



Last update October 8th, 2025.

| Tuesday, October 14 2025 | |
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| Session 1: Chronic viral infections (chair Rodolphe Thiébaut, Université de Bordeaux, Inserm, Inria France) | |
| 09:00-09:20 | <i>Welcome and opening</i> Mélanie Prague , organizing committee, Université de Bordeaux, Inserm BPH, Inria Jérémie Guedj , organizing committee, Université de Paris, Inserm IAME Rodolphe Thiébaut , Head of Bordeaux Population Health, Inserm |
| 09:20-10:00 | Alan Perelson (Los Alamos Laboratory, USA) Multiscale Modeling of Hepatitis B and C Infection and Treatment |
| 10:00-10:20 | Rob de Boer (Utrecht University, Netherland) Immune Responses May Make HIV-1 Therapeutic Interfering Particles Less Effective |
| 10:20-10:40 | Amar Kumar Garg (Helmholtz-Zentrum, Braunschweig, Germany) Induction of multiple broadly neutralizing antibody lineages is modulated by precursor B cell composition and antibody epitope masking |
| 10:40-11:00 | Bharadwaj Vemparala (IISC, Bangalore, India) Early treatment initiation preserves memory CD8 T cells and improves the likelihood of post-treatment control of HIV infection |
| 11:00-11:20 | Lucero Rodriguez Rodriguez (Fred Hutch, Seattle, USA) Differential longevity and potency of four broadly neutralizing antibodies elicited distinct viral load kinetics and resistance patterns in people with chronic HIV |
| 11:20-11:50 | <i>Coffee break</i> |
| Session 2: Viral dynamics in respiratory infections (1/2) (chair: Jérémie Guedj, Université de Paris, Inserm, France) | |
| 11:50-12:10 | Keisuke Ejima (Nanyang Technological University, Singapore) Patient Characteristics Modify the Antiviral Efficacy of SARS-CoV-2 Therapies: Insights from Meta-Analysis and Real-World Viral Load Data |

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| 12:10-12:30 | Shadi Esmaeili-Wellman (Fred Hutch, Seattle, USA) Clinical trial simulation suggests PCR underestimates molnupiravir's true potency against SARS-CoV-2 |
| 12:30-12:50 | Katherine Owens (Fred Hutch, Seattle, USA) SARS-CoV-2 viral load kinetic profiles correspond with observed intra-host viral diversity and mutation rates during infections in immunocompetent individuals |
| 12:50-14:00 | <i>Lunch break</i> |

| Session 3: Methodology & Statistics (chair: Jane Heffernan, York University, Canada) | |
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| 14:00-14:40 | France Mentré (INSERM, Paris, France) From Exploration to Decision: Modelling for Optimal Study Design |
| 14:40-15:00 | Boris Hejblum (Inserm Bordeaux Population health, France) RISE: Two-Stage Rank-Based Identification of High-Dimensional Surrogate Markers Applied to Vaccinology |
| 15:00-15:20 | Mélanie Prague (Inserm Bordeaux Population health, France) Regularization estimation in high-dimensional mechanistic models |
| 15:20-15:40 | Avidan Neumann (University of Augsburg, Germany) Skin microbiome dynamics as biomarker for severe radiodermatitis in breast cancer patients and for treatment response in atopic dermatitis |
| 15:40-16:10 | <i>Coffee break</i> |

| Session 4: Immune and viral response to vaccination (1/2) (chair: Rob de Boer, University of Utrecht, Netherland) | |
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| 16:10-16:30 | Jose Borghans (University of Utrecht, Netherland) Dynamic maintenance of tissue-resident memory T cells |
| 16:30-16:50 | Adrien Mitard (Inserm, Paris, France) Exposure history shapes SARS-CoV-2 viral dynamics in Non-Human Primates and provides insights into correlates of protection against infection and transmission |
| 16:50-17:10 | Marie Alexandre (John Hopkins, USA, Inserm Bordeaux Population Health, France) Joint mechanistic modeling of viral and antibody responses to vaccines in Non-Human Primates to quantify SARS-CoV-2 mechanistic correlate of protection |
| 17:10-17:30 | Jane Heffernan (York University, Canada) COVID-19 vaccination and waning immunity |
| 17:30-17:50 | Beatrix Haddock (Fred Hutch, Seattle USA) Modeling broadly neutralizing antibody neutralization curves for biomarker discovery |

Poster Session with Wine & Cheese (18h00 -20h30)

| Wednesday, October 15, 2025 | |
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| Session 5: Viral dynamics in respiratory infections (2/2) (chair: Joshua Schiffer, Fred Hutch, USA) | |
| 09:00-09:40 | Olivier Schwartz (Institut Pasteur, Paris, France) Entry and kinetics of replication of human seasonal coronavirus HKU1: mechanisms and impact of temperature |
| 09:40-10:00 | Jérémie Guedj (Inserm, Paris, France) Viral dynamics of the Respiratory Syncytial Virus during experimental human challenge infections : insights for transmission and treatment |
| 10:00-10:20 | Laura Liao (MSD, USA) Viral Dynamics Modeling: Helping Translate Human Challenge Study Results to Late-Stage in RSV |
| 10:20-10:40 | Ke Li (Yale School of Public Health, USA) Relating In Vivo Respiratory Syncytial Virus Infection Kinetics to Host Infectiousness in Different Age Groups |
| 10:40-11:10 | <i>Coffee break</i> |

