



Symposium Program

(subject to change)

Sunday 24th August

4.00pm

Student Social Networking Function

Games Room, RACV Torquay Resort

5.00pm – 7.00pm

Conference Registration and Welcome Reception

Great Ocean Road Foyer

Monday 25th August

8.00am

Conference Registration

Great Ocean Road Foyer, RACV Torquay Resort

8.30am- 10.00am

Session 1 – Opening

Great Ocean Road Ballroom

Chair:

8.30am – 8.40am	Presidents Welcome and Conference Opening Jonathan Darbro , <i>President, Mosquito Control Association of Australia (MCAA)</i>
8.40am – 8.45am	Welcome to Country
8.45am – 9.00am	Welcome from Victoria Health
9.00am – 9.30am	Keynote Address Bart Currie , <i>Menzies School of Health Research and Royal Darwin Hospital</i>
9.30am – 10.00am	Keynote Address Nicholas Indelicato , <i>Mercer County D.O.T. & I. / Highway Division</i>

10.00am - 10.30am

Morning Tea

10.30am – 12.00pm

Session 2 – National Arbovirus Surveillance and Mosquito Control Roundup

Great Ocean Road Ballroom

Chair:

10.30am -10.45am	Declining mosquito abundance, increasing mosquito-borne diseases over the 2023/24 and 2024/25 seasons Peter Neville , <i>Department of Health Victoria</i>
10.45am – 11.00am	2023/24 and 2024/25 Northern Territory seasons. Mosquito and mosquito borne disease update. Allan Warchot , <i>Medical Entomology, Northern Territory Health</i>
11.00am – 11.15am	Arbovirus surveillance and mosquito borne diseases in Queensland: 2023/2024 - 2024/2025 Cassie Jansen , <i>Health Protection And Regulation Branch, Queensland Department Of Health</i>
11.15am – 11.30am	Tracking arbovirus activity in NSW: Challenges and emerging risks Keren Francis , <i>Health Protection NSW</i>
11.30am – 11.45am	Arbovirus and mosquito surveillance in South Australia 2023-2024 & 2024-2025 Brad Mackintosh , <i>SA Health</i>

11.45am – 12.00pm	Arbovirus and mosquito surveillance in WA: 2023/24 - 2024/25 Jay Nicholson , <i>Department of Health</i>
12.00pm – 1.00pm	Lunch
1.00pm – 2.30pm	Session 3 – Challenges and Solutions for Mosquito Management (I) Great Ocean Road Ballroom <i>Chair:</i>
1.00pm – 1.12pm	A Survey of Action Threshold Use in Australian Mosquito Control Programs Jonathan Darbro , <i>Metro North Public Health Unit</i>
1.12pm – 1.24pm	Biorational larvicides and their potential impacts on Australian stingless bees Brian Johnson , <i>QIMR Berghofer</i>
1.24pm – 1.36pm	Morphological Identification of four Australian species in <i>Culex pipiens</i> complex Jyotika Taneja De Bruyne , <i>Agriculture Victoria Research, Agribio Centre</i>
1.36pm – 1.48pm	Will Wolbachia-based mosquito control survive climate change? Perran Ross , <i>The University of Melbourne</i>
1.48pm – 2.00pm	Modelling <i>Aedes albopictus</i> management, incorporating immigration and bidirectional Wolbachia interactions Roslyn Hickson , <i>CSIRO</i>
2.00pm – 2.12pm	Mosquito salivary antibody biomarkers as surrogate outcomes in trials of vector control Freya Fowkes , <i>The University of Melbourne</i>
2.12pm-2.24pm	Collecting intelligence on mosquito host-seeking behaviour in response to permethrin-treated uniforms Lisa Rigby , <i>Australian Defence Force</i>
2.25pm – 3.00pm	Afternoon Tea
3.00pm – 4.45pm	Session 4 – Rapid Fire Session Great Ocean Road Ballroom <i>Chair:</i>
3.00pm – 3.05pm	Exposure rate of Queensland macropods to Australian arboviruses associated with human infection Wenjun Liu , <i>ADF Malaria And Infectious Disease Institute</i>
3.05pm-3.10pm	Developing a memorandum of understanding with Parks Victoria for mosquito surveillance. Rachel Evans , <i>Department of Health Victoria</i>
3.10pm-3.15pm	Developing a simple, low-cost insecticide resistance monitoring tool for <i>Aedes aegypti</i> Nancy Endersby-Harshman , <i>The University of Melbourne</i>
3.15pm-3.20pm	Characterising the RNA virome of <i>Culicoides brevitarsis</i> in NSW, Australia Stephen Sharpe , <i>CSIRO</i>
3.20pm-3.25pm	Optimizing Larval Diet for <i>Aedes aegypti</i> Fitness: Impact on Wolbachia-Infected and Uninfected Mohd Farihan Md Yatim , <i>The University of Melbourne</i>
3.25pm-3.30pm	Heat hardening enhances mosquito survival with implications for climate change responses Apeksha Warusawithana , <i>The University of Melbourne</i>
3.30pm-3.35pm	Japanese encephalitis virus genetic diversity in hosts and viral fitness Clara Maurizzi , <i>CSIRO</i>
3.35pm-3.40pm	Low volume – quadruplex RT-qPCR for the detection of flavivirus in mosquitoes Natsuda Puttharak , <i>Agriculture Victoria</i>
3.40pm-3.45pm	Seasonal Activity, Lab Colonisation, and Midgut Bacterial Microbiome of <i>Aedes vigilax</i> Joseph Sahakian , <i>University of Newcastle</i>
3.45pm-3.50pm	Acquisition of Lumpy skin disease virus by <i>Haematobia irritans exigua</i> (Buffalo fly) Melissa Klein , <i>ACDP - CSIRO</i>
3.50pm-3.55pm	First detection of <i>Culex tritaeniorhynchus</i> in Western Australia Kimberley Evasco , <i>Department of Health WA</i>
3.55pm-4.00pm	‘Hamer’ing out Cryptic Breeding Sites Surrounding Brisbane International Airport Kurt Wadley , <i>Department of Agriculture, Fisheries, and Forestry</i>

