

WEDNESDAY, 24 JUNE 2026

08:30	Registration	Foyer
09:00-09:15	Photos	Grand Hall
09:15-09:30	Opening remarks Professor Leo Poon and Professor Kei Sato Co-Chairpersons of NIDO2026 Professor Hui-Ling Yen Interim Director and Professor School of Public Health, The University of Hong Kong	Grand Hall

09:30-11:05	Scientific Session 1.1 Topic: Genetic Diversity and Evolution Chairs: Leo Poon, University of Hong Kong (CN) Zhengli Shi, Guangzhou National Laboratory (CN)	Grand Hall
09:30-09:55	Invited speaker talk Phenotypic evolution of circulating MERS-CoV in the Arabian Peninsula Christian Drosten, Charité-Universitätsmedizin Berlin (DE)	
09:55-10:10	The spread of RNA exonuclease domain within Nidovirales hints an evolution mechanism bridging RNA and DNA worlds François Ferron, Laboratoire AFMB, CNRS-Aix Marseille University (FR)	
10:10-10:25	Genetic diversity in horseshoe bat ACE2 and sarbecovirus Spike proteins mutually shape one another Wenye Li, The University of Tokyo (JP)	
10:25-10:35	DeepCoV: a DMS-informed protein language model predicts SARS-CoV-2 evolution dynamics with spatiotemporal resolution Fanchong Jian, Peking University (CN)	
10:35-10:45	High-throughput antibody DMS enables comprehensive epitope modeling and evolution prediction of SARS-CoV-2 and other fast-evolving viruses Fanchong Jian, Peking University (CN)	
10:45-10:55	Direct Measurement of Inter-Virus Recombination Using Landmarked Genomes David LV Bauer, The Francis Crick Institute (GB)	
10:55-11:05	Deciphering and forecasting viral evolution via AI-augmented molecular evolution Jian Lu, Peking University (CN)	

WEDNESDAY, 24 JUNE 2026

11:05-11:25 Coffee Break

Poster Hall

11:25-13:00 Scientific Session 1.2 Topic: Epidemiology and Surveillance

Chairs: Zhengli Shi, Guangzhou National Laboratory (CN)

Kei Sato, The University of Tokyo (JP)

Ying Fang, University of Illinois at Urbana-Champaign (US) — Apology Sent

Grand Hall

11:25-11:50	Invited speaker talk Coronaviruses: Past and present cross-species, zoonotic and “Oh Deer” Reverse zoonotic transmission Linda Saif, The Ohio State University (US)
11:50-12:05	Co-circulation and Preferential Infection of Children by the Emerging Saltation Variant BA.3.2 Suggest a Transition Towards Endemicity Stefan Pöhlmann, German Primate Center - Leibniz Institute for Primate Research (DE)
12:05-12:20	Neutralizing antibody profiles in different age cohorts reveal evidence of antigenic drift in human coronavirus 229E that is not seen with OC43 and NL63 Kanta Subbarao, Université Laval (CA)
12:20-12:35	Optimizing Global Genomic Surveillance for Early Detection of Emerging SARS-CoV-2 Variants Wanying Sun, Centre for Immunology & Infection (CN)
12:35-12:50	PhyloRt: scalable deep-learning-based inference of time-varying transmission dynamics from outbreak phylogenies Ruopeng Xie, University of Oxford (GB)
12:50-13:00	Surveillance, Characterisation and Organ Tropism of Coronaviruses in UK Wildlife Ternenge Apaa, Animal & Plant Health Agency (GB)

WEDNESDAY, 24 JUNE 2026

13:00-14:00

Lunch Time

Poster Hall

14:00-15:35

Scientific Session 1.3 Topic: Viral Replication

Chairs: Bruno Canard, CNRS - Aix Marseille University (FR)
Volker Thiel, Institute for Virology and Immunology (CH)

Grand Hall

14:00-14:25

Invited speaker talk
Machinery of RNA virus replication and transcription – New Target, New Mechanism, Leading New Inhibitor
Zihe Rao, Tsinghua University (CN)

