



# **2025**

# **Programme**

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# 2025 Programme at a Glance



## SUNDAY 31<sup>ST</sup> AUGUST (GREAT HALL)

AWCBR REGISTRATION  
(4:30-6:00PM)

AWCBR OPENING RECEPTION  
(4:30-5:30PM)

AWCBR CONFERENCE  
OPENING (5:30-5:40PM)

PLENARY: DR EL-AGNAF  
(5:45-6:45PM)

DISORDERS OF THE  
NERVOUS SYSTEM (6:45-  
7:45PM)

## MONDAY 1<sup>ST</sup> SEPTEMBER (TE PAE, DOBSON D4)

CELLULAR MECHANISMS (8:30-  
10:00AM)

MORNING TEA  
(10:00-10:30AM –  
DONSON FOYER)

DISORDERS OF  
THE NERVOUS  
SYSTEM  
(10:30AM-  
12:00PM)

LUNCH (12:00-1:00  
PM– DONSON  
FOYER)

SYMPOSIA:  
NEUROIMAGING (1:00-  
3:00PM)

BREAK (3:00-  
3:30PM)

AWCBR AGM (3:30-4:30PM –  
AFTERNOON TEA FOR  
ATTENDEES AT 3:15PM IN  
THE – DONSON FOYER)

STUDENT & ECR  
EVENT (4:30-  
6:00PM)

AWCBR CONFERENCE  
DINNER (7:00-MIDNIGHT –  
DELILAH)

## TUESDAY 2<sup>ND</sup> SEPTEMBER (TE PAE, DOBSON D4)

WORKSHOP:  
HORIZON'S  
EUROPE  
(8:30-  
9:00AM)

DEVELOPMENT  
(9:00-10:00AM)

MORNING TEA  
(10:00-10:30AM –  
EXHABITION HALL)

SENSORY AND  
MOTOR  
SYSTEMS  
(10:30AM-  
12:00PM)

LUNCH & TRADE DEMO (12:00-  
1:30PM – EXHABITION HALL)

FLASH TALKS  
(1:30-2:15PM)

POSTER  
SESSION 1  
(2:15-3:30PM –  
EXHABITION  
HALL)

TEA/COFFEE  
(3:30-4:00PM –  
EXHABITION  
HALL)

POSTER  
SESSION 2  
(4:00-5:15PM –  
EXHABITION  
HALL)

AWCBR STUDENT DINNER (7:00-  
10:00PM)

QRW SOCIAL MIXER (6:30-8:30PM –  
EXHABITION HALL)

## WEDNESDAY 3<sup>RD</sup> SEPTEMBER (TE PAE, DOBSON D4)

AWCBR  
3KM FUN  
RUN  
(8:00-  
8:30AM)

PLENARY: PROF  
BILKEY (9:00-  
10:00AM)

MORNING TEA  
(10:00-10:30AM –  
EXHABITION  
HALL)

COGNITION  
AND  
BEHAVIOUR  
(10:30AM-  
12:0PM)

LUNCH (12:00-1:00  
PM – EXHABITION  
HALL)

SOCIAL ACTIVITIES (12:30-5:30PM)

QRW PANEL  
DISCUSSION & PLENARY  
(5:30-7:40PM -  
AUDITORIUM)

QRW SOCAIL MIXER  
& QUIZ (7:45-9:30PM  
– EXHABITION HALL)

## THURSDAY 4<sup>TH</sup> SEPTEMBER (TE PAE, DOBSON D4)

DISORDERS OF THE NERVOUS  
SYSTEM (8:30-10:00AM)

MORNING TEA  
(10:00-10:30AM –  
EXHABITION  
HALL)

NOVEL  
METHODS  
(10:30AM-  
12:00PM)

LUNCH & TRADE DEMO (12:00-  
1:30PM – EXHABITION HALL)

PLENARY: PROF  
SHULTZ (1:30-  
2:30PM)

AWARDS &  
CLOSE (2:30-  
3:00PM)

4:30 pm-6:00 pm	Registration, The Great Hall, The Arts Centre, 2 Worcester Boulevard, Christchurch
4:30 pm-5:30 pm	Opening Reception, Bar and Light Food, The Great Hall
5.30 pm	Chair's Opening Remarks, The Great Hall

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## 1. PLENARY LECTURE

CHAIR: VICTOR DIERIKS

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5:45 pm	1.1	<b>Omar El-Agnaf, Qatar Biomedical Research Institute, Ar-Rayyan, Qatar</b> TBC
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## 2. DISORDERS OF THE NERVOUS SYSTEM

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6:45 pm	2.1	<b>Ali Rezaei, Ludwig-Maximilians-Universität (LMU), Munich, Germany</b> Cyclodextrin-Mediated Lipid Normalisation Rescues Oligodendrocyte Transcription and Lifespan in Female Poly-GA C9orf72 ALS Mice
7:00 pm	2.2	<b>Jim Davies, University of Otago, Dunedin, New Zealand</b> AAV-mediated sAPPa overexpression does not affect disease-like symptoms in the 5xFAD mouse model of Alzheimer's disease
7:15 pm	2.3	<b>Samantha Murray, Lincoln University, Christchurch, New Zealand</b> Dose Response of Intracerebroventricular and Intravitreal CLN5 Gene Therapy in Sheep
7:30 pm	2.4	<b>Frances Corrigan, The University of Adelaide, Adelaide, Australia</b> Evolution of axonal injury in the closed head impact model of engineered rotational acceleration in adult ferrets