4.00pm-4.05pm	A survey of the mosquito fauna of K'gari (Fraser Island) James Wisdom, Queensland Health
4.05pm-4.10pm	Feeding patterns of a JEV vector, <i>Culex annulirostris</i> , at Victorian commercial piggeries Kevin Moore, Griffith University
4.10pm-4.15pm	<i>Drosophila melanogaster</i> as a model for miRNAs in arboviral host-virus interactions Tyson Thomson, The University of Queensland
4.15pm-4.20pm	Castlerea virus as an arbovirus biocontrol agent in Australian vector species Hayden Rohlf, QIMR Berghofer
4.20pm-4.25pm	Characterisation of novel Wolbachia strains in Australian mosquitoes for vector control applications Mukund Madhav, CSIRO
4.25pm-4.30pm	Identification of CHIKV-derived viral small RNAs with virus modulatory profiles Adrian Oo, National University of Singapore
4.30pm-4.35pm	Comparison of yeast-generated carbon dioxide and dry ice in baiting mosquito traps Abbey Potter, WA Department of Health
4.35pm-4.40pm	Mosquitoes and lasers: Precision Insect Sorting and Classification Entomological Solution (PiSCES) Brendan Trewin, CSIRO
4.40pm-4.45pm	Surveillance of <i>Aedes</i> spp in Sylhet City Corporation, Bangladesh Saiful Islam, Sylhet Agricultural University

