oscillation         11.00 am       S1A.2: Dr Bobbi Fleiss, Centre for the Developing Brain, King College London, United Mingdom       11.00 am - 3pansored by Thermo Fisher Scientific Physiological insights into the pathogenesis treatment of obstructive disease         11.30 am       S1A.3: Dr Tim Foster, University of Otago, am       11.30 am - 4uckland       11.30 am - 3uctional age and associated health and educational outcomes: Life outcomes to adolescence for premature infants in New Zealand       12.00 pm - 12.30 pm       S1B.4: Ian Sun, Fisher and Paykel Healthcar New Trends in CPAP development         12.30 pm       Stack: Chi Guido Wassink, University of adolescence for premature infants in New Zealand       12.00 pm - 12.30 pm       S1B.4: Ian Sun, Fisher and Paykel Healthcar New Trends in CPAP development         12.30 pm       Stack: AGM - Clancy's Room pm       - 3.30 pm       Simposium 24 (PSNZ): Mechanobiology in health and disease Room: Clancy's Room	0.00	Simon Malpas Commercialising research; problems, pitfalls and potential Clancy's Room			
10.30 am - Davidson       Symposium 1A (PSNZ): Perinatal Brain Damage and Neurotherapeutic Strategies       10.30 am - Room: Clancy's Room       Symposium 1B (IBTec): Respiratory Diagno Therapies         12.30 pm       Room: Clancy's Room       non: Clancy's Room       Room: Clancy's Room         10.30       SIA.1: Associate Professor Suzie Miller, Ritchie Davidson       10.30 am - SIB.1: David Kaczka, University of Iowa, US         10.30       SIA.1: Associate Professor Suzie Miller, Ritchie Davidson       10.30 am - Australia       SIB.1: David Kaczka, University of Iowa, US         11.00       SIA.2: Associate for preterm brain injury       10.30 am - Bood stem cells for preterm brain injury       11.00 am - Developing Brain, King College London, United Kingdom       11.00 am - Boonsored by Thermo Fisher Scientific 11.30 am - Developing Brain, King College London, United Kingdom       11.30 am - Boonsored by Thermo Fisher Scientific 11.30 am - Boonsored by Thermo Fisher Scientific 12.00 pm - Boonsored by Thermo Fisher and Paykel Health wellness Initiative         12.00       SIA.4: Dr Guido Wassink, University of adolescence for premuture infants in New Zealand       12.00 pm - Boons Clancy's Room - Boon       12.00 pm - Bata: Ian Sun, Fisher and Paykel Healthcar New Trends in CPAP development       New Trends in CPAP development         12.30 pm - 3.30 pm       Symposium 2A (PSNZ): Mechanobiology in health and disease Room: Clancy's Room Chair: Martin Fronius & Sama Mugloo       1.30 p	m - 0.30	Morning Tea: Trade Exhib	ition A	rea, Ground Floor	
am - 12.30 pm       and Neurotherapeutic Strategies Room: Clancy's Room Chairs: Dr. Guido Wassink & Dr. Joanne Davidson       - 12.30 pm       Therapies Room: Clancy's Room Chairs: Ahmed Al-Jumaily & Andrew Lowe         10.30 am - 10.00 am - am - beveloping Brain, King College London, United 11.30 am - the role of microglia in perinatal brain injury       11.00 am - 11.30 am - the role of microglia in perinatal brain injury       11.00 am - 11.30 am - the role of microglia in perinatal brain injury       11.00 am - 11.30 am - 11.30 am - 12.00 pm - tadolescence for premature infants in New Zealand       51B.3: Predence Murray, Fisher and Paykel Healthcare         12.00 pm - 212.30 pm - 13.30 pm       S1A.4: Dr Guido Wassink, University of Auckland Protecting the newborn brain – are cocktails pteter served with ice?       12.00 pm - 12.30 pm - 13.30 pm       S1B.4: Ian Sun, Fisher and Paykel Healthcar New Trends in CPAP development         12.30 pm - 1.30 pm - 3.30 pm       Symposium 24 (PSNZ): Mechanobiology in health and disease - 3.30 pm       1.30 pm - 8.30 pm       1.30 pm - 8.30 pm		Socie	eties' S	ymposia	
