



INTERNATIONAL VECTOR-BORNE DISEASES CONFERENCE (IVBDC)

November 2023

Scientific Programme

Day 1 – Vector Epidemiology and Vector Control Strategies	
0800 - 0900	Registration of Participants
0900	Welcome Address by Conference Chairs
Session 1: Vector epidemiology and disease dynamics Chair:	
0920	Keynote Address: Bruce Hay (Caltech, USA) Engineering the composition and fate of wild populations with gene drive
0955	Invited speaker: Jamal I-Ching Sam (University of Malaya) Circulating chikungunya virus genotypes in Malaysia and potential implications for mosquito vectors and humans
1020	Invited speaker: Indra Vythilingam (University of Malaya) Current status of simian malaria and its vectors in Southeast Asia
10.45	Coffee Break
Session 1(Cont'd): Vector epidemiology and disease dynamics Chair:	
1115	Invited Speaker: Christopher Ang (EHI) Detection and characterisation of the lineage I insect-specific flavivirus, Quang Binh virus, from rural caught mosquitoes in Singapore”
1140	Selected Speaker:
1155	Invited Speaker: Sazaly Bin Abu Bakar (Univeristy of Malaya) Title TBC
12.20	Selected speaker:
1235	Lunch
Session 2 : Vector competence and Vector control strategies Chair:	

1400	Keynote speaker: Jason Rasgon (Penn State Uni, USA) Pitfalls and breakdown points in the use of Wolbachia to control vector-borne diseases
1435	Selected speaker:
1450	Selected speaker:
1505	Invited speaker: Jingwen Wang (Fudan University, China) The influence of mosquito tryptophan metabolism on malaria parasite infection
1530	Selected Speaker
1545	Invited speaker: Leen Delang (Rega Institute, Belgium) Classic and new antiviral strategies to treat infections with mosquito-borne viruses.
16.10	Coffee break
Session 2 (Cont'd): Vector competence and Vector control strategies	
Chair:	
1640	Invited Speaker: Tan Li Yun Fighting Aedes aegypti with Wolbachia-Aedes aegypti
1705	Selected speaker:
1720	Invited Speaker: Nalini Puniamoorthy (NUS, Singapore) Title TBC
1745	Invited Speaker: Johanna Fraser (Monash University)- Defining the mechanisms that underpin the antiviral activity of the biocontrol agent, Wolbachia"
1810	End of day 1

Day 2 - Vector-Pathogen Interactions and Vector-Mammalian Host interactions

Session 3: Vector-Pathogen interactions

Chair:

0900	Keynote Address: Georges Christophides (Imperial College, UK) Gene drives for vector population replacement and malaria transmission zero
0935	Invited speaker: Julien Pompon (Institute of Research for Development (IRD); France) How lipids in mosquito saliva enhance transmission for multiple flaviviruses
1000	Selected speaker:
1015	Selected speaker:
1030	Coffee Break

Session 3 (Cont'd): Vector-Pathogen interactions

Chair:

1100	Invited Speaker: Wang Si Bao (Shanghai Institutes for Biological Sciences) Mosquito Microbiota and Implications for Disease Control
1125	Selected speaker
1140	Invited speaker: Claudia Rückert (University of Nevada, USA) New insights into molecular arbovirus-mosquito interactions
12.05	Selected speaker
12.15	Selected Speaker
1230	Lunch

Session 3 (Cont'd): Vector-Pathogen interactions

Chair:

1400	Keynote Address: Manjunatha Kini (DBS, NUS, Singapore) Role of Vector Saliva in Vector-Virus-Host Trilateral Interactions
1435	Invited speaker: Guann-Yi Yu (National Institute of Infectious Diseases and Vaccinology, National Health Research Institutes, Taiwan). High pathogenic DENV-2 strain in mosquitoes and mouse models
1500	Invited speaker: Cheng Gong (Tsinghua University, China) Skin Microbiota, Host Volatiles and Viral Transmission by Mosquitoes
1525	Coffee break
1600-1800 Poster Session	
1800	End of Day 2
1830	Gala Dinner (on invitation only)

Day 3 – Pathogen fitness and virulence in its mammalian host and treatment approaches

Session 5: Pathogen fitness and virulence in its mammalian host

Chair:

0900	Keynote: Sylvie Alonso (IDTRP NUS) Viral determinants of DENV fitness and virulence
0935	Invited Speaker : Wan Yue (A*STAR GIS) RNA structure and interactomes of RNA viruses
1000	Selected Speaker:
1015	Invited speaker: Pablo Bifani (IDTRP NUS) Rapid selection of drug resistant mutants for target deconvolution and drug discovery in viruses
1040	Coffee Break

Session 5 (Cnt'd): Pathogen fitness and virulence in its mammalian host

Chair

1110	Invited Speaker: Marco VIGNUZZI (A*STAR IDLabs) Title TBC
1135	Selected speaker
1150	Invited Speaker: Amit Sharma (All India Institute of Medical Sciences) From structural biology to epidemiology
1215	Selected speaker
1230	Lunch

Session 6: Prophylactic and Therapeutic approaches against Vector-Borne pathogens

Chair:

1400	Keynote speaker: Laurent Renia (NTU, LKC Medicine) New insights in <i>Plasmodium vivax</i> malaria biology
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1435	Selected speaker
1450	Invited speaker: Jody Peters (UQ, Australia) Harnessing recombinant mosquito-specific viruses to tackle emerging One Health viral diseases.
1515	Selected speaker
1530	Invited speaker: Julien LESCAR (NTU, LKC) Viral RNA-dependent-RNA-polymerases: structures and inhibition
1555	Coffee break
Session 7: Last but not least	
Chair:	
1625	Keynote Address: Prof Paul Pronyk (Centre for Outbreak Preparedness, Duke-NUS) The state of genomic pathogen surveillance in Asia and implications for Vector-borne Diseases
1700	Closing Ceremony
17.10	End of the conference