XVI International Symposium on Respiratory Viral Infections

Program
**Chairs:**

Woo Joo Kim  
Professor, Division of Infectious Diseases, Korea University College of Medicine, Seoul, Republic of Korea

Albert Osterhaus  
Professor of Virology, Erasmus MC, Rotterdam, The Netherlands

Malik Peiris  
University of Hong Kong, Hong Kong SAR, People’s Republic of China

**Scientific Advisory Board:**

Rick Bright  
HHS/OS/ASPR/BARDA, Washington, District of Columbia, United States

W. Abdullah Brooks  
Director Kamalapur Field Site, Head Infectious Diseases Unit (ICDDR,B), Johns Hopkins Bloomberg School of Public Health, Dhaka, Bangladesh and Baltimore, Maryland, United States

Young-Ki Choi  
Professor, College of Medicine, Chungbuk National University, Chungbuk, Republic of Korea

Nancy Cox  
Director, Influenza Division, National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia, USA

Menno de Jong  
Academic Medical Center, University of Amsterdam, Amsterdam, The Netherlands

Frederick Hayden  
Professor of Medicine and Stuart S. Richardson Professor of Clinical Virology, University of Virginia School of Medicine, Charlottesville, Virginia, United States

Sebastian Johnston  
National Heart & Lung Institute, Imperial College, London, United Kingdom

Yoshihiro Kawaoka  
University of Tokyo, Tokyo, Japan; University of Wisconsin, Madison Wisconsin, United States

Hoan Jong Lee  
Professor, Department of Pediatrics, Seoul National University, Seoul, Republic of Korea

Joo-Shil Lee  
Director General, Korea National Institute of Health, Republic of Korea

Arnold Monto  
Thomas Francis Jr Professor of Epidemiology, University of Michigan, Ann Arbor, Michigan, United States

**Thursday, March 13, 2014**

11.00  
Registration Opens – Lobby, Crystal Hall

All Sessions are in the Crystal Hall, 3rd Floor, Convention Center

14.00 – 14.05  
Welcoming Remarks – Byungguk Yang, Director, Korea Centers for Disease Control and Prevention, Seoul, Republic of Korea

14.05 – 14.10  
Congratulatory Remarks – Yong Ho Park, Commissioner, Animal and Plant Quarantine Agency, Gyeonggido, Republic of Korea

14.10 – 14.20  
Introduction to the Keynote Address

14.20 – 14.50  
Keynote Address – H7N9 – Nancy Cox, Director, Influenza Division, National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia, United States
### Final Program

#### Session I  
**Influenza - Chair: Nancy Cox, Director, Influenza Division, National Center for Immunization and Respiratory Diseases, Centers for Disease Control and Prevention, Atlanta, Georgia, United States**

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<tr>
<td>15.20 – 15.50</td>
<td>Update on Seasonal Influenza – Benjamin Cowling, School of Public Health, The University of Hong Kong, Pokfulam, Hong Kong SAR, People’s Republic of China</td>
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<td>15.50 – 16.20</td>
<td>Coffee Break - <em>Lobby, Crystal Hall</em></td>
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<td>16.20 – 16.50</td>
<td>Respiratory Viruses in Bangladesh – Abdullah Brooks, Director Kamalapur Field Site, Head Infectious Diseases Unit (ICDDR,B), Johns Hopkins Bloomberg School of Public Health, Dhaka, Bangladesh and Baltimore, Maryland, United States</td>
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| 16.50 – 17.10 | **Oral Presentation**  
Impact of Influenza B Viruses Lineage-level Mismatched to Strains Contained in Trivalent Seasonal Influenza Vaccines, 1999-2012 – Terho Heikkinen, Department of Pediatrics, University of Turku, Finland |
| 17.10 – 17.30 | **Oral Presentation**  
Genetic Requirement for Hemagglutinin Glycosylation and Its Implications for Influenza A H1N1 Virus Evolution – Jin Il Kim, Department of Microbiology, College of Medicine, Hallym University, Gangwon-do, Republic of Korea |
| 17.30 – 17.50 | **Oral Presentation**  
Intranasal Administration of a Novel Recombinant-Immunogen Based on Hemagglutinin Stalk Domain Potentiates Hetero-Subtypic and Broadly Effective Immunity against Influenza Viral Infections – Hwajung Yi, Korea National Institute of Health, Chungbuk, Republic of Korea |
| 18.00 – 19.30 | Welcome Reception – *Patio, Crystal Hall (backup Hangan Hall)*                              |

#### Friday, March 14, 2014 – Day 2

#### Session II  
**Clinical Intervention - Chair: Menno de Jong, Academic Medical Center, University of Amsterdam, Amsterdam, The Netherlands**

