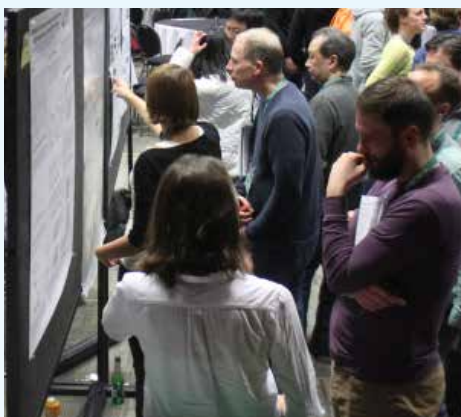




Announcing the 2016 Keystone Symposia conference on: **Modern Phenotypic Drug Discovery: Defining the Path Forward**

April 2–6, 2016

Big Sky Resort | Big Sky, Montana | USA

Scientific Organizers:

Jonathan A. Lee, Ellen L. Berg and Eugene C. Butcher

This meeting uniquely provides this interdisciplinary environment and is a particularly attractive venue given the increasing role of academia in drug discovery research. The conference will be a forum for the global Phenotypic Drug Discovery (PDD) research community in which scientists from diverse institutions and scientific disciplines can meet to share/discuss/debate topics related to advantages/disadvantages of PDD and how PDD can complement targeted approaches. Significantly, the conference will provide a much needed forum for the growing interest in PDD, and can conceivably become the cornerstone of the global scientific movement for the reintroduction of functional biology/physiology-driven pharmaceutical research.

Session Topics:

- Why Revisit PDD?
- PDD: Recent Clinical Successes
- Challenges to Modern PDD/Lessons Learned
- Workshop and Panel: PDD – Trends and Roadblocks
- New Biological Models
- Translational PDD: Physiologically Relevant Models
- Target/MOA Identification/Deconvolution
- Network Biology: New Technologies and Informatics
- Workshop and Panel: Identification of Molecular Targets and Biological “Mechanisms of Action”: How Much is Enough?
- Biologically Relevant Chemical Diversity

CONFIRMED SPEAKERS

(as of May 18, 2015):

Andreas Bender
Ellen L. Berg
Andrea Califano
Anne E. Carpenter
Benjamin F. Cravatt III
Eugen Dhimolea
Lars G. J. Hammarström
Jeremy Jenkins
Salman Khetani
Susan Lindquist
Nick A. Meanwell
Mark Mercola
John Moffat
Bernard H. Munos
Garry P. Nolan
Rebecca M. Pruss
Michael S. Saporito
Monica Schenone
Peter G. Schultz
David C. Swinney
Jon Tinsley
Herbert Waldmann
Janet Woodcock



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: Dec 2, 2015

Abstract Deadline: Jan 5, 2016

Discounted Registration Deadline: Feb 2, 2016

For additional details, visit **www.keystonesymposia.org/16D1**.

KEYSTONE SYMPOSIA™
on Molecular and Cellular Biology

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SATURDAY, APRIL 2

Arrival and Registration

SUNDAY, APRIL 3

Why Revisit PDD?

David C. Swinney, iRND3, Institute for Rare and Neglected Diseases, USA

Keynote Speaker: The Value of Phenotypic Assays to Drug Discovery: Historical Perspective

John Moffat, Genentech, Inc., USA

Phenotypic and Targeted Drug Discovery are Complimentary Strategies

Bernard H. Munos, FasterCures, USA

Pharma Research Productivity: A New Perspective on Phenotypic vs. Target-Based Screening

Janet Woodcock, US Food and Drug Administration, USA

Phenotypic and Target Directed Drug Discovery: The FDA Perspective

Short Talk(s) Chosen from Abstracts

PDD: Recent Clinical Successes

Nick A. Meanwell, Bristol-Myers Squibb, USA

Phenotypic Screening for Antiviral Agents

Rebecca M. Pruss, Windhover Biomed, France

Maintenance of Motor Function in Spinal Muscular Atrophy by Olesoxime: A Recent Clinical Success for Phenotypic Drug Discovery

Jon Tinsley, Summit plc, UK

Modulators of Utrophin Production for the Treatment of Duchenne Muscular Dystrophy

