PROGRAMME DAY 2

OPTIONS XI for the Control of INFLUENZA

Plenary Session 2 | Main Auditorium

Co-chair: Silke Stertz, University of Zurich, Switzerland
Co-chair: Florian Krammer, Icahn School of Medicine at Mount Sinai, USA

08:30 - 09:00	**Specificity and Protective Function of T Cells in Influenza and COVID-19** Paul Thomas, St. Jude Children's Research Hospital, USA
09:00 - 09:30	**New Opportunities in Non-Pharmaceutical Interventions for Influenza** Linsey Marr, Virginia Tech, US
09:30 - 10:00	**Acute Respiratory infections: long-term effects** Peter Openshaw, Imperial College London, UK
10:00 -10:30	**Tea break	Hall 1**

	Virology & Pathogenesis **HALL 1A**	**Clinical Sciences & Vaccinology** **MEETING ROOM 3**	**Public Health & Policy** **MAIN AUDITORIUM**
10:30 -12:00	**Influenza: Virus-host Cell Interactions**	**Influenza: Improved Seasonal Vaccines**	**Public Health Genomics for Influenza**
	Co-chair: Silke Stertz, University of Zurich, Switzerland Co-chair: Laura Martin-Sancho, The Scripps Research Institute, USA	Co-chair: Teresa Lambe, University of Oxford, UK Co-chair: Irene Hoxie, Ichan School of Medicine at Mount Sinai, USA	Co-chair: Matthew Scotch, University of Arizona, USA Co-chair: Rebecca Kondor, Centers for Disease Control and Prevention, USA
10:35 - 11:00	**Dynamics of influenza A virus-receptor interactions** Xander de Haan Utrecht University, Netherlands	**Optimizing Antigen Selection to Improve Seasonal Influenza Vaccines** Saranya Sridhar Sanofi, UK	**Improving Influenza Vaccines Through Genomics** Rebecca Kondor Centers for Disease Control and Prevention, USA
11:00 - 11:12	Binding of H7 influenza A virus to N-glycolylneuraminic acid and sialyl-LewisX on N-glycans [AOXI0197] Cindy Spruit, Utrecht University, Netherlands	Quadrivalent influenza self-amplifying mRNA bicistronic vaccines elicit potent HA and NA-specific antibody and cell-mediated immunity against seasonal influenza strains [AOXI0046] Yingxia Wen, Seqirus, USA	Mobility and competition shape seasonal influenza epidemics in the United States [AOXI0470] Simon De Jong, University of Amsterdam, Netherlands
11:12 - 11:24	Developing an assay for nucleic acid exposure to probe influenza membrane fusion [AOXI0497] Ana Villamil, Uppsala University, Sweden	Interim Analysis of a Phase 1/2 Randomized Clinical Trial on the Safety, Reactogenicity, and Immunogenicity of a Quadrivalent, mRNA-based Seasonal Influenza Vaccine (mRNA-1010) in Healthy Adults [AOXI0113] Raffael Nachbagauer, Moderna, Inc., USA	Resurgence of H3N2 Influenza A virus (IAV) on a university campus in Arizona, USA during the COVID-19 pandemic [AOXI0463] Matthew Scotch, Arizona State University, USA
11:24 - 11:36	High-throughput droplet-based analysis of influenza A virus genetic reassortment by single-virus RNA sequencing [AOXI366] Catherine Isel, Institut Pasteur/INSERM, France	Safety and immunogenicity of COVID Influenza Combination Vaccine [AOXI294] Vivek Shinde, Novavax, Inc., USA	Within-host evolution of influenza A virus during acute infection [AOXI0038] Emily E. Bendall, University of Michigan, USA
11:36 - 11:48	Silencing pulmonary sensory neurons increases influenza disease severity [AOXI326] Nathalie AJ Verzele, University of Queensland, Australia	Monitoring antigenic drift in the neuraminidase of recent influenza A(H3N2) viruses [AOXI0163] Larisa Gubareva, Centers for Disease Control and Prevention, USA	Impact of antigenic drift on influenza A/H3N2 vaccine effectiveness in the United States [AOXI0267] Amanda Perofsky, Fogarty International Center, USA
11:48 - 12:00	Aberrant Cellular Glycosylation Modifies the Influenza Glycome Without Genomic Changes Allowing Virus Evasion of Host Immune Responses [AOXI214] Ian York, Centers for Disease Control and Prevention, USA	Leveraging mucosal immunity for next-generation influenza and COVID-19 vaccines [AOXI0714] Matthew Miller, McMaster University, Canada	Learning Protein Sequences to Predict Antigenic Variation of Human Influenza Viruses [AOXI0429] Lin Wang, University of Cambridge, UK
12:00 - 14:00	**Lunch	Hall 1**		

