Final Agenda

Cambridge Healthtech Institute's
Ninth Annual
World Pharmaceutical Congress

Preclinical Developments to Better Predict Outcomes

Drug Discovery Innovation Summit
- Targeting Pain with Novel Therapeutics
- Successful Targeting of Alzheimer’s Disease

Drug Safety Summit
- Monitoring Cardiotoxicity and Drug Safety
- New Tools for Detecting Nephrotoxicity
- Early Assessments for Predicting Hepatotoxicity

Screening and Imaging Summit
- Evaluating Novel Technologies for Cell Based Screening
- Integrating in vivo Molecular Imaging in Drug Discovery & Development
- Pharmacology Driven Assays for GPCRs & Ion Channels

Conference Short Courses - June 14 & 16

Reactive Metabolites in Drug Discovery and Development
Animal Models of Pain: Progress and Challenges
Translating Safety Biomarkers from the Lab to the Clinic
Use of Stem Cells for Safety Screening

Dealing with the Blood-Brain Barrier
Safety Concerns for Biological Drugs
Mechanistic Insights into Cardiotoxicity
Mechanistic Insights into Hepatotoxicity

Event Features
- Plenary Keynote Panel
- Interactive Breakout Discussion Groups
- Access to Concurrent Tracks
- Dedicated Exhibit Hall and Scientific Poster Viewing Hours
- Over 500 International Participants
- 10 Short Courses

Corporate Sponsors:

WorldPharmaCongress.com
**Conference-at-a-Glance**

**MONDAY, JUNE 14**
- 8:00am-9:00am Morning Coffee
- 8:00-9:00am Pre-Conference Short Course Registration
- 9:00am-12:00pm Morning Short Courses
- 1:00-2:00pm Pre-Conference Short Course Registration
- 2:00-5:00pm Afternoon Short Courses
- 2:00-5:00pm Main Conference Pre-Registration

**TUESDAY, JUNE 15**
- 7:15-6:00pm Registration Open
- 7:15-8:15am Morning Coffee
- 8:15-9:55am Concurrent Tracks
- 9:55-10:25am Networking Coffee Break
- 10:25-11:55am Concurrent Tracks
- 11:55am-12:55pm Luncheon Presentation (Sponsorship Opportunity Available) or Lunch on Your Own
- 12:55-1:30pm Session Break
- 1:30-3:05pm Concurrent Tracks
- 3:05-3:35pm Sponsored Presentations (Opportunities Available)
- 3:35-4:15pm Grand Opening Refreshment Break in the Exhibit Hall
- 4:15-5:45pm Plenary Keynote Panel
- 5:45-6:45pm Happy Hour in the Exhibit Hall
- 6:45pm Close of Day

**WEDNESDAY, JUNE 16**
- 7:30am-5:30pm Registration Open
- 7:30-8:30am Continental Breakfast Breakout Discussions
- 8:30-9:40am Concurrent Tracks
- 9:40-10:10am Sponsored Presentations (Opportunity Available)
- 10:10-10:50am Networking Coffee Break in the Exhibit Hall
- 10:50am-12:20pm Concurrent Tracks
- 12:20pm Close of First Set of Conferences
- 12:20-1:55pm Enjoy Lunch on your Own
- 1:55-3:00pm Concurrent Tracks- Second Set of Conferences
- 3:00-3:30pm Sponsored Presentations (Opportunity Available)
- 3:30-4:30pm Networking Refreshment Break in the Exhibit Hall
- 4:30-5:30pm Concurrent Tracks
- 5:30pm Close of Day

**THURSDAY, JUNE 17**
- 8:00am-4:00pm Registration Open
- 8:00-8:30am Morning Coffee
- 8:30-10:00am Concurrent Tracks
- 10:00-10:45am Networking Coffee Break in the Exhibit Hall
- 10:45-11:45am Concurrent Tracks
- 11:45am-12:45pm Luncheon Presentation (Sponsorship Opportunity Available) or Lunch on Your Own
- 12:45-1:15pm Session Break
- 1:15-2:25pm Concurrent Tracks
- 2:25-3:05pm Ice Cream Refreshment Break in the Exhibit Hall (Last Chance for Exhibit & Poster Viewing)
- 3:05-4:35pm Concurrent Tracks
- 4:35pm Close of Conference

