



## Conference Program

(subject to change)

### Sunday 20<sup>th</sup> August

5.30pm – 7.30pm

#### Welcome Reception and Conference Registration

Trade Exhibition Area, Alexandra Hills Hotel – Suites and Conference Centre  
Includes drinks and canapés

### Monday 21<sup>st</sup> August

8.00am

#### Conference Registration

Foyer, Alexandra Hills Hotel – Suites and Conference Centre

8.30am- 10.00am

#### Session 1 – Opening Plenary

Moreton Rooms

Chair: Jonathan Darbro

8.30am – 8.35am

Welcome and Conference Opening

**Jonathan Darbro**, President, Mosquito Control Association of Australia (MCAA)

8.35am – 8.40am

Welcome to Country

**Aunty Elder Joanne Claybourn**

8.40am – 8.45am

Welcome from Redland City

**Mayor Karen Williams**

8.45am – 9.22am

#### Keynote Address

Lessons learned after 20 years of West Nile virus in North America

**Roxanne Connelly**, Centers for Disease Control and Prevention, USA

9.22am – 10.00am

#### Keynote Address

An Integrated Mosquito Control Program For the 21<sup>st</sup> Century

**David Hoel**, Lee County Mosquito Control District, USA

10.00am - 10.30am

#### Morning Tea

10.30am – 12.00pm

#### Session 2 – New Understandings of Mosquito Biology

Moreton Rooms

Chair: Prasad Paradkar

10.30am -10.45am

Molecular ecology and population genetics of Australasia's arbovirus vector *Culex annulirostris*

**Nigel Beebe**, University of Queensland

10.45am – 11.00am

Museum genomics resolves cryptic species in the arbovirus vector *Culex annulirostris*

**Bryan Lessard**, ABRIS / CSIRO

11.00am – 11.15am

An overview of recent research on *Aedes notoscriptus*, a forgotten local mosquito

**Nancy Endersby-Harshman**, University of Melbourne

11.15am – 11.30am

Biting profile of a control naive *Anopheles farauti* population in Northern Queensland

**Weng Chow**, ADFMIDI

11.30am – 11.45am	Development of an all-in-one metabarcoding approach to mosquito and arbovirus surveillance <b>Brian Johnson, QIMR Berghofer Medical Research Institute</b>
11.45am – 12.00pm	Climate, mosquitoes and Ross River virus notifications in NSW, 1991-2021 <b>Suhasini Sumithra, NSW Health</b>
<b>12.00pm – 1.00pm Lunch</b>	
<b>1.00pm – 2.30pm</b>	<b>Session 3 – Operational Challenges and Solutions</b> <i>Moreton Rooms</i> <i>Chair: Lisa Rigby</i>
1.00pm – 1.15pm	We don't have time! – Balancing treatment options in a crisis <b>Jeremy Draper, Campaspe Shire Council</b>
1.15pm – 1.30pm	Evaluating sugar feeding of <i>Aedes</i> in implementation of BioGel as mosquito baiting <b>Nur Faeza Abu Kassim, Universiti Sains Malaysia</b>
1.30pm – 1.45pm	Impact of mosquito control programs on Australian stingless bees <b>Brian Johnson, QIMR Berghofer Medical Research Institute</b>
1.45pm – 2.00pm	Duration of efficacy Of IRS With fludora fusion In Papua New Guinea <b>Evodia Anetul, Papua New Guinea Institute of Medical Research</b>
2.00pm – 2.15pm	PacMOSSI: supporting Pacific Island countries to strengthen vector surveillance and control <b>Tanya Russell, James Cook University</b>
2.15pm – 2.30pm	Factors influencing community participation approaches in <i>Aedes</i> management in the Torres Strait <b>Tammy Allen, James Cook University</b>
<b>2.30pm – 3.00pm Afternoon Tea</b>	
<b>3.00pm – 4.30pm</b>	<b>Session 4 – National Arbovirus Surveillance and Mosquito Control Roundup</b> <i>Moreton Rooms</i> <i>Chair: Peter Mee</i>
3.00pm – 3.15pm	NSW arbovirus surveillance and mosquito monitoring program 2022-2023 <b>Neil Hime, NSW Health</b>
3.15pm-3.30pm	Arbovirus surveillance and mosquito borne diseases in Queensland: 2021-2022 /2022-2023 <b>Cassie Jansen, Queensland Health</b>
3.30pm-3.45pm	2022-2023 mosquito season in the Northern Territory <b>Bill Pettit, NT Health</b>
3.45pm-4.00pm	Mosquito-borne disease surveillance across Victoria for the 2021-22 and 2022-23 seasons <b>Peter Neville, Department of Health, Victoria</b>
4.00pm-4.15pm	SA Health arbovirus round-up <b>Jessica Thompson, SA Health</b>
4.15pm-4.30pm	Enhanced mosquito-borne disease surveillance in response to increased endemic and exotic virus activity in WA, 2021-22 – 2022-23 <b>Craig Brockway, Department of Health Western Australia</b>
<b>4.30pm Close of Day One</b>	
<b>6.00pm – 9.00pm</b>	<b>Offsite Social Function Dinner</b> Fiction Bar and Decks <i>Buses depart at 5.45pm from Alexandra Hills Hotel</i>

