

KEYSTONE SYMPOSIA

on Molecular and Cellular Biology

Gram-Negative Resistance (D1)

March 29-April 2, 2015 • Granlibakken Resort • Tahoe City, California, USA

Scientific Organizers: Robert E.W. Hancock and Eric D. Brown

Supported by the Directors' Fund

Abstract & Scholarship Deadline: December 1, 2014 / Abstract Deadline: January 6, 2015 / Discounted Registration Deadline: January 27, 2015

SUNDAY, MARCH 29

Registration

MONDAY, MARCH 30

Keynote Address

Brad Spellberg, LA BioMed and Harbor-UCLA Medical Center, USA
The Future of Antibiotics and Resistance

Gram-Negative Drug Resistance

José Luis Martínez, Centro Nacional de Biotecnología, CSIC, Spain
The Resistome; Definition, Identification, Tools, and Implications

Kim Lewis, Northeastern University, USA
Interplay Between Resistance and Tolerance

Diarmaid P. Hughes, Uppsala University, Sweden
Selection of Resistance at Lethal and Non-Lethal Antibiotic Concentrations

Short Talk(s) Chosen from Abstracts

Special Concerns

David Livermore, HPA Microbiology Services Colindale, UK
Gram-Negatives: A Hydra-Headed Threat

Karen Bush, Indiana University, USA
New Aspects of Beta Lactam Resistance

Roger Nation, Monash Institute of Pharmaceutical Sciences, Australia
The Polymyxins Rejuvenated: Emerging Issues

Short Talk Chosen from Abstracts

Poster Session 1

TUESDAY, MARCH 31

Gram-Negative Drug Development - The Future

Edward M. Cox†, U.S. Food and Drug Administration, USA
The GAIN Act, etc.

Robert Stavenger, GlaxoSmithKline, USA
IMI Translocation: A PPP Approach to Understanding Gram-Negative Penetration

New Approaches in Gram-Negative Small Molecular Drug Discovery

Eric D. Brown, McMaster University, Canada
Targeting Bacterial Metabolism

Natalie Strynadka, University of British Columbia, Canada
Structural Biology and Peptidoglycan Synthesis and Assembly

Thomas Keating, AstraZeneca R&D Boston, USA
Target-Based Drug Discovery

Permeability and Efflux

Jean-Marie Pagès, Aix-Marseille Université, France
The Membrane Permeability Barrier: A Bacterial Strategy

Laura Piddock, University of Birmingham, UK
Informing Drug Discovery: Understanding How Efflux Pumps are Regulated

Helen I. Zgurskaya, University of Oklahoma, USA
Multi-Drug Efflux in the Context of Two Membranes
Short Talk Chosen from Abstracts

Poster Session 2

WEDNESDAY, APRIL 1

Alternatives to Small Molecule Antibiotics - Targeting the Host

Robert E.W. Hancock, University of British Columbia, Canada
Targeting the Host

Andrew P. Tomaras, Pfizer Worldwide Research & Development, USA
Therapeutic Antibodies and Other Biologicals

Charles Ken Stover, MedImmune, LLC, USA
Targeting Serious Bacterial Infections with New Antibody based Strategies

Laura B. Martin, Novartis Vaccines Institute for Global Health, Italy
Outer Surface of Gram-Negative Bacteria

Short Talk(s) Chosen from Abstracts

Natural Products – Time for a Comeback

Roy Kishony, Harvard Medical School, USA
Streptomyces Interaction Networks.....

Gerry Wright, McMaster University, Canada
Natural Products to Reverse Drug Resistance

Roger Linington, University of California, Santa Cruz, USA
Activity Profile Screening: High Content Screening Approaches to Natural Product Antibiotic Discovery

Short Talk Chosen from Abstracts

Poster Session 3

THURSDAY, APRIL 2

Departure