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<tr>
<td>09.00 – 09.30</td>
<td>New Generation of Antibodies for Influenza and RSV – Davide Corti, Istituto di Ricerca in Biomedicina, Bellinzona, Switzerland</td>
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<td>09.30 – 10.00</td>
<td>Antivirals for Rhinovirus – Sebastian Johnston, National Heart &amp; Lung Institute, Imperial College, London, United Kingdom</td>
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| 10.00 – 10.20 | **Oral Presentation**  
Ferret Models to Study Clinical Intervention Strategies Against Influenza – Koert Stittelaar, Viroclincs Biosciences B.V., Rotterdam, the Netherlands |
10.20 – 10.50 Coffee Break - Lobby, Crystal Hall

10.50 – 11.10 **Oral Presentation**
Use of Human Monoclonal Antibodies Isolated from Patients Recovered from 2009 Pandemic H1N1 Infection for Therapeutic and Prophylactic Treatment – ShinJae Chang, Celltrion Inc., Incheon, Republic of Korea

11.10 – 11.30 **Oral Presentation**
Azithromycin Augments RV-induced Type I and Type III Interferon Production via Interaction with MAVS - Michael R. Edwards, Airway Disease Infection Section, National Heart Lung Institute, Imperial College London, UK

11.30 – 13.30 Lunch – On Your Own

**Session III**
Chair: Albert Osterhaus, Professor of Virology, Erasmus MC, Rotterdam, The Netherlands and Rogier Bodewes, Erasmus MC, Rotterdam, The Netherlands

13.30 – 14.15 MERS-CoV, the New Coronavirus – Albert Osterhaus, Professor of Virology, Erasmus MC, Rotterdam, The Netherlands

14.15 – 14.45 Swine Influenza – Young-Ki Choi, College of Medicine, Chungbuk National University, Chungbuk, Republic of Korea


15.15 – 15.45 Coffee Break - Lobby, Crystal Hall

15.45 – 16.05 **Oral Presentation**
Dogs as an Intermediate Host in Interspecies Transmission and Possible Role of Dogs in Reverse Zoonotic Infection of Influenza Viruses – Daesub Song, Korea Research Institute of Bioscience and Biotechnology, Daejeon, Republic of Korea

16.05 – 16.25 **Oral Presentation**
Safety and Immunogenicity of a Recombinant Virus-Like Particle Influenza A(H7N9) Vaccine with and without a Saponin-based Adjuvant – Louis Fries, Novavax, Inc. Gaithersburg, Maryland, United States of America

16.25 – 17.00 Poster Review - Albert Osterhaus, Professor of Virology, Erasmus MC, Rotterdam, The Netherlands

17.00 - 18.30 Poster Session & Reception - Lobby, Crystal Hall
Saturday, March 15, 2014 – Day 3

Session IV  Latebreakers - Chair: Woo Joo Kim, Professor, Division of Infectious Diseases, Korea University College of Medicine, Seoul, Republic of Korea

09.00 – 09.20  Oral Presentation
Immune Responses to the Respiratory Syncytial Virus Fusion Protein Recombinant Nanoparticle Vaccine in 3 Recent Clinical Trials: Improving on Nature to Generate an Effective Vaccine - Gregory Glenn, Novavax, Gaithersburg, Maryland, United States of America

09.20 – 09.40  Oral Presentation
The first reported case of avian A/H5N1 reported in North America – Julian Tang, Provincial Laboratory for Public Health, Alberta, Canada and University of Alberta, Edmonton, Alberta, Canada

09.40 – 10.00  Oral Presentation
Structure of the Extracellular Domain of Matrix Protein 2 of Influenza A Virus - Jong Hyeon Seok, Korea University, Department of Biotechnology & Bioinformatics, Seoul, Republic of Korea

10.00 – 10.20  Oral Presentation
Virologic Surveillance of Influenza-like Illness in South Korea, 2011-2014: Hospital-based Influenza Morbidity & Mortality (HIMM) Surveillance - Ji Yun Noh, Division of Infectious Diseases, Department of Internal Medicine, Korea University Guro Hospital, Korea University College of Medicine, Seoul, Korea

10.20 – 10.50 Coffee Break - Lobby, Crystal Hall

Session V  Respiratory Viral Exacerbation of Asthma and COPD - Chairs: Sebastian Johnston, National Heart & Lung Institute, Imperial College, London, United Kingdom and Ross Walton, National Heart & Lung Institute, Imperial College, London, United Kingdom

10.50 – 11.20 Role of IL-33, Type 2 Innate Lymphoid Cells and TH2 Cytokines during Rhinovirus-induced Asthma Exacerbations – Ross Walton, National Heart & Lung Institute, Imperial College, London, United Kingdom

11.20 – 11.40 Oral Presentation  Young Investigator Award Recipient, Sponsored by The Macrae Foundation and Green Cross Corp
Incidence and Characteristics of Early Childhood Wheezing and the Contribution of Respiratory Viruses, Dhaka, Bangladesh, 2004-2010 - Fatimah S. Dawood, Influenza Division, Centers for Disease Control and Prevention, Atlanta, Georgia, United States
### Final Program