CHI’s **World Pharmaceutical Congress** encompasses a broad spectrum of topics that are very important to scientists in the pharmaceutical and biotechnology industry. This year’s event focuses mainly on the pre-clinical aspects of drug discovery and development and consists of three separate summits, each featuring various tracks. The topics offer a broad-based perspective on what’s going on in the field, tackling issues relevant to chemists, biologists, pharmacologists, toxicologists and clinicians alike. Each track features presentations, interactive panels and technology talks that cover the very latest on the topic, both on the scientific and the technical side. The **World Pharmaceutical Congress** also offers attendees and exhibitors ample opportunity to network, brain-storm and collaborate on various fronts.

**Plenary Keynote Panel**

**TUESDAY, JUNE 15**

4:15 - 5:45 pm **Shifting Sands of Pharmaceutical Discovery**

**Panelists:**
- **Chris L. Waller,** Ph.D., Senior Director, Healthcare Informatics, Medical Business Technology, Pfizer, Inc.
- **Gary Peltz,** M.D., Ph.D., Professor, Anesthesia, Stanford University
- **Marvin Bayne,** Ph.D., Head of Discovery Technologies, Merck & Co.
- **Thomas Bocan,** Ph.D., Senior Director, Head of Pre-Clinical Biomaging Center, Pfizer Global Research and Development, Pfizer, Inc.
- **Peggy Guzzie-Peck,** Ph.D., DABT, Vice President, Head of Toxicology, Pathology & LAM, Johnson & Johnson, Pharma R&D

**Key questions to be addressed:**
- How does academic research impact pharma drug discovery?
- How does the creation of cross-pharma pre-competitive collaborations impact drug discovery, spanning chemistry, biology, and knowledge management?
- Adoption of new technologies, such as molecular imaging: Can it help drug discovery and how quickly?
- How effectively and efficiently can we collaborate to develop safer drugs?
Monday, June 14

MORNING COURSES 9:00 am – 12:00 pm

(SC1) Reactive Metabolites in Drug Discovery and Development-A Critical Examination of the Issues
You will obtain a perspective on the variety of factors necessary to make informed decisions regarding reactive metabolites.
- Analytical approaches to detect and characterize reactive metabolites
- Bioactivation pathways that lead to reactive metabolites
- Toxicophores and Structural Alerts
- Evidence linking reactive metabolites and idiosyncratic drug toxicity
- Reactive metabolites and covalent protein binding
Course Instructor:
John C.L. Erve, Ph.D., DABT, Principal Research Scientist II, Drug Safety Metabolism, Wyeth Research

(SC2) Animal Models of Pain: Progress and Challenges
Due to frustration with translational progress, animal models of pain are currently being reconsidered. This course will cover:
- Implementation of classical models of acute, tonic and chronic pain
- Limitations of these classical models
- Refined use of classical models via a consideration of modulatory factors (sex, genetics, testing environment, social modulation)
- Development of new animal models (e.g., operant methods, spontaneous behaviors)
Course Instructor:
Jeffrey S. Mogil, Ph.D., E.P. Taylor Professor of Pain Studies, McGill University

AFTERNOON COURSES 2:00 pm – 5:00 pm

(SC5) Dealing with the Blood-Brain Barrier
You will obtain a perspective on the variety of factors necessary to make informed decisions regarding blood-brain barrier.
- The physiological basis for the “barrier” nature of the BBB
- Experimental approaches (in vitro/in vivo) that are available for screening for brain penetration
- Medicinal chemistry perspective on in vitro/silico approaches for optimizing CNS penetration
- Multi-parameter optimization (MPO) for CNS penetration
- in vivo examples where all these concepts are applied together, e.g., consideration of free fractions in various compartments in relation to in vitro pharmacology values
- Projecting human receptor occupancies considering species differences in affinity, free fraction
- Exposure targeting for biomarker studies
Course Instructors:
Douglas Spracklin, Ph.D., Director, Pharmacokinetics, Dynamics & Metabolism, Pfizer, Inc.
Christopher L. Shaffer, Ph.D., Associate Research Fellow, Pharmacokinetics, Dynamics & Metabolism, Pfizer, Inc.
Travis T. Wager, Ph.D., Associate Research Fellow, Neuroscience Discovery Medicinal Chemistry, Pfizer, Inc.

