

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Viral Immunity: Basic Mechanisms and Therapeutic Applications (J3)

Scientific Organizers: Katherine Kedzierska and Paul G. Thomas

Supported by the Directors' Fund

Respiratory Viruses: New Frontiers (J4)

Scientific Organizers: Kanta Subbarao and Carolina B. López

January 17-20, 2022 • Keystone Resort • Keystone, CO, USA

Supported by the Directors' Fund

Global Health Travel Award Deadline: December 27, 2021 / Scholarship Deadline: October 6, 2021 / Abstract Deadline: October 13, 2021 / Discounted Registration Deadline: November 17, 2021

MONDAY, JANUARY 17

Arrival and Registration

TUESDAY, JANUARY 18

Inflammation and Innate Immunity in Viral Infections (J3)

Siddharth Balachandran, Fox Chase Cancer Center, USA

Mechanisms of Influenza Virus-Induced Cell Death

Lisa P. Daley-Bauer, Emory University, USA

Combined Deficiency in Caspase-8 and RIPK3

Catherine A. Blish, Stanford University School of Medicine, USA

Innate Immune Dysfunction in COVID-19

Short Talks Chosen from Abstracts

Beyond Acute Disease: Consequences of Respiratory Virus Infections (J4)

Jie Sun, Mayo Clinic, USA

Immune Mediated Lung Damage

Andrew E. Vaughan, University of Pennsylvania, USA

Chronic Post-Viral Effects on Lung Structure

Carolina B. López, Washington University School of Medicine, USA

Impact of Defective Viral Genomes on Respiratory Syncytial Virus

Clinical Outcomes

Short Talks Chosen from Abstracts

Workshop 1: Innate Immunity in Viral Infections (J3)

Short Talks Chosen from Abstracts

Workshop 1: Zoonoses (J4)

Short Talks Chosen from Abstracts

Immunity and Respiratory Viruses: Good and Bad (Joint)

Katelyn M. Gostic, University of Chicago, USA

Order matters: Imprinting and Other Forms of Path-Dependence

Shape Cross-Protective Immune Memory

Peter J.M. Openshaw, Imperial College London, UK

Mucosal Immunity to Respiratory Viruses

Ali H. Ellebedy, Washington University School of Medicine, USA

Tracking Human Immune Responses to Influenza Vaccines across Anatomical Compartments

Andreas Wack, Francis Crick Institute, UK

Types I and III Interferons in Pathogenesis and Repair

Short Talks Chosen from Abstracts

Poster Session 1

WEDNESDAY, JANUARY 19

Human Immunity in Blood and Tissues (J3)

Katherine Kedzierska, University of Melbourne, Australia

Human CD8+ T Cells in Blood and Tissues

Donna L. Farber, Columbia University Medical Center, USA

Anti-Viral Immunity in Human Tissues

Frances E. Lund, University of Alabama at Birmingham, USA

B Cells and Antibody Secreting Cells across Human Tissues

Short Talks Chosen from Abstracts

New Approaches to Studying Respiratory Viruses I (J4)

Seema Lakdawala, University of Pittsburgh School of Medicine, USA

Microscopy to Study Viral Transport within Infected Cells

Edward Hutchinson, University of Glasgow, UK

Hybrid Genes and Chimeric Proteins

Susanne Herold, University of Giessen Lung Center, Germany

Organoid Modeling to Study the Pathomechanisms of Viral Lung

Infection

Short Talks Chosen from Abstracts

Workshop 2: Adaptive Immunity in Viral Infections (J3)

Short Talks Chosen from Abstracts

Workshop 2: Transmission (J4)

Short Talks Chosen from Abstracts

T Cells, B Cells and their Receptors (J3)

Paul G. Thomas, St. Jude Children's Research Hospital, USA

Specificity of the CD8 T Cell Compartment in Viral Infections

Bryan Briney, The Scripps Research Institute, USA

Diversity in the Human Antibody Repertoire

Dirk Hans Busch, Technical University Munich, Germany

CD8+ T Cells in CMV Infection

Sophie A. Valkenburg, University of Hong Kong, Hong Kong

The Coordinated B and T Cell Response in Influenza Vaccination

Short Talks Chosen from Abstracts

Novel Insights into Respiratory Virus Biology (J4)

Andrew B. Ward, The Scripps Research Institute, USA

Monitoring Antibody Responses to Influenza and Coronaviruses using Electron Microscopy

Ryan A. Langlois, University of Minnesota, USA

Virus-Cell Interactions in vivo

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Jennifer M. Lund, Fred Hutchinson Cancer Research Center, USA

T Cell Phenotypes in the Antiviral Response

Christopher Chiu, Imperial College London, UK
Lessons from Human Challenge Infection with Respiratory Viruses

Short Talks Chosen from Abstracts

Poster Session 2

THURSDAY, JANUARY 20

Translational and Developmental Aspects of Antibodies (Joint)

Galit Alter, MIT and Harvard University, USA
Systems Serology to Characterize Antibody Responses

Alina Baum, Regeneron Pharmaceuticals, USA
Antibodies to Respiratory Viruses— Successes and Challenges

Jesse D. Bloom, Fred Hutchinson Cancer Research Center, USA
Mapping Person-to-Person Variation in Viral Mutations that Escape Polyclonal Immunity

Novel Approaches to Anti-Viral Vaccines (J3)

Florian Krammer, Icahn School of Medicine at Mount Sinai, USA
Novel Antigenic Targets for Influenza Vaccination

Andrea J. Sant, University of Rochester Medical Center, USA
Influenza Specific CD4 T Cell Responses to Vaccination and Infection

Gary J. Nabel, Sanofi, USA
Innovation in Antibody Structure and Design

Stacey Lynne Schultz-Cherry, St. Jude Children's Research Hospital, USA
Vaccinating Vulnerable Populations

Short Talks Chosen from Abstracts

Prevention and Treatment Strategies: Vaccines and Antivirals (J4)

Nevan J. Krogan, University of California, San Francisco, USA
Host Factors as Antiviral Targets

Kathleen M. Neuzil, University of Maryland, USA
Comparing and Contrasting COVID-19 Vaccine Platforms

Kanta Subbarao, WHO Collaborating Centre for Reference and Research on Influenza, Australia
Improving Influenza Vaccines

Kena Swanson, Pfizer Inc., USA
RSV Vaccines – Lessons Learned from the COVID-19 Experience with Respect to Pediatric Vaccines

Short Talks Chosen from Abstracts

FRIDAY, JANUARY 21

Departure

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**Meeting Wrap-Up: Outcomes and Future Directions
(Organizers) (J4)**

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