Colorado Mycobacteria Conference, 2016

Agenda

Tuesday, Jun 7, 2016 – Arrival Day

10:00 am   5 Km Fun Run

5:00 pm – 5:15 pm   Alan Rudolph, MBA, PhD, Vice President for Research, Colorado State University, Fort Collins, CO

    Welcome

5:15 pm – 6:15 pm   Warwick Britton, M.D., Ph.D., Bosch Professor of Immunology Medicine, Central Clinical School, Centenary Institute of Cancer Medicine & Cell Biology, University of Sydney, Sydney, Australia

    TB & Leprosy Research: Then and Now

6:15 pm – 8:00 pm   Happy Hour (UCA) Social Event

8:00 pm – 9:00 pm   Gilla Kaplan, Ph.D., Director, Tuberculosis Programs, Bill & Melinda Gates Foundation, Seattle, WA

    Filling the Gaps: The BMGF Approach to TB Research and Development
Wednesday, Jun 8, 2016
Biochemistry/Physiology/Drug Development

Chair: Dean Crick, Ph.D., Colorado State University, Fort Collins, CO

8:15 am – 8:30 am   Opening Comments

8:30 am – 9:30 am   Kyu Rhee, MD, Ph.D., Weill Cornell Medical College, New York City, NY

   Mycobacterial Metabolism: Chemical Biology at the Intersection of Pathogen Biology and Drug Development

9:30 am – 10:00 am  Joshua Thiede, Ph.D., Department of Microbiology and Immunology, Center for Infectious Diseases and Microbiology Translational Research, University of Minnesota, MN

   Potentiating the Anti-Tubercular Action of Antifolate Drugs

10:00 am – 10:30 am Coffee Break

10:30 am – 11:00 am Anna Upton, Ph.D., Director Biology, Global Alliance for TB Drug Development, New York City, NY

   In Search of a New Generation of Bedaquiline

11:00 am – 12:00 am Sir Thomas Blundell FRS, FMedSci, Department of Biochemistry, University of Cambridge, Cambridge, UK

   Genomics, Structural Biology and Discovery of New Antimicrobials: Recent Developments with M. tuberculosis and M. abscessus
12:00 pm – 1:00 pm   Boxed lunch provided – enjoy in the CSU Flower Trial Garden. Poster Set Up

Chair: **Anne Lenaerts**, Ph.D., Colorado State University, Fort Collins, CO

1:00 pm – 1:30 pm   **Martin Voskuil**, Ph.D., University of Colorado School of Medicine, Aurora, CO

*Antibiotic Bactericidal Activity is Countered by Maintaining pH Homeostasis*

1:30 pm – 2:00 pm   **Kristiana Santoso**, Ph.D., Victoria University of Wellington, Wellington, New Zealand

*The Development of Type II NADH Dehydrogenase Inhibitors as Anti-Tuberculosis Drugs*

2:00 pm – 3:00 pm   **Anura Rambukkana**, Ph.D., Centre for Regenerative Medicine, University of Edinburgh, Edinburgh, UK

*Harnessing Mycobacterial Ingenuity of Cell Reprograming: New Insights into Pathogenesis and Tissue Repair*

3:00 pm – 5:00 pm   Poster Session

5:00 pm - 6:00 pm   Happy Hour, CooperSmith’s (Poolside)

6:00 pm - 8:00 pm   Dinner, CooperSmith’s (Poolside)
Thursday, Jun 9, 2016

Immunology/Immunopathology/Host-Pathogen Interactions

Chair: Diane Ordway, Ph.D., Colorado State University, Fort Collins, CO

8:15 am – 8:30 am  Opening Comments

8:30 am – 9:30 am  Daniel Hoft, M.D., Ph.D., St. Louis University School of Medicine, St. Louis, MO

*The Role of Human Gamma9/Delta2 T Cells in TB Immunity*

9:30 am – 10:00 am  Angelo Izzo, Ph.D., Department of Microbiology, Immunology and Pathology, Colorado State University, Fort Collins, CO

