



THE SIXTH ESWI  
**INFLUENZA**  
CONFERENCE  
10-13 SEPTEMBER 2017

CONFERENCE PROGRAMME

**SCIENTIFIC**  
PROGRAMME

*Organized by*  
**European**  
**Scientific**  
**Working group on**  
*Influenza*

# SCIENTIFIC PROGRAMME

## 10 SEPTEMBER 2017

13:15-14:45	SATELLITE SYMPOSIUM An integrated approach to understanding influenza: the PREPARE consortium	OMEGA
	<ul style="list-style-type: none"> <li>▪ <b>CHAIRS:</b> <b>Peter Openshaw</b> and <b>Menno de Jong</b></li> <li>1. Introduction to the PREPARE consortium, <b>Menno de Jong</b>, <i>University of Amsterdam, The Netherlands</i></li> <li>2. MOSAIC: a multicentre prospective study of severe influenza, <b>Long Hoang</b>, <i>Imperial College London, UK</i></li> <li>3. Influenza H1N1pdm infection of healthy volunteers, <b>Chris Chiu</b>, <i>Imperial College London, UK</i></li> <li>4. Transcriptomics in PREPARE, <b>Cosimo Cristella</b>, <i>University of Amsterdam, The Netherlands</i></li> <li>5. Is flu a disease of immune failure or excess, <b>Peter Openshaw</b>, <i>Imperial College London, UK</i></li> </ul>	
15:00-16:30	SATELLITE SYMPOSIUM	OMEGA
16:45-18:15	SATELLITE SYMPOSIUM Should children be vaccinated against influenza?	OMEGA
	<p><b>Joint Symposium</b> European Society for Paediatric Infectious Diseases and European Scientific Working group on Influenza</p>	
18:30-19:30	OPENING CEREMONY	OMEGA
	<p><b>WELCOME AND OPENING:</b></p> <ul style="list-style-type: none"> <li>▪ <b>Ab Osterhaus</b>, <i>ESWI conference chair</i></li> </ul> <p><b>PLENARY ADDRESS:</b> <b>Influenza vaccination as a key public health tool</b></p> <ul style="list-style-type: none"> <li>▪ <b>Vytenis Andriukaitis</b>, <i>EU Commissioner Health and Food Safety</i></li> </ul> <p><b>KEYNOTE LECTURE:</b> <b>A universal influenza virus vaccine</b></p> <ul style="list-style-type: none"> <li>▪ <b>Peter Palese</b>, <i>Mount Sinai School of Medicine, USA</i></li> </ul>	
19:30-22:00	WELCOME RECEPTION	MAIN CONFERENCE HALL

## 11 SEPTEMBER 2017

07:30-09:00	SATELLITE SYMPOSIUM	OMEGA
09:15-10:15	PL01 PLENARY SESSION	OMEGA
	<p><b>KEYNOTE LECTURE:</b> <b>H5, H7 influenza viruses: where do we go?</b></p> <ul style="list-style-type: none"> <li>▪ <b>Malik Peiris</b>, <i>University of Hongkong</i></li> </ul> <p><b>Maternal immunization against influenza: benefits to mother and child</b></p> <ul style="list-style-type: none"> <li>▪ <b>Marta Nunes</b>, <i>University of Witwatersrand, RSA</i></li> </ul>	
10:15-10:45	COFFEE BREAK	
	GUIDED POSTER TOUR	

