



15<sup>th</sup> International Congress of Bacteriology & Applied Microbiology  
15<sup>th</sup> International Congress of Mycology and Eukaryotic Microbiology  
17<sup>th</sup> International Congress of Virology

**IUMS 2017**  
**SINGAPORE**  
International Union of  
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## PROGRAMME

### 17<sup>th</sup> International Congress of Virology 17 – 21 July 2017

17 July 2017, Monday		
Time	Room	Programme
08:30 – 09:30	<i>Sands Grand Ballroom I – L</i>	<b>Opening ceremony</b> <b>Guest of Honour:</b> Mr Lawrence Wong Minister for National Development & Second Minister for Finance
09:30 – 10:00	<i>Sands Grand Ballroom foyer</i>	<b>Welcome Reception</b>
10:00 – 11:30	<i>Sands Grand Ballroom I – L</i>	<b>Keynote</b> Chair: Prof Yuan Kun Lee, President of IUMS  <b>Gut Microbiome: A New Target For Managing Human Health</b> Speaker: Prof Liping Zhao, Rutgers, The State University of New Jersey; Shanghai Jiao Tong University, China (BAM)  <b>Understanding the Flagellum-driven Cell Motility in Trypanosomes by Cryo- Electron Tomography</b> Speaker: Dr Cynthia He, National University of Singapore, Singapore (MEM)  <b>The Long and Winding Road from Poxvirus Tropism to Oncolytic Virotherapy</b> Speaker: Prof Grant McFadden, Arizona State University, USA (VIR)
11:30 – 12:30	<i>Sands Grand Ballroom I – L</i>	<b>ICTV Plenary Session</b> Speaker: Andrew Davison, MRC-University of Glasgow Centre for Virus Research
11:30 – 13:00	<i>Sands Grand Ballroom foyer</i>	<b>Lunch and Posters</b>
13:00 – 14:30	<i>Sands Grand Ballroom I – L</i>	<b>Bridging Session - Frontiers in Structural Microbiology</b> Chair: Prof Rafael Giraldo, CIB-CSIC, Spain  <b>The Third Genetic Code</b> Speaker: Dr Eric Westhof, Université de Strasbourg, France (MEM)  <b>The Lassa virus Glycoprotein – It Takes a Village</b> Speaker: Prof Erica Ollmann Saphire, The Scripps Research Institute, USA (VIR)



**17 July 2017, Monday**

Time	Room	Programme
<b>WORKSHOP SESSION 1</b>		
14:30 – 16:00	<i>Roselle Junior Ballroom 4712 – 4713</i>	<b>100 Years of Bacteriophages</b> Chair: Prof Ipek Kurtböke, University of the Sunshine Coast, Australia <ul style="list-style-type: none"><li>• <b>Biology / Classification / Genomics (ICTV)</b> Oral Presenter: Prof Andrew Kropinski and Prof Jens H.</li><li>• <b>Industrial Aspects (Food)</b> Oral Presenter: Lawrence Goodridge</li><li>• <b>Medicinal Aspects</b> Oral Presenters: Prof David Trudil</li><li>• <b>Agriculture / Environmental / Ecological Aspects / Metagenomics</b> Oral Presenter: Prof Ipek Kurtböke</li></ul>
	<i>Roselle Junior Ballroom 4612 – 4613</i>	<b>Virus Entry, Fusion, Assembly and Budding</b> Chair: Prof Fasseli Coulibaly, Monash University, Australia <p><b><i>Structure of a Pentameric Virion-associated Fiber with a Potential Role in Orsay Virus Entry to Host Cells</i></b> Oral Presenter: Dr Yizhi Jane Tao</p> <p><b><i>Generation of Single-Round Infectious Enteroviruses a Species with Enterovirus A71 Replicon</i></b> Oral Presenter: Prof Shuye Zhang</p> <p><b><i>Vaccinia Viral A26 Protein Contains a pH-sensitive Domain that is Critical for Mature Virus Endocytosis</i></b> Oral Presenter: Prof Wen Chang</p> <p><b><i>Vaccinia Virus Proteins A36 AND F12/E2 Show Strong Preferences for Different Kinesin Light Chain (KLC) Isoforms</i></b> Oral Presenter: Mr William Gao</p>
	<i>Peony Junior Ballroom 4511 – 4512</i>	<b>Paramyxoviruses I</b> Chair: Prof Danielle Anderson, Duke-NUS Medical School, Singapore <p><b>Comparative Loss of Function Screens Reveal Common Cellular Pathways Required by Paramyxoviridae and Pneumoviridae</b> Oral Presenter: Prof Danielle Anderson</p> <p><b><i>Development of a Newcastle Disease Virus Vector Expressing a Foreign Gene through an Internal Ribosomal Entry Site Provides Direct Proof for a Sequential Transcription Mechanism</i></b> Oral Presenter: Dr Qingzhong Yu</p>