Close of Day 1

4.45pm

5.00pm-6.00pm

Student Networking Function

Tuesday 26th August

Conference Registration

8.00am

Great Ocean Road Foyer, RACV Torquay Resort

Session 5 – Buruli Ulcer	
8.30am – 10.00am	
Great Ocean Road Ballroom	
Chairs:	
8.25am-8.30am	Welcome to Day Two
8.30am-9.00am	Keynote Address Paul Johnson, Austin Health
9.00am – 9.12am	Invertebrate carriage of <i>Mycobacterium ulcerans</i> in Australian hot spots for Buruli ulcer Stacey Lynch, CSIRO
9.12am – 9.24am	Challenges in defining suburb risk classifications for <i>Mycobacterium ulcerans</i> in Victoria Catarina Agostinho, Victorian Department of Health
9.24am – 9.36am	Experimental infection of possums with <i>Mycobacterium ulcerans</i> , the agent of Buruli ulcer Kim Blasdel, CSIRO
9.36am – 9.48am	<i>Mycobacterium ulcerans</i> in possum faeces precedes emergence in humans, Victoria. Bridgette McNamara, Barwon Health
9.48am – 10.00am	Investigating the role of foxes in the epidemiology of <i>Mycobacterium ulcerans</i> transmission Michael Muleme, Barwon Health
10.00am – 10.30am	
Morning Tea	
Session 6 – Challenges and Solutions to Mosquito Management (II)	
10.30am – 12.00pm	
Great Ocean Road Ballroom	
Chair:	
10.30am – 10.42am	Interventions to control <i>Aedes notoscriptus</i> numbers on the Mornington Peninsula. Peter Mee, Agriculture Victoria
10.42am-10.54am	Autodissemination stations to suppress <i>Aedes notoscriptus</i> in urban Victoria Veronique Paris, The University of Melbourne

10.54am – 11.06am	Dual communications strategies – risk avoidance vs disease detection for Buruli ulcer. Grace King, Department of Health
11.06am – 11.18am	Mozzie Monitors: lessons learnt in engagement, education and establishing a national program Craig Williams, The University of South Australia
11.18am – 11.30am	Integrating citizen science data for vector-borne disease outbreak prediction and surveillance Shashikala Wijesooriya, University of South Australia
11.30am – 11.42am	Social behavioural factors influencing mosquito borne disease prevention among Australians. Rebika Nepali, The University of Sydney
11.42am-11.54am	Neutralising spatial sampling bias for modelling the distribution of Australian mosquito vectors David Duncan, The University Of Melbourne
11.55am – 1.00pm Lunch	
1.00pm – 2.30pm	Session 7 – Arbovirus threats to Australia (I) Great Ocean Road Ballroom <i>Chair:</i>
1.00pm – 1.12pm	Tracking the 2023-24 Ross River virus outbreak in Queensland using sugar-based surveillance Andrew van den Hurk, Queensland Health
1.12pm – 1.24pm	Predictive modelling of Ross River virus in NSW Suhasini Sumithra, NSW Health
1.24pm – 1.36pm	Spatial and temporal patterns of Ross River virus across Victoria, 2013-2023. Anura Jayasinghe, Loddon Mallee Public Health Unit
1.36pm-1.48pm	Why can some arthritogenic alphaviruses (RRV) infect pigs while others (CHIKV) can't? Daniel Rawle, QIMR Berghofer
1.48pm – 2.00pm	Commercial Japanese encephalitis pig vaccines protect against the Australian Genotype IV virus Caitlin O'Brien, CSIRO ACDP
2.00pm – 2.12pm	Chondrocytes and muscle cells are potential reservoirs for persistent alphaviruses Lara Herrero, Griffith University
2.12pm – 2.24pm	Trends in exotic mosquito-borne diseases in Victoria, with an emphasis on dengue Monique Thomaidis, Department of Health Victoria
2.25pm – 3.00pm Afternoon Tea	
3.00pm – 5.00pm	Session 8 – Arbovirus threats to Australia (II) Great Ocean Road Ballroom <i>Chair:</i>
3.00pm-3.12pm	Re-emergence of Japanese encephalitis virus genotype IV in Southeastern Australia in 2024-25 David Williams, CSIRO
3.12pm – 3.24pm	Rethinking the sero-epidemiology of Japanese encephalitis serogroup flaviviruses Maxwell Braddick, Institute for Infection and Immunity
3.24pm – 3.36pm	Assessing the vector competence of Queensland mosquitoes for Japanese Encephalitis Virus Genotype-IV Narayan Gyawali, Queensland Health
3.36pm – 3.48pm	Why do some people survive Japanese encephalitis and others don't? Abigail Cox, QIMR Berghofer
3.48pm – 4.00pm	Comparing modelled JEV spillover risk to known transmission. How can models improve? Eloise Skinner, University of Queensland
4.00pm – 4.12pm	Rapid dispersal of Murray Valley encephalitis virus during the 2023 Australian outbreak Jackie Mahar, CSIRO