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## 3. NEURAL EXCITABILITY, SYNAPSES, AND GLIA: CELLULAR MECHANISMS

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8:45 am	3.1	<b>Courtney Westlake, University of Otago, Dunedin, New Zealand</b> The influence of the neuromodulator sAPP $\alpha$ and derived peptides on NMDA-glutamate receptor expression in rodent and human neurons
9:00 am	3.3	<b>Molly Swanson, University of Auckland, Auckland, New Zealand</b> The good, the bad, and the reactive: defining microglial phenotypes in amyotrophic lateral sclerosis
9:15 am	3.4	<b>Laura McNamara, University of Auckland, Auckland, New Zealand</b> Assessing the impact of miniscopes in an in vivo Alzheimer's disease model
9:30 am	3.5	<b>Shadrina Assegaf, University of Otago, Dunedin, New Zealand</b> Targeting soluble TNF $\alpha$ in the PS19 Tauopathy Mouse Model
9:45 am	3.6	<b>Ross van de Wetering, Victoria University of Wellington, Wellington, New Zealand</b> Effect of cuprizone-induced demyelination on Alzheimer's-like pathology in 5xFAD mice
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10:00 am		MORNING TEA BREAK (Dobson Foyer)

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## 4. DISORDER OF THE NERVOUS SYSTEM

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10:30 am	4.1	<b>Sharon Olsen, Auckland University of Technology, Auckland, New Zealand</b> Aerobic exercise and concussion: Rethinking how we report and prescribe aerobic exercise in concussion rehabilitation
10:45 am	4.2	<b>Toni Pitcher, University of Otago, Christchurch, New Zealand</b> Preserved life expectancy in females with Parkinson's disease in an Aotearoa New Zealand cohort
11:00 am	4.3	<b>Tiphaine Saulnier, University of Bordeaux, Bordeaux, France</b>

Understanding Parkinson's disease progression through patients' eyes: a study of quality of life decline over time

11:15 am 4.4

**Angus McNamara, University of Adelaide, Adelaide, Australia**

Individuals with a prior history of traumatic brain injury present with more symptoms of prodromal Parkinson's disease than those without such a history

11:30 am 4.5

**Lyndsey Collins-Praino, University of Adelaide, Adelaide, Australia**

Baseline striatal dopamine transporter binding and levels of CSF amyloid beta and hyperphosphorylated tau predict trajectory of cognitive change over a 5-year period in Parkinson's disease

11:45 am 4.6

**Daniel Myall, New Zealand Brain Research Institute, Christchurch, New Zealand**

Frequency of Parkinson's genetic risk variants in New Zealand

12:00 pm

LUNCH  
(Dobson Foyer)

## 5. SYMPOSIA: AOTEAROA ADVANCED NEUROIMAGING RESEARCH SHOWCASE CHAIRS: SAMANTHA HOLDSWORTH, WILLIAM SCHIERDING & TRACY MELZER

This symposium presents a national cross-section of leading-edge MRI developments and their clinical applications in neurological research across Aotearoa New Zealand. Attendees will be introduced to a broad spectrum of neuroimaging research interfaces using established and robust MRI methods, spanning gene therapy, cognitive prediction, and neurodegenerative disease mapping. Novel MRI techniques and hardware developments are also featured, including next-generation neuroimaging systems and the integration of novel MRI sequences with mathematical modelling of brain dynamics, immunohistochemical imaging validation, and applications in substance use recovery and brain injury. The program concludes with an introduction to MRI processing tools and data analysis. Attendees will hear from neuroimaging research groups working across New Zealand about their latest findings, discover collaborative opportunities that transcend geography, and explore ground-breaking innovations poised to reshape diagnostic precision, treatment approaches, and the broader landscape of neuroscience research.

Each presenter will speak for 10 minutes and a collective Q&A will follow for 30 minutes.

1:00 pm	5.1	<b>Tracy Melzer, <i>University of Canterbury, Christchurch, New Zealand</i></b> Tracking CLN5 gene therapy efficacy with brain MRI
1:10 pm	5.2	<b>Narun Pat, <i>University of Otago, Dunedin, New Zealand</i></b> Boosting ability for brain MRI to predict cognitive functioning via multimodal fusion
1:20 pm	5.3	<b>Cameron Heyman, <i>University of Auckland, Auckland, New Zealand</i></b> Tract-specific WMH Burden in Groups Spanning the Clinical Alzheimer's Continuum
1:30 pm	5.4	<b>Ben Parkinson, <i>Victoria University of Wellington, Wellington, New Zealand</i></b> A novel 0.7 T ultra-compact brain MRI scanner
1:40 pm	5.5	<b>Alireza Sharifzadeh-Kermani, <i>University of Auckland, Auckland, New Zealand</i></b> Better than a hole in the head: a computational model of intracranial hypertension
1:50 pm	5.6	<b>Mangor Pedersen, <i>Auckland University of Technology, Auckland, New Zealand</i></b> Imaging mild Traumatic Brain Injury: what is the role of iron and inflammation?
2:00 pm	5.7	<b>Miriam Scadeng, <i>University of Auckland, Auckland, New Zealand</i></b> Validation of Ultra High Contrast Neuroinflammatory MRI changes using immunohistochemistry
2:10 pm	5.8	<b>Maryam Tayebi, <i>Mātai Medical Research Institute, Gisborne, New Zealand</i></b> Multi-parametric MRI mapping of brain changes in early-abstinent methamphetamine users
2:20 pm	5.9	<b>Eryn Kwon, <i>Medical Research Institute, Gisborne, New Zealand</i></b> From Data to Discovery in mTBI: FAIR and CARE-Aligned Multimodal MRI Pipelines and Federated Analysis
2:30 pm		<b>Q&amp;A with the panel of speakers</b>
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3:00 pm		BREAK
<hr/>		
3:30 am		<b>AWCBBR AGM</b> All attendees are invited to join. Afternoon tea AWCBBR AGM attendees at 3:15pm, Dobson Foyer

