

2<sup>nd</sup> WIN International Conference on

# "Integrated approaches and innovative tools for combating insecticide resistance in arbovirus vectors"

# October 01-03th, 2018

Grand Copthorne Waterfront Hotel

Singapore

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# Scientific programme

	Monday October 1 <sup>st</sup> , 2018 - Grand Copthorne Waterfront hotel-	
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08:15-09:00	Registration	
09:00-09:30	Welcome notes	
Room:	Grand Ballroom, level 4	
09:00-09:05	Welcome address from the National Environmental Agency	<b>Mr. Derek Ho</b> , Director-General Public Health, NEA, Republic of Singapore
09:05-09:10	Welcome address from the French Ministry of Foreign Affairs in Singapore	<b>Mr. Marc Abensour,</b> Ambassador of France to the Republic of Singapore
09:10-09:15	Welcome address from the DUKE-NUS medical school	<b>Prof Patrick Casey</b> , Senior Vice Dean, Research, DUKE, NUS, Republic of Singapore
09:15-09:20	Welcome address from the Department of Control of Neglected Tropical Diseases (NTD), World Health Organization	<b>Dr. Raman Velayudhan,</b> Coordinator, WHO-NTD, Switzerland
09:20-09:25	Welcome address from the The Special Programme for Research and Training in Tropical Diseases (TDR), World Health Organization	<b>Dr. Florence Fouque,</b> Team Leader on vectors, WHO-TDR Switzerland
09:25-09:30	Objectives of the conference	<b>Dr. Julien Pompom</b> , Duke-NUS Medical School, Republic of Singapore <b>Dr. Vincent Corbel</b> , Institut de Recherche pour le Développement, France



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### Monday October 1st, 2018 (continued)

09:30-12:30	Scientific Session 1: Challenges and prospects for the control of emerging arboviral diseases	
Room:	Grand Ballroom, level 4	
Chair persons:	Dr. Raman Velayudhan (NTD) / Dr. Florence Fouque (TDR)	
09:30-09:50	Public Health Priorities for Prevention and Control of Epidemic Arboviral Diseases	<b>Dr. Duane Gubler,</b> Duke-NUS Medical School, Singapore
09:50-10:10	The WHO global vector control response to reduce the burden of vector borne diseases	<b>Dr. Raman Velayudhan</b> , World health Organization, NTD, Switzerland
10:10-10:30	The use of Wolbachia to disrupt dengue, Zika and chiikungunya transmission by <i>Aedes aegypti</i>	<b>Dr. Scott O'Neill</b> , World Mosquito Program, Vietnam
10:30-10:45	Discussions	
10:45-11:15	Coffee break & Poster session	
Chair persons:	Assoc. Prof. Lee Ching Ng (NEA) / Dr. Greg Devine (QIMR)	
11:15-11:35	Arbovirus vectors in SEA: a plea against ignorance	<b>Dr. Didier Fontenille,</b> Institut Pasteur, Cambodia
11:35-11:55	Project Wolbachia Singapore – Exploring a novel tool for Aedes control	<b>Assoc. Prof. Lee Ching Ng,</b> National Environment Agency, Singapore
11:55-12:15	Detection of Resistance in Insects Vectors of Human Disease: The	Prof. Jeffrey Scott, Cornell
	Road Forward	University, USA
12:15-12:30	Road Forward Discussions	University, USA



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Monday October 1<sup>st</sup>, 2018 (continued)

