



Join Keystone Symposia
for the 2016 conference on:

Drug Discovery for Parasitic Diseases

January 24–28, 2016

Granlibakken Resort | Tahoe City, California | USA

Scientific Organizers:

Leann M. Tilley, Philip J. Rosenthal and Kelly Chibale

For many parasitic diseases, available therapies are unsatisfactory and increasingly threatened by drug resistance. New therapies, ideally directed against novel targets, are urgently needed. Recent advances in anti-parasitic drug discovery have come from three different approaches – target-based methods that build on improved understanding of parasite biology; phenotypic high-throughput screens that are benefitting from improved technology; and repositioning and repurposing drugs developed for other indications. These different approaches all benefit from the integration of medicinal chemistry with parasitology and pharmacotherapy programs. This conference will showcase cutting-edge anti-parasitic drug discovery programs that illustrate the path from parasite biology to lead identification and from optimization to candidate selection. It will emphasize the need for coordinated integration of programs in medicinal chemistry, parasite biology, pharmacokinetics and safety assessment. It will feature emerging technologies such as chemical biology, chemoproteomics, chemical informatics, genomics, transcriptomics and metabolomics that are facilitating drug discovery. It will also discuss the current status of anti-parasitic drug resistance and advances in our understanding of mechanisms of resistance.

Session Topics:

- Antiparasitic Drug Development: From Start to Finish
- Phenotypic vs. Target-Based Screening
- Target-Based Screening vs. Repurposing and Repositioning
- Hit to Lead
- Drug Resistance
- Tackling Challenging Targets
- New Approaches, New Solutions
- Emerging Technologies and Pioneering Methods
- Workshop and Panel – Drug Target to Clinic: The Pipeline



Submitting an abstract is a great way of participating in the conference through poster presentation and possible selection for a short talk.

Scholarship & Discounted Abstract Deadline: Sep 28, 2015

Abstract Deadline: Oct 28, 2015

Discounted Registration Deadline: Nov 23, 2015

For additional details, visit www.keystonesymposia.org/16A5.

KEYSTONE SYMPOSIA™
on Molecular and Cellular Biology

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SUNDAY, JANUARY 24

Arrival and Registration

MONDAY, JANUARY 25

Welcome and Keynote Address

Elizabeth A. Winzeler, University of California, San Diego, USA
Antimalarial Drug Discovery: From Phenotypic Screen to Novel Hits to Target Identification to Preclinical Studies

Antiparasitic Drug Development: From Start to Finish

Annette Kuesel, World Health Organization, Switzerland
Clinical Development of Drugs for Control and Elimination of Helminthic Diseases

Philip J. Rosenthal, University of California, San Francisco, USA
The Treatment and Prevention of Malaria

Shyam Sundar, Banaras Hindu University, India
Clinical Trials for the Treatment of Visceral Leishmaniasis

Short Talk(s) Chosen from Abstracts

Phenotypic vs. Target-Based Screening

James H. McKerrow, University of California, San Diego, USA
Target-Based Drug Discovery: Targeting Cysteine Proteases in Multiple Organisms

John Haselden, GlaxoSmithKline, Spain
Antiparasitic Hits from Phenotypic High Throughput Screening

Kevin Read, University of Dundee, Scotland
Integrating Drug Metabolism and Pharmacokinetics into Antiparasitic Drug Discovery

Short Talk Chosen from Abstracts

Poster Session 1

TUESDAY, JANUARY 26

Target-Based Screening vs. Repurposing and Repositioning

Jeremy N. Burrows, Medicines for Malaria Venture, Switzerland
Drug Discovery to Control and Eradicate Malaria

Richard R. Tidwell, University of North Carolina at Chapel Hill, USA
A Phenotypic Approach to drug discovery for human African trypanosomiasis

Jennifer Keiser, University Basel, Swiss Tropical and Public Health Institute, Switzerland
Repurposing for Antischistosomal Drug Discovery: from bench to field