## Tuesday 22<sup>nd</sup> August

7.00am-8.30am

### Student Breakfast (invited guests only)

Alexandra Hills Hotel Restaurant

8.00am

### Conference Registration

Foyer, Alexandra Hills Hotel – Suites and Conference Centre

8.30am – 10.00am

### Session 5 – Japanese Encephalitis Virus

Moreton Rooms

Chairs: Jonathan Darbro & David Williams

8.30am – 8.40am

### Welcome to Day Two

8.40am – 8.50am

Opening Address

**Dr Heidi Carroll**, Queensland Health

8.50am – 9.25am

Keynote Address

Japanese encephalitis virus - reminiscences from the past and considerations for today

**John Mackenzie**, Curtin University

9.25am – 10.00am

Keynote Address

Enter *Culex*: mosquito vectors of Japanese encephalitis virus

**Andrew van den Hurk**, Queensland Department of Health

10.00am – 10.30am

### Morning Tea

10.30am – 12.00pm

### Session 6 – JEV response in Australia

Moreton Rooms

Chair: Peter Neville



**Sponsored By:**

10.30am – 11.00am

Japanese encephalitis virus – the Australian pig industry experience, 2022

**Kirsty Richards**, SunPork Group and National JEV industry liaison

11.00am-11.10am

Molecular Epidemiology reveals the rapid spread of Japanese encephalitis virus in 2022 throughout eastern and southern Australia

**David Williams**, CSIRO

11.10am – 11.20am

The emergence of Japanese encephalitis virus in Australia, 2022: a Queensland perspective

**Cassie Jansen**, Queensland Health

11.20am – 11.30am

NSW Response to JEV

**Sahasini Sumithra**, Australian National University

11.30am – 11.40pm

Enhanced Japanese encephalitis virus surveillance across piggeries in Victoria

**Peter Neville**, Department of Health, Victoria

11.40am – 11.50am

SA Health Japanese encephalitis virus response

**Vicki Burns**, SA Health

11.50am-12.00pm

Japanese encephalitis outbreak: mosquito surveillance by three SE Queensland public health units

**Matthew Wessling**, Queensland Health - Metro South Public Health Unit

12.00pm – 12.50pm

### Lunch

12.50pm – 2.10pm

### Session 7 – JEV Vectors, Disease Ecology and Modelling

Moreton Rooms

Chair: Cassie Jansen

12.50pm – 1.20pm



Is it a bird? Is it a pig? no, it's not superman

**Eloise Skinner**, Griffith University

1.20pm – 1.30pm

Japanese encephalitis emergence in Australia: transmission pathways and populations at risk

