

The 7th International Forum for Surveillance and Control of Mosquitoes and Vector-borne Diseases (IFSCMVD)

in Conjunction with the 13th Conference of Medical Entomology of the Entomological Society of China

PROGRAM



China, August 15-18, 2021

Sponsors: The Entomological Society of China
State Key Laboratory of Pathogen and Biosecurity, China

Organizers: Medical Entomology Committee, ESC

Cooperation: Asian Society of Vector Ecology and Mosquito Control

Partners: The Society for Vector Ecology
Insect Science
Acta Parasitologica et Medica Entomologica Sinica



寄生虫与医学昆虫学报

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The 7th International Forum for Surveillance and Control of Mosquitoes and Vector-borne Diseases (IFSCMVD)

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Meeting Theme: Challenges and Control Efforts for Mosquitoes and Vector-borne Diseases during Covid-19 Pandemic

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Dr. Rui-De Xue, Conference President
Dr. Tong-Yan Zhao, Program Chair
Dr. Chun-Xiao Li, Secretary General
Dr. Isik Unlu, President of the SOVE
Dr. Abu Ahmad, President of the ASVEMC
Dr. Qi-Yong Liu, Past President of the ASVEMC

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| Yan-De Dong (Chair) | Yu-Ting Jiang | |

Program

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| <p><u>August 16, 2021(Beijing Time)</u> Zoom meeting ID: 951 4564 9228 <u>Passcode: 100793</u></p> | |
| <p>Moderator: Dr. Rui-De Xue</p> | |
| 8:00 am | <p>Opening ceremony. The 5th ASVEMC membership meeting. Presentation of the awards by the President of the ASVEMC. Install of the new ASVEMC Officers.</p> |
| 8:10 am | <p>Welcome: Dr. Le Kang, Academician of the Chinese Academy of Sciences, President of the Entomological Society of China, Beijing, China</p> |
| 8:20 am | <p>Welcome: Dr. Gang Dong, Leader of State Key Laboratory of Pathogen Microbiology and Biosafety, Beijing, China</p> |
| <p>Moderators: Dr. Tong-Yan Zhao and Dr. Rui-De Xue</p> | |
| 8:30 am | <p>Keynote Speaker: 8:30 pm (USA). Dr. Michael Turell. Adjunct Senior Arbovirologist, Anastasia Mosquito Control District (AMCD), St. Augustine, Florida, USA. How to recognize a vector and its importance</p> |
| 9:20 am | <p>Dr. Rui-De Xue, Executive Director of Anastasia Mosquito Control District, St. Augustine, Florida, USA. How has COVID-19 pandemic impacted on our mosquito surveillance and control program?</p> |
| 9:40 am | <p>Guest speaker: Dr. Wu-Chun Cao, Director of State Key Laboratory of Pathogen Microbiology and Biosafety, Beijing, China. Tracing of emerging tick-borne diseases: from tick genomes to tick microbiome</p> |
| 10:00 am | <p>Guest Speaker: Dr. Xiao-Nong Zhou, Director, National Institute for Parasitic Disease Prevention and Control, CDC, Shanghai, China. The roadmap for malaria elimination in the People's Republic of China</p> |
| 10:20 am | <p>Dr. Tong-Yan Zhao, Professor, State Key Laboratory of Pathogen Microbiology and Biosafety, Beijing, China. Integrated mosquito management in rice field in China</p> |
| 10:40 am | <p>Dr. Qi-Yong Liu, Professor and Director, Department of Vector Biology and Control, National Institute for Communicable Disease Prevention and Control, CDC, Beijing, China. Anopheles control strategy and technology for eliminating the malaria in China</p> |
| 11:00 am | <p>Wendy Wei, MPH, MPA, Senior Program Officer, Health, Innovation & Partnership, Bill & Melinda Gates Foundation, Beijing. Briefing BMGF China malaria program</p> |