## 6. STUDENT AND EARLY CAREER RESEARCHER SESSION

CHAIRS: ROSS VAN DEWETERING & NICOLA SLATER

4:30 pm 6.1

### **Navigating ethical dilemmas in neuroscience**

*Open to all students and those who identify as an Early Career Researcher (ECR) attending AWCBB.*

*Join us for a social drink and nibbles in the Dobson Foyer before the presentation.*

#### Speakers:

**Associate Professor Anna Mitchell**, *University of Canterbury, Christchurch, New Zealand*



**Associate Professor John Pearson**, *University of Otago, Christchurch, New Zealand*



## AWCBB CONFERENCE DINNER

7:00 pm – Midnight

DELILAH

122 Oxford Terrace, Christchurch

Tickets must be purchased in advance.

Tickets include food, drinks (including selected wine, beer, and non-alcoholic options) and musical entertainment, so put on those dancing shoes!


Cash bar after 10pm



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## 7. WORKSHOP: HORIZON EUROPE – BRAIN HEALTH PARTNERSHIP IN NEW ZEALAND

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8:30 am	7.1	<p><b>Louise Parr-Brownlie, Ministry of Business, Innovation and Employment, Wellington, New Zealand</b></p> <p>Come along to hear about the Horizon Europe–Brain Health Partnership, what you can do now to prepare for the upcoming opportunities, the expected activity in the next year, how to stay connected for updates, and to have your questions answered.</p>	
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## 8. DEVELOPMENT

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9:15 am	8.1	<p><b>Kseniia Konopkina, University of Otago, Dunedin, New Zealand</b></p> <p>Harnessing multimodal MRI for Cognitive functioning: Unpacking Between-Individual Differences and Longitudinal Change</p>	
9:30 am	8.2	<p><b>Christian John Saludar, University of Auckland, Auckland, New Zealand</b></p> <p>Effect of head acceleration events on microstructural organisation of brain cortical and deep grey matter: a diffusion MRI investigation</p>	
9:45 am	8.3	<p><b>Tristan Hurzeler, University of Sydney, Sydney, Australia</b></p> <p>Neurobehavioral Effects of Cannabidiol (CBD) in Individuals with Alcohol Use Disorder: A Double-Blind, Randomised Control Trial</p>	
10:00 am		<p>MORNING TEA BREAK (Exhibition Hall)</p>	

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## 9. SENSORY AND MOTOR SYSTEMS

10:30 am	9.1	<b>Damian Wallace, <i>Max Planck Institute for Neurobiology of Behavior, Bonn, Germany</i></b> Eye saccades align optic flow with intended heading during object pursuit in freely moving mammals
10:45 am	9.2	<b>Emil Rosenov Peshtenski, <i>The University of Queensland, Brisbane, Australia</i></b> EEG/LFP waveform shape asymmetry as a future biomarker for Parkinson's disease or levodopa-induced dyskinesia disease states
11:00 am	9.3	<b>Lily Bentall, <i>University of Otago, Dunedin, New Zealand</i></b> EEG/LFP waveform shape asymmetry as a future biomarker for Parkinson's disease or levodopa-induced dyskinesia disease states
11:15 am	9.4	<b>Ann Holden, <i>University of Otago, Christchurch, New Zealand</i></b> Do people with Parkinson's disease have increased perception of pareidolia?
11:30 am	9.5	<b>Aliesha Kemp, <i>University of Otago, Dunedin, New Zealand</i></b> Treatment-Refractory Anxiety Disorders: Altered activity and connectivity with emotional stimuli
11:45 am	9.6	<b>Eloïse Fairbairn, <i>University of Canterbury, Christchurch, New Zealand</i></b> Characteristics of Stuttered Disfluencies in Parkinson's disease

12:00 pm LUNCH  
(Exhibition Hall)

EXHIBITOR LUNCHTIME PRESENTATIONS  
(Exhibition Hall)

12.10 pm-12.25 pm **Decode Science**  
*One Solution with Decode - Discover your biomarkers and get the most out of your single cell and spatial data. Come hear the latest on Quanterix, Parse, STOmics and MGI from Alayna, Chris and Ebru and win some spot prizes too*

12.40 pm-12.55 pm **Mediscope**  
*Empowering Healthcare and Science: Mediscope*

1.10 pm-1.25 pm **Mediray NZ Ltd & Eppensorf & Miltenyi**  
*Workflow solutions to prepare cells and nuclei for genomic analysis by Miltenyi. Improved sample quality makes the difference. We have*

*a solution for every step in the preparation of cells and nuclei for excellent genomic analysis results. From tissue storage to quality control, our technology will help your research achieve new heights.*

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## 10. FLASH TALKS

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The Flash Talk session is designed to maximise the exposure and discussion of each poster. Each presenter will be given 60 seconds and one static PowerPoint slide to introduce and promote their research. No questions will be answered after each Flash Talk presentation.

After the Flash Talks are finished, we invite all the speakers and audience to move through to the Trade exhibition Hall for the poster session.