**Narayan Gyawali**, QIMR Berghofer Medical Research Institute

1.30pm – 1.40pm	Scoping review of Japanese encephalitis disease transmission models <b>Troy Laidlow, University of Sydney</b>
1.40pm – 1.50pm	The landscape epidemiology of the Japanese encephalitis outbreak in piggeries in 2022 <b>Michael Walsh, University of Sydney</b>
1.50pm – 2.00pm	Modelling the future risk of Japanese encephalitis using geographic information system <b>Mariel Flores Lima, Deakin University</b>
2.00pm – 2.10pm	A time-varying geospatial model of the JEV wildlife reservoir in Australia <b>David Duncan, Telethon Kids Institute</b>
<b>2.10pm – 2.35pm</b>	<b>Afternoon Tea</b>
<b>2.35pm – 4.25pm</b>	<b>Session 8 – JEV infection models, vaccine options and looking to the future</b> <i>Moreton Rooms</i> <i>Chair: Stacey Lynch</i>  <b>Sponsored By:</b>  
2.35pm-2.40pm	Sponsor Address <b>Charles McClintock, Sumitomo Chemical, Craig Warnes, Garrards</b>
2.40pm – 2.50pm	Australian <i>Culex annulirostris</i> mosquitoes are competent vectors of JEV genotype IV <b>Sarah Jackson, CSIRO</b>
2.50pm – 3.00pm	Human cortical brain organoid models of the Australian Japanese encephalitis virus isolate <b>Daniel Rawle, QIMR Berghofer Medical Research Institute</b>
3.00pm – 3.10pm	In vivo characterisation of the Australian Japanese encephalitis virus genotype 4, NSW2022 <b>Wilson Nguyen, QIMR Berghofer Medical Research Institute</b>
3.10pm – 3.20pm	Supporting vaccination and surveillance options for the pig industry and one health <b>Caitlin O'Brien, CSIRO</b>
3.20pm – 3.30pm	A chimeric vaccine and rapid diagnostics for Japanese encephalitis virus in pigs <b>Jody Peters, University of Queensland</b>
3.30pm – 3.40pm	JEV – A new approach <b>Michael Belby, Wide Bay Hospital &amp; Health Services, Queensland Health</b>
3.40pm – 4.25pm	<b>JEV Panel Discussion - Japanese encephalitis in Australia: here today and gone tomorrow?</b> <i>Chairs: Stacey Lynch and Andrew van den Hurk</i> <b>John Mackenzie, Curtin University, Kristy Richards, SunPork Group, Eloise Skinner, Griffith University, Roxanne Connelly, Centers for Disease Control and Prevention, USA, Richard Russell, University of Sydney, Scott Ritchie, James Cook University</b>
<b>4.30pm – 6.00pm</b>	<b>Session 9 - MCAA AGM</b> <i>Cleveland Room</i> <i>Chair: Jonathan Darbro</i>
<b>7.00pm – 10.00pm</b>	<b>Onsite Conference Dinner</b> <i>Moreton Rooms</i>