Protection Against Influenza and its Complications in the Context of COVID-19 — Sponsored by Sanofi

12:30 - 13:30 **HALL 1A**	**Introduction**	Salim S. Abdool Karim, Center for the AIDS Programme of Research in South Africa (CAPRISA)	Columbia University, USA **Be Prepared for the Coming Flu Season**	John Paget, Netherlands Institute for Health Services Research (NIVEL) Utrecht, The Netherlands **Quality of Clinical Trial Data: Why RCTs Matter**	Angel Chu, University of Calgary, Canada **Q & A**

	Influenza - Pathogenesis **HALL 1A**	**Influenza: Broadly Protective /Universal Influenza Virus Vaccines** **MEETING ROOM 3**	**Modelling and Forecasting for Influenza** **MAIN AUDITORIUM**
14:00- 15:30	Co-chair: Sarah Londrigan, University of Melbourne, Australia Co-chair: Mathilde Richard, ErasmusMC, Netherlands	Co-chair: Jenna Guthmiller, University of Colorado, USA Co-chair: Andrew Ward, The Scripps Research Institute, USA	Co-chair: Rachael Pung, London School of Hygiene & Tropical Medicine, UK Co-chair: Simon Cauchemez, Institut Pasteur, France
14:05 - 14:30	**The neuroinvasive, neurotropic and neurovirulent potential of influenza A viruses** Debby van Riel Erasmus MC, Netherlands	**Optimizing adjuvant-delivery systems for recombinant neuraminidase-based influenza virus vaccines** Irene Hoxie Icahn School of Medicine at Mount Sinai, USA	**Evaluating the impact of interventions during epidemics: Applications to influenza and COVID-19** Simon Cauchemez Institut Pasteur, France

Time	Column 1	Column 2	Column 3
14:30 - 14:42	Autoantibodies against type I IFNs in patients with critical influenza pneumonia [AOXI0050] Andrés Pizzorno, Centre International de Recherche en Infectiologie (CIRI), France	Universal mRNA vaccines for influenza elicit broadly protective antibodies against co-circulating and future drifted H1N1 and H3N2 viral variants [AOXI0075] James Allen, University of Georgia, USA	Lessons learned for influenza forecasting from two-years of real-time forecasting for the COVID-19 pandemic [AOXI0009] Matthew Biggerstaff, Centers for Disease Control and Prevention, USA
14:42 - 14:54	Exacerbated disease severity and perturbed immune responses directed towards influenza viruses following arbovirus co-infection [AOXI 0275] Isabelle Foo, The Peter Doherty Institute for Infection and Immunity, Australia	Cytomegalovirus vaccine vector-induced, unconventionally MHC-restricted effector memory T cells protect cynomolgus macaques from lethal aerosolized H5N1 challenge [AOXI0235] Jonah Sacha, Oregon Health and Science University, USA	Modelling informing policy in a highly vaccinated Singapore during the Delta and Omicron wave [AOXI0157] Hannah Clapham, National University of Singapore, Singapore
14:54 - 15:06	Seasonal influenza vaccination protects macaques against lethal respiratory disease following inhalation of small particle aerosols containing H5N1 influenza [AOXI448] Douglas Reed, University of Pittsburgh, USA	An immune optimised influenza vaccine generates broad neutralizing immune responses to human and swine H1N1 viruses and protects mice and swine from challenge [AOXI0229] Joanne Marie Del Rosario, DIOSynVax, UK	Forecasting of influenza activity using multi-stream surveillance data in Hong Kong [AOXI0577] Dong Wang, University of Hong Kong, Hong Kong
15:06 - 15:18	Levels of virus-binding and virus-neutralizing antibodies to historic strains of influenza virus are birthyear-dependent and evolve with different dynamics [AOXI0591] Anke Huckriede, University Medical Center Groningen, Netherlands	Neutralization Landscape of influenza hemagglutinin stem to characterize antibody behavior and decompose antibody mixtures [AOXI0080] Adrian Creanga, VRC, National Institutes of Health, USA	Using long short-term memory (LSTM) - a recurrent neural network model forecasting influenza activity with climate data for four geographic regions of Vietnam [AOXI0434] Hai Tuan Nguyen, National Institute of Hygiene and Epidemiology, Viet Nam
15:18 - 15:30	The use of telemetry and whole-body plethysmography for acquiring real-time physiological data for improved host response analysis during an influenza virus infection in ferrets [AOXI0202] Lisa Kercher, St. Jude Children's Research Hospital, USA	Modified live attenuated influenza B virus vaccines and sex differences on humoral immune responses in the DBA/2J mouse model [AOXI0412] Daniel Perez, University of Georgia, USA	Impact of broadly-protective vaccines on seasonal dynamics and variant escape of human influenza A [AOXI0237] Qiqi Yang, Princeton University, USA
15:30 - 16:00	Tea break	Hall 1		