**17 July 2017, Monday**

Time	Room	Programme
		<p><b><i>Measles Virus Enters Breast and Colon Cancer Cells through a NECTIN-4 Mediated Macropinocytosis Pathway</i></b> Oral Presenter: Prof Christopher Richardson</p> <p><b><i>Characterization of Cedar Virus Cellular Tropism and Rescue of Recombinant Cedar Virus</i></b> Oral Presenter: Dr Eric Laing</p>
	Peony Junior Ballroom 4411 – 4412	<p><b>Positive RNA Viruses I</b> Chair: Prof Vincent Chow, National University of Singapore, Singapore</p> <p><b><i>The Pandemic SARS Coronavirus May Have Originated from a Single Horseshoe Bat Habitat after Sequential Recombination Events</i></b> Oral Presenter: Dr Ben Hu</p> <p><b><i>MERS-CoV Nucleocapsid Protein Regulates TNF mRNA Expression in Different Human Cell Lines</i></b> Oral Presenter: Mr James Aboagye</p> <p><b><i>Inhibition of Replication and Pathogenesis of Coronaviruses by Targeting Viral 2'-O-Methyltransferase</i></b> Oral Presenter: Prof Deyin Guo</p> <p><b><i>Structural and Functional Insights into a Cross-Reactive Antibody That Recognizes Dengue And Zika Virus NS1 Protein and Blocks NS1 Function</i></b> Oral Presenter: Dr Daniel Watterson</p>
16:00 – 16:30	Sands Grand Ballroom foyer	<b>Coffee Break</b>
<b>WORKSHOP SESSION 2</b>		
16:30 – 18:00	Roselle Junior Ballroom 4712 – 4713	<p><b>Insect Viruses</b> Chair: Dr Jody Hobson-Peters, The University of Queensland, Australia</p> <p><b><i>Investigating the Host Restriction of Insect-specific Flaviviruses and Their Potential as New Tools in Biotechnology</i></b> Oral Presenter: Dr Jody Hobson-Peters</p> <p><b><i>Newly Discovered Insect-specific Flaviviruses from Anopheles Mosquitoes are Highly Specialised for their Host Mosquito Species</i></b> Oral Presenter: Colmant Agathe</p>



**17 July 2017, Monday**

Time	Room	Programme
		<p><b><i>A Tale of Providence: An RNA Virus that Infects and Replicates in Insect, Human and Plant Cells</i></b> Oral Presenter: Dr Meesbah Jiwaji</p> <p><b><i>Establishment of Viral Replication Complexes by Providence Virus (Family: CARMOTETRAVIRIDAE)</i></b> Oral Presenter: Dr Meesbah Jiwaji</p>
	Roselle Junior Ballroom 4612 – 4613	<p><b>Influenza Virus</b> Chair: Prof Ling Chen, Guangzhou Institute of Biomedicine and Health, China</p> <p><b><i>A Cross-clade H5N1 Influenza A Virus Neutralizing Monoclonal Antibody 9F4 Binds to a Novel Epitope within the Vestigial Esterase Domain of Hemagglutinin</i></b> Oral Presenter: Mr Subha Sankar Paul</p> <p><b><i>Local Structure Changes of the Influenza A Virus Ribonucleoprotein Complex by a Mutation in the Specific Residue Involved in the Efficient Genome Packaging</i></b> Oral Presenter: Mr Naoki Takizawa</p> <p><b><i>In Vitro Human Nasal Epithelial Cells as a Complementary Model for Population Level Transcriptomic Profiling of Emerging Respiratory Infectious Disease</i></b> Oral Presenter: Dr Kai Sen Tan</p> <p><b>Replication-competent Bioluminescent Influenza Virus for Rapid and Sensitive Detection of Neutralizing Antibodies</b> Oral Presenter: Prof Ling Chen</p>
	Peony Junior Ballroom 4511 – 4512	<p><b>Paramyxoviruses II</b> Chair: Prof Benhur Lee, ICAHN School of Medicine at Mount Sinai, USA</p> <p><b>The Mòjiāng Virus Attachment Glycoprotein Confers a Mode of Infection Distinct from Genetically Related Henipaviruses</b> Oral Presenter: Prof Benhur Lee</p> <p><b><i>The Highly Conserved Tryptophan Residue in V Protein Plays a Critical Role in Neurovirulence of Measles Virus</i></b> Oral Presenter: Mr Shotaro Uchida</p> <p><b><i>Structural Insights into STAT1-dependent Inhibition of STAT2 Phosphorylation by Sendai Virus C Protein</i></b> Oral Presenter: Dr Kosuke Oda</p> <p><b><i>Hendra Virus V Protein Plasticity Enables Binding to Multiple Nuclear Transport Proteins</i></b> Oral Presenter: Dr Sarah Atkinson</p>



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## 17 July 2017, Monday

Time	Room	Programme
	<i>Peony Junior Ballroom 4411 – 4412</i>	<b>Positive RNA Viruses II</b> Chair: Prof Justin Chu, National University of Singapore, Singapore Co-chair: Prof Jen-Ren Wang, National Cheng Kung University, Taiwan  <b>Analysis of Virulence Determinants of Enterovirus A71</b> Oral Presenter: Prof Jen-Ren Wang  <b>Hand, Foot and Mouth Disease in Vietnam</b> Oral Presenter: Le Van Tan  <b>System Biology Approaches in Dissecting the Replication Processes of Human Enteroviruses that Cause HFMD</b> Oral Presenter: Prof Justin Chu  <b>Dynamic Haplotype Switches in Quasispecies Associates with Viral Invasion into Central Nervous System and Disease Severity of Enterovirus A71 in Human</b> Oral Presenter: Dr Sheng-Wen Huang
18:00 – 18:30	<i>Sands Grand Ballroom foyer</i>	<b>Break</b>
18:30 – 19:30	<i>Sands Grand Ballroom I – L</i>	<b>Plenary – Virus-host Interactions</b> Chair: Prof Terry Dermody  <b>Coronavirus Diversity, Phylogeny and Interspecies Jumping</b> Speaker: Prof Patrick CY Woo, Hong Kong University, Hong Kong SAR  <b>Morbillivirus Pathogenesis - What We Know and What We Don't</b> Speaker: Dr Veronika von Messling, Paul-Ehrlich-Institut, Germany
19:30 – 20:30	<i>Sands Grand Ballroom I – L</i>	<b>Arima and Mudd Awards Ceremony</b>  <b>Arima Award:</b> Dr Fernando Baquero, Scientific Director, Ramón y Cajal University Hospital in Madrid, Spain  <b>Mudd Award:</b> <b>Science and Society: Infectious diseases as an example</b> Speaker: Prof Jörg Hacker, President of the German National Academy of Sciences Leopoldina, Halle (Saale), Germany