Meg Phillips, University of Texas Southwestern, USA
A Clinical Candidate Targeting Plasmodium falciparum Dihydroorotate Dehydrogenase

Short Talk(s) Chosen from Abstracts

Workshop and Panel: Drug Target to Clinic: The Pipeline

Robert T. Jacobs, Anacor Pharmaceuticals, Inc., USA
Parasitic/Neglected Disease Drug Discovery: A Biotech Perspective

John Haselden, GlaxoSmithKline, Spain
A Pharma Perspective on Opportunities to Transition Drug Discovery Assets into Preclinical and Early Clinical Drug Development

Kevin Read, University of Dundee, Scotland
NTD Drug Discovery: An Academic Perspective

Timothy G. Geary, McGill University, Canada
Moving from Concept to Reality for Repurposing an Approved Drug for a New Neglected Disease Indication

Meg Phillips, University of Texas Southwestern, USA
Target Validation and the Comparison of Target-based HTS versus Whole Organism Screening

Susan A. Charman, Monash University, Australia
Human Pharmacokinetic and Dose Predictions

Annette Kuesel, World Health Organization, Switzerland
What Support do Regulatory Agencies Offer?

Hit to Lead

Jonathan L. Vennerstrom, University of Nebraska Medical Center, USA
Discovery of Antimalarial Ozonides OZ277 and OZ439

Kelly Chibale, University of Cape Town, South Africa
Antimalarials from SoftFocus Libraries: Optimization and Target Identification

Robert T. Jacobs, Anacor Pharmaceuticals, Inc., USA
Drug Discovery and Development Based on Antiparasitic Benzoxaboroles

Short Talk Chosen from Abstracts

Poster Session 2

WEDNESDAY, JANUARY 27

Drug Resistance

Speaker to be Announced

Abdoulaye Djimdé, Université de Bamako, Mali
Genetics for the Surveillance of Plasmodium falciparum Resistance to Artemisinins and Partner Drugs in sub-Saharan Africa

Leann M. Tilley, University of Melbourne, Australia
Molecular Basis of Artemisinin Action and Resistance

Marc Ouellette, CIHR Institute of Infection and Immunity, Canada
Functional Genomics of Drug Resistance in Leishmania

Short Talk(s) Chosen from Abstracts

Tackling Challenging Targets

Timothy G. Geary, McGill University, Canada
Mechanism-based Screening Against Nematode G Protein-coupled Receptors: A Case History

Christophe Bodenreider, Novartis Institute for Tropical Diseases, Singapore
Development of PI(4) kinase Inhibitors Active across the Life-cycle of Plasmodium

Maria M. Mota, Instituto de Medicina Molecular, Portugal
Targeting Liver Stages of Malaria Parasites

Short Talk Chosen from Abstracts

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Poster Session 3

THURSDAY, JANUARY 28

New Approaches, New Solutions

Sarah K. Volkman, Harvard School of Public Health, USA
Genome Wide Association Studies to Gain Insights into Drug Resistance

David A. Fidock, Columbia University Medical Center, USA
Leveraging Genome Editing to Define the Genetic Basis of Antimalarial Drug Resistance

Susan A. Charman, Monash University, Australia
Oz439 Current Status, Including New in vivo Methods Using Human Volunteers

John Overington, European Molecular Biology Laboratory, UK
Chemi-Informatics in Antiparasitic Drug Discovery

Short Talk(s) Chosen from Abstracts

Emerging Technologies and Pioneering Methods

Gerard Drewes, GlaxoSmithKline, Germany
Use of Chemoproteomics to Identify Parasite Targets

Matthew S. Bogyo, Stanford University School of Medicine, USA
Chemical Biology: Small Molecule Probes and Inhibitors of Plasmodial Proteases

Malcolm J. McConville, University of Melbourne, Australia
Measuring Parasite Metabolism in Vivo

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

FRIDAY, JANUARY 29

Departure