1:30 pm    **Kate Hitpass Romero**, *University of Auckland, Auckland, New Zealand*  
              **Joseph Balfe**, *University of Otago, Dunedin, New Zealand*  
              **Luke Bialostocki**, *University of Otago, Dunedin, New Zealand*  
              **Jazmine Brash**, *Lincoln University, Christchurch, New Zealand*  
              **Bins Kathanadan Chackochan**, *Cochin University of Science and Technology, Kerala, India*  
              **Taylor Stevenson**, *University of Auckland, Auckland, New Zealand*  
              **Benjamin Watkin**, *University of Auckland, Auckland, New Zealand*  
              **Irina Buianova**, *University of Otago, Dunedin, New Zealand*  
              **Christina Pike**, *University of Otago, Christchurch, New Zealand*  
              **Georgia Westfall**, *Victoria University of Wellington, Wellington, New Zealand*  
              **Jyot Kaur**, *University of Auckland, Auckland, New Zealand*  
              **Jenny Hamilton**, *University of Canterbury, Christchurch, New Zealand*  
              **William Parton**, *University of Otago, Dunedin, New Zealand*  
              **Charlotte Greenaway**, *University of Otago, Dunedin, New Zealand*  
              **Lisa Berriman**, *University of Canterbury, Christchurch, New Zealand*  
              **Isabella Culshaw**, *University of Otago, Dunedin, New Zealand*  
              **Ella Harris**, *Lincoln University, Christchurch, New Zealand*  
              **Catherine Sheat**, *New Zealand Brain Research Institute, Christchurch, New Zealand*  
              **Miriam Collins**, *New Zealand Brain Research Institute, Christchurch, New Zealand*  
              **Jean Yu Lim**, *University of Auckland, Auckland, New Zealand*  
              **Mikayla Chetty**, *University of Auckland, Auckland, New Zealand*  
              **Nicola Slater**, *University of Otago, Christchurch, New Zealand*  
              **Jasmine Sahota**, *University of Otago, Dunedin, New Zealand*  
              **Boglarka Varga**, *University of Auckland, Auckland, New Zealand*

**Ezra Muir**, *University of Otago, Christchurch, New Zealand*  
**Manu Henderson**, *University of Otago, Dunedin, New Zealand*  
**Isabella Cowie**, *University of Otago, Dunedin, New Zealand*  
**Imogen Richards**, *University of Auckland, Auckland, New Zealand*  
**Nisha Suresh**, *Auckland University of Technology, Auckland, New Zealand*  
**Maryam Yassi**, *University of Otago, Dunedin, New Zealand*  
**Arunesh Mohandas**, *Miltenyi Biotec, Bergisch Gladbach, Germany*  
**Veer Bahadur Singh**, *Sardar Patel Medical College, Bikaners, India*  
**Neda Nasrollahi**, *University of Otago, Dunedin, New Zealand*

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## 11. POSTER SESSION

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- 2:15 pm-5:30 pm      All posters should be put up in the Exhibition Hall between noon and 1:30 pm. They should remain up until 5:15 pm.  
Presenters with odd numbered abstracts should be in attendance at their poster from 2:15 pm – 3:30 pm.  
Presenters with even numbered abstracts should be in attendance at their poster from 4:00 pm – 5:15 pm.  
All presenters need to remove their poster by 5:30 pm.  
Velcro dots to hang your poster will be provided.  
Poster board will be labelled P1, P2, P3 etc. Please refer to your poster board number in the programme below.
- 11.1      **Kate Hitpass Romero, *University of Auckland, Auckland, New Zealand* (P1)**  
Age-related meningeal extracellular matrix remodelling compromises CNS lymphatic function
- 11.3      **Luke Bialostocki, *University of Otago, Dunedin, New Zealand* (P3)**  
From signals to symptoms: infraslow triple-network brain dysconnectivity linked to pain in chronic knee osteoarthritis
- 11.5      **Bins Kathanadan Chackochan, *Cochin University of Science and Technology, Kerala, India* (P5)**  
The interplay between neurotrophic factor, CNTF, and transcription factor, Prrx-1, regulates Adult Neurogenesis in CNTF - treated mouse Subventricular Zone-derived Neurosphere cultures

- 11.7 **Benjamin Watkin, *University of Auckland, Auckland, New Zealand* (P7)**  
Development of Patient-Derived Tumour Organoids as a Drug Discovery Model
- 11.9 **Christina Pike, *University of Otago, Christchurch, New Zealand* (P9)**  
Diabetes, insulin, and Parkinson's disease risk: findings from two complementary population-based cohort studies
- 11.11 **Jyot Kaur, *University of Auckland, Auckland, New Zealand* (P11)**  
Investigating the Effects of Allopregnanolone and Estradiol on Cortical Excitation using Visually Induced Long-Term Potentiation
- 11.13 **William Parton, *University of Otago, Dunedin, New Zealand* (P13)**  
Electroencephalographic Brain Adaptations in Individuals with Chronic Patellofemoral Pain: Protocol for a Source-Localised Neuroimaging Investigation
- 11.15 **Lisa Berriman, *University of Canterbury, Christchurch, New Zealand* (P15)**  
Enrichment, episodic-like memory, and neuronal immediate-early gene expression
- 11.17 **Ella Harris, *Lincoln University, Christchurch, New Zealand* (P17)**  
Cardiolipin and Batten disease: Investigating phospholipid alterations in ovine models
- 11.19 **Miriam Collins, *New Zealand Brain Research Institute, Christchurch, New Zealand* (P19)**  
Increased frequency of head injury in New Zealand Parkinson's disease cohort
- 11.21 **Mikayla Chetty, *University of Auckland, Auckland, New Zealand* (P21)**  
The effect of an impaired blood-brain barrier on microglial phenotype in Alzheimer's Disease
- 11.23 **Jasmine Sahota, *University of Otago, Dunedin, New Zealand* (P23)**  
Exploring tear fluid as a source of diagnostic biomarkers for Parkinson's Disease
- 11.25 **Ezra Muir, *University of Otago, Christchurch, New Zealand* (P25)**  
Understanding the mechanisms by which cholinesterase inhibitors improve apathy in dementia
- 11.27 **Isabella Cowie, *University of Otago, Dunedin, New Zealand* (P27)**  
Effects of an Intravenously Administered sAPP $\alpha$  Gene Therapy on neuropathology in the 5xFAD Mouse Model of Alzheimer's Disease