**18 July 2017, Tuesday**

Time	Room	Programme
08:30 – 09:30	<i>Sands Grand Ballroom I – L</i>	<p><b>Plenary – New and Emerging Viruses 1</b>            Chair: Prof Erica Ollmann Saphire</p> <p><b>Ebola Virus – Pathogenesis &amp; Vaccines</b>            Speaker: Dr Andrea Marzi, National Institutes of Health, USA</p> <p><b>New Insight into the Pathogenesis of Zika Virus Infection</b>            Speaker: Prof Michael Diamond, Washington University, USA</p>
09:30 – 10:00	<i>Sands Grand Ballroom foyer</i>	<b>Coffee Break</b>
10:00 – 11:00	<i>Sands Grand Ballroom I – L</i>	<p><b>Plenary – New and Emerging Viruses 2</b>            Chair: Prof Erica Ollmann Saphire</p> <p><b>How Do Bats Coexist With Viruses?</b>            Speaker: Prof Michelle Baker, CSIRO Australian Animal Health Laboratory, Australia</p> <p><b>Entry of Enveloped Viruses: From Flu, MERS to Ebola</b>            Speaker: Prof George Gao, Chinese Center for Disease Control and Prevention, China</p>
11:00 – 13:00	<i>Sands Grand Ballroom A – D</i>	<p><b>Yakult Sponsored Lunch Symposium</b></p> <p><b>Gut Microbiota and Ulcerative Colitis</b>            Speaker: Prof Toshifumi Ohkusa, The Jikei University Kashiwa Hospital</p>
	<i>Sands Grand Ballroom foyer</i>	<b>Lunch and Posters</b>
11:30 – 13:00	<i>Peony Junior Ballroom, 4510</i>	<b>VIR Divisional Council Meeting</b>
<b>WORKSHOP SESSIONS 3</b>		
13:00-14:30	<i>Roselle Junior Ballroom 4712 – 4713</i>	<p><b>Viral Diagnostics</b>            Chair: Prof Hossein Salimnia, Detroit Medical Center University Laboratories, USA</p> <p><b>Infectious Diseases and New Diagnostic Platforms</b>            Oral Presenter: Prof Hossein Salimnia</p> <p><b>Rapid Viral Disease Diagnosis and Multiplex Detection Technology with Potential for Point-of-Care Use</b>            Oral Presenter: Prof Joanne Macdonald</p>



**18 July 2017, Tuesday**

Time	Room	Programme
		<p><b><i>Application of Next-Generation Sequencing to Detect Acyclovir-resistant Herpes Simplex Virus 1 Variants at Low Frequency in Thymidine Kinase Gene from Viral Isolates, Emergence in Patients with Stem Cell Transplantation</i></b> Oral Presenter: Ms Hikaru Fujii</p> <p><b><i>3base™ technology and its application to the detection of flavivirus/alphavirus in the 2016/17 Vanuatu dengue outbreak</i></b> Oral Presenter: Dr Wendy Chen</p>
	<i>Roselle Junior Ballroom 4612 – 4613</i>	<p><b>DNA Viruses I</b> Chair: Prof Andrew Davison, University of Glasgow Centre for Virus Research, United Kingdom</p> <p><b>Challenges and Opportunities in Sequencing Complete Human Cytomegalovirus Genomes Directly from Clinical Material</b> Oral Presenter: Prof Andrew Davison</p> <p><b><i>The Human Cytomegalovirus IE1 Protein Antagonizes PML Nuclear Body Mediated Intrinsic Immunity Via The Inhibition of PML De Novo Sumoylation</i></b> Oral Presenter: Prof Thomas Stamminger</p> <p><b><i>Expression of an Alternatively Spliced IL-15 Isoform in Skin Enhances Neuroinvasiveness and Reactivation in Herpes Simplex Virus-1 Zosteriform Mouse Model</i></b> Oral Presenter: Prof Chia-Chi Ku</p> <p><b><i>Non-canonical SMAD Signalling Promotes Spread of Vaccinia Virus</i></b> Oral Presenter: Ms Anjali Gowripalan</p>
	<i>Peony Junior Ballroom 4511 – 4512</i>	<p><b>Plant Viruses I</b> Chair: Prof Manfred Heinlein, Institut de Biologie Moléculaire des Plantes du CNRS, Université de Strasbourg, France</p> <p><b>Plant: Virus Interactions Involved in Viral Cell-to-Cell Spread</b> Oral Presenter: Prof Manfred Heinlein</p> <p><b><i>Key Determinant of Viral Synergism in Phalaenopsis Co-infected with Cymbidium Mosaic Virus and Odontoglossum Ringspot Virus</i></b> Oral Presenter: Dr Na-Sheng Lin</p> <p><b><i>Infection Strategy of Brome Mosaic Virus in Host and Non-Host Plants</i></b> Oral Presenter: Prof Kazuyuki Mise</p>