14:25-14:40

Structural basis of mismatch recognition by a SARS-CoV-2 proofreading enzyme
Chang Liu, The Johns Hopkins University School of Medicine (US)

14:40-14:55

Capturing the first translation and replication events: single-molecule imaging of early coronavirus infection
Martin Gonzalez Burgos, Institute of Virology and Immunology (CH)

14:55-15:10

The first foothold: the initiating steps in coronavirus replication visualized in real time and by 4i/smFISH analysis
Sypke van Terwisga, Utrecht University (NL)

15:10-15:25

A new model of coronavirus replication and transcription
Nuno Santos, The Francis Crick Institute (GB)

15:25-15:35

Perturbing MHV:nsp5 to unveil the role of proteolytic processing on viral RNA synthesis
Maximilian Erdmann, University of Liverpool (GB)

WEDNESDAY, 24 JUNE 2026

15:35-15:55

Coffee Break

Poster Hall

15:55-17:55

Scientific Session 1.4 Topic: Virus Entry

Chairs: Yunlong Cao, Peking University (CN)
Kei Sato, The University of Tokyo (JP)

Grand Hall

15:55-16:20	Invited speaker talk Receptor diversification in merbecovirus evolution Huan Yan, Wuhan University (CN)
16:20-16:35	Intermediate hosts prime merbecovirus spike for human compatibility Michael Letko, Washington State University (US)
16:35-16:50	CEACAM6 is a newly discovered receptor for different alphacoronaviruses Giulia Gallo, The Pirbright Institute (GB)
16:50-17:05	Sialoglycan Binding in HKU1 Cell Entry: Not Such an Open-and-Shut Case Daniel Hurdiss, Utrecht University (NL)
17:05-17:15	The Omicron tropic shift from SARS-CoV-2 Arises from Variant Specific Exploitation of Distinct ACE2 Compositions Timothy Ison, Kirby Institute, UNSW (AU)
17:15-17:25	The SLC39A9-C1GALT1 Axis Promotes Coronavirus Infection by Coupling Viral Entry with Innate Immune Suppression Wentao Li, Huazhong Agricultural University (CN)
17:25-17:35	Dynamic binding to proteoglycans in airway epithelium drives SARS-CoV-2 evolution Bo Meng, University of Cambridge (GB)
17:35-17:45	A pH-driven receptor switch from ACE2 to NPC1 enables endosomal entry of SARS-CoV-2 Yonghui Zheng, University of Illinois Chicago (US)
17:45-17:55	Structural basis and regulation of sialic acid receptor recognition by infectious bronchitis virus Harry Libbey, Utrecht University (NL)

18:00-20:00

Cocktail Reception

Foyer

THURSDAY, 25 JUNE 2026

08:45-09:30

Keynote Speaker Session I

MERS: Knowledge gaps

Peiris Malik, The University of Hong Kong (CN)

Grand Hall

09:30-11:05

Scientific Session 2.1 Topic: Pathogenesis

Chairs: Hin Chu, The University of Hong Kong (CN)

Bart Haagmans, Erasmus MC (NL)

Grand Hall

09:30-09:55

Invited speaker talk

Neurological PASC in humans and mice

Stanley Perlman, The University of Iowa (US)

09:55-10:10

Betacoronavirus internal protein: role in immune evasion and viral pathogenesis

Roy Wong, Rutgers Health (US)

10:10-10:25

Why Did SARS-CoV Not Cause a Pandemic: Comparative Pathogenesis and Transmission Studies in Hamsters

Melanie Rissmann, Erasmus Medical Center (NL)

10:25-10:40

An adult stem cell-based organoid platform to assess virus tropism in the human upper and lower respiratory tract

Trena WX Lee, Duke NUS (SG)

10:40-10:50

A nucleocapsid R204P mutation in SARS-CoV-2 Omicron XEC enhances inflammation and pathogenicity

Shuhei Tsujino, Kyushu University (JP)

10:50-11:00

Strain-dependent Infection Outcomes of Feline Infectious Peritonitis Virus in Conventional Mice

Keisuke Nakagawa, Gifu University (JP)