- 11.29 **Nisha Suresh, *Auckland University of Technology, Auckland, New Zealand* (P29)**  
Literature Review on the effects of Yoga Nidra on the Nervous System and Sleep
- 11.31 **Arunesh Mohandas, *Miltenyi Biotec, Bergisch Gladbach, Germany* (P31)**  
Enrichment, episodic-like memory, and neuronal immediate-early gene expression
- 11.33 **Neda Nasrollahi, *University of Otago, Dunedin, New Zealand* (P33)**  
Ketamine effects on EEG and their links to therapy differ across treatment-resistant major depression, post-traumatic stress disorder, and obsessive-compulsive disorder
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3:30 pm TEA/COFFEE BREAK  
(Exhibition Hall)

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- 11.2 **Joseph Balfe, *University of Otago, Dunedin, New Zealand* (P2)**  
A Case for Vagus Nerve Stimulation in Modern Medicine
- 11.4 **Jazmine Brash, *Lincoln University, Christchurch, New Zealand* (P4)**  
The Therapeutic Evaluation of Trehalose in Sheep Models of Batten Disease
- 11.6 **Taylor Stevenson, *University of Auckland, Auckland, New Zealand* (P6)**  
Cerebrospinal Fluid and Dural Accumulation of Alpha Synuclein Impairs CNS Clearance in Parkinson's Disease
- 11.8 **Irina Buianova, *University of Otago, Dunedin, New Zealand* (P8)**  
Multimodal MRI Marker of Cognition Explains the Association Between Cognition and Mental Health in UK Biobank
- 11.10 **Georgia Westfall, *Victoria University of Wellington, Wellington, New Zealand* (P10)**  
Effort, Motivation and the Medial Prefrontal Cortex: A Neuropsychological Study of Brain Tumour Patients
- 11.12 **Jenny Hamilton, *University of Canterbury, Christchurch, New Zealand* (P12)**  
Noradrenergic modulation of thalamocortical interactions in decision-making

- 11.14 **Charlotte Greenaway, *University of Otago, Dunedin, New Zealand* (P14)**  
Function of cohesin in brain development
- 11.16 **Isabella Culshaw, *University of Otago, Dunedin, New Zealand* (P16)**  
GLP-1 Receptor Agonism Modulates Local Frequency Potential in Lateral Septum and Alters Motivated Behavior in Rats
- 11.18 **Catherine Sheat, *New Zealand Brain Research Institute, Christchurch, New Zealand* (P18)**  
Increased sleep disturbances in a New Zealand Parkinson's cohort
- 11.20 **Jean Yu Lim, *University of Auckland, Auckland, New Zealand* (P20)**  
Investigating the Role of Microglial Dysfunction in Alzheimer's Disease: Regulation of GPNMB Expression
- 11.22 **Nicola Slater, *University of Otago, Christchurch, New Zealand* (P22)**  
Dominantly Inherited Alzheimer Network (DIAN) in New Zealand
- 11.24 **Boglarka Varga, *University of Auckland, Auckland, New Zealand* (P24)**  
BDNF as a Biomarker of Neuroplasticity in LSD Microdosing for Major Depressive Disorder
- 11.26 **Manu Henderson, *University of Auckland, Auckland, New Zealand* (P26)**  
Development of a Fluorescence-based Assay to Screen Novel Synthetic Cathinones
- 11.28 **Imogen Richards, *University of Auckland, Auckland, New Zealand* (P28)**  
AAV Serotype-Promoter Selection and Implications for Transduction Efficiency in Diverse Human-Derived GBM Cell Cultures
- 11.30 **Maryam Yassi, *University of Otago, Dunedin, New Zealand* (P30)**  
DNAmBERT: A Transformer-Based Model for Non-Invasive Cancer Detection Using DNA Sequence and Methylation Data
- 11.32 **Veer Bahadur Singh, *Sardar Patel Medical College, Bikaner, India* (P32)**  
Cognitive function in elderly population - an urban community based study in Northwest part of India

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6.00-8.00pm

**Evening Social Mixer**

*Exhibition Hall E1+E2*

Everyone welcome. No fee

*Sponsored by Decode Science*

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# Tuesday 2 September 2025

Te Pae, Dobson D4



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7:00pm

**AWC BR Student Dinner**

The Church Pub

124 Worcester Street, Christchurch

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8:00 am

## 3km AWCBB Fun Run

3km fun run/walk along the Avon river/Otakaro, past the Canterbury Earthquake Memorial Wall, into the Christchurch Botanic Gardens to ring the NZ World Peace Bell before looping back to Te Pae.

Meeting Place and Time: Te Pae Lobby, Wednesday 3rd Sept 8:00AM.