**18 July 2017, Tuesday**

Time	Room	Programme
		<b><i>Isolation of an NB-LRR Gene Involved in Rice Resistance Against Brome Mosaic Virus</i></b> Oral Presenter: Mr Takaaki Oya
	<i>Peony Junior Ballroom 4411 – 4412</i>	<b>Arboviruses I</b> Chair: Prof Paul Young, The University of Queensland, Australia  <b><i>Structure, Maturation, and Antibody Binding of Zika and Related Flaviviruses</i></b> Oral Presenter: Prof. Richard Kuhn  <b><i>A Mutation Identified in Neonatal Microcephaly Destabilizes Zika Virus NS1 Assembly In Vitro</i></b> Oral Presenter: Prof Deping Wang  <b><i>Effects of Salivary Gland Proteins in Dengue Virus Replication in the Mosquito Aedes Aegypti</i></b> Oral Presenter: Ms Chalida Sri-in  <b><i>The Microbiome Composition of Aedes Aegypti is Not Critical for Wolbachia-mediated Inhibition of Dengue Virus</i></b> Oral Presenter: Dr Michelle Audsley
<b>WORKSHOP SESSIONS 4</b>		
14:30 - 16:00	<i>Roselle Junior Ballroom 4712 – 4713</i>	<b>Virus Discovery</b> Chair: Prof Eddie Holmes, The University of Sydney, Australia  <b><i>The Risk of Emerging Arboviruses: Discovery of a Divergent Group of Bunyaviruses in Australian Mosquitoes</i></b> Oral Presenter: Dr Jody Hobson-Peters  <b><i>A Putative Cross-family Recombinant Coronavirus with a Reovirus Gene in Bats</i></b> Oral Presenter: Dr William Liu  <b><i>The Meta-Transcriptomic Discovery of Pathogens in Neglected and Undiagnosed Disease Syndromes of Native Australian Wildlife</i></b> Oral Presenter: Dr John-Sebastian Eden  <b><i>Next-generation Sequencing Analysis of Cerebrospinal Fluid from Adults with Unexplained Central Nervous System Infections</i></b> Oral Presenter: Ms Nguyen Hong
	<i>Roselle Junior Ballroom 4612 – 4613</i>	<b>DNA Viruses II</b> Chair: Prof Andrew Davison, University of Glasgow Centre for Virus Research, United Kingdom  <b><i>Recognition of Adenoviruses that Likely Have Switched Host</i></b> Oral Presenter: Prof Maria Benko





**18 July 2017, Tuesday**

<b>Time</b>	<b>Room</b>	<b>Programme</b>
		<p><b>Identification and Application of an Early Fowl Aviadenovirus 9 (FADV-9) Promoter</b> Oral Presenter: Prof Eva Nagy</p> <p><b>The Diversity and Molecular Evolution of Monkey Adenoviruses</b> Oral Presenter: Balazs Harrach</p> <p><b>Interactions of Human Enteric Adenoviruses with Host Cells</b> Oral Presenter: Dr Martha Brown</p>
	<i>Peony Junior Ballroom 4511 – 4512</i>	<p><b>Plant Viruses II</b> Chair: Prof Manfred Heinlein, Institut de Biologie Moléculaire des Plantes du CNRS, Université de Strasbourg, France</p> <p><b>Contribution of NGS-based Approaches to the Analysis of French Winter Barley Crops Virological Status</b> Oral Presenter: Dr Thierry Candresse</p> <p><b>How to Engineer Useful Mild Strains for Cross Protection, Using Papaya Ringspot Virus as an Example</b> Oral Presenter: Prof Shyi-Dong Yeh</p> <p><b>Genetic Determinants of Capsicum Chlorosis Virus and Its Plant Hosts During Compatible and Incompatible Interactions</b> Oral Presenter: Mrs Shirani Widana Gamage</p> <p><b>Transmission of Bamboo Mosaic Virus in Bamboos by Dipteran Insects</b> Oral Presenter: Dr Yau-Heiu Hsu</p>
	<i>Peony Junior Ballroom 4411 – 4412</i>	<p><b>Arboviruses II</b> Chair: Prof Lisa Ng, Singapore Immunology Network, A*STAR, Singapore</p> <p><b>Capsid Protein of West Nile Virus is Responsible for Accumulation of Ubiquitinated Denatured Proteins and Neurological Disease</b> Oral Presenter: Dr Shintaro Kobayashi</p> <p><b>Laboratory Analysis of Dengue Virus Infection in The Eye</b> Oral Presenter: Jillian Carr</p> <p><b>Development of an Animal Model to Study Ocular Zika Disease</b> Oral Presenter: Prof Shannan Rossi</p> <p><b>Experimental Zika Virus Infection of Neotropical Primates</b> Oral Presenter: Prof Niko Vasilakis</p>



## 18 July 2017, Tuesday

Time	Room	Programme
16:00- 16:30	<i>Sands Grand Ballroom foyer</i>	<b>Coffee Break</b>
1630 – 1800	<i>Sands Grand Ballroom I – L</i>	<b>Bridging session - Microbial Evolution and Diversity</b> Chair: Prof Paul Young, The University of Queensland, Australia  <b>Genomics &amp; The Making of Fungal Metabolic Diversity</b> Speaker: Prof Antonis Rokas, Vanderbilt University, USA (MEM)  <b>Using Metagenomics to Redefining Viroisphere and Disease Emergence</b> Speaker: Prof Eddie Holmes, University of Sydney, Australia (VIR)

