

## PROGRAM

### Monday 2 December 2019

16:00 – 18:45	<b>Registration Open</b> Poster set up time (all posters to be displayed Galaxy III & Gallery Area)	
18:45 – 19:00	<b>Welcome and Official Opening</b>	Merilyn Hibma & Gilda Tachedjian
19:00 – 20:00	<b>Ruth Bishop Oration</b> Chair: Gilda Tachedjian <b>International Keynote Speaker – Ana Fernandez-Sesma, PhD</b> <i>Modulation of innate immune responses by dengue virus; beyond the sting</i>	
20:00 – 22:30	<b>Welcome Mixer</b> <i>Millennium Hotel, Level 5, Gallery Area</i>	

### Tuesday 3 December 2019


**09:00 – 10:30** Proudly Sponsored by:

**Session 1: Viral Epidemiology and Diagnostics** 

Chairs: Peter White & Chaturaka Rodrigo

09:00 – 09:30	<b>Invited Speaker</b> <i>Mosquito-borne infections in travelers: molecular epidemiology and immunopathogenesis</i>	<b>Allison Imrie</b>
09:30 – 09:45	<i>Micro-Plaque Reduction Neutralisation Test (mPRNT) for detection of arbovirus antibodies in mosquito blood meals: a novel xenodiagnostic for pathway incrimination</i>	Narayan Gyawali
09:45 – 10:00	<i>Genome-scale phylogeny and evolutionary analysis of Ross River virus</i>	Alice Michie
10:00 – 10:15	<i>Whole genome long read sequencing of hepatitis C virus and identification of within-host viral variants</i>	Muhammad Nasir Riaz
10:15 – 10:30	<i>Molecular surveillance of norovirus and adenovirus in Australia 2018 – 2019</i>	Grace Yan
10:30 – 11:00	<b>Morning Refreshments</b> <i>Galaxy III &amp; Gallery Area (Level 5)</i>	

**11:00 – 12:30** Proudly Sponsored by:


**Session 2: Viral Immunology** 

Chairs: John Taylor & Michelle Tate

11:00 – 11:30	<b>Invited Speaker</b> <i>Rotavirus-intrinsic properties and sites of replication are key determinants of specific immune responses</i>	<b>Barbara Coulson</b>
11:30 – 11:45	<i>Influenza virus infection and vaccination in humans elicits differential B cell and Tfh immune response mechanisms</i>	Oanh Nguyen
11:45 – 12:00	<i>HSV-1 targeting of the antigen presentation molecule MR1</i>	Carolyn Samer

12:00 – 12:15	<i>Exacerbation of chikungunya virus rheumatic immunopathology by a high fiber diet and butyrate</i>	Andreas Suhrbier
12:15 – 12:30	<i>Defining correlates of antibody-mediated protection against HCV reinfection</i>	Alex Underwood