10:45-12:30	PARALLEL SESSIONS <span style="float: right;">OMEGA</span>	ALFA
	<b>SPA1 CLINICAL IMPACT AND DIAGNOSTIC APPROACHES</b> <ul style="list-style-type: none"> <li>▪ <b>CHAIR: Jianqing Xu</b>, Fudan University Shanghai, PRC</li> <li>▪ <b>CO-CHAIR: Cheryl Cohen</b>, National Institute for Communicable Diseases, RSA</li> </ul> <ol style="list-style-type: none"> <li>1. The clinical impact of routine molecular point-of-care testing for respiratory viruses in hospitalised adults: results of a large pragmatic randomised controlled trial, <b>Tristan Clark</b>, University of Southampton, UK</li> <li>2. In- and out-of-hospital mortality associated with seasonal and pandemic influenza and respiratory syncytial virus in South Africa 2009-2013, <b>Cheryl Cohen</b>, National Institute for Communicable Diseases, RSA</li> <li>3. A Novel Pharmacoeconomic Model to Compare Seasonal Influenza Vaccines in Italian Adults Aged 65 Years and Above, <b>Stefano Capri</b>, Cattaneo-LIUC University, Italy</li> <li>4. Nasopharyngeal microbial signatures associated with severe influenza in children and in adults, <b>Laurence Josset</b>, Hospices Civils de Lyon, France</li> </ol>	<b>SPB1 VIRUS STRUCTURE AND REPLICATION</b> <ul style="list-style-type: none"> <li>▪ <b>CHAIR: Stephen Cusack</b>, EMBL Grenoble, France</li> <li>▪ <b>CO-CHAIR: Rocío Coloma</b>, Centro Nacional de Biotecnología, Madrid, Spain</li> </ul> <ol style="list-style-type: none"> <li>1. Analysis of the Higher Order RNA Structures Present Inside the Influenza A Virus Genome, <b>Bernadeta Dadonaite</b>, University of Oxford, UK</li> <li>2. High-resolution mapping of Influenza A RNA packaging signals by MIME (Mutational Interference Mapping Experiment), <b>Maud Contrant</b>, IBMC, France</li> <li>3. Structural insights into the mechanisms of influenza A virus RNA replication, <b>Haitian Fan</b>, University of Oxford, UK</li> <li>4. Mechanistic single-molecule analysis of influenza virus replication, <b>Nicole Robb</b>, University of Oxford, UK</li> </ol>
12:30-14:00	LUNCH	
	<b>SATELLITE SYMPOSIUM</b> Organized by SANOFI PASTEUR <span style="float: right;">OMEGA</span>	
14:00-15:45	PARALLEL SESSIONS <span style="float: right;">OMEGA</span>	ALFA
	<b>SPA2 EPIDEMICS AND PANDEMIC THREATS</b> <ul style="list-style-type: none"> <li>▪ <b>CHAIR: Yoshihiro Kawaoka</b>, University of Wisconsin, USA</li> <li>▪ <b>CO-CHAIR: Peng Wu</b>, University of Hong Kong, Hong Kong SAR</li> </ul> <ol style="list-style-type: none"> <li>1. Identification of H1N1 influenza virus survival determinants: amino-acids on the HA protein modulate the stability of viruses in the environment, <b>Thomas Labadie</b>, Institut Pasteur, France</li> <li>2. Evaluation of potential risk of transmission of Avian Influenza A at the human-animal interface in response to unusual crow die off in Bangladesh, <b>Mahbubur Rahman</b>, Institute of Epidemiology, Disease Control and Research, Bangladesh</li> <li>3. Outbreak of highly pathogenic avian influenza A virus H5N1 among poultry in Ghana, <b>Ivy Assante</b>, Heinrich-Pette-Institute, Germany</li> <li>4. Influenza-associated mortality in Yancheng, China, 2011-2015, <b>Qian Xiong</b>, University of Hong Kong, Hong Kong SAR</li> </ol>	<b>SPB2 VIRAL FACTORS IN PATHOGENESIS</b> <ul style="list-style-type: none"> <li>▪ <b>CHAIR: Adolfo Garcia-Sastre</b>, Mount Sinai School of Medicine, USA</li> <li>▪ <b>CO-CHAIR: Michelle Tate</b>, University of Melbourne, Australia</li> </ul> <ol style="list-style-type: none"> <li>1. Factors determining the optimum pH stability for pathogenicity and transmissibility of human influenza viruses, <b>Anika Singanayagam</b>, Imperial College London, UK</li> <li>2. Variable pathogenicity of H7N7 recombinant viruses in chickens, turkeys and ducks, <b>David Scheibner</b>, Friedrich-Loeffler Institut, Germany</li> <li>3. Avian-origin PB1 Segment of Influenza A Virus Confers a Parallel Selective Advantage towards Virus Adaptation and Pandemic Formation, <b>Yan Zhou</b>, University of Saskatchewan, Canada</li> <li>4. Functional analysis of the influenza A virus M2 protein interaction with Na,K-ATPase in influenza pneumonia, <b>Jessica Schulze</b>, Robert Koch Institute, Germany</li> </ol>
15:45-16:15	COFFEE BREAK	