## 19 July 2017, Wednesday

Time	Room	Programme
08:30 – 09:30	<i>Sands Grand Ballroom I – L</i>	<b>Plenary – Virus Structure and Macromolecular Assemblies 1</b> Chair: Prof Richard Kuhn  <b>How Poxvirus Fashion Membranes and Crystals Into Infectious Particles</b> Speaker: Prof Fasseli Coulibaly, Monash University, Australia  <b>Neutralization Mechanism of a Highly Potent Antibody against Zika Virus</b> Speaker: Prof Shee-Mei Lok, Duke-NUS Medical School, Singapore
09:30 – 10:00	<i>Sands Grand Ballroom foyer</i>	<b>Coffee Break</b>
10:00 – 11:00	<i>Sands Grand Ballroom I – L</i>	<b>Plenary – Virus Structure and Macromolecular Assemblies 2</b> Chair: Prof Richard Kuhn  <b>Structural Biology of the Flavivirus Virulence Factor NS1: The Enigma Continues</b> Speaker: Prof Janet Smith, University of Michigan, USA  <b>Immunogenicity and Structures of a Rationally Designed Prefusion MERS-CoV Spike Antigen</b> Speaker: Dr Jason McLellan, Geisel School of Medicine, USA
11:00 – 13:00	<i>Sands Grand Ballroom foyer</i>	<b>Lunch and Posters</b>



**19 July 2017, Wednesday**

<b>Time</b>	<b>Room</b>	<b>Programme</b>
<b>WORKSHOP SESSIONS 5</b>		
13:00 – 14:30	<i>Roselle Junior Ballroom 4712 – 4713</i>	<b>Virus Vaccines</b> Chairs: Prof Eng Eong Ooi, Duke-NUS Medical School, Singapore and Dr Karin Sundstrom, Duke-NUS Medical School, Singapore  <b><i>Microrna-based Suppression of Neurotropic Flavivirus Replication in the Arthropod Vector and in the Brain of Vertebrate Host: Application for the Development of Environmentally Safe, Live Attenuated Vaccine</i></b> Oral Presenter: Prof Alexander Pletnev  <b><i>Nanopatch Delivery of a Tetravalent Recombinant Subunit Dengue Vaccine</i></b> Oral Presenter: Dr David Muller  <b><i>Evaluation of Influenza H7N9 Vaccine Candidates Formulated with Aluminum Hydroxide or Squalene Emulsion Adjuvants in Ferrets</i></b> Oral Presenter: Prof Min-Shi Lee  <b>A Single-round Infectious Particle Zika Virus Vaccine</b> Oral Presenter: Dr Karin Sundstrom
	<i>Roselle Junior Ballroom 4612 – 4613</i>	<b>Antivirals I</b> Chair: Prof Subhash Vasudevan, Duke-NUS Medical School, Singapore  <b><i>Evolving Resistance to Imatinib in Vaccinia Virus: A Case Study of A Host-Targeted Antimicrobial</i></b> Oral Presenter: Ms Melanie Duncan  <b><i>Using Natural Product-Based Inhibitor (CGU-V007) to Dissect Enterovirus 71 Replication</i></b> Oral Presenter: Dr Chung-Fan Hsieh  <b><i>Identification of Obatoclax and Berberine as Broad-Spectrum Antivirals Against Chikungunya and Other Viruses</i></b> Oral Presenter: Dr Tero Ahola  <b><i>Host Defense Temporin 1 Peptides and Their Potential as Antiviral Agents</i></b> Oral Presenter: Prof Massimiliano Galdiero
	<i>Peony Junior Ballroom 4511 – 4512</i>	<b>Hepatitis Viruses I</b> Chair: Prof Tan Yee Joo, National University of Singapore, Singapore  <b>Contribution of Macrophage Migration Inhibitory Factor (MIF) to Hepatitis C Virus Replication</b> Oral Presenter: Prof Tan Yee Joo



**19 July 2017, Wednesday**

Time	Room	Programme
		<p><b>Hepatitis C Virus Replication Requires Ribonucleotide Reductase M2 to Stabilize NS5B Protein, an RNA-dependent RNA Polymerase</b>            Oral Presenter: Dr Bouchra Kitab</p> <p><b>Hepatitis C Virus: From Research on Translation to Translational Research</b>            Oral Presenter: Prof Saumitra Das</p> <p><b>Investigating the Clinical Utility of Testing for Hepatitis C Virus Resistance-associated Variants to Understand Treatment Failures</b>            Oral Presenter: Dr Julian Tang</p>
	Peony Junior Ballroom 4411 – 4412	<p><b>Double Strand RNA Viruses</b>            Chair: Dr Masayuki Saijo, National Institute of Infectious Diseases, Japan</p> <p><b>The TRiC Chaperonin is Required for Reovirus Assembly</b>            Oral Presenter: Prof Terence Dermody</p> <p><b>Establishment of Lethal Pteropine Orthoreovirus Infection Balb/C Mouse Model</b>            Oral Presenter: Dr Masayuki Saijo</p> <p><b>Deciphering of Cellular Receptor Responsible for Pteropine Orthoreovirus Gaining Entry into Host</b>            Oral Presenter: Mr Yeh Fong Tan</p> <p><b>Whole Genome Analysis of Porcine Rotaviruses H Detected in Japan in Recent Years</b>            Oral Presenter: Dr Tohru Suzuki</p>
<b>WORKSHOP SESSIONS 6</b>		
14:30 - 16:00	Roselle Junior Ballroom 4712 – 4713	<p><b>Viral Evolution and Population Genetics</b>            Chair: Prof Alexander Gorbalenya, Leiden University Medical Center, Netherlands</p> <p><b>Cross-species Transmission Occurs More Frequently Than Co-Divergence Among Viral Families</b>            Oral Presenter: Jemma Geoghegan</p> <p><b>Dinucleotide Composition in Animal RNA Viruses is Shaped More by Virus Family than Host Species</b>            Oral Presenter: Dr Francesca Di Giallonardo</p> <p><b>Evolution of the Restriction Gene Fv1 in the Wild Mice Population of South East Asia to Protect Against Multiple Retroviruses</b>            Oral Presenter: Dr Melvyn Yap</p>



