

# KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

## The Global Virome in Health and Disease (C1)

March 1-4, 2020 • Granlibakken Tahoe • Tahoe City, CA, USA

Scientific Organizers: David Wang, Frederic D. Bushman and Mya Breitbart

Supported by the Directors' Fund

Discounted Abstract & Scholarship Deadline: October 30, 2019 / Abstract Deadline: November 21, 2019 / Discounted Registration Deadline: December 19, 2019

### SUNDAY, MARCH 1

#### Arrival and Registration

### MONDAY, MARCH 2

#### Welcome and Keynote Address

**Forest Rohwer**, San Diego State University, USA  
*Phage Behaving Badly and Clinical Workarounds*

#### The Global Virome and Beyond

**Mya Breitbart**, University of South Florida, USA  
*Virus Discovery Across Biomes*

**Chantal Abergel**, CNRS Aix-Marseille Université, France  
*The Concept of Virus in the Giant Virus Era*

**Edward C. Holmes**, University of Sydney, Australia  
*Exploring the Eukaryotic Virosphere*

#### Short Talks Chosen from Abstracts

#### Beneficial and Commensal Viromes

**Susan M. Lehman**, U.S. Food and Drug Administration, USA  
*Thinking about Phage Therapy as a Microbial Ecology Puzzle*

**Robert Edwards**, San Diego State University, USA  
*crAssphage: The Most Abundant Virus in the Human Enteric Virome*

**Ken H. Cadwell**, New York University School of Medicine, USA  
*Immunomodulation by the Enteric Virome*

#### Short Talks Chosen from Abstracts

#### Poster Session 1

### TUESDAY, MARCH 3

#### The Virome in Disease

**Frederic D. Bushman**, University of Pennsylvania, USA  
*The Human Virome in Health and Disease*

**Charles Chiu**, University of California, San Francisco, USA  
*The Virome and Graft versus Host Disease*

**Alejandro Reyes**, Los Andes University, Colombia  
*The Human Gut Virome in Health and Malnutrition*

**Eric L. Delwart**, University of California, San Francisco, USA  
*Koch's Postulates in the Age of Viral Metagenomics*

#### Short Talks Chosen from Abstracts

#### Workshop: Origins of the Human Virome

#### Short Talks Chosen from Abstracts

#### The Virome in Model Systems

**David Wang**, Washington University School of Medicine, USA  
*Novel Lessons from the *C. elegans* Virome*

**Adrienne M.S. Correa**, Rice University, USA  
*The Coral Reef Virosphere in Space and Time*

**Amit Kapoor**, Ohio State University, USA  
*Animal Viromes Yield New Models for Human Viruses*

#### Short Talks Chosen from Abstracts

#### Poster Session 2

### WEDNESDAY, MARCH 4

#### Host-Virus Arms Race

**Kimberley Seed**, University of California, Berkeley, USA  
*Bacteriophage-Host Arms Race in *Vibrio cholerae**

**Karen L. Maxwell**, University of Toronto, Canada  
*Discovery of Phage Encoded Anti-CRISPRs*

**Rotem Sorek**, Weizmann Institute of Science, Israel  
*Novel antiphage defense systems*

**Kate L. Jeffrey**, Massachusetts General Hospital, Harvard Medical School, USA

*Divergent Immunomodulation by Healthy and Inflammatory Bowel Disease Human Enteric Viromes*

#### Short Talks Chosen from Abstracts

#### Virome-Bacterial Microbiome Interactions

**Megan T. Baldridge**, Washington University School of Medicine, USA  
*Norovirus Infection, the Gut Microbiota and Interferon Lambda*

**Paul Turner**, Yale University, USA  
*Phage-Bacteria Interactions in the Evolution of Antibacterial Resistance*

#### Speaker to be Announced

#### Short Talk Chosen from Abstracts

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

### THURSDAY, MARCH 5

#### Departure