am - 11.00 Australia       Centre, Hudson Institute of Medical Research, Australia       11.00 Preclinical studies to inform the use of cord blood stem cells for preterm brain injury       11.00 am       Optimizing ventilation in the injured lung us multifrequency oscillation         11.00 am - blood stem cells for preterm brain injury       11.00 am       S1B.2: Peter Noble, University of Western A sponsored by Thermo Fisher Scientific         11.30 am - m - beveloping Brain, King College London, United Kingdom The role of microglia in perinatal brain injury       11.30 am       S1B.2: Peter Noble, University of Western A sponsored by Thermo Fisher Scientific         11.30 am - m - Wellington       S1A.3: Dr Tim Foster, University of Otago, adolescence for premature infants in New Zealand       11.30 am       S1B.3: Prudence Murray, Fisher and Paykel Healthcare         12.00 pm - Auckland       S1A.4: Dr Guido Wassink, University of Auckland       12.00 pm       S1B.4: Ian Sun, Fisher and Paykel Healthcar New Trends in CPAP development         12.30 pm - 1.30 pm       MedSci AGM - Clancy's Room pm       12.00 pm       S1B.4: Ian Sun, Fisher and Paykel Healthcar New Trends in CPAP development         12.30 pm - 1.30 pm       Lunch: Trade Exhibition Area, Level 4, Rydges Hotel       New Trends in CPAP development and socia behaviours         13.0 pm - -       Symposium 2A (PSN2): Mechanobiology in health and disease Room: Clancy's Room Chair: Martin Fronius & Sama Mugloo       1.30 pm - 3.30 pm       Symposium 2B (CNE): Hormones and socia behaviours	m - a 2.30 F m (	and Neurotherapeutic Strategies Room: Clancy's Room Chairs: Dr. Guido Wassink & Dr. Joanne	- 12.30	Room: Dart Room, QT Building	
11.00       S1A.2: Dr Bobbi Fleiss, Centre for the       11.00 am       S1B.2: Peter Noble, University of Western A         11.30       Kingdom       -       11.30 am       -         11.30       The role of microglia in perinatal brain injury       11.30 am       -       sponsored by Thermo Fisher Scientific         11.30       S1A.3: Dr Tim Foster, University of Otago,       11.30 am       -       S1B.3: Prudence Murray, Fisher and Paykel         12.00       Gestational age and associated health and       -       -       -         12.00       S1A.4: Dr Guido Wassink, University of       12.00 pm       -       -         Protecting the newborn brain – are cocktails       -       12.30 pm       -       -         Protecting the newborn brain – are cocktails       -       12.30 pm       S1B.4: Ian Sun, Fisher and Paykel Healthcar         12.30       MedSci AGM – Clancy's Room       -       -       12.30 pm       -         13.30 pm       Lunch: Trade Exhibition Area, Level 4, Rydges Hotel       New Trends in CPAP development         13.30 pm       Symposium 2A (PSNZ): Mechanobiology in       -       -       -         13.30 pm       Symposium 2A (PSNZ): Mechanobiology in       -       -       -       -         13.30 pm       Room: Clancy's Room       -	m - C 1.00 A m A	Centre, Hudson Institute of Medical Research, Australia Preclinical studies to inform the use of cord		<b>S1B.1:</b> David Kaczka, University of Iowa, USA Optimizing ventilation in the injured lung using multifrequency oscillation	