(SC6) Addressing Safety Concerns for Biological Drugs
The course offers guidance from experts in the field on what is being used and looked at for early safety assessments for biological molecules and how these early predictions are then being applied for clinical testing.
- Overview of challenges pertaining to the safety of biologics
- Tools, markers and assays for early safety predictions
- Assessing immunogenicity, PK/PD and off-target effects
- Regulatory guidelines and their interpretations
- Criteria for determining what needs to be tested and when
Course Instructors:
Gary Gintant, Ph.D., Senior Group Leader, Department of Integrative Pharmacology, Abbott Laboratories
Lauren Black, Ph.D., Senior Scientific Advisor, Charles River Laboratories
Noël Dybdal, Ph.D., D.V.M., Associate Director, Principal Scientist, Safety Assessment, Genentech, Inc.
Lisa Plitnick, Ph.D., Senior Investigator, Biologics Safety Assessment, Merck & Co. Inc.

(SC7) Mechanistic Insights into Cardiotoxicity
The course offers detailed information about some of the genetic and physiological factors that trigger cellular pathways leading to cardiac injury and failure.
- Genetics, physiology and risks in human heart failure
- Mechanisms underlying sex differences in ion channel expression and their role in arrhythmia phenotype
- Sex differences in the severity of ischemic injuries and in general, the effects of sex steroids in metabolic injuries
Course Instructors:
Barry London, M.D., Ph.D., Professor of Medicine and Chief, Division of Cardiology, University of Pittsburgh School of Medicine
Guy Salama, Ph.D., Department of Cell Biology and Physiology, University of Pittsburgh School of Medicine
Kenneth S. Korach, Ph.D., Director, Environmental Disease and Medicine Program; Chief, Laboratory of Reproductive and Developmental Toxicology, NIEHS/NIH

(SC3) Translating Safety Biomarkers from the Lab to the Clinic
The course offers a unique and practical perspective for successfully translating the pre-clinical work done for testing and validating safety biomarkers to the clinic.
- Design and implementation of studies to identify new biomarkers
- Designing clinical studies to test and validate biomarkers
- Clinical methodologies for cost-effective and reliable decision-making
- Bridging the gap between pre-clinical and clinical findings
- Practical considerations when using biomarkers in the clinic
- Points to consider for a successful transfer from the lab to the clinic
Course Instructor:
William B. Mattes, Ph.D., DABT, Independent Consultant, PharmPoint Consulting
J. Rick Turner, Ph.D., Senior Scientific Director, Cardiac Safety Services, Quintiles

*Separate Registration Required
Short Courses*

Wednesday, June 16
6:00 – 9:00 pm (Dinner will be served)

(SC9) Mechanistic Insights into Hepatotoxicity
The course is designed for both pre-clinical and clinical scientists looking to better understand the mechanisms underlying drug-induced liver injury or DILI, to help in the development of early predictive technologies for hepatotoxicity including mechanism-based assays. It provides an overview of cellular pathways involved in:

- Mitochondrial dysfunction and Oxidative stress
- Inflammation
- Excessive generation of reactive metabolites
- Inhibition of bile salt efflux protein and involvement of hepatic transporters in drug-induced hepatotoxicity

Course Instructors:
Amit S. Kalgutkar, Ph.D., Research Fellow, Pharmacokinetics, Dynamics and Metabolism Department, Pfizer Global R&D
José E. Manautou, Ph.D., Associate Professor of Toxicology, Department of Pharmaceutical Sciences, University of Connecticut
Ivan Rusyn, M.D., Ph.D., Associate Professor of Environmental Science and Engineering, University of North Carolina
Yvonne Will, Ph.D., Associate Research Fellow, Compound Safety Prediction, Pfizer Global R&D

*Separate Registration Required

Breakout Discussions

Wednesday, June 16
7:30 - 8:30 am CONTINENTAL BREAKFAST BREAKOUT DISCUSSIONS

TOPICS

Choosing the Right Criteria and Assays for Testing High-Risk Biologicals
Moderator: Noël Dybdal, Ph.D., D.V.M., Associate Director, Principal Scientist, Safety Assessment, Genentech, Inc.

