Final Conference Program

Individual and population immunity to respiratory viruses

8-10 November 2023, Harbour Grand Hong Kong

Time	Activity
Day 1 – Wednesday, 8 November 2023	
08:00-09:00	Registration
Moderator: Ben Cowling	
09:00-09:10	Opening remarks – *Ben Cowling & Leo Poon*
09:10-09:40	1.1 (invited) From SARS to COVID-19: A Hong Kong Perspective – *Malik Peiris*
09:40-10:10	1.2 (invited) Reflections on COVID-19: Sustaining the gains made during COVID-19 to prevent future threats – *Maria Van Kerkhove*
10:10-10:40	1.3 (invited) Impact of immunity on infection and transmission for influenza and SARS-CoV-2 in South Africa – *Cheryl Cohen*
10:40-11:10	*Refreshment break*
Moderators: Sarah Cobey & Malik Peiris	
11:10-11:40	1.4 (invited) – CD8^{+} T cell immunity in viral infection and vaccination – *Katherine Kedzierska*
11:40-11:55	1.5 Omicron infection following vaccination enhances a broad spectrum of immune responses dependent on infection history – *Hailey Hornsby*
11:55-12:10	1.6 Mucosal and blood humoral immunity generated by repeated SARS-CoV-2 infection in populations with limited vaccine coverage: insights from a longitudinal study in The Gambia – *Natalie Barratt*
12:10-12:25	1.7 Patterns of spatial and individual variation in influenza incidence and immunity in a southern Chinese cohort – *James Hay*
12:25-12:40	1.8 Using a mathematical model to compare the effects of age and vaccination schedule on the dynamics of SARS-CoV-2 specific antibody levels – *Daniel Stocks*
12:40-14:00	*Lunch*
Moderators: David Hui & Katherine Kedzierska	
14:00-14:30	1.9 (invited) Determinants of mucosal antibody responses to respiratory viruses – *Ryan Thwaites*
14:30-14:45	1.10 Priming Conditions Shape Breadth of Neutralizing Antibody Responses to Sarbecoviruses – *Janice Zhirong Jia*
14:45-15:00	1.11 The Transfer of Maternal Antibodies and Dynamics of Maternal and Natural Infection-induced Antibodies against RSV in Children: A Longitudinal Cohort Study – *Wang Yan*
15:00-15:15	1.12 Antigenic characterization of SARS-CoV-2 variants using hamster and human serum sets – *Carol Weiss*
15:15-15:30	1.13 Characterization of the phenotype and specificity of human nasal epithelium-derived T cells – *Mark Power*
15:30-15:45	*Refreshment break*
Moderators: Ryan Thwaites & Sophie Valkenburg	
15:45-16:00	1.14 Immunogenicity of COVID-19 vaccines in HK – *David Hui*
16:00-16:15	1.15 Lack of protective effect of fourth dose vaccination on SARS-CoV-2 infection– *Nicole Ngai Yung Tsang*
16:15-16:30	1.16 Susceptibility to SARS-CoV-2 Omicron infection may be mediated by reduced ADCC activity – *Tomer Hertz*
16:30-16:45	1.17 Distinct COVID-19 vaccine combinations result in divergent immune responses – *Rory de Vries*
16:45-17:00	1.18 Intrinsic differences in SARS-CoV-2 humoral immunity between children and adults – *Carolyn Cohen*