16:15-18:00	PARALLEL SESSIONS	OMEGA	ALFA
	<b>SPA3 IMMUNOLOGY</b> <ul style="list-style-type: none"> <li>▪ <b>CHAIR: Rafi Ahmed</b>, <i>Emory University, USA</i></li> <li>▪ <b>CO-CHAIR: Rory Dylan de Vries</b>, <i>Erasmus MC Rotterdam, The Netherlands</i></li> <li>1. First identification of cross-reactive CD8+ T cell immunity across influenza A, B and C viruses, <b>Marios Koutsakos</b>, <i>University of Melbourne, Australia</i></li> <li>2. Engaging naive vs. memory B cells in humans: Lessons from H5N1 vaccination, <b>Ali Ellebedy</b>, <i>Emory University, USA</i></li> <li>3. Extra-epitopic amino acids influence recognition of the 2009 H1N1 pandemic influenza A virus by CD8+ T cells specific for the conserved M158-66 epitope, <b>Carolien van de Sandt</b>, <i>Erasmus MC Rotterdam, The Netherlands</i></li> <li>4. Constitutive TRIM22 expression confers intrinsic antiviral immunity in the respiratory tract, <b>Edward Hutchinson</b>, <i>University of Glasgow, UK</i></li> </ul>	<b>SPB3 MATHEMATICAL MODELING</b> <ul style="list-style-type: none"> <li>▪ <b>CHAIR: Colin Russell</b>, <i>Cambridge University, UK</i></li> <li>▪ <b>CO-CHAIR: Katelyn Gostic</b>, <i>University of California, USA</i></li> <li>1. Population dynamics constrain immune escape in human influenza A, <b>Dylan Morris</b>, <i>Princeton University, USA</i></li> <li>2. Estimates of Annual and Average Global Seasonal Influenza-associated Respiratory Mortality form 1999-2015, <b>Angela Iuliano</b>, <i>Centers for Disease Control and Prevention, USA</i></li> <li>3. Optimizing Distribution of Pandemic Influenza Antivirals, <b>speaker tbc</b></li> <li>4. Should we expect broadly protective immunity and childhood hemagglutinin imprinting to impact seasonal influenza epidemiology? <b>Katelyn Gostic</b>, <i>University of California, USA</i></li> </ul>	
18:00-19:30	SATELLITE SYMPOSIUM		OMEGA
<b>12 SEPTEMBER 2017</b>			
07:30-09:00	SATELLITE SYMPOSIUM		OMEGA
	<b>COMPANY LECTURES:</b> <ul style="list-style-type: none"> <li>▪ <b>Medicago</b></li> <li>▪ <b>Janssen</b></li> </ul>		
09:15-10:15	PL02 PLENARY SESSION		OMEGA
	<b>KEYNOTE LECTURES:</b> <ul style="list-style-type: none"> <li><b>Clinical management of influenza: where do we go?</b></li> <li>▪ <b>Jonathan Van-Tam</b>, <i>University of Nottingham, UK</i></li> <li><b>Protective and pathological roles of coagulation proteases and PARs in influenza infection</b></li> <li>▪ <b>Nigel Mackman</b>, <i>University of North Carolina at Chapel Hill</i></li> </ul>		
10:15-10:45	COFFEE BREAK		
	GUIDED POSTER TOUR		

