

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Tuberculosis: Science Aimed at Ending the Epidemic (EK10)

December 2-4, 2020 • Virtual at your computer • , CO, USA

Scientific Organizers: Anne G. Kasmar, Bruno B. Andrade, Rodrigo Corrêa-Oliveira and David Alland

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

Global Health Travel Award Deadline: November 18, 2020 / Scholarship Deadline: / Abstract Deadline: October 29, 2020 / Discounted Registration Deadline:

WEDNESDAY, DECEMBER 2

Welcoming Remarks and Keynote Address (8am Denver/Mountain Time Start)

***Anne G. Kasmar**, Genentech, USA

Soumya Swaminathan, World Health Organisation, Switzerland
Taking Science-Based Solutions to Scale

Breakthroughs in Biomarkers (8:40am Denver/Mountain Time Start)

Bruno B. Andrade, Fundação Oswaldo Cruz, Brazil
Breakthroughs from Brazil and Beyond

Mark Hatherill, University of Cape Town, South Africa
Can Host Blood Transcriptomic Biomarkers of Tuberculosis Inform Therapy?

Annemieke Geluk, Leiden University Medical Center, Netherlands
Short Talk: Immuno- and Transcriptomic Diagnostics for Leprosy and Leprosy Reactions

Elisa Nemes, University of Cape Town, South Africa
Short Talk: Immune Correlates of Protection in Humans

Panel: COVID4TB (10:30am Denver/Mountain Time Start)

Career Roundtable (12:30pm Denver/Mountain Time Start)

Poster Session 1 (1:30pm Denver/Mountain Time Start)

Highlights from the Host (3pm Denver/Mountain Time Start)

Alan Sher, NIAID, National Institutes of Health, USA
Can Basic Immunology Solve Tuberculosis?

Patricia A. Darrah, NIAID, National Institutes of Health, USA
Mechanisms of Protection in Nonhuman Primates

Robert L. Modlin, University of California, Los Angeles, USA
Tricytotoxic CTLs in Leprosy and TB

Katrin D. Mayer-Barber, NIAID, National Institutes of Health, USA
Unexpected Aspects of Granuloma Biology

Milton Ozório Moraes, Oswaldo Cruz Institute- Fiocruz, Brazil
Short Talk: Autophagy and Host Metabolism in Leprosy

Poster Session (7:30pm Denver/Mountain Time Start)

THURSDAY, DECEMBER 3

Back to Bacterial Basics (8am Denver/Mountain Time Start)

Olivier Neyrolles, IPBS, CNRS-University of Toulouse, France
The Biology of Metals in Mycobacterial Virulence and Antimycobacterial Immunity

David R. Sherman, University of Washington, USA
How MTB Sees the Host-Pathogen Interface

Cressida Madigan, University of California, San Diego, USA
Short Talk: Live-Imaging M. Leprae

Babak Javid, Tsinghua University School of Medicine, China
Targeting Adaptive Mycobacterial Translation as Anti-Virulence Strategies

Deborah T. Hung, Broad Institute of MIT & Harvard, USA
Mining PROSPECT for TB Drugs

Meet the Editors

Poster Session 2 (1:30pm Denver/Mountain Time Start)

Data to Drive Innovation (3pm Denver/Mountain Time Start)

Gabriel D. Victora, Rockefeller University, USA
Clonal Dynamics of the Antibody Response

Sarah M. Fortune, Harvard TH Chan School of Public Health, USA
Lessons from Lesions: ssRNASeq in Human and Non-Human Primate Tuberculosis

Purvesh Khatri, Stanford University, USA
Adventures of a Data Parasite: Using Heterogeneity in "Dirty Data" to Accelerate Translational Medicine

Christopher M. Sassetti, University of Massachusetts Medical School, USA
Exploring Co-Evolution in Collaborative Cross (cc):Mice

Shabaana Khader, Washington University School of Medicine, USA
Tuberculosis Strain Diversity Drives Immune Response

FRIDAY, DECEMBER 4

Rethinking Risk in TB (8am Denver/Mountain Time Start)

Neel R. Gandhi, Emory University, USA
Transmission is Driving the TB Epidemic, but Where Is the Majority of Transmission Occurring?

Julio Croda, Oswaldo Cruz Foundation / Federal University of Mato Grosso do Sul / Yale School, Brazil
Tuberculosis in Prisons: Spillover and Impact in the Community

Padmini Salgame, Rutgers University, USA
Mtb Transmissibility and Tissue Response

Kyu Y. Rhee, Weill Cornell Medical College, USA
A Focus on Bacterial Factors

Poster Session 3 (1:30pm Denver/Mountain Time Start)

Directing Discovery to Transform TB (3pm Denver/Mountain Time Start)

Mihai G. Netea, Radboud University, Netherlands
Short Talk: BCG for COVID

Lei Gao, Chinese Academy of Medical Sciences, China
LTBI Management in Mainland China

Yasmine Belkaid, NIAID, National Institutes of Health, USA
Taming Tuberculosis: The Path from Pathogen to Commensal

Clifford E. Barry III, NIAID, National Institutes of Health, USA
Emerging Results from Next Gen EBA Studies

Guy B. Marks, University of New South Wales, Australia
Ending TB in the Next 15 Years: Can We Do It, Using the Tools We Have Now, Better?

Closing Keynote Address (5:30pm Denver/Mountain Time Start)

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David Alland, Rutgers University, New Jersey Medical School, USA
Turning Discoveries into Useful Tools