

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Positive-Strand RNA Viruses (E2)

June 9-13, 2019 • INEC, Killarney Convention Centre • Killarney, Co. Kerry, Ireland

Scientific Organizers: Frank van Kuppeveld and Andrea Gamarnik

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

Global Health Travel Award Deadline: January 8, 2019 / Abstract & Scholarship Deadline: February 7, 2019 / Abstract Deadline: March 6, 2019 / Discounted Registration Deadline: April 9, 2019

SUNDAY, JUNE 9

Arrival and Registration

MONDAY, JUNE 10

Welcome and Keynote Address

Michael S. Diamond, Washington University School of Medicine, USA
Host Immune Response to Flaviviruses, Therapeutic Antibodies and Vaccines

The Virosphere and the Virome

Eugene V. Koonin, National Institutes of Health, USA
Evolution of the RNA Virosphere: Towards a Global Picture

Julie K. Pfeiffer, University of Texas Southwestern Medical Center, USA

Interactions between the Enteric Virome and the Microbiome

Marilyn J. Roossinck, Pennsylvania State University, USA
Viruses as Symbionts

Short Talk(s) Chosen from Abstracts

Workshop 1: Burning Questions and Issues in RNA Virology

Ralf Bartenschlager, Heidelberg University, Germany
Resolved and Future Research Challenges of Plus-Strand RNA Virus Replication Strategies

Peter Sarnow, Stanford University School of Medicine, USA

Ann Palmenberg, University of Wisconsin-Madison, USA

Virus Structure and Entry

Susan Hafenstein, Pennsylvania State University, USA
Enterovirus Structure / Entry

David Veesler, University of Washington, USA
Structural Studies of Coronavirus Spike Glycoproteins

Shee-Mei Lok, Duke-NUS Medical School, Singapore
Structures of Zika Virus

Short Talk Chosen from Abstracts

Poster Session 1

TUESDAY, JUNE 11

RNA Structure and Function

Andrea Gamarnik, Fundación Instituto Leloir, Argentina
Dengue Virus RNA Structure and Function

Jeffrey S. Kieft, University of Colorado School of Medicine, USA
Understanding Viral RNA Function by Linking Structural Biology to Virology

Stacy M. Horner, Duke University Medical Center, USA
RNA Modifications Go Viral

Anna Marie Pyle, Yale University, USA
Regulatory Structures in Viral RNA Genomes

Short Talk(s) Chosen from Abstracts

Workshop 2

Short Talks Chosen from Abstracts

Virus Replication, Evolution and Virus-Cell Interactions

Frank van Kuppeveld, Utrecht University, Netherlands
Host Factors in Picornavirus Replication

Peter D. Nagy, University of Kentucky, USA
Viral and Host Players in Tombusvirus Replication

Raul Andino, University of California, San Francisco, USA
Virus Evolution: Math, Experiments and Consequences

Short Talk Chosen from Abstracts

Poster Session 2

WEDNESDAY, JUNE 12

Immunology of Infection and Viral Evasion Mechanisms

Michaela U. Gack, University of Chicago, USA
Intracellular Virus Sensing Pathways and Viral Evasion Strategies

Alexander Ploss, Princeton University, USA
Model Systems to Study Immune Responses and Pathogenesis of HCV

Sujan Shresta, La Jolla Institute For Allergy and Immunology, USA
Adaptive Immune Responses to DENV and ZIKA Virus Infection

Stephanie Karst, University of Florida, USA
The Influence of the Intestinal Microbiota on Norovirus Infection and Immunity

Short Talk(s) Chosen from Abstracts

Vaccines, Therapeutic Antibodies and Antiviral Drugs

Davide Corti, Humabs BioMed SA, Switzerland
Passive Antibody Therapies Against Endemic, Emerging and Re-Emerging Infectious Diseases

Scott C. Weaver, University of Texas Medical Branch, USA
Vaccines Against Emerging Arboviruses

Bali Pulendran, Stanford University School of Medicine, USA
Talk Title to be Announced

Short Talk Chosen from Abstracts

Poster Session 3

THURSDAY, JUNE 13

Virus Transmission, Tissue Tropism, and Pathogenesis

Carolyn B. Coyne, University of Pittsburgh, USA
Viral Transmission across the Placental Barrier

Christian Drosten, Charité - Universitätsmedizin Berlin, Germany
Ecology, Inter-species Transmission, and Pathogenic Potential of Emerging Coronaviruses

Diane E. Griffin, Johns Hopkins Bloomberg School of Public Health, USA
Pathogenesis of Neurovirulent Viruses

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Xiang-Jin Meng, Virginia-Maryland College of Veterinary Medicine,
Virginia Tech, USA

Hepatitis E Virus: Animal Reservoirs and Cross-Species Infections

Short Talk(s) Chosen from Abstracts

Workshop 3

Short Talks Chosen from Abstracts

Invertebrate Viruses and their Vectors

Erol Fikrig, Yale University, USA

Arthropod-Virus Interactions

Maria-Carla Saleh, Institut Pasteur, France

Endogenous Viral Elements in Mosquito Genomes

Ronald P. van Rij, Radboud University Medical Center, Netherlands

Functions of Virus and Host-derived piRNAs in Antiviral Immunity

Against Arboviruses

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

FRIDAY, JUNE 14

Departure