10:45-12:30	PARALLEL SESSIONS <span style="float: right;">OMEGA</span>	ALFA
	<b>SPA4 ANTIVIRALS AND RESISTANCE/ MONOCLONAL ANTIBODY THERAPIES</b> <ul style="list-style-type: none"> <li>▪ <b>CHAIR: Elena Govorkova</b>, <i>St. Jude Children's Research Hospital, USA</i></li> <li>▪ <b>CO-CHAIR: Florian Krammer</b> <i>Mount Sinai School of Medicine, USA</i></li> </ul> <ol style="list-style-type: none"> <li>1. Mechanisms of protection of monoclonal anti-influenza B neuraminidase IgG, IgM and IgA antibodies in a murine challenge model, <b>Veronika Chromikova</b>, <i>Mount Sinai School of Medicine, USA</i></li> <li>2. A Host-Directed Antiviral Approach for Treatment of Influenza Virus Infections, <b>Kelly Warfield</b>, <i>Emergent Biosolutions, USA</i></li> <li>3. Impact of in-hospital neuraminidase inhibitor treatment on length of stay: an Individual Participant Data Meta-analysis, <b>Sudhir Venkatesan</b>, <i>University of Nottingham, UK</i></li> <li>4. Resistance analyses in subjects treated with pimodivir (Jnj-63623872): results from the phase 2b topaz trial in acute uncomplicated seasonal influenza, <b>Johan Vingerhoets</b>, <i>Janssen, Belgium</i></li> </ol>	<b>SPB4 ANIMAL FLU-ECOLOGY AND EPIDEMIOLOGY OF ANIMAL INFLUENZA</b> <ul style="list-style-type: none"> <li>▪ <b>CHAIR: Gavin Smith</b>, <i>Duke-NUS, Singapore</i></li> <li>▪ <b>CO-CHAIR: Josanne Verhagen</b>, <i>Linnaeus University Växjö, Sweden</i></li> </ul> <ol style="list-style-type: none"> <li>1. Swarm incursions during winter 2016/17 of multiple reassortants of highly pathogenic avian H5N8 influenza strains causing the largest epizootic in birds ever recorded in Germany, <b>speaker tbc</b></li> <li>2. Circulation, prevalence and genetic analyses of wild bird avian influenza viruses in a key active surveillance site in Eurasia: 2010-2017, <b>Nicola Lewis</b>, <i>APHA Virology, UK</i></li> <li>3. Circulation of low and highly pathogenic avian influenza A viruses among wild and domestic birds in Ukraine, <b>Denys Muzyka</b>, <i>National Scientific Center Institute of Experimental and Clinical Veterinary Medicine, Ukraine</i></li> <li>4. Mobile poultry vendors in Bangladesh: practices and movement patterns, <b>Ausraful Islam</b>, <i>ICDDR, Bangladesh</i></li> </ol>
12:30-14:00	LUNCH	
	<b>SATELLITE SYMPOSIUM</b> Organized by SEQIRUS <span style="float: right;">OMEGA</span>	
14:00-15:45	PARALLEL SESSIONS <span style="float: right;">OMEGA</span>	ALFA
	<b>SPA5 VACCINES: CURRENT AND NOVEL APPROACHES</b> <ul style="list-style-type: none"> <li>▪ <b>CHAIR: Guus Rimmelzwaan</b>, <i>Erasmus MC Rotterdam, The Netherlands</i></li> <li>▪ <b>CO-CHAIR: Ali Ellebedy</b>, <i>Emory University, USA</i></li> </ul> <ol style="list-style-type: none"> <li>1. Nucleoside-modified mRNA vaccination induces influenza virus hemagglutinin stalk-specific antibody responses, <b>Norbert Pardi</b>, <i>University of Pennsylvania, USA</i></li> <li>2. Adjuvanted mini-HA induces broadly neutralizing antibodies in pre-exposed non-human primates which protect mice from lethal influenza challenge, <b>Börries Brandenburg</b>, <i>Janssen, The Netherlands</i></li> <li>3. Influenza virus hemagglutinin stalk-specific antibodies in human sera measured by ELISA correlate with in vivo protection in a mouse serum transfer model, <b>Raffael Nachbagauer</b>, <i>Mount Sinai School of Medicine, USA</i></li> <li>4. Pre-existing orthopoxvirus-specific immunity interferes with t cell responses induced by vaccination with recombinant modified vaccinia virus ankara in mice, <b>Rory de Vries</b>, <i>Erasmus MC Rotterdam, The Netherlands</i></li> </ol>	<b>SPB5 GENETICS AND EVOLUTION OF VIRUS AND HOST</b> <ul style="list-style-type: none"> <li>▪ <b>CHAIR: Ron Fouchier</b>, <i>Erasmus MC Rotterdam, The Netherlands</i></li> <li>▪ <b>CO-CHAIR: Craig Thompson</b>, <i>University of Oxford, UK</i></li> </ul> <ol style="list-style-type: none"> <li>1. Avian influenza A/H10N7 virus outbreak in seals: identification and characterization of mutations and associated phenotypes driving airborne transmission between ferrets, <b>Sander Herfst</b>, <i>Erasmus MC, The Netherlands</i></li> <li>2. Characterization of a newly emerged variant of H7N9 virus containing a polybasic motif in the hemagglutinin protein, <b>Honglin Chen</b>, <i>University of Hong Kong, Hong Kong SAR</i></li> <li>3. Polymerase enhancing substitutions that arise during infection with highly pathogenic avian H5N1 influenza in humans, <b>speaker tbc</b></li> <li>4. Influenza virus quasispecies characterization of serial upper and lower respiratory tract samples from mechanically ventilated patients, <b>Björn Koel</b>, <i>Academic Medical Center Amsterdam, The Netherlands</i></li> </ol>
15:45-16:15	COFFEE BREAK	