11.30       S1A.3: Dr Tim Foster, University of Otago,       11.30 am         am -       Wellington         12.00       Gestational age and associated health and         pm       Gestational outcomes: Life outcomes to         adolescence for premature infants in New       12.00 pm         Zealand       12.00 pm         12.00       S1A.4: Dr Guido Wassink, University of         pm -       Auckland         pm -       Protecting the newborn brain – are cocktails         pm       better served with ice?         12.30       Protecting the newborn brain – are cocktails         pm -       12.30 pm         pm -       12.30 pm         12.30       Protecting the newborn brain – are cocktails         pm -       12.30 pm         12.30       Protecting the newborn brain – are cocktails         pm -       12.30 pm         12.30       Protecting the newborn brain – are cocktails         pm -       13.30 pm         13.30 pm       Supposium 2A (PSNZ): Mechanobiology in         health and disease       -         3.30 pm       Symposium 2A (PSNZ): Mechanobiology in         health and disease       -         Room: Clancy's Room       -         health and disease	1.00 <b>S</b> n - [ 1.30 k	<b>S1A.2:</b> Dr Bobbi Fleiss, Centre for the Developing Brain, King College London, United Kingdom	-	Physiological insights into the pathogenesis and	
12.00       S1A.4: Dr Guido Wassink, University of       12.00 pm         pm       Auckland       -         12.30       Protecting the newborn brain – are cocktails       12.30 pm         pm       better served with ice?       12.30 pm         12.30       MedSci AGM – Clancy's Room         pm       12.30 pm         pm       12.30 pm         12.30 pm       Lunch: Trade Exhibition Area, Level 4, Rydges Hotel         130 pm       Symposium 2A (PSNZ): Mechanobiology in health and disease         3.30 pm       Symposium 2A (PSNZ): Mechanobiology in health and disease         Room: Clancy's Room       -         Gamma Chair: Martin Fronius & Sama Mugloo       1.30 pm	1.30 <b>S</b> n - N 2.00 C m e	<b>S1A.3:</b> Dr Tim Foster, University of Otago, Wellington Gestational age and associated health and educational outcomes: Life outcomes to adolescence for premature infants in New	-	<b>S1B.3:</b> Prudence Murray, Fisher and Paykel Healthcare SleepStrong - Experiences of an Employee Sleep	
pm       I.2.30       Lunch: Trade Exhibition Area, Level 4, Rydges Hotel         1.30 pm       -       Societies' Symposia         1.30 pm       -       -         1.30 pm       -       -         health and disease       -       -         3.30 pm       Room: Clancy's Room       -       3.30 pm         Chair: Martin Fronius & Sama Mugloo       3.30 pm       -       -	2.00 <b>S</b> m - A 2.30 A	<b>S1A.4:</b> Dr Guido Wassink, University of Auckland Protecting the newborn brain – are cocktails	-	<b>S1B.4:</b> Ian Sun, Fisher and Paykel Healthcare New Trends in CPAP development	
Societies' Symposia         1.30 pm       Symposium 2A (PSNZ): Mechanobiology in health and disease       1.30 pm       Symposium 2B (CNE): Hormones and socia behaviours         3.30 pm       Room: Clancy's Room Chair: Martin Fronius & Sama Mugloo       3.30 pm       3.30 pm       Room: Dart Room, QT Building Chair: Dave Grattan & Elodie Desroziers	m 2.30 m -		rea, Le	vel 4, Rydges Hotel	
1.30 pmSymposium 2A (PSNZ): Mechanobiology in health and disease1.30 pmSymposium 2B (CNE): Hormones and socia behaviours3.30 pmRoom: Clancy's Room Chair: Martin Fronius & Sama Mugloo3.30 pm3.30 pmRoom: Dart Room, QT Building Chair: Dave Grattan & Elodie Desroziers	30 pm	Socie	atios' S	vmnosia	
3.30 pm     Room: Clancy's Room     3.30 pm     Room: Dart Room, QT Building       Chair: Martin Fronius & Sama Mugloo     Chair: Dave Grattan & Elodie Desroziers	-	Symposium 2A (PSNZ): Mechanobiology in		Symposium 2B (CNE): Hormones and social	