Time	SARS-CoV-2 - Pathogenesis & Transmission HALL 1A	Influenza: Mechanisms of Vaccine Induced and Broadly Protective Adaptive Immunity MEETING ROOM 3	Disease Control Policy for Influenza MAIN AUDITORIUM
16:00 - 17:30	Co-chair: Seema Lakdawala, Emory University, USA Co-chair: Larisa Labzin, University of Queensland, Australia	Co-chair: Hideki Hasegawa, WHO Collaborating Centre for Reference and Research on Influenza, Japan Co-chair: Carolien van de Sandt, University of Melbourne, Australia	Co-chair: Gina Samaan, World Health Organization, Switzerland Co-chair: Salah Al Awaidi, Ministry of Health, Oman
16:05 - 16:30	Immune recognition of SARS-CoV-2 and variants: Implications for pan-coronavirus vaccines and therapeutics Ian Wilson The Scripps Research Institute, USA	Overcoming the ghosts of influenza past to generate broadly protective humoral immunity Jenna Guthmiller University of Colorado, USA	Epidemiology and control measures for influenza and COVID-19 in the Middle East and North Africa (MENA) region Salah Al Awaidi Ministry of Health, Oman
16:30 - 16:42	Viral emissions into the air and environment after SARS-CoV-2 human challenge [AOXI0578] Anika Singanayagam, Imperial College London, UK	Defining cellular correlates of protection to influenza across human cohorts [AOXI528] Robert C. Mettelman, St. Jude Children's Research Hospital, USA	Influenza prevention during COVID19 pandemic (2020 to 2022): Data from 13 European countries and Israel [AOXI0158] George Kassianos, Royal College of General Practioners, UK
16:42 - 16:54	Mutations in SARS-CoV-2 variants of concern link to increased spike cleavage and virus transmission [AOX0044]I Alba Escalera, Icahn School of Medicine at Mount Sinai, USA	Influenza vaccine responses among young children first exposed to influenza antigens via infection versus vaccination [AOXI0637] Annette Fox, WHO Collaborating Centre for Reference and Research on Influenza, Australia	Implementing seasonal influenza vaccination in the era of COVID-19, in South Africa (2011-2021) [AOXI0399] Wayne Ramkrishna, National Department of Health, South Africa
16:54 - 17:06	SARS-CoV-2 ORF6 protein targets TRIM25 mediated ubiquitination of RIG I to mitigate Type I Interferon Signalling [AOXI0218] Oyahida Khatun, Indian Institute of Science, India	Next generation T cell activating vaccination increases influenza virus mutation prevalence [AOXI0404] Maireid Brigid Bull, University of Oxford, UK	Development of universal influenza vaccines: understanding the industry perspective [AOXI0386] Isa Ahmad, Imperial College London, UK
17:06 - 17:18	SARS-CoV-2 in white-tailed deer indicates establishment of the species as a wildlife reservoir in North America [AOXI648] Andrew Bowman, The Ohio State University, USA	Seasonal influenza vaccination expanded antibody breadth and induced cross-reactive antibodies to future A/H3N2 viruses [AOXI0432] Nina Urke Ertesvåg, University of Bergen, Norway	The Influence of Rapid Influenza Diagnostic Testing on Clinician Decision-making for Patients with Acute Respiratory Infection in Urgent Care [AOXI0007] Jonathan Temte, State of Wisconsin's Department of Employee Trust Funds Office of Strategic Health Policy, USA
17:18 - 17:30	Diminished capability of SARS-CoV-2 Omicron variant to replicate at febrile temperature [AOXI458] Li Wang, Centers for Disease Control and Prevention, USA	A universal influenza mRNA vaccine candidate boosts T-cell responses and reduces zoonotic influenza virus disease in ferrets [AOXI0511] Jorgen de Jonge, National Institute of Public Health and the Environment (RIVM), Netherlands	Introduction of influenza vaccination in children aged 2-6 years in Denmark in times of COVID-19, 2021-2022 [AOXI0586] Frederikke Lomholt, Statens Serum Institut, Denmark
17:30 - 19:00	Refreshments + Poster Session 2	Hall 1		
19:00 - 21:00	Off-site event hosted by the Sabin Vaccine Institute's Influenzer Initiative	Titanic Museum		