Correlating in vitro Data With Clinical Outcomes
Moderator to be Announced

Moderator: Gary Gintant, Ph.D., Senior Group Leader, Department of Integrative Pharmacology, Global Pharmaceutical Research & Development, Abbott Laboratories

GPCRs and Ligand Bias
Moderator: Lisa K. Minor, Ph.D., President, In Vitro Strategies, LLC

Increasing the Relevancy of Cell Based Assays
Moderator: Charles Lunn, Ph.D., Research Fellow, New Lead Discovery, Merck Research Laboratories

To Kill, or Not to Kill a Program
Moderator: Elizabeth A. Davenport, Ph.D., Manager, Cell-Based Assay Development, Department of Biological Reagents and Assay Development, GlaxoSmithKline

Animal Models in Pain
Moderator: Ed Bilsky, Ph.D., Professor of Pharmacology, COM; Director, Center of Excellence in the Neurosciences, University of New England

Learning Objectives

- Understand the evolution of automated methodologies.
- Understand that all algorithms are not created equal.
- Become familiar with views on all sides concerning this methodology.

Ion Channels as Pain Targets
Moderator: Michael F. Jarvis, Ph.D., Vowiler Research Fellow, Associate Director, Neuroscience, Global Pharmaceutical Research & Development, Abbott

Pain Clinical Trials
Moderator: Linda Jett, MSN, Clinical Director, Drug Development, DARA BioSciences

Automated ECG Reading in Thorough QT/QTc and Other Trials: Current Thoughts
Moderator: J. Rick Turner, Ph.D., Senior Scientific Director, Cardiac Safety Services, Quintiles

The employment of automated algorithms for reading ECG intervals is receiving much current attention. There are strong opinions in favor and not in favor of this methodology. Attendees will be invited to share their experiences and thoughts.

Learning Objectives

- Understand the evolution of automated methodologies.
- Understand that all algorithms are not created equal.
- Become familiar with views on all sides concerning this methodology.

Online: WorldPharmaCongress.com
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Selective Pharmacological Blockade of Sodium Nav1.8 Channels Relieves Rehabilitation Research, Yale University School of Medicine Neurobiology, and Pharmacology; Director, Center for Neuroscience & Regeneration/Stephen G. Waxman, M.D., Ph.D., Bridget Marie Flaherty Professor of Neurology, of Medicine Pat Mantyh, Ph.D., J.D., Department of Pharmacology, University of Arizona College

Richard Lewis, Ph.D., CSO, Research & Development, Xenome Ltd.

Douglas S. Johnson, Ph.D., Senior Principal Scientist, Medicinal Chemistry, Pfizer Global Research

Hong Wan, Ph.D., Director, Translational Medicine, Pfizer, Inc.

Ramana Sonty, Ph.D., Director, Neuroscience Program, Wyeth Pharmaceuticals

Michael F. Jarvis, Ph.D., Vowiler Research Fellow, Associate Director, Neuroscience, Global

Gary Peltz, M.D., Ph.D., Professor, Anesthesia, Stanford University

Email: reg@healthtech.com Fax: 781-972-5425
Recommended Short Courses*

Monday, June 14
9:00 am – 12:00 pm
(SC1) Reactive Metabolites in Drug Discovery and Development-A Critical Examination of the Issues
2:00 pm – 5:00 pm
(SC5) Dealing with the Blood-Brain Barrier
*Separate Registration Required; Please See Page 3 for Details.