**19 July 2017, Wednesday**

<b>Time</b>	<b>Room</b>	<b>Programme</b>
		<b>Genome Size Dynamics and Gene Linkage in Macroeolution of Nidoviruses</b> Oral Presenter: Prof Alexander Gorbalenya
	<i>Roselle Junior Ballroom 4612 – 4613</i>	<b>Antivirals II and Late-breaking Talk</b> Chair: Prof Subhash Vasudevan, Duke-NUS Medical School, Singapore  <b>Heparan Sulfate Mimetic Compounds in Modulating RRV as Potential Therapies</b> Oral Presenter: Aroon Supramaniam  <b>Single Chain Variable Fragment-1G1 Inhibits H5N1 Avian Influenza Virus Growth via Neutralization of NS1</b> Oral Presenter: Dr Chee Keng Mok  <b>Cardiotonic Steroids Suppress Adenovirus Replication in Human Respiratory Epithelial Cells</b> Oral Presenter: Dr Martha Brown  <b>RIG-I Activation and Viral Gene Silencing a Potent Combinatorial Drug Design for HCV Therapy</b> Oral Presenter: Dr Mohammad Alam  <b>Repurposing of Signal Transduction Inhibitors to Fight the Flu – MEK Inhibitors Efficiently Block Influenza Virus Replication in Mice with a Prolonged Therapeutic Window</b> Oral Presenter: Prof Ludwig Stephan
	<i>Peony Junior Ballroom 4511 – 4512</i>	<b>Hepatitis Viruses II</b> Chair: Prof Tan Yee Joo, National University of Singapore, Singapore  <b>The Distribution of Hepatitis B Virus Subgenotypes and the Time of Their Emergence in the Native Population of Siberia, Russia</b> Oral Presenter: Sergey Netesov  <b>Transmission of HBV Genomic DNA Mediated by Extracellular Vesicles</b> Oral Presenter: Dr Takahiro Sanada  <b>Preferential Recognition of HBV-DNA Integrated Target by HBV-Specific CD8 T Cells</b> Oral Presenter: Dr Atefeh Khakpoor  <b>Impairment of Interferon-beta Response by Hepatitis B Virus in <i>Tupaia belangeri</i></b> Oral Presenter: Mr Mohammad Enamul Hoque Kayesh
	<i>Peony Junior Ballroom 4411 – 4412</i>	<b>Negative Strand RNA Viruses</b> Chair: Dr Greg Moseley, The University of Melbourne, Australia



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Time	Room	Programme
		<p><b>Fighting Ebola: An Alternative Subunit Vaccine Strategy</b> Oral Presenter: Dr Keith Chappell</p> <p><b>MRNA Capping Machinery of Vesicular Stomatitis Virus</b> Oral Presenter: Prof Tomoaki Ogino</p> <p><b>Ferret Models of Disease Associated with Filovirus Infections</b> Oral Presenter: Dr Glenn Marsh</p> <p><b>Structural Elucidation of the Rabies Virus P Protein-Stat1 Interface: The Molecular Basis for Immune Evasion</b> Oral Presenter: Dr Greg Moseley</p>
16:00 – 16:30	Sands Grand Ballroom foyer	<b>Coffee Break</b>
1630 – 1800	Sands Grand Ballroom I – L	<p><b>Bridging Session – Microbes and Climate Change</b> Chair: Prof Gustavo Goldman, Universidade de São Paulo, Brazil</p> <p><b>Bacteria and Climate Change</b> Speaker: Carlos Pedrós-Alió, National Center for Biotechnology (CSIC) in Madrid, Spain (BAM)</p> <p><b>Fungi and Climate Change</b> Speaker: Prof Lynne Boddy, Cardiff School of Biosciences, United Kingdom (MEM)</p> <p><b>Dengue and Zika Transmission: Environmental and Human Interaction</b> Speaker: Dr Lee Ching Ng, National Environment Agency, Singapore (VIR)</p>

## 20 July 2017, Thursday

Time	Room	Programme
08:30 – 09:30	Sands Grand Ballroom I – L	<p><b>Plenary – Viruses as Trojan Horses I</b> Chair: Prof Kah Whye Peng</p> <p>Speaker: Dr Carolina Ilkow – Center for Innovative Cancer Therapeutics, Ottawa Hospital Research Institute, Ottawa, Canada.</p> <p><b>Modular Design and Assembly of Synthetic Virus Vectors, Diagnostics and Cancer Therapies</b> Speaker: Prof Clodagh O'Shea, Salk Institute, USA</p>