11:00-11:10

Mechanism of palmitoylation of MERS-CoV S protein

Zhaohui Qian, Chinese Academy of Medical Sciences & Peking Union Medical College (CN)

THURSDAY, 25 JUNE 2026

11:10-11:25

Coffee Break

Poster Hall

11:25-13:00

Scientific Session 2.2 Topic: Virus-host Interaction I

Chairs: Hin Chu, The University of Hong Kong (CN)
Helena Maier, The Pirbright Institute (GB)
Chee Wah Tan, National University of Singapore (SG)

Grand Hall

11:25-11:50

Invited speaker talk Coronaviruses Suppress Innate Immune Response by Targeting Nucleo-cytoplasmic Trafficking system

Ying Liao, Shanghai Veterinary Research Institute, CAAS (CN)

11:50-12:05

Dynamics of coronavirus-host cell protein interactions in assembly and egress

Brenda Hogue, Arizona State University (US)

12:05-12:20

Host-mediated ADP-ribosylation targets multiple stages of the coronavirus replication cycle

Anthony Fehr, University of Kansas (US)

12:20-12:30

From Bat to Human and Back: A Single Nucleocapsid Mutation Enables SARS-CoV-2 Replication in Greater Horseshoe Bat Cells

Magdalena Rutkowska, Icahn School of Medicine at Mount Sinai (US)

12:30-12:40

Comparative analysis in human respiratory epithelial cultures reveals patterns that distinguish pathogenic from seasonal human coronaviruses

Matthew Gartner, University of Melbourne (AU)

12:40-12:50

Gasdermin Family Proteins as Innate Immune Effectors in Coronavirus Infection

Pinghuang Liu, China Agricultural University (CN)

12:50-13:00

The Accessory Protein 3a of IBV Activates the NLRP3 Inflammasome in Renal Collecting Ducts via ER Calcium Mobilization and Mitochondrial ROS-Driven Mechanisms Contributing to Nephropathogenesis

Ye Zhao, China Agricultural University (CN)

13:00-14:00

Lunch Time

Poster Hall

THURSDAY, 25 JUNE 2026

14:00-14:45		Scientific Session 2.3 Topic: Virus-Host Interaction II Chairs: Hin Chu, The University of Hong Kong (CN) Helena Maier, The Pirbright Institute (GB) Chee Wah Tan, National University of Singapore (SG)	Grand Hall
14:00-14:15	Comparing SARS-CoV-2 and MERS-CoV host responses to understand transmission and pathogenesis Ziqi Zhou, Queen Mary University of London (GB)		
14:15-14:25	Functional Genomics and Transcriptomics of Porcine Alphacoronavirus Transmissible Gastroenteritis Virus Identifies Host Factors Associated with Viral Replication and the Cellular Immune Response Andrew Hanton, University of Edinburgh (GB)		
14:25-14:35	Contribution of SARS-CoV-2 ORF7a to virion release and virus virulence Isabel Sola, National Center for Biotechnology (CNB-CSIC) (ES)		
14:35-14:55		Global Perspectives on Epidemic and Pandemic Preparedness I PREPARE Sharing Session CORC-CoV – Coronavirus Research & Development Roadmap Marcus Mah, PREPARE (SG)	 Grand Hall
14:55-16:55		Coffee Break and Poster Session I	Poster Hall
1700		Local Excursion (by pre-registration only)	
17:00-18:30		HKU Campus Guided Tour OR	
17:30-20:00		Tramways x HK Island Tour	

08:45-09:30

Keynote Speaker Session II

On a journey with coronavirus replication organelles: how far have we come?