*No registration required.*

## 12. PLENARY LECTURE

CHAIR: ROB MUNN

9:00 am

12.1

**David Bilkey, *University of Otago, Dunedin, New Zealand,***

Disorganized phase coding as a mechanism underlying sequential processing deficits in schizophrenia



10:00 am

MORNING TEA BREAK  
(Exhibition Hall)

## 13. COGNITION AND BEHAVIOUR

10:30 am 13.1

**Jessica Gu, *University of Auckland, Auckland, New Zealand***

Relationship between task-based fMRI activity during working memory task and mTBI-related symptoms in Adolescent Rugby Players: A Longitudinal Neuroimaging Study

10:45 am 13.2

**Sam Guy, *The Auckland University of Technology, Auckland, New Zealand***

Cognitive Effects of Traumatic Brain Injury in a New Zealand Prison

11:00 am 13.3

**Ben Bristow, *Matai Medical Research Institute, Gisborne, New Zealand***

Multimodal MRI Reveals Brain Structural Deficits and Executive Dysfunction in Early Methamphetamine Abstinence

11:15 am	13.4	<b>Kyla-Louise Horne, University of Otago, Christchurch, New Zealand</b> The structural integrity of Nucleus Basalis of Meynert and its association with hallucinations in Parkinson's disease
11:30 am	13.5	<b>Alina Tetereva, New Zealand Brain Research Institute, Christchurch, New Zealand (P27)</b> Source-Space EEG Functional Connectivity and Prediction of Cognition in Parkinson's Disease: No Added Benefit of Individualized Head Models over Standard Templates
11:45 am	13.6	<b>Lee-Anne Morris, University of Otago, Christchurch, New Zealand</b> Decision cost hypersensitivity underlies Huntington's disease apathy
12:00 pm		LUNCH (Exhibition Hall)  EXHIBITOR LUNCHTIME PRESENTATIONS (Exhibition Hall)
12:40 pm-12:55 pm		<b>Thermo Fisher Scientific</b> <i>Quick and easy imaging on the new EVOS M3000 system.</i> <i>Presenter: Jason Lee</i>
12:30 pm		<b>SOCIAL ACTIVITIES</b>  <b>Biking at the Christchurch Adventure Park</b> Come and experience the Southern hemisphere's largest mountain bike park. The lift-accessed mountain bike trails range from beginners through to advanced and the onsite coaches will ensure you have the best experience ( <a href="https://christchurchadventurepark.com/">https://christchurchadventurepark.com/</a> ). <u>Meeting Place:</u> Christchurch Adventure Park, 50 McVicar Drive, Cracroft, Christchurch 8022 <u>Finish:</u> Variable depending on the package selected <i>Pre-Booking and payment required</i>  <b>Waipara Wine Tour</b> 4 hours - This tour explores three of North Canterbury's boutique vineyards all producing a fine selection of both white and red wines. Tour includes platter lunch and tastings at Waipara Springs, followed by further tastings at George's Road and Torlesse. <u>Meeting Place and Time:</u> Te Pae Lobby Wednesday 3rd Sept 12:30PM <u>Duration:</u> 4 hours approximately <i>Pre-Booking and payment required</i>

## Port Hills Walk

A guided walk from the Sign of the Takehe to Sign of the Kiwi return. Iconic elevated views of Lyttleton on one side of the Port Hills, out across the Canterbury Plains to the Southern Alps. Option to stop for afternoon tea at Sign of the Kiwi.

Meeting Place and Time: Te Pae Lobby Wednesday 3rd Sept 1:30PM

Duration: 4 hours approximately

*Contact Christina (021 174 2275) if you would like to join*

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5:30 pm	14.1	<p><b>QRW 2025 Plenary Lecture</b></p> <p><b>Auditorium, Te Pae</b></p> <p><i>Panel Discussion on Aotearoa New Zealand's future research, science &amp; innovation sector:</i></p> <p><b>Sir Peter Gluckman ONZ KNZM FRSNZ, University of Auckland</b></p> <p><b>Professor Emily Parker FRSNZ, Victoria University of Wellington</b></p> <p><b>Mark Piper CEO, Plant &amp; Food Research</b></p> <p><b>Professor David R. Grattan FRSNZ, University of Otago</b></p> <p><b>MC: Dr Marie Bradley Director of strategy, AgResearch</b></p>
6.30pm	14.2	<p><b>Prof. Tak Mak, University of Toronto and Centre of Oncology and Immunology, University of Hong Kong</b></p> <p>Beyond immune checkpoint blockade: emerging strategies</p> <p><i>Tak W. Mak is internationally renowned for his pioneering work on the genetics and molecular biology of cancer and the immune system. In 1984, his group cloned the gene encoding the human TCRβ chain, providing the basis for CAR-T treatment. His team also showed that CTLA4 negatively regulates T cell activation, paving the way for checkpoint inhibitor immunotherapy. Most recently, his team established that the brain communicates with the immune system via T and B cells producing acetylcholine. In the biotech arena, Dr. Mak co-founded Agios Pharmaceuticals and Treadwell Therapeutics. These companies specialize in delineating metabolic vulnerabilities in tumour cells that can be exploited as novel cancer therapies. Two IDH inhibitors are now FDA-approved for AML treatment, and two first-in-class agents targeting aneuploidy in advanced tumours are now in phase II clinical trials. Dr. Mak has published over 1000 peer-reviewed research papers, holds dozens of patents, and has won numerous awards.</i></p> <p><i>Plenary Lecture sponsored by Mediscope International Limited</i></p>

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7.45-9.30pm		<p><b>Evening Social Mixer</b></p> <p><b>Exhibition Hall E1+E2</b></p> <p><i>Everyone welcome. No fee</i></p>
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# Wednesday 3 September 2025

Te Pae, Dobson D4



8.00-8.30pm

**The Great Trivia Night with Pierre de Cordovez**

*Exhibition Hall E1+E2*

*Sponsored by Thermo Fisher Scientific*

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## 15. DISORDERS OF THE NERVOUS SYSTEM