**20 July 2017, Thursday**

Time	Room	Programme
09:30 – 10:00	Sands Grand Ballroom foyer	<b>Coffee Break</b>
10:00 – 11:00	Sands Grand Ballroom I – L	<b>Plenary – Viruses as Trojan Horses II</b> Chair: Stephen Russell  Speaker: Prof Luk Vandenberghe, Harvard Medical School, USA  Speaker: Prof Junghae Suh, Rice University, USA
11:00 – 13:00	Sands Grand Ballroom A – D	<b>Yakult Sponsored Lunch Symposium</b>  <b>The Unique Features of <i>Lactobacillus Casei</i> Strain Shirota Correlates with the Cell Wall Polysaccharides and Its Genes</b> Speaker: Emi Yasuda, Yakult Central Institute
	Sands Grand Ballroom foyer	<b>Lunch and Posters</b>
		<b>IUMS Council Handing Over Ceremony</b>
<b>WORKSHOP SESSIONS 7</b>		
13:00-14:30	Roselle Junior Ballroom 4712 – 4713	<b>Innate Defense Against Viruses</b> Chair: Prof Yongliang Zhang, National University of Singapore, Singapore  <b>DUSP4 Regulates MAPK and RIG-I signalling in Innate Immune Response to Virus Infection</b> Speaker: Prof Yongliang Zhang  <b><i>Vaccinia Virus Protein C4 is an Inhibitor of DNA-PK-Mediated DNA Sensing</i></b> Oral Presenter: Mr Simon Scutts  <b><i>Astrocytic Reticular Network Functions in the Brain as a Conduit System for Viral Entry and Cytokine Production</i></b> Oral Presenter: Prof Rihito Watanabe  <b><i>The Role of Mast Cells in Japanese Encephalitis Virus Penetration of the Blood-Brain Barrier</i></b> Oral Presenter: Mr Justin Hsieh
	Roselle Junior Ballroom 4612 – 4613	<b>Viral Disease</b> Chair: Dr Lara Herrero, Griffith University, Australia  <b>The Role of Chondrocytes in Alphaviral Inflammatory Disease</b> Oral Presenter: Dr Lara Herrero  <b><i>A Murine Model of Enterovirus 71 (EV71) Infection, Disease, And Pathology Exhibiting Neurogenic Pulmonary Edema</i></b> Oral Presenter: Ms Bianca Victorio





**20 July 2017, Thursday**

<b>Time</b>	<b>Room</b>	<b>Programme</b>
		<p><b><i>An In Vitro Human Nasal Epithelial Model for the Universal Surveillance and Characterization of Respiratory Virus Infections</i></b> Oral Presenter: Dr Kai Sen Tan</p> <p><b><i>Identification of Risk Factors for Rotavirus Circulation in Pigs from Philippine Backyard Farms</i></b> Oral Presenter: Ms Maria Catherine Otero</p>
	Peony Junior Ballroom 4511 – 4512	<p><b>Virus Surveillance, Epidemiology &amp; Public Health</b> Chair: Dr Julian Tang, University of Leicester, United Kingdom</p> <p><b><i>Zika Virus-Associated Microcephaly in Hawaii</i></b> Oral Presenter: Dr Mukesh Kumar</p> <p><b>Global Comparative Epidemiology of Respiratory Viruses 2010-2015</b> Oral Speaker: Dr Julian Tang</p> <p><b><i>Experience of Viral Infections Can Change Vulnerability of Host Against Subsequent Infections: Pediatric Acute Respiratory Infection Cohort Study</i></b> Oral Presenter: Dr Yuki Furuse</p> <p><b><i>A Study on the Origin of Bovine Rotavirus Strains Detected from the Children of the Nasu District, Tochigi, Japan</i></b> Oral Presenter: Prof Kei Numazaki</p>
	Peony Junior Ballroom 4411 – 4412	<p><b>Viruses &amp; Cancer</b> Chair: Prof Kah Whye Peng, Mayo Clinic, USA</p> <p><b>Oncolytic Measles Virotherapy: Preclinical and Clinical Insights</b> Oral Presenter: Prof Kah Whye Peng</p> <p><b><i>Epstein-Barr Virus Infection is Related to the Development and Local Recurrence of Laryngeal Cancer in Taiwanese Patients</i></b> Oral Presenter: Professor Li-Ang Lee</p> <p><b>Vesicular Stomatitis Virus as an Oncolytic Agent</b> Oral Presenter: Stephen Russell</p> <p><b><i>Oncolytic Virotherapy Potentiated by Phosphatase Inhibitor</i></b> Oral Presenter: Mr Mohammed Selman</p>