Helena Maier, The Pirbright Institute (GB)

Grand Hall

09:30-11:05

Scientific Session 3.1 Topic: Immune Response to Virus Infection

Chairs: Stanley Perlman, University of Iowa (US)
Susan Weiss, University of Pennsylvania (US)

Grand Hall

09:30-09:55

Invited speaker talk

Coronavirus activation of interferon signaling pathways is critical for control of infection in the nasal epithelium

Susan Weiss, University of Pennsylvania (US)

09:55-10:10

Investigating the role of Toll-like receptor 7 in SARS-CoV-2 infection using golden hamsters

Ziyi Guo, The University of Tokyo (JP)

10:10-10:25

SARS-CoV-2 Balances Antigenic Evolution and Replicative Fitness in Human Airways

Anna Mykytyn, Erasmus MC (NL)

10:25-10:35

Chronic Infection Drives Evolution of SARS-CoV-2 Innate Immune Antagonism

Xiaohao Xu, King's College London (GB)

10:35-10:45

Bat-specific adaptations in interferon signaling and GBP1 contribute to enhanced antiviral capacity

Arinjay Banerjee, University of Saskatchewan (CA)

10:45-10:55

Infection-induced immune imprinting following SARS-CoV-2 exposure in unvaccinated populations

Adam Abdullahi, University of Cambridge (GB)

10:56-11:05

Flash Talks and Discussions

Cross-species quantification of antiviral immune responses from large-scale RNA-seq data using ISG Profiler

Luca Nishimura, The University of Tokyo (JP)

Cellular innate immune determinants of SARS-CoV-2 clearance and disease severity

Margarida Bonifacio, The Francis Crick Institute (GB)

FRIDAY, 26 JUNE 2026

11:05-11:25

Coffee Break

Poster Hall

11:25-12:40

Scientific Session 3.2 Topic: Virus Transmission and Vaccines

Chairs: Yunlong Cao, Peking University (CN)
Stanley Perlman, University of Iowa (US)

Grand Hall

11:25-11:50

Invited speaker talk Airborne transmission of SARS-CoV-2

Kanta Subbarao, Université Laval (CA)

11:50-12:05

Population-wide SARS-CoV-2 antibody repertoire heterogeneity driven by immune imprinting

Yunlong Cao, Peking University (CN)

12:05-12:20

Breadth and kinetics of antibody-mediated immunity to SARS-CoV-2 variants in highly-vaccinated individuals receiving monovalent KP.2 mRNA COVID-19 booster vaccines

Daniel Egan, University of Cambridge (GB)

12:20-12:35

SARS-CoV-2 Variants Employ Diverse Strategies to Sustain Efficient Airborne Transmissibility

Jie Zhou, Imperial College London (GB)

12:35-12:40

Flash talk and Discussions COVID-19 vaccination induces cross-neutralisation of sarbecoviruses related to SARS-CoV-2

Grace West, University of Cambridge (GB)

12:40-13:00

Global Perspectives on Epidemic and Pandemic Preparedness II CEPI Sharing Session CEPI CoV Library

Georges Thiry / José Slon Campos
CEPI (Coalition for Epidemic Preparedness Innovations)

CEPI
Grand Hall

13:00-14:00

Lunch Time

Poster Hall

FRIDAY, 26 JUNE 2026

14:00-15:35 Scientific Session 3.3 Topic: Vaccines

Chairs: Yunlong Cao, Peking University (CN)
Bart Haagmans, Erasmus MC (NL)
Chee Wah Tan, National University of Singapore (SG)

Grand Hall

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| 14:00-14:25 | Invited speaker talk
Attenuation of PEDV Virulence by an NSP3 Mac1 Mutation with Unchanged In Vitro Replication
QiuHong Wang, The Ohio State University (US) |
| 14:25-14:40 | Mouse V(D)J Humanization Recapitulates human-like Severe SARS-CoV-2 Immune Imprinting
Xiao Niu, Peking University (CN) |
| 14:40-14:55 | mRNA-based COVID-19 JN.1 Vaccination Induces Partial Protection Against SARS-CoV
Merel te Marvelde, Erasmus Medical Center (NL) |
| 14:55-15:05 | Application of Organoid-Derived Human Bronchiole Cultures for Manufacture of Human Coronaviruses Used in Controlled Human Infection Models
Jingshu Zhang, Erasmus MC (NL) |
| 15:05-15:15 | Broad Sarbecovirus Neutralization Elicited by a Synthetic SARS-CoV-2-Based Variant Immunogen Cocktail
Viren Baharani, The Rockefeller University (US) |