<b>12:30 – 13:45</b>	<b>Lunch – Meet the Professors</b> Observatory Restaurant (Level 3) Dessert served in Galaxy III & Gallery Area (Level 5)	
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<b>13:45 – 15:15</b>	<b>Session 3: Clinical Virology</b> Chairs: Anja Werno & Stuart Hamilton	Proudly Sponsored by: 
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<b>13:45 – 14:15</b>	<b>Invited Speaker</b> <i>Eradication of chronic hepatitis B Virus (HBV) Infection – Translating Clinical Virology into Practice</i>	<b>Ed Gane</b>
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14:15 – 14:30	<i>A novel antiviral to combat dengue infection, disease and transmission</i>	Dongsheng Li
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14:30 – 14:45	<i>What do post-vaccination antibody kinetics suggest about the timing of the seasonal influenza vaccine?</i>	Kanta Subbarao
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14:45 – 15:00	<i>A history of obesity reduces the immune response to influenza virus in an NLRP3 dependent manner</i>	Kirsty Short
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15:00 – 15:15	<i>Could a World War II drug be repurposed to limit viral hyperinflammation?</i>	Michelle Tate
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<b>15:15 – 15:45</b>	<b>Session 4: 3 Minute Oral Presentations   Odd Poster Numbers</b> Chair: Keaton Crosse	
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<i>Viral metagenomics analysis in wild deer samples from across Australia (Poster Number 7)</i>	Jose Huaman Torres
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<i>Adjuvant Selection for Viral Prefusion Subunit Vaccines (Poster Number 9)</i>	Ariel Isaacs
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<i>Therapeutics for the Prevention of Congenital Cytomegalovirus Infection and Disease during Pregnancy (Poster Number 15)</i>	Stuart Hamilton
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<i>Granzyme B cleaves multiple HSV – 1 and VZV gene products and VZV ORF4 inhibits natural killer cell cytotoxicity (Poster Number 3)</i>	Chelsea Gerada
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<i>Identification and analysis of a public antibody repertoire among Hepatitis C Virus infected patients (Poster Number 1)</i>	Nick Brasher
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<i>Characterization of the association and trafficking of the Henipavirus Matrix protein to sub – nucleolar compartments (Poster Number 5)</i>	Tianyue Zhao
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<i>Human Cytomegalovirus Reactivation in Allogeneic Haematopoietic Stem Cell Transplant Recipients (Poster Number 11)</i>	Lauren Stern
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<i>Membrane – associated RING – CH (MARCH) 8 ubiquitin ligase modulates assembly and/ or budding of influenza virus from the surface of virus – infected cells (Poster Number 13)</i>	Fernando Villalon Letelier
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<b>15:45 – 16:15</b>	<b>Afternoon Refreshments</b> Galaxy III & Gallery Area (Level 5)	
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<b>16:15 – 17:15</b>	<b>Session 5: Indigenous Virology</b> Chairs: Jason Mackenzie & Oanh Nguyen	Proudly Sponsored by:  <b>Burnet Institute</b> Medical Research. Practical Action.
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16:15 – 16:45	<b>Invited Speaker</b> <i>Novel aspects of the Australian HTLV-1c strains</i>	<b>Damian Purcell</b>
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16:45 – 17:00	<i>Seroprevalence of neutralizing antibodies in an HTLV-1c+ cohort from central Australia.</i>	Samantha Grimley
17:00 – 17:15	<i>Novel hbz mRNA of HTLV-1c results in loss of activation domain</i>	Ashley Hiron
<b>17:15 – 18:45</b>	<b>Poster Session One   Odd Poster Numbers</b> <b>Drinks &amp; Networking</b> <i>Millennium Hotel, Galaxy III &amp; Gallery Area (Level 5)</i>	

## Wednesday 4th December

**07:45 – 09:00**

### Breakfast Session

*Successfully Transitioning from Postdoc to Lab Head*

*Millennium Hotel, Level 5, Galaxy I Ballroom*

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AUSTRALIAN CENTRE FOR  
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**09:30 – 10:30**

## Session 6: Unusual Viruses, Phages and Plant Viruses

Chairs: Robin Macdiarmid & Karl Robinson

09:30 – 10:00	<b>Invited Speaker</b> <i>Plants versus DNA viruses</i>	<b>Peter Waterhouse</b>
10:00 – 10:15	<i>A novel positive-sense negev-like virus from Aedes albopictus and its interaction with Wolbachia</i>	Sassan Asgari
10:15 – 10:30	<i>Unmapped RNA Virus Diversity Associated with Termites and Symbionts</i>	Callum Le Lay
10:30 – 11:00	<b>Morning Refreshments</b> <i>Galaxy III &amp; Gallery Area (Level 5)</i>	

**11:00 – 12:30**

## Session 7: Animal and Wildlife Viruses

Chairs: Trevor Drew & Jody Hobson-Peters

11:00 – 11:30	<b>Invited Speaker</b> <i>Biological Control of Rabbits in Australia – An Ongoing Co-Evolutionary Arms-Race</i>	<b>Tanja Strive</b>
11:30 – 11:45	<i>Rabbit haemorrhagic disease virus in New Zealand– Impacts, spread and persistence of a new strain</i>	Janine Duckworth
11:45 – 12:00	<i>Infectious KoRV-related retroviruses circulating in Australian bats</i>	Joshua Hayward
12:00 – 12:15	<i>The abalone viral ganglioneuritis resistant pāua displays a highly divergent tissue transcriptome profile in respect to susceptible Australian hybrid abalone</i>	Karla Helbig
12:15 – 12:30	<i>Viral prevalence and diversity among cane toads (Rhinella marina) in their native and introduced ranges: can viruses impact invasion success?</i>	Alice Russo
12:30 – 13:30	<b>Lunch</b> <i>Observatory Restaurant (Level 3)</i> Dessert served in Galaxy III & Gallery Area (Level 5)	