*BCG?*

10:00 am – 10:30 am  Coffee Break

10:30 am – 11:00 am  Brendan Podell, Ph.D., Department of Microbiology, Immunology and Pathology, Colorado State University, Fort Collins, CO

*Early Immune Responses in the Guinea Pig Model of Diabetes-Tuberculosis Comorbidity*

11:00 am - 12:00 am  Edward Chan, M.D., Denver Veterans Affairs Medical Center; National Jewish Health Center; University of Colorado School of Medicine, Denver, CO

*Nicotine Impairs Macrophage Control of Mycobacterium tuberculosis by Binding to Nicotine Acetylcholine Receptor, Activating NFkappaB and Inhibiting Autophagy*
12:00 pm – 1:00 pm  Boxed lunch provided – enjoy in the CSU Flower Trial Garden

1:00 pm – 1:30 pm  Bernadette Saunders, Ph.D., University of Technology Sydney, Sydney, Australia

   A Dominant-Negative Mutation in TNFR1 Results in Increased Susceptibility to Pulmonary Tuberculosis Infection

1:30 pm – 2:00 pm  Mercedes Gonzalez-Juarrero, Ph.D., Department of Microbiology, Immunology and Pathology, Colorado State University, Fort Collins, CO

   Preclinical studies of aerosolized host directed therapy for TB treatment

2:00 pm – 3:00 pm  Paula I. Fujiwara, M.D., M.P.H, Scientific Director, International Union Against Tuberculosis and Lung Disease (The Union), Paris, France

   Linking Research to the End TB Strategy — Will We Get There by 2035?

3:00 pm – 5:00 pm  Poster Session
Friday, Jun 10, 2016

Epidemiology/Diagnostics/Biomarkers

Chair: John Belisle, Ph.D., Colorado State University, Fort Collins, CO

8:15 am – 8:30 am      Opening Comments

8:30 am – 9:30 am      Gerhard Walzl, M.D., University of Stellenbosch, Cape Town, South Africa

How Close Are We to Biomarker-Driven Interventions in TB?

9:30 am – 10:00 am  Bryna Fitzgerald, Department of Microbiology, Immunology and Pathology, Colorado State University, Fort Collins, CO

A Novel Polyamine Catabolite Identified as a Urine Biomarker of TB Treatment Response

10:00 am – 10:30 am Coffee Break

10:30 am – 11:00 am Mark Schoenbaum, DMV, Ph.D., National Epidemiologist, Cattle Health Center of Veterinary Services of APHIS, USDA

US Cattle TB Eradication Program: Where is Mycobacterium bovis coming from now?

11:00 am – 11:30 am Kathy Orloski, DMV, MS, Diplomate, ACVPM (Epidemiology), Surveillance Design and Analysis Unit, Centers for Epidemiology and Animal Health, Veterinary Services, APHIS, USDA

Changing the Epidemiologic Paradigm at the Human Animal Interface: Using Whole Genome Sequencing to Track Mycobacteria bovis Infection across Species
11:30 am – 12:00 am  Adrian Muwonge, Ph.D., Division of Genomics and Genetics, The Roslin Institute, University of Edinburgh, Edinburgh, UK

   *Predicting Cattle Movement Networks: Mycobacterium bovis Spatial-Genotyping Versus Gravity Modelling*

12:00 pm – 1:00 pm  Boxed lunch provided – enjoy in the CSU Flower Trial Garden

Chair: Francisco Olea-Popelka, D.V.M., Colorado State University, Fort Collins, CO

1:00 pm – 2:00 pm  Michael Strong, Ph.D., National Jewish Health, Denver, CO

   *Nontuberculous Mycobacteria Impacting Individuals with or without Cystic Fibrosis: Genomic, Computational, and Epidemiologic Approaches*

2:00 pm – 3:00 pm  Stacey Martiniano, M.D., Department of Pediatrics, University of Colorado School of Medicine, Denver, CO

   *Diagnosis and Treatment of NTM Infection in Cystic Fibrosis*

3:00 - 3:30  Closing Comments