Short Talk Chosen from Abstracts

Poster Session 1

MONDAY, APRIL 4

Challenges to Modern PDD/Lessons Learned

Speaker to be Announced

Ellen L. Berg, Bioseek Inc., USA

Phenotypic Chemical Biology for Predicting Efficacy and Safety

Lars G. J. Hammarström, Karolinska Institutet, Sweden

Phenotypic Targeting of Genetically Acquired Vulnerabilities in Glioblastoma

Fabien Vincent, Pfizer, USA

Lessons Learned in Phenotypic Screening

Short Talk(s) Chosen from Abstracts

Workshop and Panel 1: PDD Trends and Roadblocks

Short Talks Chosen from Abstracts

New Biological Models

Eugen Dhimolea, Dana Farber Cancer Institute, Harvard Medical School, USA

Engineering 3-D in vitro Tumor Models of Antineoplastic Drug Resistance

Salman Khetani, Colorado State University, USA

Microengineered Human Liver Models for Drug Screening and Disease Modeling

Geraldine Hamilton, Emulate, USA

Organs-on-Chips: Predictive in vitro Platform for Human Drug Discovery and Disease Modeling

Short Talk Chosen from Abstracts

Poster Session 2

TUESDAY, APRIL 5

Translational PDD: Physiologically Relevant Models

Andrew Reaume, Melior Discovery, Inc., USA

Case Studies and Overall Learnings from 10 Years of Phenotypic Screening with a Broad-Based Panel of In Vivo Models

Susan Lindquist, HHMI/Whitehead Institute for Biomedical Research, USA

From Yeast Cells to Patient Neurons: A Powerful Chemical Biology Discovery Platform for Parkinson's and Alzheimer's Disease

Mark Mercola, Sanford-Burnham Medical Research Institute, USA

Functional and Chemical Genomics for Heart Failure

Short Talk(s) Chosen from Abstracts

Network Biology: New Technologies and Informatics

Andrea Califano, Columbia University, USA

A Systems Biology Approach to Screening Drugs on an Individual Patient Basis

Garry P. Nolan, Stanford University, USA

High Dimensional Phenotypic Profiling of Single Cells using CYTOF

Anne E. Carpenter, Broad Institute, USA

Increasing the Content of High-Content Assays: Uncovering Relevant Phenotypes in Multi-Parametric Imaging Data

Joel Dudley, Icahn School of Medicine at Mount Sinai, USA

Disease State Expression Profiling and Drug Repositioning

Short Talk Chosen from Abstracts

Poster Session 3

WEDNESDAY, APRIL 6

Target/MOA Identification/Deconvolution

Benjamin F. Cravatt III, The Scripps Research Institute, USA

Keynote Speaker: Integrated Phenotypic and Activity-Based Profiling Links Ccs3 to Obesity and Diabetes using Activity-Based Proteomics

Monica Schenone, Broad Institute of MIT and Harvard, USA

Target Identification and Mechanism of Action in Drug Discovery

Jeremy Jenkins, Novartis Institutes for BioMedical Research, USA

Systems Approaches to Elucidating Compound Effect Pathways

Andreas Bender, University of Cambridge, UK

Towards Understanding Phenotypic Readouts - Utilizing Multiple Types of Chemical and Biological Data to Rationalize Compound Action and Select Novel Chemical Matter

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Short Talk(s) Chosen from Abstracts

Workshop and Panel 2: Identification of Molecular Targets and Biological "Mechanisms of Action": How Much is Enough?

Short Talks Chosen from Abstracts

Biologically Relevant Chemical Diversity

Paul Clemons, Broad Institute, USA

Toward Performance-Diverse Small-Molecule Libraries for Cell-Based Phenotypic Screening using Multiplexed High-Dimensional Profiling

Herbert Waldmann, Max Planck Institute for Molecular Physiology, Germany

Natural Product Inspired Compound Collections: Evolutionary Principle, Chemical Synthesis, Phenotypic Screening and Target Identification

Anne Mai Wassermann, Pfizer, USA

Dark Chemical Matter – Could "Inactive" Compounds Be Good Starting Points for Lead Discovery?

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

THURSDAY, APRIL 7

Departure