4.12pm – 4.24pm	Molecular detection of Japanese and Murray Valley encephalitis virus in NT mosquitoes Nina Kurucz , <i>Northern Territory Health</i>
4.24pm – 4.36pm	Increased Flavivirus activity in northern WA 2022 - 2025 Jay Nicholson , <i>Department of Health</i>
4.36pm – 4.48pm	Flavivirus serosurvey of wild birds in the Kimberley region of Western Australia Abbey Potter , <i>Western Australia Department of Health</i>
4.50pm	Close of Day 2

7.00pm – 10.00pm

Onsite Conference Dinner

Great Ocean Road Ballroom

Feature presentation: The Mosquito and Arbovirus Research Committee

30 Years of Pioneering Research

Brian Johnson, QIMR Berghofer

Wednesday 27th August

8.00am

Conference Registration

Great Ocean Road Foyer

8.30am – 10.00am	<p>Session 9 – Mosquito-borne disease challenges and building solutions in Papua New Guinea</p> <p>Great Ocean Road Ballroom</p> <p><i>Chair:</i></p>
8.30am- 9.00am	<p>Keynote Address</p> <p>Stephen Karl, <i>James Cook University</i></p>
9.00am – 9.12am	<p>Building vector control capacity to reduce malaria transmission in Papua New Guinea</p> <p>Patrina Johnson, <i>James Cook University</i></p>
9.12am – 9.24am	<p>Detection of Japanese Encephalitis Virus from mosquitoes in Papua New Guinea</p> <p>Joelyn Goi, <i>PNG Institue of Medical Research</i></p>
9.24am – 9.36am	<p>Diversity of insect-specific viruses in Culex mosquitoes collected in Papua New Guinea</p> <p>Nayomi Danthanarayana, <i>CSIRO/ACDP and Charles Sturt University</i></p>
9.36am – 9.48am	<p>Lessons learned: designing longitudinal larval habitat surveillance in Kiunga, Western Province</p> <p>Stephen Gideon, <i>Burnet Institute</i></p>
9.48am – 10.00am	<p>Guardian™ spatial emanator protects against Anopheles punctulatus group in Papua New Guinea</p> <p>Michelle Katusele, <i>James Cook University/PNG Institute of Medical Research</i></p>

10.00am – 10.30am

Morning Tea

10.30am – 12.00pm	Session 10 – Mosquito Management - Pacific and Beyond Great Ocean Road Ballroom <i>Chair:</i>
10.30am – 10.42am	Population genomics of the malaria vector <i>Anopheles farauti</i> through the Southwest Pacific Nigel Beebe , <i>University of Queensland</i>
10.42am – 10.54am	Insights from Laos dengue surveillance with Defence Forces Australia, Laos and Vietnam Weng Chow , <i>ADFMIDI</i>
10.54am – 11.06am	The origin, invasion history and resistance architecture of <i>Anopheles stephensi</i> in Africa Tristan Dennis , <i>Liverpool School of Tropical Medicine / University Of Queensland</i>
11.06am – 11.18am	<i>Farauti</i> and furious: modelling malaria mosquitoes for outbreak prevention Manuela Mendiolar , <i>CSIRO</i>
11.18am – 11.30am	A consortium to strengthen mosquito surveillance and control in the Pacific Amanda Murphy , <i>James Cook University</i>
11.30am – 11.42am	Are neglected zoonotic arboviruses on the move? Francesca Frentiu , <i>Queensland University of Technology</i>
11.42am – 11.54am	

