

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Tuberculosis: Mechanisms, Pathogenesis and Treatment (A3)

January 17-21, 2019 • Fairmont Banff Springs • Banff, Alberta, Canada

Scientific Organizers: Christina L. Stallings, Veronique Anne Dartois, Stewart T. Cole and David Barros

Supported by the Directors' Fund

Global Health Travel Award Deadline: August 14, 2018 / Abstract & Scholarship Deadline: September 27, 2018 / Abstract Deadline: October 23, 2018 / Discounted Registration Deadline: November 20, 2018

THURSDAY, JANUARY 17

Arrival and Registration

FRIDAY, JANUARY 18

Welcome and Keynote Address

Wim Parys[†], Janssen Research Foundation, Belgium
Developing Drugs Against Global Health Threats

Pathogenic Strategies of Mycobacteria

Scarlet S. Shell, Worcester Polytechnic Institute, USA
mRNA Stabilization Under Stress

Dirk Schnappinger, Weill Cornell Medical College, USA
Determinants of Growth, Persistence and Relapse

Jeremy Rock, Rockefeller University, USA
Genetic Dissection of Pathogenesis

Short Talk(s) Chosen from Abstracts

Workshop 1: Pediatric and Extrapulmonary TB

Short Talks Chosen from Abstracts

Immune Responses to Mycobacterium Tuberculosis

Christina L. Stallings, Washington University School of Medicine, USA
Innate Immune Responses to Mycobacterium Tuberculosis

Katrin D. Mayer-Barber, NIAID, National Institutes of Health, USA
Cellular Dynamics of Innate Effector Cells during Mtb Infection

Galit Alter, Ragon Institute of MGH, MIT and Harvard, USA
Antibodies and TB

Short Talk Chosen from Abstracts

Poster Session 1

SATURDAY, JANUARY 19

Host Cell Signaling and Invasion

Jeffery S. Cox, University of California, Berkeley, USA
Sensing of Pathogenic Mycobacteria

Ulrich E. Schaible, Research Center Borstel, Germany
Pathogen - Host Cell Interactions in Tuberculosis

Jyothi Rengarajan, Emory University School of Medicine, USA
Modulation of Host Responses

Michael Shiloh, University of Texas Southwestern Medical Center, USA
Invasion of the Mucosa by Mycobacterium Tuberculosis

Short Talk(s) Chosen from Abstracts

Workshop 2: TB Drug Targets and MOA

Short Talks Chosen from Abstracts

Translation to the Treatment and Diagnosis of Disease

Ranjan Kumar Nanda, International Center for Genetic Engineering and Biotechnology, India
Brain-Gut-Microbiota Axis in Tuberculosis

Jennifer Gardiner, Bill & Melinda Gates Foundation, USA
Biomarkers of Infection, Disease, and Response to Therapy

Nicholas Paton, National University of Singapore, Singapore
New Approaches to Testing TB Regimens in Clinical Trials

Short Talk Chosen from Abstracts

Poster Session 2

SUNDAY, JANUARY 20

Treatment and Diagnosis of Disease

David B. Olsen, Merck & Co., Inc., USA
New Oxazolidinones against TB

Claudia Denkinger, FIND, Switzerland
TB Diagnostics

Priscille Marie Brodin, CILIL Institut Pasteur, France
Nanoparticle Drug Delivery Systems

Louis J. Picker, Oregon Health & Science University, USA
Development of Cytomegalovirus-based Vectors for a Tuberculosis Vaccine

Short Talk(s) Chosen from Abstracts

Molecular Dissection and Targeting of Mycobacterium Tuberculosis

Robert B. Abramovitch, Michigan State University, USA
Targeting Two Component Systems to Inhibit Mycobacterium tuberculosis Pathogenesis

Digby Warner, University of Cape Town, South Africa
New Tools for Target Validation and Mechanism of Action Studies

Stewart T. Cole, École Polytechnique Fédérale de Lausanne, Switzerland
Drug Discovery through Genetics

Short Talk Chosen from Abstracts

Poster Session 3

MONDAY, JANUARY 21

Exploiting Mycobacterial Vulnerabilities

David Barros, GlaxoSmithKline / DDDW, Spain
Drug Discovery and Development in TB

Thomas Dick, New Jersey Medical School - Rutgers, The State University of New Jersey, USA
Mechanism of Action of PZA

Mary Jackson, Colorado State University, USA
Inhibiting Mycobacterial Cell Wall Biosynthesis

Adrie J. C. Steyn, KwaZulu-Natal Research Institute for Tuberculosis and HIV, South Africa
Mycobacterium Tuberculosis Metabolism

Short Talk(s) Chosen from Abstracts

Panel: Careers in Biomedical Research

Short Talks Chosen from Abstracts

Host Determinants of Disease Outcomes

Michael Stephen Glickman, Memorial Sloan-Kettering Institute, USA
The Microbiome and TB

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Philana Ling Lin, University of Pittsburgh, USA

Nonhuman Primate Models of TB

Christopher M. Sassetti, University of Massachusetts Medical School, USA

Tuberculosis Susceptibility and Vaccine Protection Controlled by Host Genotype

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

TUESDAY, JANUARY 22

Departure