1 20 pm S2A 1: Drof Jone Waschko, University Munich 1 20 pm S2P 1: Dr Kumi Kurada, Dillon Drain Science	30 pm 🛛 F	Room: Clancy's Room	– 3.30 pm	Room: Dart Room, QT Building	
– Germany – Tokyo, Japan	0	-	1.30 pm - 2.00 pm	<b>S2B.1:</b> Dr Kumi Kuroda, Riken Brain Sciences Institut Tokyo, Japan <i>Role of MPOA neural circuit in parental care and</i>	

2.00 pm	<b>S2A.2:</b> Prof Heather Drummond, University of	2.00 pm	<b>S2B.2:</b> Dr Michael Bowen, University of Sydney,	
-	Mississippi, USA	_	Australia	
2.30 pm	Vascular epithelial Na <sup>+</sup> channels mediate	2.30 pm	Rebalancing the addicted brain: prosocial compounds	
	myogenic arterial responsiveness		for treating substance use disorders	
2.30 pm	<b>S2A.3:</b> Prof John Evans, University of Otago,	2.30 pm	S2B.3: Dr Kristina Smiley, University of Otago	
-	Christchurch	-	Prolactin and parental care in the Zebra Finch	
3.00 pm	An alliance of Biophysics, Biochemistry and	3.00 pm		
2.00 mm	Genetics initiates cancers	2.00 mm	<b>C3D 4</b> : Da Decement : Dresser University of Otomo	
3.00 pm	<b>S2A.4:</b> Dr Adam Ware, University of Otago, Dunedin	3.00 pm	<b>S2B.4:</b> Dr Rosemary Brown, University of Otago The modulation of maternal behaviour by prolactin	
- 3.30 pm	Epithelial sodium channel, ENaC, as a potential	- 3.30 pm	The modulation of maternal behaviour by protactin	
5.50 pm	therapeutic target for breast cancer	5.50 pm		
3.30 pm		•••		
-	Coffee Break: Trade Exhib	Dition A	Area, Level 4	
4.00 pm				
	Soci	ation' S	wmnocia	
	3001	elles J	Symposia	
4.00pm	Symposium 3A (ABI): Super-resolution	4.00pm	Symposium 3B (NZSE): Uterine function and	
-	Microscopy: Biology at the Nanoscale	-	dysfunction	
6.00pm	Room: Clancy's Room	6.00pm	Room: Dart Room, QT Building	
	Chairs: David Crossman & June-Chiew Han		Chairs: Jane Girling & Stephen Bunn	
4.00 pm	<b>S3A.1:</b> Professor Robert Gourdie, Virginia Tech	4.00 pm	S3B.1: Pradeep Tanwar, University of Newcastle	
-	Carilion Research Institute sponsored by	-	sponsored by Integrated DNA Technologies Pte. Ltd	
4.40 pm	Integrated DNA Technologies Pte. Ltd	4.30 pm	Obesity epidemic fuelling the surge of endometrial	
	Nanodomains and Electrical Conduction at		cancers: How fat cells drive endometrial hyperplasia	
	Cardiac Gap Junctions		and cancer development?	
4.40 pm	<i>S3A.2:</i> Associate Professor Johanna	4.30 pm	<b>S3B.2:</b> Jane Girling, University of Otago	
4.40 pm	Montgomery, University of Auckland	4.30 pm	Beyond GWAS – how do we utilize genetic	
5.00 pm	sponsored by Thermo Fisher Scientific	5.00 pm	information to better understand a complex disease	
5.00 pm	Elucidating Nanoscale Determinants of Synaptic	5.00 pm	like endometriosis?	
	Function			
5.00 pm	S3A.3: Dr Michelle Munro, University of Otago	5.00 pm	S3B.3: Laura Parry, University of Melbourne	
	Super Resolved Calcium Channel Organization	-	Treatment of preeclampsia in pregnancy: pitfalls and	
5.20 pm		5.30 pm	possibilities	
5.20 pm	S3A.4: Dr David Baddeley, University of	5:30 pm	S3B.4: J Frank Bloomfield, Liggins Inst, University of	
-	Auckland sponsored by Bio-Strategy	-	Auckland	
5:40 pm	High content super-resolution microscopy	6:00	Potential therapies for fetal growth restriction	
			secondary to placental insufficiency	
5.40 pm	S3A.5: Dr David Crossman, University of			
-	Auckland			
6.00 pm	Fibrosis at the Nanoscale in the Failing Human			
7.00	Heart			
7.00 pm	F.	ashion	omics	
– 9.00pm	Sponsore	d by Thermo	o Fisher Scientific	
Jieopin		-		
	Trades Area, Level 4, Rydges Hotel			
	(with drinks)			