

# KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

## Respiratory Viruses: New Frontiers - RESCHEDULING IN PROGRESS (Q2)

Scientific Organizers: Kanta Subbarao, JoAnn A. Suzich and Carolina B. López

Part of the Keystone Symposia Global Health Series, supported by the Bill & Melinda Gates Foundation

Sponsored by BioLegend, Inc.

## Viral Immunity: Basic Mechanisms and Therapeutic Applications - RESCHEDULING IN PROGRESS (Q1)

Scientific Organizers: Katherine Kedzierska and Paul G. Thomas

February 5-9, 2021 • Fairmont Banff Springs • Banff, AB, Canada

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Global Health Travel Award Deadline: December 22, 2020 / Scholarship Deadline: October 22, 2020 / Abstract Deadline: November 5, 2020 / Discounted Registration Deadline: December 4, 2020

### FRIDAY, FEBRUARY 5

#### Arrival and Registration

### SATURDAY, FEBRUARY 6

#### Organizer Welcome and Keynote Session (Joint)

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

\***Carolina B. López Zalaquett**, Washington University School of Medicine, USA

**Eva Harris**, University of California, Berkeley, USA

*Dengue and Zika Virus Pathogenesis and Immunity*

**Barney S. Graham**, NIAID, National Institutes of Health, USA

*Overview of Respiratory Virus Vaccines*

#### Beyond Acute Disease: Consequences of Respiratory Virus Infections (Q2)

**Katelyn M. Gostic**, University of Chicago, USA

*Imprinting - First Exposure to Influenza Marks You for Life*

**Tina Hartert**, Vanderbilt University School of Medicine, USA

*Infant Respiratory Viral Infection and Childhood Asthma*

**Andrew E. Vaughan**, University of Pennsylvania, USA

*Chronic Post-Viral Effects on Lung Structure*

**Short Talks Chosen from Abstracts**

#### Inflammation and Innate Immunity in Viral Infections (Q1)

**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

*Defining the Role of NK Cells in Viral Immunity*

**Ken H. Cadwell**, New York University School of Medicine, USA

*Virome and High Inference Immunity*

**Short Talks Chosen from Abstracts**

#### Workshop 1: Zoonoses (Q2)

**Short Talks Chosen from Abstracts**

#### Workshop 1: Innate Immunity in Viral Infections (Q1)

**Short Talks Chosen from Abstracts**

#### Determinants of Clinical Outcome: New Perspectives on Virus/Host Interactions (Q2)

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

*Defective Viral Genomes during Respiratory Syncytial Virus Infection*

**Nicholas W. Lukacs**, University of Michigan, USA

*Early Life Respiratory Syncytial Virus Infection and Trained Immunity*

**Short Talks Chosen from Abstracts**

#### Sensing the Virus and Antigen Presentation (Q1)

**Jonathan W. Yewdell**, NIAID, National Institutes of Health, USA

*Virion Trafficking and Antigen Presentation in Zika*

**Ana Fernandez-Sesma**, Icahn School of Medicine at Mount Sinai, USA

*Role of STING in Antiviral Immunity to Flaviviruses, Alphaviruses and Beyond*

**Short Talks Chosen from Abstracts**

#### Poster Session 1

### SUNDAY, FEBRUARY 7

#### Mucosal Immunity (Joint)

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

*Mucosal Immunity to Respiratory Viruses*

**Stacey Lynne Schultz-Cherry**, St. Jude Children's Research Hospital, USA

*Astrovirus Infections in the Gut*

**David B. Masopust**, University of Minnesota, USA

*Antiviral T Cell Immune Surveillance*

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

*Tracking Human Immune Responses to Influenza Vaccines across Anatomical Compartments*

**Short Talks Chosen from Abstracts**

#### New Approaches to Studying Respiratory Viruses I (Q2)

**Susanne Herold**, University of Giessen Lung Center, Germany

*Organoid Modeling to Study the Pathomechanisms of Viral Lung Infection*

**Seema Lakdawala**, University of Pittsburgh School of Medicine, USA

*Microscopy to Study Viral Transport within Infected Cells*

**Rebecca Dutch**, University of Kentucky, USA

*Cell-to-Cell Transmission of hMPV and RSV*

**Short Talks Chosen from Abstracts**

#### Human Immunity in Blood and Tissues (Q1)

**Katherine Kedzierska**, University of Melbourne, Australia

*Human Influenza-Specific 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**

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### Poster Session 2

#### MONDAY, FEBRUARY 8

##### Novel Insights into Respiratory Virus Biology (Q2)

**Andrew B. Ward**, The Scripps Research Institute, USA  
*Monitoring Antibody Responses to Influenza and Coronaviruses using Electron Microscopy*

##### Speaker to be Announced

**Rachel Fearn**, Boston University, USA  
*Viral Transcription and Replication Mechanisms*

##### Short Talks Chosen from Abstracts

##### T Cells, B Cells and their Receptors (Q1)

**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

##### Workshop 2: Adaptive Immunity in Viral Infections (Q1)

##### Short Talks Chosen from Abstracts

##### Prevention and Treatment Strategies: Vaccines and Antivirals (Q2)

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

**Pedro J. Cejas**, Merck & Co., Inc., USA  
*RSV Therapies Designed from Human Disease Learnings: Vaccines and Antiviral Biologics*

**Silke Stertz**, University of Zürich, Switzerland  
*Host Factors as Antiviral Targets*

**Kena Swanson**, Pfizer Inc., USA  
*RSV Vaccines – Lessons Learned from Recent Experience*

##### Pre-Existing Immunity and Co-Infections (Q1)

**Patricia T. Bozza**, Instituto Oswaldo Cruz, Brazil  
*Yellow Fever, Dengue and HIV*

**Tiffany A. Reese**, University of Texas Southwestern Medical Center, USA  
*Herpesvirus and Helminth Co-Infections*

##### Speaker to be Announced

### Short Talks Chosen from Abstracts

### Poster Session 3

#### TUESDAY, FEBRUARY 9

##### Translational and Developmental Aspects of Antibodies (Joint)

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

**Nicole L. Kallewaard**, MedImmune, USA  
*Antibodies as Vaccine Surrogates – Successes and Challenges*

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

##### Short Talks Chosen from Abstracts

##### Workshop 2: Transmission (Q2)

##### Short Talks Chosen from Abstracts

##### New Approaches to Studying Respiratory Viruses II (Q2)

##### Speaker to be Announced

*Single Cells*

**Ryan A. Langlois**, University of Minnesota, USA  
*Immunity to Influenza in Dirty Mice*

**Mark T. Heise**, University of North Carolina at Chapel Hill, USA  
*Systems Genetics Tools for Studying Respiratory Virus Pathogenesis*

**Christopher Chiu**, Imperial College London, UK  
*Human Challenge Infection*

##### Short Talks Chosen from Abstracts

##### Novel Approaches to Anti-Viral Vaccines (Q1)

**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*

**Boerries Brandenburg**, Janssen Vaccine, Netherlands  
*Talk Title to be Announced*

##### Short Talks Chosen from Abstracts

##### Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (Q2)

##### Meeting Wrap-Up: Outcomes and Future Directions (Organizers) (Q1)

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**WEDNESDAY, FEBRUARY 10**

**Departure**