## Wednesday 23<sup>rd</sup> August

<b>8.00am</b>	<b>Conference Registration</b> <i>Foyer, Alexandra Hills Hotel – Suites and Conference Centre</i>
<b>8.40am – 10.00am</b>	<b>Session 10 – Exotic Mosquito Surveillance and Management</b> <i>Moreton Rooms</i> <i>Chair: Brian Johnson</i>
8.40am – 8.45am	<b>Welcome to Day Three</b>
8.45am – 9.00am	<i>Aedes aegypti</i> elimination program, Tennant Creek, Northern Territory <b>Benjamin Smitheram, Medical Entomology, NT Health</b>
9.00am – 9.15am	Reprioritisation of surveillance to respond to changes in risk of exotic mosquitoes into New Zealand <b>Lora Peacock, Ministry for Primary Industries</b>
9.15am – 9.30am	Exotic vector detection adjacent to major Sydney cemetery: A highly suitable habitat <b>Brian Huang, NSW Health SESLHD Public Health Unit</b>
9.30am – 9.45am	Exotic vector detections adjacent to a major Sydney cemetery: Introduced or local? <b>Kai Dang, NSW Health Pathology</b>
9.45am – 10.00pm	Developing a strategic response plan for exotic mosquito incursions in NSW <b>Cameron Webb, NSW Health Pathology</b>
<b>10.00am – 10.30am</b>	<b>Morning Tea</b>
<b>10.30am – 12.00pm</b>	<b>Session 11 – New Technologies in Mosquito and Arbovirus Surveillance</b> <i>Moreton Rooms</i> <i>Chair: Caitlin O’Brien</i>
10.30am – 10.45am	Detection of Murray Valley encephalitis virus in Victoria and screening technologies <b>Peter Mee, Agriculture Victoria</b>
10.45am – 11.00am	Co-circulation of multiple medically relevant arboviruses in Brisbane mosquitoes <b>Carla Vieira, QIMR Berghofer Medical Research Institute &amp; Queensland University of Technology</b>
11.00am – 11.15am	Zika mozzie seeker update: Innovative citizen science sustains invasive <i>Aedes</i> mosquito surveillance <b>Brian Montgomery, Metro South Health, Queensland Health</b>
11.15am – 11.30am	Molecular detection of zoonotic arbovirus from mosquitoes in Papua New Guinea farms <b>Joelyn Goi, Papua New Guinea Institute of Medical Research</b>
11.30am – 11.45am	A Needle in a haystack: Screening mosquito pools for arboviruses in FNQ <b>Melissa Graham, QIMR Berghofer Medical Research Institute</b>
11.45am – 12.00pm	Open-source citizen science data for surveillance of mosquitoes and vector-borne disease <b>Cameron Webb, NSW Health Pathology</b>
<b>12.00pm – 1.00pm</b>	<b>Lunch</b>
<b>1.00pm – 2.15pm</b>	<b>Session 12 - Arbovirology</b> <i>Moreton Rooms</i> <i>Chair: Adam Lopez-Denman</i>
1.00pm – 1.15pm	Factors and mechanisms responsible for vertical transmission of insect-specific flaviviruses in mosquitoes <b>Alyssa Peterson, QIMR Berghofer Medical Research Institute</b>
1.15pm-1.30pm	Flaviviruses alters endoplasmic reticulum-mitochondria contacts to regulate respiration and apoptosis <b>Wesley Freppel, Griffith University</b>
1.30pm – 1.45pm	A recombinant alphavirus platform based on the Australian insect-specific yada yada virus <b>Mikaela Bell, University Of Queensland</b>
1.45pm- 2.00pm	Metagenomic sequencing reveals extensive diversity of RNA viruses in Western Australian mosquitoes <b>Binit Lamichhane, University Of Western Australia</b>
2.00pm-2.15pm	Could sugar provide protection from mosquito-transmitted viral infections? <b>Lara Herrero, Griffith University</b>
2.15pm – 2.45pm	<b>Afternoon Tea</b>

2.45pm-4.45pm	<b>Field Trip</b> <b>Geoff Skinner wetlands, includes drone demonstration</b> (Bus Departs from Alexandra Hills Hotel at 2.45pm Sharp)
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**Evening at Leisure**