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8:30 am	15.1	<b>Luca Vinnell, <i>University of Auckland, Auckland, New Zealand</i></b> Investigating the Disruptive Role of T-cells in Parkinson's disease
8:45 am	15.2	<b>Rebecca Hartley, <i>University of Auckland, Auckland, New Zealand</i></b> Adeno-associated virus vector targeting of striatal astrocytes and neurons
9:00 am	15.3	<b>Kirsten Carter, <i>Victoria University of Wellington, Wellington, New Zealand</i></b> Relevance of the Kappa Opioid Receptor as a Potential Dual-Regulatory Therapeutic for Multiple Sclerosis
9:15 am	15.4	<b>Sam McCullough, <i>University of Auckland, Auckland, New Zealand</i></b> Relevance Characterising changes in immune cell populations at the brain borders after traumatic brain injury
9:30 am	15.5	<b>Amitai Zuckerman, <i>University of Auckland, Auckland, New Zealand</i></b> The kor receptor nalfurafine improves inflammation in a rodent model of spinal cord injury
9:45 am	15.6	<b>Victor Dieriks, <i>University of Auckland, Auckland, New Zealand</i></b> Neuronal $\alpha$ -Synuclein Toxicity Drives Degeneration in Multiple System Atrophy
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10:00 am		MORNING TEA (Exhibition Hall)

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## 16. NOVEL METHODS AND TECHNOLOGY DEVELOPMENT

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10:30 am	16.1	<b>Jason Kerr, <i>Max Planck Institute for Neurobiology of Behavior, Bonn, Germany</i></b> Simultaneous 2- and 3-photon multiplane imaging across cortical layers in freely moving mice
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10:45 am	16.2	<b>William Aye, University of Otago, Christchurch, New Zealand</b> Streamlining Neurodegenerative Imaging: Early-Phase Amyloid PET as a One-Stop Modality, Comparisons with FDG PET and ASL MRI
11:00 am	16.3	<b>Timofei Vorozhbit, University of Otago, Dunedin, New Zealand</b> Investigating a potential “viability switch” in a juvenile-onset ATP13A2-associated Parkinson’s disease model
11:15 am	16.4	<b>Muna Dhakal, University of Auckland, Auckland, New Zealand</b> Mapping Nurr1’s functional domains for targeted gene activation and therapeutic use in Parkinson’s disease
11:30 am	16.5	<b>Farzane Lal Khakpoor, University of Otago, Dunedin, New Zealand</b> Benchmarking Different MRI Phenotypes for Ethnic Bias in Cognitive-Functioning Prediction
11:45 am	16.6	<b>Eileen Lueders, University of Auckland, Auckland, New Zealand</b> From Menarche to Menopause: Estradiol and Brain Aging in Women

12.00 pm      **LUNCH**  
(Exhibition Hall)

**EXHIBITOR LUNCHTIME PRESENTATIONS**  
(Exhibition Hall)

12.40 pm-12.55 pm      **Thermo Fisher Scientific**  
*Simple steps to greener choices in the lab.*  
*Presenter: Sabine Audigé*

1.10pm-1.25pm      **Custom Science**  
*Illuminating Innovation: Flexible Imaging with Azure Biosystems’ Sapphire FL and Azure 600 Content*  
*Speaker: Nicole Cheah Regional Business Director (APAC) Azure Biosystems Inc, United States*  
*Join us for a 15-minute presentation that delves into the cutting-edge imaging technology of the Sapphire FL Biomolecular Imager and the Azure 600, showcasing their advanced capabilities in fluorescence, chemiluminescence, near-infrared, and phosphor imaging. With broad application flexibility—from Western blotting and gel documentation to multiplex protein analysis, in-cell western and radiolabeled sample detection, these platforms deliver high sensitivity, reproducibility, and workflow efficiency. Discover how these instruments can help you “see” more in your research and accelerate your path to discovery.*

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## 17. PLENARY LECTURE

CHAIR: SIMON O'CARROLL

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1:30 pm      17.1      **Sandy Shultz, *Monash University, Melbourne, Australia***  
Translational insights into the aftermath and  
treatment of brain injuries caused by intimate  
partner violence



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2:30 pm – 3:00 pm      AWARDS AND CLOSING REMARKS

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## **QRW MIHI WHAKATAU**

Tuesday 2 September, Conway C5, 7.30 am-8.00 am

*Registration required. No fee.*

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## **QRW POSTER SESSIONS**

Tuesday 2 September, Exhibition Hall, 6.00 pm-8.30 pm

*Block A meetings Poster Session (AI, AMR, ASI NZ, Heart and Indigenous Genomics)*

*Free to attend. No registration required*

Wednesday 3 September, Exhibition Hall, 3.00pm-5.00pm

*Medsci Poster Session*

*Free to attend. No registration required*

Thursday 4 September, Exhibition Hall, 4.00pm-6.00pm

*QMB Poster Session*

*Free to attend. No registration required*

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## **MEDSCI NZ MEEING (THURSDAY ONLY)**

MedSci - NZ Medical Sciences Congress incorporates the annual meetings of the NZ Society of Endocrinology and Physiological Society of NZ.

*Free for AWCBB Delegates to attend on Thursday only. No registration required*

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## **QRW EVENING MIXERS**

Wednesday 3 September, Exhibition Hall, 6.00-8.00pm

*Evening Social Mixer*

*Everyone welcome. No fee*

*Sponsored by Decode Science*

Thursday 4 September, Exhibition Hall, 7.45-9.30pm

*Evening Social Mixer & The Great Trivia Night*

*Everyone welcome. No fee*

*Sponsored by Thermo Fisher Scientific*

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## **SCIENCE MEDIA SAVVY EXPRESS**

**Science Media SAVVY** Express offers one-on-one training for researchers to improve the way they communicate key ideas from their work with the wider public. These 15 minute sessions are an opportunity to practice speaking on-camera in a safe environment, with helpful advice and practical tips from experienced and supportive media experts. As an added bonus, you can request a copy of your videos that you are free to reuse. Participation is open to all New Zealand-based scientists and researchers attending any QRW meeting, and is free of charge - however places are limited and entry is by selection. We will be on-site at the conference venue on the mornings of **Wednesday 3 September and Thursday 4 September only**. You must be a New Zealand-based researcher to apply. **Register here** to express your interest in participating. Entry is by selection.