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| 11.40 – 12.00 | **Oral Presentation**  
Young Investigator Award Recipient, Sponsored by The Macrae Foundation and Green Cross Corp  
Antigenicity and Receptor binding Specificities of Enterovirus 68 – Tadatsugu Imamura, Tohoku University Graduate School of Medicine, Sendai City, Miyagi, Japan |
| 12.00 – 12.20 | **Oral Presentation**  
The Effects of Inhaled Interferon Beta on Cold-induced Asthma Exacerbations and Innate Immunity – Results of a Randomised Placebo Controlled Phase II Trial - Phillip Monk, Synairgen Research Limited, Southampton, United Kingdom |
| 12.20 – 12.40 | **Oral Presentation**  
Substitution at Aspartic Acid 1128 in the SARS Coronavirus Spike Glycoprotein Mediates Escape from a S2 Domain-targeting Neutralizing Monoclonal Antibody - Oi-Wing Ng, Department of Microbiology, Yong Loo Lin School of Medicine, National University Health System (NUHS), National University of Singapore |
| 12.40 – 13.10 | **Special Lecture**  
Genetics of Infection: Transmission, Patient Stratification and Disease Severity - Where Next? - Paul Kellam, Wellcome Trust Sanger Institute, Wellcome Trust Genome Campus, Hinxton, Cambridge, United Kingdom |
| 13.10 – 15.00 | Lunch – On Your Own |
| 15.00 – 15.30 | **Session VI**  
Pathogenesis of Respiratory Viral Infections - Chairs: Malik Peiris, Professor, Chair of Virology, University of Hong Kong, Hong Kong SAR, People’s Republic of China and Hui Ling Yen, School of Public Health, The University of Hong Kong, Pokfulam, Hong Kong SAR, People’s Republic of China  
Pathogenesis of Viral Lung Injury – Yumiko Imai, Department of Biological Informatics and Experimental Therapeutics, Graduate School of Medicine, Akita University, Akita, Japan |
| 15.30 – 16.00 | Literature Review: Influenza Pathogenesis and Transmission – Hui Ling Yen, School of Public Health, The University of Hong Kong, Pokfulam, Hong Kong SAR, People’s Republic of China |
| 16.00 – 16.30 | Coffee Break - Lobby, Crystal Hall |
| 16.30 – 16.50 | **Oral Presentation**  
Detection of Human Bocaviruses in Nasal Swabs and Stools during Respiratory Infection and Acute Gastroenteritis – Minna Paloniemi, Vaccine Research Center, University of Tampere, Finland |
| 16.50 – 17.10 | **Oral Presentation**  
The Comparison of Human and Ferret Influenza Challenge Models – Rob Lambkin-Williams, Retroscreen Virology, Queen Mary Business Enterprises, London, United Kingdom |
17.10 - 17.30  
**Oral Presentation**  
Pulmonary Pathology of H7N9 Influenza - John M Nicholls, Department of Pathology, The University of Hong Kong, SAR, China

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**Sunday, March 16, 2014 - Day 4**

**Session VII**  
**Vaccines - Chair: Arnold Monto, Thomas Francis Jr Professor of Epidemiology, University of Michigan, Ann Arbor, Michigan, United States**

9.00 – 9.30  
Enhancing Influenza Vaccine Coverage: The Korean Experience – Woo Joo Kim, Professor, Division of Infectious Diseases, Korea University College of Medicine, Seoul, Republic of Korea

9.30 – 10.00  
Determination of Influenza Vaccine Effectiveness – Arnold Monto, Thomas Francis Jr Professor of Epidemiology, University of Michigan, Ann Arbor, Michigan, United States

10.00 – 10.20  
**Oral Presentation**  
Infection-permissive Immunity Induced by NA- and M2e-based Vaccines Protects against Influenza A Virus Challenge and Allows the Induction of Heterosubtypic Cellular Immunity – Xavier Saelens, Molecular Virology Unit, VIB Inflammation Research Center, Ugent Department for Biomedical Molecular Biology, Ghent, Belgium

10.20 – 10.50  
Coffee Break - Lobby, Crystal Hall

**Session VIII**  
**Virus-Bacterial Interface - Chair: Arnold Monto, Thomas Francis Jr Professor of Epidemiology, University of Michigan, Ann Arbor, Michigan, United States**

10.50 – 11.20  
Streptococcus Pneumoniae Modulates Human Respiratory Syncytial Virus Infection *In vitro* and *In vivo*– Rik de Swart, Erasmus MC, Rotterdam, The Netherlands

11.20 – 11.40  
**Oral Presentation**  
Interactions between Streptococcus pneumoniae (pneumococcus) and the Influenza Virus - Charles Feldman, University of Witwatersrand, Johannesburg, South Africa

11.40 – 12.00  
**Oral Presentation  Young Investigator Award Recipient Sponsored by The Macrae Foundation and Green Cross Corp**  
Iota-Carrageenan and Rhinovirus Infection and Secondary Pneumococcal Infection in A549 Cells – Reetika Suri, Queen Mary University, London, United Kingdom

12.00 – 12.30  
Meeting Conclusion