**Thursday 24<sup>th</sup> August**

<b>8.00am</b>	<b>Conference Registration</b> <i>Foyer, Alexandra Hills Hotel – Suites and Conference Centre</i>
<b>8.25am – 10.00am</b>	<b>Session 13 – Emerging Technologies in Arbovirus-Blocking</b> <i>Moreton Rooms</i> <i>Chair: Brendan Trewin</i>
8.25am – 8.30am	<b>Welcome to Day Four</b>
8.30am – 8.45am	REAPER: Mosquito in vivo virus targeting to control viral transmission <b>Adam Lopez-Denman, CSIRO</b>
8.45am – 9.00am	CRISPR Gene Drives: An alternative to traditional mosquito control strategies <b>Pathum Dhanapala, ADFMIDI</b>
9.00am – 9.15am	<i>Wolbachia</i> mosquito releases and dengue in north Queensland, 12 years on <b>Peter Ryan, World Mosquito Program</b>
9.15am – 9.30am	Mosquito-specific viruses: novel agents to control the transmission of arboviral pathogens <b>Leon Hugo, Mosquito Control Laboratory, QIMR Berghofer Medical Research Institute</b>
9.30am – 9.45am	Creation and characterization of <i>Wolbachia</i> -infected <i>Aedes aegypti</i> strain with Bangladeshi genetic background <b>Hasan M Al-amin, QIMR Berghofer Medical Research Institute</b>
9.45am – 10.00am	Global evaluation of <i>Wolbachia</i> loss in <i>Aedes aegypti</i> <b>Heather Flores, Monash University</b>
<b>10.00am – 10.30am</b>	<b>Morning Tea</b>
<b>10.30am – 11.40am</b>	<b>Session 14 – Rapid Fire Session</b> <i>Moreton Rooms</i> <i>Chairs: Cameron Webb &amp; Mikaela Bell</i>
10.30am- 10.35am	Murray Valley encephalitis virus: genotypic differences in vector competence of <i>Culex annulirostris</i> <b>Michael Dunn, CSIRO</b>
10.35am-10.40am	What do high school students know about mosquitoes and mosquito-borne diseases? <b>Brian Johnson, QIMR Berghofer Medical Research Institute</b>
10.40am-10.45am	Optimal methods to collect bloodfed mosquitoes at Australian piggeries <b>Kevin Moore, Griffith University</b>
10.45am-10.50am	Mosquito species range maps, species richness, and geolocation enabled identification keys <b>Desmond Foley, Dept of Entomology, NMNH, Smithsonian Institution</b>
10.50am-10.55am	Rapid Surveillance for Vector Presence (RSVP): COVID-19 impacts on an ‘early-warning’ program <b>Matthew Wessling, Queensland Health - Metro South Public Health Unit</b>
10.55am-11.00am	Attitudes towards personal protection against mosquito borne diseases in the PNGDF <b>Lisa Rigby, ADFMIDI</b>
11.00am-11.05am	Entomologists, do they really matter? Xenomonitoring for lymphatic filariasis surveillance in Samoa <b>Donna Mackenzie, ADFMIDI</b>
11.05am-11.10am	Models for dummies mozzies <b>Eloise Skinner, Griffith University &amp; Stanford University</b>
11.10am-11.15am	Applying the FPIC standard: Indigenous mosquito management opportunities in the Torres Strait <b>Brendan Trewin, CSIRO</b>

11.15am-11.20am	Genetic basis of vector competency for African Horse Sickness Virus (AHSV) <b>Asif Ahmed, CSIRO ACDP</b>
11.20am-11.25am	Who's biting who in the zoo? Mosquito-borne disease risk in urban landscapes <b>Cameron Webb, NSW Health Pathology</b>
11.25am-11.30am	A virtual training program on the American Mosquito Control Association's 'best practices for integrated mosquito management' <b>Jonathan Darbro, Metro North Public Health Unit, Queensland Health</b>
11.30am-11.35am	Building vector control capacity to reduce malaria transmission in Papua New Guinea <b>Petrina Johnson, James Cook University</b>
11.35am-11.40am	Responding to the threat of Japanese encephalitis virus: A summary of enhanced surveillance activities in Western Australia <b>Craig Brockway, Department of Health, Western Australia</b>
11.40am-12.00pm	<b>Awards Presentation and Closing Ceremony</b>
<b>12.00pm</b>	<b>Lunch</b>