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| 11:20 am | Dr. Err-Lieh Hsu, Professor Emeritus, National University of Taiwan, Taipei, China. Dr. Hsiu-Hua Pai, Professor & Vice Present of Kaohsiung University, Kaohsiung, China. Vector surveillance in the COVID 19 pandemic |
| 11:40 am | Dr. Xiao-Guang Chen, Dean & Professor, College of Public Health and Tropic Medicine, Southern Medical University, Guangzhou, China. Dog in the manger, <i>Aedes albopictus</i> represses the reproduction of <i>Aedes aegypti</i> by interspecific mating |
| 12:00 noon Lunch Break | |
| Moderators: Dr. Qi-Yong Liu and Dr. Xiao-Guang Chen | |
| 1:30 pm | Dr. Chun-Hong Chen, Chief Executive Officer, NHRI, China. Developing <i>Wolbachia</i> strain wAlbB to suppress Taiwan populations of <i>Aedes aegypti</i> |
| 1:50 pm | Geneva Time 7:50 am. Dr. Xiao-Hong Li, Technical officer, Elimination Unit, WHO Global Malaria Program. Geneva. Global update on malaria: progress and challenges |
| 2:10 pm | Dr. Si-Bao Wang, Professor, Institute of Plant Physiology and Ecology, CAS Center for Excellence in Molecular Plant Sciences, Shanghai, China. Using mosquito gut symbiotic bacteria to interrupt malaria transmission |
| 2:30 pm | Dr. Gong Cheng, Professor, Tsinghua University, Beijing, China. A human blood-derived microRNA facilitates flavivirus infection in fed mosquitoes |
| 2:50 pm | Dr. Zhen Zou, Institute of Zoology, Chinese Academy of Sciences, Beijing, China. Hormone modulates disease vector metabolism and vectorial capacity |
| 3:10 pm | Dr. Xiao-Xia Guo, Associate Professor, State Key Laboratory of Pathogen Microbiology and Biosafety Beijing, China. Vertical transmission of Zika Virus by Jiegao and Mengding <i>Aedes aegypti</i> (Diptera: Culicidae) strains in Yunnan Province in China |
| 3:30 pm | Dr. Ai-Hua Zheng, Professor, Institute of Zoology, Chinese Academy of Sciences, Beijing, China. Dual-host adaption of mosquito-borne Flaviviruses |
| 3:50 pm | Dr. Jing-Wen Wang, Professor, Fudan University, Shanghai, China. Inhibition of the TOR pathway increases refractoriness to pathogen infections in mosquitoes via promotion of immune activation |
| 4:10 pm | Dr. Jin-Bao Gu, Professor, College of Public Health and Tropic Medicine, Southern Medical University, Guangzhou, China. Circular RNA aal-circRNA-407 plays an important role in the ovarian development in female <i>Aedes albopictus</i> |
| 4:30 pm | Dr. Jia-Hong Wu, Professor, Dean of School of Overseas Education, Guizhou Medical University, Guiyang, China. wAlbB <i>Wolbachia</i> modulates lipid metabolism of <i>Aedes aegypti</i> |

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| 4:50 pm | Dr. Yu-Ting Jiang, Assistant Professor, State Key Laboratory of Pathogen Microbiology and Biosafety, Beijing, China. Dengue virus genomic variance under selective pressure in mice and mosquito transmission |
| August 16 pm, Beijing (Night session)//August 16 am, USA | |
| 7:00 pm Beijing Time//7:00 am East Time in USA | |
| Zoom meeting ID: 951 4564 9228 | |
| Passcode: 100793 | |
| Moderator: Dr. Rui-De Xue | |
| 7:00 pm | 7:00 am. Dr. Whitney Qualls. Scientific Manager/Entomologist, Anastasia Mosquito Control District, St. Augustine, Florida, USA. Overview of collaborating applied research projects and benefits at AMCD |
| 7:20 pm | 7:20 am. Dr. Peter Jiang, Director, City of Gainesville Mosquito Control, Gainesville, Florida, USA. The re-emerging of <i>Aedes aegypti</i> in north central Florida |
| 7:40 pm | 7:40 am. Dr. Jerry A. Hogsette, Jr. Lead Scientist and Research Entomologist, USDA/Center for Medical, Agricultural and Veterinary Entomology, Gainesville, Florida, USA. Update traps and trapping technology against biting flies |
| 8:00 pm | 8:00 am. Dr. Ken Linthicum, Center Director, USDA/Center for Medical, Agricultural and Veterinary Entomology, Gainesville, Florida, USA. Sterile Insect Techniques for mosquito control |
| 8:20 pm | 8:20 am. Dr. Phil Koehler, Professor, Department of Entomology & Nematology, University of Florida, Gainesville, FL, USA. Mosquito control and honey bees |
| <u>August 17, 2021(Beijing Time)</u> | |
| Zoom meeting ID: 951 4564 9228 | |
| Passcode: 100793 | |
| Moderators: Dr. Zhen Zou and Dr. Chun-Xiao Li | |
| 8:00 am | 5:00 pm (California, August 16). Dr. Michelle Brown. Executive Director, Society for Vector Ecology & Manager, West Valley Mosquitoes and Vector Control District, California, USA. Overview of the SOVE |
| 8:20 am | 5:20 pm (California, August 16). Dr. Tianyun Su. Consultant, USA. Insecticide resistance and its management |
| 8:40 am | Dr. Chun-Xiao Li, Professor, State Key Laboratory of Pathogen Microbiology and Biosafety, Beijing, China. Metagenome sequencing reveals the midgut microbiota |