15:15-15:35 Coffee Break

Poster Hall

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| 15:35-16:25 | Global Perspectives on Epidemic and Pandemic Preparedness III
The Hong Kong Jockey Club Global Health Institute Sharing Session

Introduction to The Hong Kong Jockey Club Global Health Institute
Frank Konings, The Hong Kong Jockey Club Global Health Institute
Lessons from SARS CoV 2 intrahost evolution in immune suppression
Ravindra Gupta, University of Cambridge (GB)
Panel discussion
Moderator: Leo Poon, The Hong Kong Jockey Club Global Health Institute |
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The Hong Kong Jockey Club
Global Health Institute
香港賽馬會環球衛生研究院



Grand Hall

16:25-18:00 Poster Session II

Poster Hall

19:00-21:45 Conference Dinner

Hotel in Wan Chai

09:30-11:05

Scientific Session 4.1 Topic: Antivirals

Chairs: Bruno Canard, CNRS - Aix Marseille University (FR)
Stefan Pöhlmann, German Primate Center - Leibniz Institute for Primate Research (DE)

Grand Hall

09:30-09:55

Invited speaker talk Discovery and Development of Coronaviral Inhibitors targeting Viral Methyltransferases

Deyin Guo, Guangzhou National Laboratory (CN)

09:55-10:10

Allosteric Control of SARS-CoV-2 Exoribonuclease and Resistance to Nucleotide Analog-Based Antivirals

Chang Liu, The Johns Hopkins University School of Medicine (US)

10:10-10:25

An ultrapotent bispecific nanobody delivered intranasally blocks contact transmission of SARS-CoV-1/2 and therapeutically clears MERS-CoV

Xiaoyu Zhao, Fudan University (CN)

10:25-10:40

A SARS-CoV-2 entry inhibitor trimerizes to lock the spike protein in a closed conformation

Huihui Mou, Boston Children's Hospital, Harvard Medical School (US)

10:41-10:48

A Novel Host-Targeted Antiviral Inhibiting Glycerophospholipid Metabolism in Feline Infectious Peritonitis Virus Infection

Guoqian GU, City University of Hong Kong (CN)

10:49-10:56

Intranasal administration of a broadly neutralising macrocyclic peptide inhibitor protects against SARS-CoV-2 infection

Daniel Hurdiss, Utrecht University (NL)

10:56-11:05

Pan-coronavirus antiviral drug discovery driven by proteomic and gene expression analysis in alveolar type II cells

Jessica Neil, The University of Melbourne (AU)

SATURDAY, 27 JUNE 2026

11:05-11:25

Coffee Break

Poster Hall

11:25-13:10

Scientific Session 4.2 Topic: Zoonotic transmission

Chairs: Leo Poon, University of Hong Kong (CN)
Linda Saif, The Ohio State University (US)
Ying Fang, University of Illinois at Urbana-Champaign (US) — Apology Sent

Grand Hall

11:25-11:50

Invited speaker talk Viral recombination as a multiscale pathway of conditional constraints

Simon John Anthony, University of California Davis (US)

11:50-12:05

Species-specific expression of ACE2 in multiciliated airway cells determines SARS-CoV-2 susceptibility

Tim Breugem, Erasmus MC (NL)

12:05-12:20

Animal Organoids to Study Zoonotic Coronaviruses

Alexandre Bouffier, Erasmus Medical Center (NL)

12:20-12:35

Clade C MERS-CoV camel strains vary in protease usage during viral entry and interferon antagonism

Helena Winstone, University of Pennsylvania (US)

12:35-12:50

Experimental SARS-CoV-2 infection using horseshoe bats

Kaoru Usui, The University of Tokyo (JP)

12:50-13:05

Incidence, Genomic, and Phenotypic Characterization of Recent MERS-CoV Strains in East Africa

Marcel Müller, Charité - Universitätsmedizin Berlin (DE)

13:05-13:10

Flash Talk and Discussions Evolution of receptor usage plasticity in merbecoviruses through a computational approach

Jarel Elgin Tolentino, The University of Tokyo (JP)

13:10-13:15

Closing Remarks by Co-Chairpersons

Grand Hall