11.55am – 1.00pm

Lunch

1.00pm – 2.30pm	Session 11 – Dengue Threats and Response in Australia Great Ocean Road Ballroom <i>Chair:</i>
1.00pm – 1.30pm	Keynote Address Anna-Bella Faillouxz, Institut Pasteur
1.30pm-1.42pm	Updating the distribution of dengue vectors in the Torres Strait Alexander Gofton, CSIRO
1.42pm – 1.54pm	Modelling the global mosquito miscreants on Mer: <i>Aedes albopictus</i> Francisca Powell-Romero, CSIRO
1.54pm- 2.06pm	Still holding back the tiger: battle against <i>Aedes albopictus</i> in Torres Strait Mutizwa Odwell Muzari, Queensland Health, Tropical Public Health Services
2.06pm- 2.12pm	Battling the Dengue Mosquito: The Fight for a <i>Aedes aegypti</i> free Northern Territory Stephen Fricker, Medical Entomology, Northern Territory Health
2.12pm- 2.24pm	Community engagement update from the Torres Strait: conversations towards Indigenous self-determination Brendan Trewin, CSIRO
2.25pm – 3.00pm	Afternoon Tea
3.00pm – 4.36pm	Session 12 – Local Government Perspectives in Mosquito Management Great Ocean Road Ballroom <i>Chair:</i>
3.00pm – 3.12pm	City of Armadale mosquito control treatment conducted in State Government managed land Agnes Novinda, City of Armadale
3.12pm – 3.24pm	Continued Surveillance of <i>Aedes vigilax</i> in the Gippsland Lakes Samantha King, Wellington Shire Council
3.24pm – 3.36pm	Flying to beat the bite; local government, drones and mosquito control Loyd Phillips Madeira, City of Greater Geelong
3.36pm – 3.48pm	Griffith City Council's 50yr contribution to safer communities Vanessa Johns, Griffith City Council
3.48pm – 4.00pm	Managing mosquito-borne disease in Murrumbidgee Region in NSW Tony Burns, NSW Health Wagga Wagga
4.00pm – 4.12pm	Responding to a significant pest mosquito infestation in South-West Sydney Cameron Webb, NSW Health Pathology
4.12pm – 4.24pm	Easier inspection and more accurate mapping of treatment locations Jeremy Draper, Campaspe Shire Council

5.30pm-6.30pm

MCAA AGM
Great Ocean Road Ballroom

Thursday 28th August

8.00am	Conference Registration Great Ocean Road Foyer
8.25am – 10.00am	Session 13 – Mosquito Immunity, Microbiomes & the Future of Arbovirus Control Great Ocean Road Ballroom <i>Chair:</i>
8.25am – 8.30am	Welcome to Day Four
8.30am – 9.00am	Keynote Address Esther Schnettler, University of Hamburg, Germany
9.00am – 9.12am	Microbiome and arbovirus interactions in mosquitoes: new opportunities for biological control Leon Hugo, QIMR Berghofer
9.12am – 9.24am	REAVR technology reduces the vectorial capacity of <i>Aedes</i> mosquitoes for Zika virus Dewi Megawati, Warmadewa University
9.24am – 9.36am	Mozzies going viral: insect-specific flaviviruses and their potential for biocontrol Alyssa Peterson, University of Queensland / QIMR Berghofer

9.36am – 9.48am	Structural insights into Tpp2-mediated mosquito control: receptor engagement with Cqm1 Bradley Spicer, Monash University
9.48am – 10.00am	Impact of temperature changes on <i>Aedes aegypti</i> fitness and virus transmission Prasad Paradkar, CSIRO
10.00am – 10.12am	Investigations into insect-specific alphavirus host-restriction mechanisms Jessica Harrison, University of Queensland
10.15am – 10.45am	Morning Tea
10.45am – 1.00pm	Session 14 – Innovations in Arbovirus and Mosquito Surveillance Technology Great Ocean Road Ballroom <i>Chairs:</i>
10.45am-10.57am	Optimising reverse genetics synthesis of RNA arboviruses James Potter, University of Queensland
10.57am-11.09am	Host nuclear protein interacts with alphavirus 3'UTR to promote early protein translation Therese Lim, National University of Singapore
11.09am-11.21am	Enhancing pathogenic detection in Far North Queensland Melissa Graham, QIMR Berghofer
11.21am-11.33am	Improving the sensitivity of metatranscriptomic arbovirus surveillance Jana Batovska, Agriculture Victoria
11.33am-11.45am	COSMOS: simultaneous virus-vector genomics for mosquito-borne diseases Tanya Golubchik, University of Sydney
11.45am-11.57am	Strengthening One Health surveillance in Victoria: environmental testing for re-emerging flaviviruses Mitchell Batty, VIDRL
11.57am-12.09pm	Inhibitor A11N demonstrates broad-spectrum antiviral activity against Alphaviruses and Flaviviruses Wesley Freppel, Griffith University
12.09pm-12.21pm	Mosquito salivary antibody biomarkers to surveil heterogeneity in exposure to mosquito bites Ellen Kearney, The University of Melbourne
12.21pm – 12.33pm	Proof-of-concept trial of an artificial intelligence system for mosquito identification. Binh Luong, City of Bayswater
12.33pm-12.45pm	Awards Presentation and Closing Ceremony
12.45pm	Lunch