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| | makeup of <i>Culex pipiens quinquefasciatus</i> and its possible relationship with insecticide resistance |
| 9:00 am | Dr. Bo Shen, Professor, Nanjing Medical University, Nanjing, China. Transcription factor FTZ-F1 regulates mosquito cuticular protein CPLCG5 conferring insecticide-resistance in <i>Culex pipiens pallens</i> |
| 9:20 am | Dr. Qian Han, Professor, College of Life Sciences and Pharmacy, Hainan University, Haikou, China. Functional analysis of genes related to cuticle formation and myelinization in the mosquito, <i>Aedes aegypti</i> |
| 9:40 am | Dr. Qiang Wang, Associate Professor, Department of Preventive Medicine and Public Health Laboratory Science, School of Medicine, Jiangsu University, Suzhou, China. Odorant receptors mediated spatial repellency of plant essential oils against mosquitoes |
| 10:00 am | 7:30 am India time. Dr. Devi Shankar Suman. Scientist D, Zoological Survey of India, Kolkata-700053, India. Surveillance of mosquitoes and its significance |
| 10:20 am | Dr. Mao-Qing Gong, Professor, Shandong Institute of Parasitic Diseases, Shandong First Medical University & Shandong Academy of Medical Sciences, Shandong, China. Bionomics and insecticide resistance of <i>Aedes albopictus</i> in Shandong, a high latitude and high-risk dengue transmission area in China |
| 10:40 am | Dr. Ling-Ling Zhang, Professor, Fujian Agriculture and Forestry University, Fuzhou, China. Function of yheN gene in Bt Resistance to UV stress |
| 11:00 am | Dr. Yu-Hong Guo, Professor, Department of Vector Biology and Control, China CDC, National Institute for Communicable Disease Prevention and Control, Beijing, China. Genetic diversity of <i>Culex tritaeniorhynchus</i> in mainland China |
| 11:20 am | Dr. Gang Wang, Associate Senior Technologist. Hangzhou Customs, Hangzhou, China. Studies on geographical population differentiation of <i>Anopheles sinensis</i> (Diptera: Culicidae) based on COI and ITS2 genes |
| 11:40 am | Dr. Heng-Duan Zhang, Assistant Professor, State Key Laboratory of Pathogen Microbiology and Biosafety, Beijing, China. Study on population genetics characteristics of <i>Aedes albopictus</i> in the Yangtze River Basin of China |
| 12:00 noon Lunch Break | |
| Moderators: Dr. Hong-Liang Chu and Dr. Feng-Xia Meng | |
| 1:00 pm | 8 am Greece time. Dr. Alexandra Chaskopoulou, Research Entomologist, USDA/ Europe Biocontrol Institute, Greece. Integrated west nile virus surveillance and vector control response in Greece |

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| 1:20 pm | 7:30 am Italy time. Dr. Asghar Talbalaghi. Freelance Entomologist/Founder of Italian Mosquito Control Association. <i>Ochlerotatus caspius</i>, the mosquito pestiferous of the biggest breeding site in Europe: approaches to the issue from Valenza Italy suffering by tremendous number of mosquitoes |
| 1:40 pm | Dr. Feng-Xia Meng, Professor, Department of Vector Biology and Control, China CDC, National Institute for Communicable Disease Prevention and Control, Beijing, China. Epidemiological characteristics of imported dengue fever cases in Yunnan Province, 2005-2019 |
| 2:00 pm | 8 am Cairo time. Dr. Emad IM Khater, Associate Professor, Department of Entomology, Ain Shams University, Egypt. Mosquito (vector)-borne diseases in the WHO-EMR/MENA (Egypt and Saudi Arabia): Ecology, molecular biology, control, and future research |
| 2:20 pm | Dr. Hong-Liang Chu, Director, Institute of Vector-borne diseases and disinfection, Jiangsu Center for Disease Prevention and Control, Nanjing, China. Vector surveillance in Jiangsu Province, China |
| 2:40 pm | Dr. Yong Zhang, Researcher, Beijing Center for Disease Prevention and Control, Beijing, China. Prediction and practice of mosquito bite index in cities |
| 3:00 pm | 8:00 am. Portugal time. Dr. Peyman Ghaffari, Chair of COST Action CA 16227 (IMAAC). Mathematical modelling of Textiles and Paints equipped with mosquito repellents on controlling mosquito transmitted vector-borne diseases (VBD): A brief overview of IMAAC |
| 3:20 pm | Dr. Yi-Bin Zhou, Associate Chief Physician Shanghai Center for Disease Prevention and Control, Shanghai, China. A study of grid monitoring method for Mosq-ovitraps |
| 3:40 pm | Dr. Zong-Jing Chen, Technologist-in-charge, Guangdong Provincial CDC, Guangzhou, China. Status of mosquito vector monitoring in Guangdong Province |
| 4:00 pm | Dr. Tian-Ci Yang, Technologist-in-charge, Zhejiang International Tourism Healthcare Center, Hangzhou Customs District, Hangzhou, China. Species composition and phylogenetic analysis of the midges (Diptera: Ceratopogonidae) around West Lake, Hangzhou, China |
| 4:20 pm | Dr. Yuan Fang, Associate Professor, National Institute for Parasitic Disease Prevention and Control, CDC, Shanghai, China. Monitoring mosquito-borne arbovirus in various insect regions in China in 2018 |
| 4:40 pm | Dr. Ning Zhao, Assistant Professor, Department of Vector Biology and Control, China CDC, National Institute for Communicable Disease Prevention and Control, Beijing, China. The surveillance of mosquito in Freetown, Sierra Leone, West Africa |