**13:30 – 15:00**

## Session 8: Virus Host Interactions

Chairs: Till Boecking & Julio Rodriguez

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cellular  
microbiology

13:30 – 14:00	<b>Invited Speaker</b> <i>NextGen approaches to study flavivirus-host interactions</i>	<b>Alexander Khromykh</b>
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14:00 – 14:15	<i>The attenuation of flavivirus Bamaga virus in vertebrates is temperature-dependent and linked to viral protease cleavage efficiency</i>	Agathe Colmant
14:15 – 14:30	<i>Control of HIV capsid lattice stability revealed by single-molecule fluorescence microscopy</i>	K M Rifat Faysal
14:30 – 14:45	<i>Structural basis for importin alpha 3 specificity of W proteins in Hendra and Nipah viruses</i>	Jade Forwood
14:45 – 15:00	<i>Host-virus dance: Botrytis cinerea and a novel, mechanically transmitted DNA mycovirus that it hosts mutually regulate each other's replication rates</i>	Robin Macdiarmid

**15:00 – 15:30**

## Session 9: 3 Minute Oral Presentations | Even Poster Numbers

Chair: Agathe Colmant

<i>Pathogenesis of WNVKUN infection in experimentally infected Crocodylus porosus (Poster Number 8)</i>	Gervais Habarugira
<i>Structural and clade differences in HIV – 1 Env trimer vaccines affect antibody functionality (Poster Number 14)</i>	Natalia Salazar-Quiroz
<i>Viperin enhances the early immune response to viral DNA to restrict infection (Poster Number 4)</i>	Keaton Crosse
<i>Uncovering worldwide virome diversity and evolution of Aedes aegypti, the yellow fever mosquito and Aedes albopictus, the Asian tiger mosquito (Poster Number 16)</i>	Rhys Parry
<i>The hijacking of fatty acid synthesis and lipid droplets during flavivirus infection (Poster Number 12)</i>	Alice Trenerry
<i>Expression and localisation of Egyptian fruit bat tetherin and its restriction of Ebola and Marburg virus – like particles (Poster Number 6)</i>	Tasmin Gordon
<i>Palmitoylation of Rotavirus Non – Structural Protein 4 (NSP4) (Poster Number 2)</i>	Shahriar Azad
<i>The first cryo – EM structure of an insect – specific flavivirus reveals an infectious immature virion and new mechanism for IgM – based flavivirus immunity (Poster Number 10)</i>	Natalee Newton

15:30 – 16:00

### Afternoon Refreshments

Galaxy III & Gallery Area (Level 5)

**16:00 – 17:00**

## Session 10: Systems Virology and Viromes

Chairs: Rowena Bull & Josh Hayward

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16:00 – 16:30	<b>Invited Speaker</b> <i>Bacteriophages of the Human Gut: the bountiful and uncharted virome</i>	<b>Jeremy Barr</b>
16:30 – 16:45	<i>Systems vaccinology of a poxvirus-based arbovirus vaccine, SCV-ZIKA/CHIK</i>	Jessamine Hazlewood
16:45 – 17:00	<i>Zika virus sRNA plays essential role in infection of insect and mammalian host</i>	Andrii Slonchak
17:00 – 17:15	<b>Break</b>	

**17:15 – 18:15**

### Robert Webster Oration

Chair: Marilyn Hibma

### International Keynote Speaker – Benjamin tenOever

*The Evolution of Antiviral Defenses. A journey into the 4-billion-year old battleground between host and virus*

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**18:15 – 19:45** **Poster Session Two | Even Poster Numbers**  
**Drinks & Networking**  
*Millennium Hotel, Galaxy III & Gallery Area (Level 5)*

## Thursday 5 December 2019

**08:30 – 10:00**

### Session 11: Virus Host Interaction II

Chairs: Matloob Husain & Penny Rudd

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08:30 – 09:00	<b>Invited Speaker</b> <i>The impact of microRNA on virus infection in Drosophila</i>	<b>Karyn Johnson</b>
09:00 – 09:15	<i>The N-terminal region of MNV VPg participates in cell cycle arrest and RNA binding</i>	Alice Mcsweeney
09:15 – 09:30	<i>Sub-nucleolar viral networks: A novel interface in infection by highly pathogenic RNA viruses</i>	Stephen Rawlinson
09:30 – 09:45	<i>Screening for a "CRISPR" perspective of RACK1 as a critical pan-flavivirus host factor for virus infection</i>	Byron Shue
09:45 – 10:00	<i>Hepatitis B virus (HBV) DNA integration is not driven by viral proteins</i>	Thomas Tu
10:00 – 10:30	<b>Morning Refreshments</b> <i>Galaxy III &amp; Gallery Area (Level 5)</i>	