**20 July 2017, Thursday**

Time	Room	Programme
<b>WORKSHOP SESSIONS 8</b>		
14:30-16:00	<i>Roselle Junior Ballroom 4712 – 4713</i>	<b>Antiviral Immunity</b> Chair: Prof Lars Hangartner, The Scripps Research Institute, USA  <b><i>PD-1+ CD8+ T CELLS Predict Hepatitis B Virus Control Upon Anti-Viral Therapy Discontinuation</i></b> Oral Presenter: Prof Nina Le Bert  <b><i>Characterisation of RIG-I-Like Receptor Agonists for Dengue Virus Therapy</i></b> Oral Presenter: Mr Victor Ho  <b><i>Novel Consensus DNA Vaccine Induces Protective Immunity Against Zika Virus</i></b> Oral Presenter: Prof Kar Muthumani  <b><i>Glycosylation of C-Terminal Tail of Immunoglobulin A Confers Direct Antiviral Activity Against Enveloped Sialic Acid-Binding Viruses</i></b> Oral Presenter: Prof Lars Hangartner
	<i>Roselle Junior Ballroom 4612 – 4613</i>	<b>RNA-Protein Interactions</b> Chair: Prof Julia Kenyon, Homerton College University of Cambridge, United Kingdom  <b><i>In-Gel Probing to Examine RNA Structures Within HIV RNA-Protein Complexes of Varying Stoichiometry</i></b> Oral Presenter: Prof Julia Kenyon  <b><i>Structural Basis of Viral RNA-dependent RNA Polymerase Catalysis and Translocation</i></b> Oral Presenter: Prof Peng Gong  <b><i>Identification of Potato Virus a Coat Protein as an Important Regulator of Viral Translation and Replication</i></b> Oral Presenter: Dr Kristiina Mäkinen  <b><i>Investigating the Mechanism of AUF1 Negative Regulation of Picornavirus Infections</i></b> Oral Presenter: Dr Wendy Ullmer
	<i>Peony Junior Ballroom 4511 – 4512</i>	<b>Viruses and microRNA</b> Chair: Prof Ruey-Yi Chang, National Dong Hwa University, Taiwan  <b><i>Elevated Expression of the MIR-125B-5P Targeting to Multiple Signaling Pathways Contributes to Japanese Encephalitis Virus Persistent Infection</i></b> Oral Presenter: Prof Ruey-Yi Chang



**20 July 2017, Thursday**

Time	Room	Programme
		<p><b>Host Microrna MIR-181D Plays a Negative Regulatory Role in the Enterovirus 71 Replication by Targeting FKBP1A</b>            Oral Presenter: Mrs Wen-Fang Tang</p> <p><b>Roles of miR-122 in Hepatitis B Virus (HBV) Replication</b>            Oral Presenter: Prof Theresa Tan</p> <p><b>A Primary Tonsillar Crypt Cell Line for In Vitro Modelling of Enterovirus Infection and Pathogenesis</b>            Oral Presenter: Mr Nyo Min</p>
	Peony Junior Ballroom 4411 – 4412	<p><b>HIV and Retroviruses</b>            Chair: Prof David Harrich, QIMR Berghofer Medical Research Institute</p> <p><b>Alix and the Genomic RNA Packaging Signal of HIV-1 Cooperate to Optimize Virus Maturation and Release</b>            Oral Presenter: Prof Andrew Lever</p> <p><b>Conformational States of HIV-1 GP41 Revealed by Cysteine Scanning Mutagenesis</b>            Oral Presenter: Dr Ashraf Khasawneh</p> <p><b>Optimal HIV-1 Uncoating, Reverse Transcription and Replication Requires Interaction Between the Strictly Conserved E300 HIV-1 RT Residue and Cellular EEF1A</b>            Oral Presenter: Mr Daniel Rawle</p> <p><b>Inhibitory Activity of a New Alkaloid, Globospiramine, in Latently HIV Infected Cells</b>            Oral Presenter: Prof Ma.Sheila de Jesus</p>
16:00 – 16:30	Sands Grand Ballroom foyer	<b>Coffee Break</b>
16:30 – 18:00	Sands Grand Ballroom I – L	<p><b>Bridging session – Immunity and Immune Evasion</b>            Chair: Prof Eiora Ron, Tel Aviv University, Israel</p> <p><b>New Vaccines and Their Role in Fighting Antimicrobial Resistance</b>            Speaker: Dr Rino Rappuoli (BAM)</p> <p><b>Exploiting Innate Recognition Of B-Glucans In Fungal Vaccine Development</b>            Speaker: Prof Stuart Levitz, University of Massachusetts, USA (MEM)</p> <p><b>Interplay of Multiple Infections with the Immune System</b>            Speaker: Dr Tiffany Reese, UT Southwestern Medical Center, USA (VIR)</p>



## 21 July 2017, Friday

Time	Room	Programme
08:30 – 09:30	<i>Sands Grand Ballroom I – L</i>	<b>Plenary – Novel Approaches to Virus Control I</b> Chair: Prof Paul Young  <b>Two Novel Approaches to Control HIV-1 Replication</b> Speaker: Prof David Harrich, QIMR Berghofer Medical Research Institute, Australia  <b>The Use of Wolbachia to Control the Transmission of Aedes Aegypti Associated Viruses: The Eliminate Dengue Program</b> Speaker: Prof Scott O'Neill, Monash University, Australia
09:30 – 10:00	<i>Sands Grand Ballroom foyer</i>	<b>Coffee Break</b>
10:00 – 11:00	<i>Sands Grand Ballroom I – L</i>	<b>Plenary – Novel Approaches to Virus Control II</b> Chair: Prof Paul Young  <b>Antivirals, A Lot Has Been Achieved, Yet A Long Way To Go</b> Speaker: Prof Johan Neyts, University of Leuven, Belgium  <b>Exploiting the Host miRNA Machinery to Control RNA Biology</b> Speaker: Prof Ben TenOever, ICAHN School of Medicine at Mount Sinai, USA
11:00 – 12:00	<i>Sands Grand Ballroom I – L</i>	<b>Closing Ceremony</b>