

Programm 8th International Influenza Meeting (August 2022)

„Zoonotic Influenza“

Friday, September 2, 2022

15:00 Registration

17.00 – 22.00 OPENING

17.00 Welcome notes by the organizers

17.15 Opening lecture

Influenza – a neglected pandemic threat?

Thomas Mettenleiter | Greifswald

18.00 Poster slam

19.00 *Poster viewing & Reception at the meeting site (food and drinks)*

Saturday, September 3, 2022

09:00 – 10:50 Session 1: Zoonotic influenza and viral evolution

Keynote: Assessment of pigs as potential reservoirs of zoonotic influenza viruses

Timm Harder | Greifswald

Studies with airway organoids reveal that the respiratory epithelium of bats is susceptible to infection by influenza viruses of other species

Ang Su | Hannover

Direct single virion sequencing of influenza reassortant viruses

Uddhav Babaso Amb | Würzburg

Evolution of atypical highly pathogenic avian influenza in poultry: more than meets the eye?

Elsayed M. Abdelwhab | Greifswald

Development of engineered viruses to study avian influenza virus evolution towards highly pathogenic phenotype

Gabriel Dupré | Toulouse

10:50 Coffee break

11:20 – 12:20 Session 2: Innate Immunity

IFITM3 blocks viral entry by hemifusion stabilization as revealed by in situ cryo-ET

Steffen Klein | Heidelberg

Redefining human MX1 as a restriction factor of early and late stages of influenza A virus infection

Joe McKellar | Montpellier

Differential Antiviral Activities of Human IFN α Subtypes against Influenza Viruses in Primary Human Lung Explants

Sriram Kumar | Münster

12:20 – 13:30 Lunch

13:30 – 14:30 Poster Viewing

14:30 – 16:00 Session 3: Polymerases and viral genome

Keynote: The multifunctional RNA polymerase of influenza virus

Erwin Fodor | Oxford

Hemagglutinin-induced membrane remodeling and vRNP clustering in influenza A infected cells

Moritz Wachsmuth-Welm | Heidelberg

Sequential deletion of SPLASH-identified intersegmental RNA interaction sites in the IAV genome questions their relevance for the genome packaging process

Celia Jakob | Freiburg

Novel viral sequences from a victim of the Spanish influenza in Germany indicate genetic and functional heterogeneity in the polymerase complexes of influenza viruses circulating in 1918

Matthias Budt | Berlin

16:00 – 16:30 Coffee break

16:30 – 17:50 Session 4: Vaccines

A universal mRNA influenza T-cell vaccine boosts existing cellular responses and enhances protection against severe pneumonia induced by H7N9 challenge in ferrets

Jorgen de Jonge | Bilthoven

Mosaic N1 and N2 neuraminidase nanoparticles induce high antibody titers and potent protection from Influenza A virus H1N1 and H3N2 challenge

Mirte Pascha | Utrecht

Rational design of effective H1N1 LAIV vaccine strains through deep mutational scanning

Katherine Scott | Liverpool

Recombinant haemagglutinin derived from the ciliated protozoan *Tetrahymena thermophila* is a candidate for a human influenza vaccine

Marcus Hartmann | Münster

17:50 Special lecture

Development of broadly protective influenza virus vaccines

Florian Krammer | New York

19:00 Conference Dinner (location: „Hier und Jetzt“, Münster)

Sunday, September 4, 2022

09:00 – 10:00 Session 5: Vaccines and antivirals

Defining recognition of influenza A virus H1N1 neuraminidase by DNA vaccine-induced antibodies in pigs and ferrets

Jeanette Tingstedt | Copenhagen

Backtracking of influenza polymerase upon consecutive incorporation of nucleoside analogue T1106 directly observed by cryo-electron microscopy

Tomas Kouba | Grenoble

The local anesthetic procaine inhibits influenza A virus replication in vitro

Clio Häring | Jena

10:00 – 10:30 Coffee break

10:30 – 11:50 Session 6: Virus host cell interaction

The influenza A virus endoribonuclease PA-X cleaves RNA at a preferred sequence and structure to discriminate between host and viral mRNAs

Lea Gaucherand | Boston

Superinfection exclusion maintains spatially distinct influenza virus populations

Anna Sims | Glasgow

NRF2 AND G6PD AS KEY PLAYERS IN MODULATING CELL ANTIOXIDANT RESPONSE AND INFLUENZA VIRUS REPLICATION

Marta de Angelis | Rome

Interference of host anti-viral factor Nicastrin with the assembly/budding of influenza A virus

Swathi Sukumar | Münster

11:50 – 12:50 Lunch

12:50 – 13:50 Poster Viewing

13:50 – 15:20 Session 7: Viral propagation

Keynote: When a single particle isn't enough: mechanisms and implications of influenza A virus reliance on multiple infection

Anice C. Lowen | Atlanta

Bat influenza virus M2 proteins show unusual low proton channel activity

Danielle Thompson | Bern

Heterologous MHC-II domain swapping identifies evolutionarily conserved amino acids mediating Bat IAV entry

Okikiola Morenike Olajide | Freiburg

Binding of H7 influenza A virus to N-glycolylneuraminic acid and sialyl-LewisX on N-glycans

Cindy Spruit | Utrecht

15.20 – 15:45 Discussion & Closing Remarks

The 8th International Influenza Meeting is sponsored by:

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