WEDNESDAY, JUNE 16
12:30 pm Registration

Building a Better Mouse: Alzheimer’s Disease Animal Models

1:55 Chairperson’s Opening Remarks
Timothy A. Ebenshade, Senior Group Leader, Associate Fellow, Neuroscience Research, Abbott Laboratories

2:00 Contributions of APP Intracellular Domain (AICD) to Alzheimer’s Disease: The Evidence and the Mechanism
Sanjay W. Pimplikar, Ph.D., Assistant Staff, Department of Neurosciences, Lerner Research Institute, Cleveland Clinic Foundation

2:30 Dysregulation of Histone Acetylation in Alzheimer’s Disease
Ottavio Arancio, M.D., Ph.D., Associate Professor, Department of Pathology and Cell Biology & The Taub Institute for Research on Alzheimer’s Disease and the Aging Brain, Columbia University

3:00 Inhibition of APP Processing with HPP854, a Novel, Selective, Orally Active Inhibitor of Beta Amyloid Cleavage Enzyme (BACE), Results in Therapeutic Benefit in an Animal Model of Alzheimer’s Disease
Matthew Kastura, Ph.D., Vice President, Biology, Trans Tech Pharma

3:30 Networking Refreshment Break, Poster and Exhibit Viewing

4:30 Animal Models of Neurological Disorders in Drug Discovery Research
Jean-Coasme Dodaart, Ph.D., Director, Mouse NeuroBehavior Core, Harvard NeuroDiscovery Center, Harvard Medical School

5:00 Recreating Full AD-like Disease Progression in Mouse Models
Carol A. Colton, Ph.D., Professor, Neurology, Duke University

5:30 KEYNOTE ADDRESS
Targeting Neurodegeneration: Genes, Biomarkers and Therapies
Eric R. Siemers, M.D., Medical Director, Alzheimer’s Disease Research, Eli Lilly & Co.

6:00 End of Day

THURSDAY, JUNE 17
7:30-8:20 am BREAKOUT DISCUSSION:
Challenging Hypotheses for Alzheimer’s Disease
Small working groups will challenge current hypotheses for targeting Alzheimer’s disease, including addressing the following questions:
• What data do we need to disprove the amyloid hypothesis?
• Is there room for more than one right answer?
Moderator: William J. Ray, Ph.D., Director, Neurology, Merck Research Laboratories

CNS Imaging in Pre-Clinical Development

8:20 Chairperson’s Remarks
Cornelia Reininger, M.D., Ph.D., Director, Global Clinical Development, Bayer HealthCare Pharmaceuticals

8:30 Imaging of Alzheimer’s Disease: a Drug Discovery and Development Perspective
Thomas Krucker, Ph.D., Head, Molecular Imaging, Novartis Institute for Biomedical Research

9:00 The Role of Amyloid Tracers in Disease Detection in AD, Early Identification and Pre-Selection for Therapy
Cornelia Reininger, M.D., Ph.D., Director, Global Clinical Development, Bayer HealthCare

Sponsoring Publications:

Email: reg@healthtech.com Fax: 781-972-5425

Online: WorldPharmaCongress.com

Drugs Discovery Targets

9:30 Pre-Clinical Imaging of Amyloid-β: Plaque: In Search of an Animal Model
Cyrille Sur, Ph.D., Director, Molecular Imaging, Merck Research Laboratories

10:00 Networking Coffee Break, Poster and Exhibit Viewing

Drug Discovery Targets

10:40 Chairperson’s Remarks
Carol A. Colton, Ph.D., Professor, Neurology, Duke University

10:45 Developing New Targets for Alzheimer’s Disease Using Functional Genomics
William J. Ray, Ph.D., Director, Neurology, Merck Research Laboratories

11:15 Metabolic Targets for Alzheimer Disease
Mark A. Smith, Ph.D., Professor of Pathology, Case Western Reserve

11:45 Luncheon Presentations (Sponsorship Opportunities Available) or Lunch on Your Own

1:25 pm γ-Secretase as a Target for Alzheimer Disease Therapy: Small Molecule Development
Corinne E. Augelli-Szafran, Ph.D., Director, Laboratory of Experimental Alzheimer Drugs (LEAD), Brigham and Women’s Hospital, Center for Neurologic Diseases and Harvard Medical School

1:55 α7 Nicotinic Acetylcholine Receptor Agonists: Therapeutic Promise for Symptomatic and Disease Modifying Efficacy in Alzheimer’s Disease
Timothy A. Ebenshade, Ph.D., Senior Group Leader, Associate Fellow, Neuroscience Research, Abbott Laboratories