Day 2 – Thursday, 9 November 2023	
Time	**Activity**
	Moderators: Tim Uyeki & Cheryl Cohen
09:00-09:30	2.1 (invited) Longitudinal community and household cohorts and their applications in New Zealand – *Sue Huang*
09:30-10:00	2.2 (invited) Experiences from four decades of annual serosurveys for influenza viruses in Norway, and its usefulness for other viruses – *Olav Hungnes*
10:00-10:15	2.3 Immunity to seasonal coronaviruses and cross-reactivity to SARS-CoV-2 prior to the COVID-19 pandemic in The Gambia – *Dawda Jobe*
10:15-10:30	2.4 Impact of age and vaccination on susceptibility to and infectiousness of influenza in United States households: Tennessee and Wisconsin, 2017 to 2020 – *Alexandra Mellis*
10:30-11:00	*Refreshment break*
	Moderators: Isabella Eckerle & Simon Cauchemez
11:00-11:30	2.5 (invited) Reconstructing dynamics of SARS-CoV-2 and influenza immunity following a complex history of antigen exposures – *Adam Kucharski*
11:30-11:45	2.6 Strain change effects on influenza vaccine immunogenicity – *Annette Fox*
11:45-12:00	2.7 A(H2N2) and A(H3N2) influenza pandemics elicited durable cross-reactive and protective antibodies against avian N2 neuraminidases – *Zaolan Liang*
12:00-12:15	2.8 Overweight reduces the humoral response to SARS-CoV-2 infection – *Kirsty Short*
12:15-12:30	2.9 Age-specific influenza antibody waning patterns in Hong Kong between 2020 to 2023 – *Sooksan Wong*
12:30-14:00	*Lunch*
	Moderators: Nancy Leung & Richard Webby
14:00-14:30	2.10 (invited) – Alternate immune targets to SARS-CoV-2 by infection and vaccination – *Sophie Valkenburg*
14:30-14:45	2.11 – Overview of humoral immune response to SARS-CoV-2 variants in COVID-19 patients and vaccinees following homologous and heterologous vaccinations – *Claudia Trombetta*
14:45-15:00	2.12 – Molecular dissection of the antibody response to next-generation COBRA influenza vaccines – *Giuseppe Sautto*
15:00-15:15	2.13 Comparing immunogenicity of standard-dose and enhanced influenza vaccines in generating anti-NA antibodies in the elderly: a randomised control trial – *Pavithra Daulagala*
15:15-15:35	*Refreshment break*
	Moderator: Malik Peiris
15:35-17:00	2.14 Special session to reflect and discuss the responses to the COVID-19 pandemic with contributions from around the world
18:00-21:00	*Poster session & cocktail reception*

Day 3 – Friday, 10 November 2023	
Time	**Activity**
	Moderators: Adam Kucharski & Olav Hungnes
09:00-09:30	3.1 (invited) Modelling serological data to learn about infection and immunity – *Simon Cauchemez*
09:30-10:00	3.2 (invited) Challenges reconciling immunity to influenza between individuals and populations – *Sarah Cobey*
10:00-10:15	3.3 Understanding drivers of differential immune responses to mRNA and adenovirus vectored COVID-19 vaccines: A data-driven dynamic modelling analysis – *David Hodgson*
10:15-10:30	3.4 Modeling antibody kinetics to influenza and other common respiratory viruses: can we use population-level serology to anticipate the impact of future epidemics? – *Cecile Viboud*
10:30-11:00	*Refreshment break*
	Moderators: Sooksan Wong & Sue Huang
11:00-11:15	3.5 Adaptation of mediation framework to the test-negative study design of influenza vaccine effectiveness – *Brendan Flannery*
11:15-11:30	3.6 Antibody correlates of protection against symptomatic SARS-CoV-2 infection for Alpha, Delta, Gamma and Zeta variants: analysis from two randomized controlled trials in the UK and Brazil – *Elaine Shuo Feng*
11:30-11:45	3.7 Identifying mediators of protection for CoronaVac, an inactivated SARS-CoV-2 vaccine – *Nancy Hiu Lan Leung*
11:45-12:00	3.8 SARS-CoV-2 antibody levels associated with COVID-19 protection in outpatients tested for SARS-CoV-2, US Flu VE Network, October 2021–June 2022 – *Kelsey Sumner*
12:00-12:15	3.9 SARS-CoV-2 correlates of protection conferred by natural immunity: comparative analysis of pre-exposure neutralizing antibody titers against Delta and Omicron variant infections – *Kaiyuan Sun*
12:15-12:30	3.10 Assessment of the dynamic change of population immunity and susceptibility to emerging influenza antigenic variants in the United States – *Min Levine*
12:30-14:00	*Lunch*
	Moderators: Hui-Ling Yen & Leo Poon
14:00-14:30	3.11 (invited) Antibodies at the frontline - studying mucosal immunity to SARS-CoV-2 and other respiratory viruses – *Isabella Eckerle*
14:30-14:45	3.12 Recovery from respiratory virus infections in hospitalised patients relies on a network of innate and adaptive immunity – *Thi Hoang Oanh Nguyen*
14:45-15:00	3.13 Comparing antibody breadth of influenza A between ferrets and humans: implications for susceptibility and reinfection intervals – *Bingyi Yang*
15:00-15:15	3.14 Maximum likelihood estimation of rate of influenza vaccine efficacy waning – *Kylie Ainslie*
15:15-15:30	3.15 Repeated influenza vaccination effects in a randomized placebo-controlled trial – *Ben Cowling*
15:30-15:45	3.16 Unpacking the attenuating effects of repeated influenza vaccination – *Ziheng Zhu*
15:45-16:00	Closing Remarks – *Ben Cowling and Leo Poon*
16:00-16:30	*Refreshments available*