

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Helminths: New Insights from Immunity to Global Health (T4)

December 8-12, 2019 • Southern Sun Cape Sun • Cape Town, Western Cape, South Africa
Scientific Organizers: De' Broski Herbert, P'ng Loke, Nicola L. Harris and Frank Brombacher
Part of the Keystone Symposia Global Health Series, supported by the Bill & Melinda Gates Foundation

Global Health Travel Award Deadline: July 9, 2019 / Abstract & Scholarship Deadline: August 8, 2019 / Abstract Deadline: September 10, 2019 / Discounted Registration Deadline: October 10, 2019

SUNDAY, DECEMBER 8

Arrival and Registration

MONDAY, DECEMBER 9

Welcome and Keynote Address

David Artis, Cornell University, USA
Neuronal Basis Helminth Sensing and Type 2 Immunity

Epithelial Cells and ILC2s in Helminth Infection

Amy H. Buck, University of Edinburgh, UK
Helminth Exosomes and their Interaction with the Epithelium
Jakob H. von Moltke, University of Washington, USA
The Missing Link: Tuft Cells and the Intestinal Type 2 Immune Response

De' Broski R. Herbert, University of Pennsylvania, USA
Trefoil Factor Proteins Regulate Immunity and Repair

Short Talk(s) Chosen from Abstracts

Workshop 1

Short Talks Chosen from Abstracts

Maternal and Microbial Regulation of Helminth Infection

Richard K. Grencis, University of Manchester, UK
Microbiota Regulation of Helminth Infection
Ken H. Cadwell, New York University School of Medicine, USA
Mechanisms of Helminth Microbiota Interactions
Maria Yazdanbakhsh, Leiden University Medical Center, Netherlands
Modulation of Human Disease by Helminth-Microbiota Interactions

Short Talk(s) Chosen from Abstracts

Poster Session 1

TUESDAY, DECEMBER 10

Helminth Biology and Genetics

James Collins, University of Texas Southwestern Medical Center, USA
Sex, Drugs, and Snails: Molecular Studies of Schistosome Biology
Timothy J.C. Anderson, Texas Biomedical Research Institute, USA
Schistosome Genetics
Makedonka Mitreva, Washington University School of Medicine, USA
Comparative Genetics of Parasitic Helminths
Elissa A. Hallem, University of California, Los Angeles, USA
Gene Editing in Parasitic Nematodes

Short Talk(s) Chosen from Abstracts

Epidemiology and Ecology of Helminth Infections

Andrea L. Graham, Princeton University, USA
Ecological Determinants of Helminth Susceptibility and the Duration of Infection

Alison M. Elliott, MRC/UVRI & LSHTM Uganda Research Unit, Uganda
Effects of Helminth Co-Infections

Philip J. Cooper, St George's, University of London, UK
Epidemiology of Soil Transmitted Helminth Infections

Short Talk(s) Chosen from Abstracts

Poster Session 2

WEDNESDAY, DECEMBER 11

Keynote Address

Judith E. Allen, University of Manchester, UK
Tissue Repair and Macrophage Activation

Myeloid Cells in Helminth Infection

William C. Gause, Rutgers New Jersey Medical School, USA
Neutrophils as Novel Players in Immunity against Helminths
Elia Tait Wojno, Cornell University, USA
Notch Signaling Controls a Host-protective Basophil-Th2 cell Interplay during Intestinal Helminth Infection
P'ng Loke, New York University School of Medicine, USA
IL-4 Mediated Macrophage Activation

Short Talk(s) Chosen from Abstracts

Helminth Control: Drug Development

Philip T. LoVerde, University of Texas Health Science Center, USA
New Strategies for Drug Development
Jennifer Keiser, Swiss Tropical and Public Health Institute, Switzerland
Optimizing Drug Use in Human Populations
Robin B. Gasser, University of Melbourne, Australia
Talk Title to be Announced

Short Talk(s) Chosen from Abstracts

Poster Session 3

THURSDAY, DECEMBER 12

Keynote Address

Richard M. Maizels, University of Glasgow, UK
Helminth Derived Modulators of Host Immunity

Helminth Control: Vaccine Development

Thomas B. Nutman, NIAID, National Institutes of Health, USA
Resistance Against Human Helminth Infection
Sara Lustigman, New York Blood Center, USA
Helminth Products that Stimulate Immunity
Maria Elena Bottazzi, Baylor College of Medicine, USA
The Road from Basic Biology to Vaccines against Neglected Tropical Diseases: Development and Testing of Anthelmintic Vaccines

Short Talk(s) Chosen from Abstracts

Workshop 2

Short Talks Chosen from Abstracts

Helminth Modulation of Host Immunity

Nicola L. Harris, Monash University, Australia
How Hookworm Escapes Innate Immunity

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Frank Brombacher, International Center for Genetic Engineering and
Biotechnology, South Africa
Talk Title to be Announced

Alex Loukas, James Cook University, Australia
The Hookworm Pharmacopoeia for Inflammatory Diseases

Short Talk Chosen from Abstracts

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

FRIDAY, DECEMBER 13

Departure