14:00-18:00	Scientific Session 2: Insecticide resistance, operational consequences and options for management	
Room:	Grand Ballroom, level 4	
Chair persons:	Dr. Fabrice Chandre (IRD) / Dr. Shinji Kasai (NIID)	
14:00-14:15	Insecticide susceptibility status and activity of detoxifying enzymes in larvae and adult <i>Aedes albopictus</i> from six regions of Madagascar	<b>Dr. Fara N. Raharimalala,</b> Institut Pasteur, Madagascar
14:15-14:30	Insecticide resistance status of arbovirus vectors, <i>Aedes aegypti</i> and <i>Ae. albopictus</i> in Laos: distribution, levels and mechanisms	<b>Dr. Sébastien Marcombe,</b> Institut Pasteur, Lao PDR
14:30-14:45	Alarming <i>Aedes aegypti</i> resistance in Cambodia: Skirting resistance with an integrated vector management in an entomological / epidemiological approach	<b>Dr. Sébastien Boyer</b> , Institut Pasteur, Cambodia
14:45-15:00	The last frontier: origin and insecticide susceptibility of a recently introduced <i>Aedes albopictus</i> population from Portugal	<b>Dr. João Pinto,</b> Instituto de Higiene e Medicina Tropical, Portugal
15:00-15:15	Insecticide Resistance Monitoring in <i>Aedes aegypti</i> from Brazil after Zika outbreak	<b>Dr. Ademir Martins,</b> FIOCRUZ, Brasil
15:15-15:30	Systematizing insecticide resistance testing for <i>Aedes</i> spp. in Latin America: What will it take?	<b>Dr. Nelson Grisales,</b> Abt associates, USA
15:30-15:45	Discussions	
15:45-16:15	Coffee break & Poster session	
Chair persons:	Dr. Julien Pompon (DUKE-NUS) / Dr. Jean-Philippe David (CNRS)	
16:15-16:30	A geographical perspective on insecticide resistance and mechanisms in the major <i>Aedes</i> vectors of arboviruses infecting humans	<b>Dr. David Weetman,</b> Liverpool School of Tropical Medicine, UK
16:30-16:45	Novel DNA markers of insecticide resistance in Arbovirus vectors for improving resistance monitoring and management	<b>Dr. Jean-Philippe David,</b> Centre National de la Recherche Scientifique, France



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#### Monday October 1<sup>st</sup>, 2018 (continued)

16:45-17:00	First detection of a Vssc allele V1016G in <i>Aedes albopictus</i> collected from Asia and Europe: A new emerging threat to controlling arboviral diseases	<b>Dr. Shinji Kasai,</b> National Institute of Infectious Diseases, Japan
17:00-17:15	Insecticide resistance and its operational implications for dengue control on the Indonesian island of Bali	<b>Mrs Erly Sintya Dewi</b> , Universitas Warmadewa, Indonesia
17:15-17:30	Pyrethroid-resistant mosquitoes compromise Australia's aircraft disinsection procedures	<b>Dr. Gregor Devine</b> , QIMR Berghofer Medical Research Institute, Australia
17:30-17:45	Management of insecticide resistance in arbovirus mosquito vectors: advances and challenges	<b>Dr. Fabrice Chandre,</b> Institut de Recherche pour le Développement, France
17:45-18:00	Discussions	

#### Tuesday October 2<sup>nd</sup>, 2018 - Grand Copthorne Waterfront hotel -

09:00-12:30	Scientific Session 3: New technologies and strategies for the control of invasive or insecticide-resistant vectors	
Room:	Grand Ballroom, level 4	
Chair persons:	Prof. Hassan Vatandoost (TUMS) / Dr. Joao Pinto (IHTM)	
09:00-09:15	Experimental evaluation of the impact of household aerosolized insecticides on pyrethroid resistant <i>Aedes aegypti</i>	<b>Dr. Gabriela Gonzalez-Olivera,</b> Universidad Autónoma de Yucatán, Mexico
09:15-09:30	Neighbors help neighbors control urban mosquitoes	<b>Prof. Dina Fonseca,</b> Rutgers University, USA
09:30-09:45	Gravitrap as a surveillance and control tool	<b>Dr. Chee-Seng Chong,</b> National Environment Agency, Singapore
09:45-10:00	Promising new tools to fight Aedes mosquitoes in Thailand	<b>Dr. Alongkot Ponlawat</b> , USAMD-AFRIMS, Thailand



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#### Tuesday October 2<sup>nd</sup>, 2018 (continued)

10:00-10:15	Integrated <i>Aedes</i> management (IAM) for the control of <i>Aedes</i> -borne diseases	<b>Dr. David Roiz,</b> Institut de Recherche pour le Développement, France
10:15-10:30	Discussion	
10:30-11:00	Coffee break & Poster session	
Chair persons:	Dr. John Grieco (NDU) / Dr. Dina Fonseca (RU)	
11:00-11:15	Alternative Strategies for Arbovirus Control	<b>Dr. Nicole Achee,</b> Notre Dame U., USA
11:15-11:30	Overview of Auto-dissemination technology for mosquito controls	<b>Dr. Devi Shankar Suman,</b> Ministry of Environment, India
11:30-11:45	Targeted Indoor Residual Spraying (TIRS) for the control of <i>Aedes aegypti</i>	<b>Dr. Gregor Devine,</b> QIMR Berghofer Medical Research Institute, Australia
11:45-12:00	New developments in the use of the Sterile Insect Technique (SIT)	<b>Dr. David Damiens,</b> IRD- CYROI, La Réunion, France
12:00-12:15	Gene editing population sex determination pathway for vector control	<b>Dr. Kyrou Kyros,</b> Imperial College, UK
12:15-12:30	Discussion	
12:30-14:00	Lunch (Ballroom 2)	
12:30-14:00 Room:	<u>Side-event</u> : Perspectives for the development of an insecticide testing laboratory (ITL) at Singapore Toucan	Private session (on invitation only)