| Session 6: Vaccine development (chair: Mélanie Prague, Université de Bordeaux, France) | |
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| 11:10-11:50 | Jeff Sachs (MSD, USA) Vaccines Versus Viruses (and Bacteria) - Modeling Helps Humans Win the Battle |
| 11:50-12:10 | Hirst Cora (Emory University Atlanta, USA) Quantitative constraints limit the generation of a universal influenza vaccine |
| 12:10-12:30 | Riley Drake (Emory University Atlanta, USA) Modelling Antibody Dependent Enhancement: Implications for Vaccine Design |
| 12:30-14:00 | <i>Lunch break</i> |

| Session 7: Immune and viral response to vaccination (2/2) (chair: Rustom Antia, Emory university, USA) | |
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| 14:00-14:40 | Véronique Godot and Yves Lévy (Vaccine Research Institute, Paris, France) Broad and durable antibody responses against SARS-CoV2 through an antibody-mediated vaccine (AMV) targeting the CD40 receptor |
| 14:40-15:00 | Jair Andrade (University of Cambridge, UK) Assessing the impact of vaccination against dengue viruses using long-term antibody measurements |
| 15:00-15:20 | Rituparna Banerjee (University of British Columbia, Vancouver, Canada) How Vaccines Shape B Cell Evolution: A Modeling Approach |
| 15:20-15:40 | Andreas Handel (University of Georgia, USA) Modeling the impact of high-dose versus standard-dose influenza vaccines on antibody breadth and vaccine efficacy |
| 15:40-16:10 | <i>Coffee break</i> |

| Sessions 8: Viral dynamics and evolution (Chair: Frederik Graw, FAU Erlangen-Nunberg Universitat, Germany) | |
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| 16:10-16:50 | Best paper Student Award – Nils Gubela (Freie Universitet Berlin, Germany) SARS-CoV-2 evolution on a dynamic immune landscape |
| 16:50-17:10 | Samuel Alizon (College de France, CNRS Paris, France) Inferring virus dynamics from sequence genomic data |
| 17:10-17:30 | Rolland Regoes (ETH Zurich, Switzerland) Experimental epidemiology with viruses: toward assessing phylodynamics |

19:30

Gala diner

| Thursday, October 16, 2025 | |
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| Session 9: Viral dynamics in cell systems (Chair: Catherine Beauchemin, iTHEMS@RIKEN & Toronto Metropolitan University, Canada) | |
| 09:00-09:40 | Udo Reichl (Max Planck Institute, Magdeburg, Germany) Cell Culture-based Influenza Virus Production: Challenges, Analytics and Mathematical Modeling |
| 09:40-10:00 | Cailan Jeynes-Smith (The University of Tennessee, USA) Exploring IFN- γ 's Role in Alveolar Macrophage Depletion During Influenza A Virus Infection |
| 10:00-10:20 | Yusuke Asai (Japan Institute for Health Security, Japan) Traveling Waves in a Cell-to-Cell Transmission Model |
| 10:20-10:40 | Melanie Moses (The University of New Mexico, Albuquerque, USA) Modeling Spatial Spread of SARS-CoV-2 infection in Lung |
| 10:40-11:00 | Pascal Lukas (Friedrich-Alexander-Universitet Erlangen, Germany) Determining viral spread and innate immune dynamics in human respiratory epithelium |
| 11:00-11:30 | Coffee break |

| Session 10: Modeling viral load and transmission (chair: Elissa Schwartz, Washington State University, USA) | |
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| 11:30-11:50 | Nathanaël Hoze (Inserm, Paris, France) A multi-scale modelling framework to assess the relationship between SARS-CoV-2 viral load and transmission in household studies |
| 11:50-12:10 | Somsen Elizabeth (Emory University Atlanta, USA) Quantifying viral transmissibility and pandemic potential from experimental transmission studies |
| 12:10-12:30 | Daniel Coombs (University of British Columbia, Canada) Time and Space in Models of Nascent Viral Infection |
| 12:30-12:50 | Assefa Woldegerima Woldegebriel (York University, Canada) Impact of infection routes on within-host MPXV dynamics: insights from a modeling study |
| 12:50-14:00 | Lunch break |

| Sessions 11: Epi models (Chair: Nathanael Hoze, université de Paris, Inserm, France) | |
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| 14:00-14:40 | Christophe Fraser (Oxford University, Pandemic Sciences Institute, UK) Virus dynamics and epidemic control: the evolving science of contact tracing |
| 14:40-15:00 | Narendra Dixit (Indian Institute of Science, Bangalore, India) Prevalence of asymptomatic infections: a window to the basal immunity to SARS-CoV-2 |
| 15:00-15:20 | Max Von Kleist (Freie Universitet Berlin, Germany) Modelling the dynamic Interplay between SARS-CoV-2 Infection, Immunity and Evolution |
| 15:20-16:00 | <i>Closing remarks – Vote for 2027</i> <i>End of the conference</i> <i>Coffee Available</i> |
| 16:30-18:00 | Young researchers mentoring session Q&A – Elissa Schwartz |