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## Goddard Prize and Poster Prize Winners (Students)

1990	<b>Steven Morrison</b> , University of Otago, New Zealand
1991	<b>Oliver Davidson</b> , University of Otago, New Zealand
1992	<b>Nadia Solowij</b> , University of New South Wales, Australia
1993	<b>Kjesten Wiig</b> , University of Otago, New Zealand
1994	<b>Niki Butterworth</b> , University of Auckland, New Zealand
1995	<b>Gerald Ahern</b> , John Curtin School of Medical Research, Australia
1996	<b>Judy Swanson</b> , University of Otago, New Zealand
1997	<b>Donna Briggs</b> , University of Otago, New Zealand
1998	<b>Johanna Montgomery</b> , University of Otago, New Zealand <b>Suzanne Habjan</b> , University of Sydney, Australia
1999	<b>Wendy Brooks</b> , University of Otago, New Zealand
2000	<b>John Lin</b> , University of Auckland, New Zealand
2001	<b>Tina Hinton</b> , University of Sydney, Australia <b>Michael Christie</b> , University of Canterbury, New Zealand (Poster)
2002	<b>Gemma Irvine</b> , University of Otago, New Zealand
2003	<b>Evangelene Daniela</b> , Victoria University of Wellington, New Zealand
2004	<b>Bronwen Kelly</b> , University of Canterbury, New Zealand
2005	<b>Adam Errington</b> , University of Otago, New Zealand <b>Wendy Imlach</b> , AgResearch, New Zealand (Poster)
2006	<b>David Cumin</b> , University of Auckland, New Zealand <b>Andrew Tattersfield</b> , University of Auckland, New Zealand (Poster)
2007	<b>Carthur Wan</b> , University of Auckland, New Zealand <b>Suzanne Ackerley</b> , University of Auckland, New Zealand (Poster)
2008	<b>Thomas Park</b> , University of Auckland, New Zealand <b>Joan Liu</b> , University of Auckland, New Zealand (Poster)
2009	<b>Bill Connelly</b> , University of Otago, New Zealand <b>Bridget Simonson</b> , Victoria University of Wellington, New Zealand (Poster)
2010	<b>Tracy Melzer</b> , Van der Veer Institute, New Zealand <b>Yeri Kim</b> , University of Otago, New Zealand (Poster)
2011	<b>Kajsa Igelstrom</b> , University of Otago, New Zealand <b>Malinda Tantirigama</b> , University of Otago, New Zealand (Poster)

# Abstracts



- 2012      **Malinda Tantirigama**, University of Otago, New Zealand  
            **Malvinder Singh-Bains**, University of Auckland, New Zealand (Poster)
- 2013      **Amy Smith**, University of Auckland, New Zealand  
            **Peter Bosch**, Victoria University of Wellington, New Zealand  
            **Laura Boddington**, University of Otago, New Zealand (Poster)
- 2014      **Emmet Power**, University of Otago, New Zealand  
            **Lakshini Mendis**, University of Auckland, New Zealand (Poster)
- 2015      **Christine de Lance**, University of Canterbury, New Zealand  
            **Christine Arasaratnam**, University of Auckland, New Zealand (Poster)
- 2016      **Jennifer Robertson**, Australian National University, Australia  
            **Allanah Kenny**, University of Canterbury, New Zealand (Poster)
- 2017      **Hannah Best**, University of Otago, New Zealand  
            **Ashwini Hariharan**, University of Otago, New Zealand (Poster)
- 2018      **Jarred Griffin**, University of Auckland, New Zealand  
            **Alice McDouall**, University of Auckland, New Zealand (Poster)
- 2019      **Mohammed Ibrahim**, University of Otago, New Zealand  
            **Kendra Boyes**, Victoria University of Wellington, New Zealand (Poster)  
            **Nikita Lyons**, University of Auckland, New Zealand (Infoblitz)
- 2020      **Karan Govindpani**, University of Auckland, New Zealand (by zoom)
- 2021      **Sophie Farrow**, University of Auckland, New Zealand (Press Release)
- 2022      **Maize Coa**, University of Auckland, New Zealand  
            **Kyrah Thumbadoo**, University of Auckland, New Zealand (Poster)
- 2023      **Kate Witt**, Victoria University of Wellington, New Zealand  
            **Oliver Burnett**, University of Auckland, New Zealand (Poster)
- 2024      **Chelsie Osterman**, University of Auckland, Auckland, New Zealand  
            **Baraa Abuharbid**, University of Auckland, Auckland, New Zealand (Poster)  
            **Thomas Cawood**, University of Otago, Dunedin, New Zealand (Flash Talk)

## Aotearoa Brain Project Speaker and Poster Prize Winners (ECR)

- 2022      **Macarena Pavez**, University of Otago, New Zealand  
            **Ruth Monk**, University of Auckland, New Zealand (Poster)
- 2023      **Michael Kendig**, University of Technology Sydney, Sydney, Australia  
            **Taylor Stevenson**, University of Auckland, Auckland, New Zealand (Poster)
- 2024      **James Wiseman**, University of Auckland, Auckland, New Zealand  
            **Christine Arasaratnam**, University of Auckland, Auckland, New Zealand (Poster)