16:15-18:00	PARALLEL SESSIONS	OMEGA	ALFA
	<b>SPA6 EVALUATION OF VACCINE SAFETY AND EFFECTIVENESS</b>	<b>SPB6 RISK MANAGEMENT AND MITIGATION OF EPIDEMIC AND PANDEMIC THREATS</b>	
	<p><b>CHAIR: Maryna Eichelberger</b>, <i>Food and Drug Administration, USA</i></p> <p><b>CO-CHAIR: Katja Höschler</b>, <i>Public Health England, UK</i></p> <ol style="list-style-type: none"> <li>Efficacy immunogenicity and safety study of a 0.5 ml dose of a quadrivalent inactivated influenza vaccine in children from 6 to 35 months, <b>Stephanie Pepin</b>, <i>Sanofi Pasteur, France</i></li> <li>Assessment of the effect of repeated vaccination on current season influenza vaccine effectiveness (IVE) in patients 60 years old or over, seasons 2013-2014 to 2015-2016 in the Valencia Region, <b>Víctor Baselga-Moreno</b>, <i>FISABIO, Spain</i></li> <li>A new hospital surveillance system in Norway for severe influenza in children, <b>Håkon Bøås</b>, <i>Institute of Public Health, Norway</i></li> <li>Immunogenicity and safety of an inactivated quadrivalent influenza vaccine co-administered with a 23-valent pneumococcal polysaccharide vaccine, versus separate administration, in ≥50-year-old adults: results from phase III, randomized, non-inferiority trial, <b>Geert Leroux-Roels</b>, <i>University of Ghent, Belgium</i></li> </ol>	<ul style="list-style-type: none"> <li><b>CHAIR: Marie-Paule Kieny</b>, <i>World Health Organization</i></li> <li><b>CO-CHAIR: Irina Isakova-Sivak</b>, <i>Institute of Experimental Medicine Saint Petersburg, Russia</i></li> </ul> <ol style="list-style-type: none"> <li>Effect of a reinforced hospital campaign for seasonal influenza vaccination of healthcare workers 2016-2017 on nosocomial outbreaks in the University Hospital of Lyon, France, <b>Bruno Lina</b>, <i>University of Lyon, France</i></li> <li>Partnership for Influenza Vaccine Introduction: early progress in catalyzing influenza vaccine use in low and middle-income countries, <b>speaker tbc</b></li> <li>Outbreaks of highly pathogenic avian influenza A(H5N5) and A(H5N8) virus infection in birds: National risk assessments and protective measures for humans in 22 EU/EEA countries, 2016/17, <b>Cornelia Adlhoch</b>, <i>European Centre for Disease Prevention and Control, Sweden</i></li> <li>2016/17 Seasonal Influenza Vaccine Uptake by Medical Students in the UK, <b>Rachel Groome</b>, <i>University of Nottingham, UK</i></li> </ol>	
18:00-19:30	SATELLITE SYMPOSIUM		OMEGA
	<b>"Next generation influenza vaccines: the future of influenza immunization"</b> organized by MUGAS Foundation		
20:00-22:00	FAREWELL DINNER		LATVIA SOCIETY HOUSE