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### Tuesday October 2<sup>nd</sup>, 2018 (continued)

14:00-18:00	Session 4: Public / private initiatives to foster innovation in public health		
Room:	Grand Ballroom, level 4		
Chair persons:	Dr. K. Raghavendra (NIMR) / Dr. W. Juntarajumnong (KU)		
14:00-14:15	Filling the resistance management gap: the power of intrinsic resistance management in Bacillus thuringiensis israelensis strain AM65-52 protects public health with effective control of organophosphate and pyrethroid resistant vectors	<b>Mr. Peter DeChant</b> , Valent Bioscience, USA	
14:15-14:30	Fludora Co-Max <sup>®</sup> : A new space spray combination for mosquito resistance management programs.	<b>Mr. Jason Nash,</b> Bayer, Singapore	
14:30-14:45	Effective Aedes Control based on resting behaviour & New IRS Tools	<b>Mr. Iñigo Garmendia,</b> Goizper spraying, Spain	
14:45-15:00	Innovative formulation for long lasting residual insecticides	<b>Mr. Siao Jing Sam,</b> Syngenta, Singapore	
15:00-15:15	Managing <i>Aedes</i> spp. with push-pull tactics: how non-repellent chemistries may mitigate behavior and vectorial capacities	Mr. James Austin, BASF, USA	
15:15-15:30	Friendly <sup>™</sup> mosquitoes for efficient and safe vector control	<b>Dr. Kevin Gorman</b> , Oxitec, UK	
15:30-15:45	Discussion		
15:45-16:15	Coffee break & Poster session		
Chair persons:	Dr. Dominic Schuler (WHO-PQT) / Dr. Vincent Corbel (IRD)		
16:15-16:30	Innovation to Impact: Update on progress and future priorities	Dr. Angus Spiers, 121, UK	
16:30-16:45	Overview of the prequalification of vector control products	<b>Mr. Dominic Schuler,</b> WHO- PQT, Switzerland	
16:45-17:00	Building a vector control toolbox for Integrated Vector Management (IVM)	<b>Dr. Nick Hamon,</b> Innovative Vector Control Consortium, UK	



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17:00-17:15	Legislative framework for vector control: the situation for European countries, including overseas territories	<b>Dr. Florence Fouque</b> , WHO-TDR, Switzerland
17:30-17:45	VectorBase.org's PopBioMap: An online resource for insecticide resistance data	<b>Dr. Samuel Rund,</b> Notre-Dame University, USA
17:45-18:00	Toward a global partnership for the control of insecticide resistant Arbovirus vectors: The WIN initiative	Dr. Vincent Corbel, IRD, France
17:45-18:00	Discussion	
10100 22120	Cacktail & dippor (at Hatal Bromonado)	

#### 19:00 -22:30 Cocktail & dinner (at Hotel Promenade)

	Wednesday October 3 <sup>rd</sup> , 2018 - Grand Copthorne Waterfront hotel -	
09:00-12:30	Round tables	
09:00-10:00 Room:	<u>Round table 1</u> : Are SDGs for dengue and other arboviral diseases achievable with existing vector control tools? Grand Ballroom, level 4	All members
	Dr. Raman Velayudhan, WHO-NTD, Switzerland Dr. Nicole Achee, NDU, USA	
10:00-11:00 Room:	<u>Round table 2</u> : Insecticide resistance: a trick or a real threat for vector control? Where's the proof that it's having an operational impact? Grand Ballroom, level 4	All members
	Dr. Greg Devine, QIMR, Australia Dr. Dave Weetman, LSTM, UK	
11:00-11:45	Coffee break	
11:45-12:15	Conclusions / Recommendations	Rapporteurs of each round table



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### Wednesday October 3<sup>rd</sup>, 2018 (continued)

12:15-12:30	Official closure of the conference	<b>Dr. Florence Fouque</b> , WHO- TDR, Switzerland
12:30-14:00	Lunch (Ballroom 2)	
14:00-18:00	WIN internal meeting	
Room:	Canary	
14:00-17:00	WIN General Assembly	WIN members
17:00-18:00	WIN steering committee meeting	WIN members