**10:30 – 12:10**

### Session 12: Viral Structures, Receptors, Replication and Assembly

Chairs: Helen Blanchard & Johanna Fraser

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10:30 – 11:00	<b>Invited Speaker</b> <i>The core, a pore, and more: multiple roles for the electropositive centre of the HIV capsid lattice</i>	<b>David Jacques</b>
11:00 – 11:15	<i>Genome-wide molecular screen reveals novel HCMV genes essential for viral egress</i>	Svenja Fritzlar
11:15 – 11:30	<i>A chimeric viral system provides a universal and safe platform to rapidly solve the structures of pathogenic flaviviruses by cryo-EM</i>	Daniel Watterson
11:30 – 11:45	<i>HBV "1-mer" transfection model enables comprehensive investigation of replication of HBV variants</i>	Thao Huynh
11:45 – 12:10	<b>Keynote Speaker</b> <i>Structural Studies of Flaviviruses</i>	<b>Richard Kuhn</b>
12:10 – 14:00	<b>Lunch</b> <i>Observatory Restaurant (Level 3)</i> Dessert served in Galaxy III & Gallery Area (Level 5)	
12:30 – 14:00	<b>AVS AGM</b> <i>Galaxy I &amp; II</i>	

**14:00 – 15:30**

### Session 13: Innate Immunity

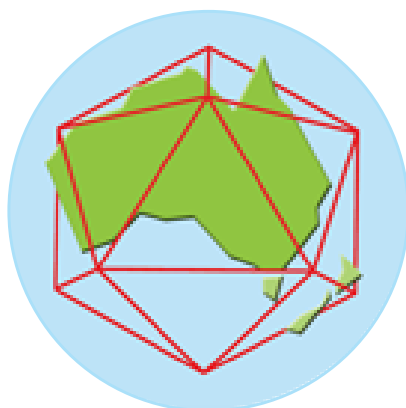
Chairs: Michael Beard & Rebecca Ambrose

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14:00 – 14:30	<b>Invited Speaker</b> <i>Toll-like receptor 4 mediates pathology of dengue virus</i>	<b>Kate Stacey</b>
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14:30 – 14:45	<i>Histone deacetylase 4 is an anti-influenza virus host factor that is antagonised by viral PA-X and viral-induced host caspases</i>	Matloob Husain
14:45 – 15:00	<i>Antibody and DNA sensing pathways converge to activate the inflammasome during adenovirus infection of primary human macrophages</i>	Larisa Labzin
15:00 – 15:15	<i>Early Intracellular Lipid Droplet Accumulation Following Viral Infection Is Required for an Efficient Anti-Viral Response</i>	Ebony Monson
15:15 – 15:30	<i>Structural Elucidation of Viral Immune Antagonism and Replication: The P protein Axis</i>	Gregory Moseley
15:30 – 16:00	<b>Afternoon Break</b> <i>Galaxy III &amp; Gallery Area (Level 5)</i>	
<b>16:00 – 17:30</b>		<i>Proudly Sponsored by:</i>
<b>Session 14: Antivirals and Vaccines</b>		 <b>viruses</b> an Open Access Journal by MDPI
Chairs: Miguel Quinones-Mateu & Brendan Chua		
16:00 – 16:30	<b>Invited Speaker</b> <i>The structure of the influenza genome and its impact on reassortment</i>	<b>Lorena Brown</b>
16:30 – 16:45	<i>Evaluating the protective efficacy of a novel insect-specific flavivirus chimera vaccine candidate in a lethal dengue mouse model</i>	Jovin Choo
16:45 – 17:00	<i>Subverting the dogma of CRISPR/Cas9 to powerfully select recombinant poxviruses</i>	Anjali Gowripalan
17:00 – 17:15	<i>Sheep in wolves' clothing – benign mosquito-specific virus chimeras present authentic antigens of pathogenic flaviviruses for diagnostic and vaccine applications</i>	Jody Hobson-Peters
17:15 – 17:30	<i>Antigenic engineering of a HIV-1 glycoprotein vaccine that elicits broadly neutralizing antibodies</i>	Andy Pountourios
17:30 – 17:40	<b>School of Chemistry &amp; Molecular Biosciences, UQ</b> <b>Best Poster Video Awards Presentation</b>	<i>Proudly Sponsored by:</i>  <b>THE UNIVERSITY OF QUEENSLAND AUSTRALIA</b>
<b>17:40 – 18:10</b>	<b>Conference Close</b>	
<b>19:30 – 23:30</b>	<b>Conference Dinner</b> <i>Venue Offsite: Prime Waterfront Restaurant</i>	



# AUSTRALASIAN VIROLOGY SOCIETY