## 13 SEPTEMBER 2017

08:30-09:30	<b>PL04 YOUNG SCIENTISTS PLENARY SESSION</b> <span style="float: right;">OMEGA</span>	
	<ul style="list-style-type: none"> <li>▪ <b>CHAIR: Ed Hutchinson</b>, <i>University of Glasgow, UK</i></li> <li>▪ <b>CO-CHAIR: Claude Hannoun</b>, <i>Institut Pasteur Paris, France</i></li> </ul> <p><b>speakers:</b></p> <ol style="list-style-type: none"> <li>1. <b>Debby van Riel</b>, (<i>ESWI Best Body of Work award winner 2017</i>)</li> <li>2. <b>Matthew S. Miller</b>, (<i>Best Oral Presentation ESWI 2014</i>)</li> <li>3. <b>Steven F. Baker</b>, (<i>Best Poster Presentation ESWI 2014</i>)</li> <li>4. <b>Karen Laurie</b>, (<i>Award Winner Orthomyxovirus Research Conference 2015</i>)</li> <li>5. <b>Jason Long</b>, (<i>Award Winner Orthomyxovirus Research Conference 2015</i>)</li> </ol>	
09:30-10:00	COFFEE BREAK	
	GUIDED POSTER TOUR	
10:00-11:45	<b>PARALLEL SESSIONS</b> <span style="float: right;">OMEGA</span>	<b>PARALLEL SESSIONS</b> <span style="float: right;">ALFA</span>
	<b>SPA7 MATERNAL AND CHILDHOOD IMMUNIZATION</b> <ul style="list-style-type: none"> <li>▪ <b>CHAIR: Terho Heikkinen</b>, <i>University of Turku, Finland</i></li> <li>▪ <b>CO-CHAIR: Marta Nunes</b>, <i>University of Witwatersrand, RSA</i></li> </ul> <ol style="list-style-type: none"> <li>1. Seroprevalence of seasonal influenza virus infection among unvaccinated pregnant women in Bangladesh, 2013-2014, <b>Zubair Akhtar</b>, <i>ICDDR, Bangladesh</i></li> <li>2. Influenza A virus infection during pregnancy: high progesterone levels during pregnancy increase mortality in pregnant influenza infected mice by impairing the anti-viral immune response, <b>Alexandra Hierweger</b>, <i>University Medical Center Hamburg-Eppendorf, Germany</i></li> <li>3. A randomised controlled trial to increase influenza vaccine uptake in children aged from 6 to 24 months, <b>Karene Yeung</b>, <i>University of Hong Kong, Hong Kong SAR</i></li> <li>4. Assessing direct and indirect effects of pediatric influenza vaccination in Germany using individual-based simulations – Epidemiological considerations, <b>Ruprecht Schmidt-Ott</b>, <i>GlaxoSmithKline, Germany</i></li> </ol>	<b>SPB7 HOST FACTORS IN PATHOGENESIS</b> <ul style="list-style-type: none"> <li>▪ <b>CHAIR: Gülsah Gabriel</b>, <i>Heinrich Pette Institute Hamburg, Germany</i></li> <li>▪ <b>CO-CHAIR: Ivan Marazzi</b>, <i>Mount Sinai School of Medicine, USA</i></li> </ul> <ol style="list-style-type: none"> <li>1. Emergence of Highly Virulent H1N1 Influenza Virus Strains in Allogeneically Pregnant Mice, <b>Stephanie Bertram</b>, <i>Heinrich Pette Institute, Germany</i></li> <li>2. SMARCA2-regulated host cell factors are required for MxA restriction of influenza A viruses, <b>Alexandra Dudek</b>, <i>Institute of Virology Freiburg, Germany</i></li> <li>3. Resistance to influenza A infections in mice carrying deletions in host protease genes, <b>Klaus Schughart</b>, <i>Helmholtz Centre for Infection Research, Germany</i></li> <li>4. The role of obesity in the generation of influenza virus quasispecies, <b>Kirsty Short</b>, <i>University of Queensland, Australia</i></li> </ol>
11:45-12:15	COFFEE BREAK	
12:15-13:45	<b>PL05 PLENARY SESSION - LATE BREAKERS</b> <span style="float: right;">OMEGA</span>	
	<ul style="list-style-type: none"> <li>▪ <b>CHAIR: Sylvie van der Werf</b>, <i>Institut Pasteur Paris, France</i></li> <li>▪ <b>CO-CHAIR: Susanne Herold</b>, <i>University of Giessen, Germany</i></li> </ul> <p style="text-align: center;"><b>ABSTRACT SUBMISSION DEADLINE: 15 AUGUST 2017</b></p>	
	<b>CC CLOSING CEREMONY</b> <span style="float: right;">OMEGA</span>	
13:45-14:30	LUNCH	