# Keystone Symposia in Hong Kong Framing the Response to Emerging Virus Infections

# The University of Hong Kong | Pok Fu Lam, Hong Kong | October 14–18, 2018

Organized in collaboration with the Croucher Foundation and The University of Hong Kong

Scientific Organizers: Ralph A. Tripp, University of Georgia, USA Suresh Mahalingam, Griffith University, Australia John W. Lowenthal, Australia Andrew G. Bean, Commonwealth Scientific and Industrial Research Organization, Australia Malik Peiris, The University of Hong Kong, Hong Kong

Emerging and re-emerging viruses have the potential to cause high morbidity and mortality and range from localized outbreaks to epidemics. Due to their emerging nature, most aspects of the biology and infectious potential of these viruses are poorly understood. Our continuing struggle to respond to a procession of pandemics, including SARS, avian influenza, MERS, Ebola and more recently Zika, highlights key gaps in our knowledge and should serve to motivate our re-thinking as to how we can better prepare and deal with future unknown viral threats. This conference will focus on important areas such as surveillance, diagnostics and countermeasures and other important advances in new technologies and how they are being applied to research. Furthermore, we will discuss how to facilitate the translation of research, data and candidate treatments through the development pipeline in a timely and cost-effective manner. The key themes to be covered include the need to understand why zoonotic diseases matter, their association with agriculture, the importance of surveillance and early detection, and the difficulties of dealing with diseases that involve both medical and veterinary communities. The conference will bring together experts in virology, immunology, vaccinology and epidemiology with those who seek to transfer knowledge between these groups, veterinarians and industry and government. Further, this meeting is designed to bring together individuals involved in the control of these diseases in government and non-government organizations, as well as those involved in study of zoonosis and countermeasures. The creation of global networks and sharing of information will ensure that we are better prepared for future outbreaks.

## Plenary Session Topics:

- Zika Virus: Biology and Host Interactions
- ZIKV Diagnostics and Countermeasures
- Ebola Virus: Biology and Host Interactions
- Ebola Virus: Vaccines and Therapeutics
- Zoonotic Influenza

- MERS and Influenza Viruses: Immunity and Vaccines
- Emerging Disease Preparedness Research
- Drivers of Disease and Emerging Viral Infections Late-Breaking Developments
- Outbreak Preparedness and Responses



LI KA SHING FACULTY OF MEDICINE THE UNIVERSITY OF HONG KONG

Travel Award Deadline: May 15, 2018; Scholarship/Discounted Abstract Deadline: Jun 14, 2018; Abstract Deadline: Jul 17, 2018; Discounted Registration Deadline: Aug 14, 2018 Visit www.keystonesymposia.org/18S2 for more details.









## **KEYSTONE SYMPOSIA**

on Molecular and Cellular Biology

### Framing the Response to Emerging Virus Infections (S2)

October 14-18, 2018 • Lee Shau Kee Lecture Centre, Centennial Campus, The University of Hong Kong • Pok Fu Lam,

Hong Kong

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#### SUNDAY, OCTOBER 14

Arrival and Registration

#### **MONDAY, OCTOBER 15**

Welcome and Keynote Address

Speaker to be Announced

#### Zika Virus: Biology and Host Interactions

**Michael S. Diamond**, Washington University School of Medicine, USA *Talk Title to be Announced* 

Tatjana Avsic-Zupanc, Institute of Microbiology and Immunology, Slovenia

Zika Virus Associated with Microcephaly

**Scott C. Weaver**, University of Texas Medical Branch, USA *Zika Virus: Biology and Host Interactions* 

#### Short Talk(s) Chosen from Abstracts

#### **Poster Session 1**

#### **ZIKV Diagnostics and Countermeasures**

**Rajeev V. Venkayya**, Takeda Pharmaceutical Company, USA *Talk Title to be Announced* 

**Nicholas Jackson**, Sanofi Pasteur, France Zika Virus: Knowledge Gaps and Vaccine Research and Development Challenges

Speaker to be Announced Short Talk Chosen from Abstracts

#### **TUESDAY, OCTOBER 16**

#### Ebola Virus: Biology and Host Interactions

Speaker to be Announced Heinz Feldmann, Rocky Mountain Laboratories, USA Animal Models of Ebola Virus

#### **Ebola Virus: Vaccines and Therapeutics**

Ana Maria Henao-Restrepo, World Health Organization, Switzerland Talk Title to be Announced Erica Ollmann Saphire, The Scripps Research Institute, USA Antibodies Against Ebola Virus: A Global Collaboration Short Talk(s) Chosen from Abstracts

#### Zoonotic Influenza

Yi Guan, University of Hong Kong, Hong Kong Talk Title to be Announced Leo Poon, University of Hong Kong, Hong Kong Talk Title to be Announced Speaker to be Announced Short Talk Chosen from Abstracts

#### Poster Session 2

#### WEDNESDAY, OCTOBER 17

#### MERS and Influenza Viruses: Immunity and Vaccines

Ralph S. Baric, University of North Carolina at Chapel Hill, USA Rapid Response Strategies to Control Emerging Coronavirus Infections

Bart L. Haagmans, Erasmus MC, Netherlands MERS Coronavirus: from Discovery to Intervention

**Jincun Zhao**, Guangzhou Institute of Respiratory Disease, China *Immune Responses in MERS-CoV Infected Mice and Humans* 

**KY Yuen**, University of Hong Kong, Hong Kong Host Cellular Protein Facilitating Viral Replication

Ralph A. Tripp, University of Georgia, USA Short Talk: Virus-Host Interactions, Development of Vaccine Cell Lines

#### Poster Session 3

#### **Emerging Disease Preparedness Research**

Marion P.G. Koopmans, Erasmus MC, Netherlands Challenges and Opportunities in Global Disease Detection Gavin J.D. Smith, Duke-NUS Graduate Medical School, Singapore Surveillance for Risk Assessment and Prediction

**Anna-Bella Failloux**, Institute Pasteur, Paris, France *Mosquito-Borne Disease Expansion* 

Linfa Wang, Duke-NUS Medical School, Singapore *Bat-Borne Diseases* Suresh Mahalingam, Griffith University, Australia

Short Talk

#### THURSDAY, OCTOBER 18

# Drivers of Disease and Emerging Viral Infections – Late Breaking Developments

Peter Daszak, EcoHealth Alliance, USA Emerging Infectious Diseases of Wildlife Malik Peiris, University of Hong Kong, Hong Kong Emerging Virus Disease at the Animal-Human Interface Andrew G. Bean, Commonwealth Scientific and Industrial Research

Organization, Australia Short Talk

#### Outbreak Preparedness and Responses I

**Ted M. Ross**, University of Georgia, USA Broadly Protective Influenza Vaccines: Protection Against Mismatch – Bettering Standard of Care

**Stephen Whitehead**, NIAID, National Institutes of Health, USA *Evaluation of Live Attenuated Vaccines for Dengue and Zika Viruses* (and Their Challenge Models)

#### **Outbreak Preparedness and Responses II**

**Scott B. Halstead**, Dengue Vaccine Initiative, South Korea Design of Effective Zika Vaccines: Lessons from Dengue

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Mario Barro, Sanofi Pasteur, USA Talk Title to be Announced

John W. Lowenthal, , Australia A Strategy for Developing a MERS Camel Vaccine in order to Protect Humans

Meeting Wrap-Up: Outcomes and Future Directions (Organizers)

**FRIDAY, OCTOBER 19** 

Departure