2:25 Ice Cream Refreshment Break in the Exhibit Hall

3:05 EXPERT PANEL

Bridging the Gap Between Alzheimer’s Disease Research and Drug Discovery: What are the Key Features for Moving a Compound Forward?
Moderator: Corinne E. Augelli-Szafran, Ph.D., Director, LEAD, Brigham and Women’s Hospital, Center for Neurologic Diseases and Harvard Medical School
Panellists:
William J. Ray, Ph.D., Director, Neurology, Merck Research Laboratories
Mark A. Smith, Ph.D., Professor of Pathology, Case Western Reserve
Carol A. Colton, Ph.D., Professor, Neurology, Duke University

3:35 Development of Novel HDAC Inhibitors for Neurodegenerative Diseases
Holger Patzke, Ph.D., Associate Director, EnVivo Pharmaceuticals

4:05 Targeting Glia-Neuron Interactions that Result in Synaptic Dysfunction as a Drug Discovery Strategy for Alzheimer’s Disease
Linda VanEldik, Ph.D., Director, Sanders-Brown Center on Aging, and Professor, Department of Anatomy and Neurobiology, University of Kentucky, Lexington KY

4:35 End of Conference

*Separate Registration Required; Please See Page 3 for Details.
Monday, June 14

**9:00 am – 12:00 pm**

**SC3** Translating Safety Biomarkers from the Lab to the Clinic
**SC4** Use of Stem Cells for Safety Screening

**2:00 pm – 5:00 pm**

**SC6** Addressing Safety Concerns for Biological Drugs
**SC8** Mechanistic Insights into Cardiotoxicity

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**TUESDAY, JUNE 15**

**7:15 am Registration and Morning Coffee**

**8:15 Chairperson’s Opening Remarks**
Gary Gintant, Ph.D., Senior Group Leader, Department of Integrative Pharmacology, Global Pharmaceutical Research & Development, Abbott Laboratories

**8:25 Pre-Clinical Cardiac Safety: Moving Ahead of hERG**
Gary Gintant, Ph.D., Senior Group Leader, Department of Integrative Pharmacology, Global Pharmaceutical Research & Development, Abbott Laboratories

**8:55 Talk Title to be Announced**
Speaker to be Announced

**9:25 In vitro-in vivo Correlation of Cardiotoxicity For a Small Molecule cMET Inhibitor**
Amy Kim, Ph.D., Senior Scientist, Genentech, Inc.

**9:55 Networking Coffee Break**

**Novel in vitro Approaches for Assessing Cardiac Liabilities**

**10:25 Enriched Human Cardiomyocytes from Embryonic Stem Cells for Drug Discovery and Safety Pharmacology**
William Sun, Ph.D., Group Leader, Stem Cell Technology, Experimental Therapeutics Centre, A*STAR

**10:55 High Content Cardiotoxicity Profiling with Engineered Heart Tissues: Mitochondrial Toxicity and Genomic Influences**
Tetsuro Wakuwaki, Ph.D., Assistant Professor of Physiology, Biotechnology and Bioengineering Center, Medical College of Wisconsin

**11:25 Evolution of in vitro Strategies for Cardiotoxicity Assessment**
Adam W. Hendricson, Ph.D., Research Investigator, Lead Evaluation and Ion Channels, Bristol-Myers Squibb Co.

**11:55 Luncheon Presentation**
Sponsored by caprotec bioanalytics GmbH

Philip MacLaughlin, Senior Product Manager, Elsevier

**12:25 Luncheon Presentation**
Sponsored by Meso Scale Discovery

**Development of Multiplexed Biomarker Assays for Toxicity**
Pankaj Oberoi, Ph.D., Director, Qualified Kit Development, Director, Scientific Services, Meso Scale Discovery

**Drug-Class Associated Cardiotoxicity**

**1:25 pm Chairperson’s Remarks**
Thomas Force, M.D., Professor of Medicine and Clinical Director of the Center for Translational Medicine, Thomas Jefferson University

**1:35 Understanding Cardiotoxicity of Tyrosine Kinase Inhibitors: From Clinical Outcomes to Mechanisms of Cardiotoxicity**
Thomas Force, M.D., Professor of Medicine and Clinical Director of the Center for Translational Medicine, Thomas Jefferson University

**2:05 Biologicals and Cardiac Toxicity Risk: Relating Toxicity to Mechanism of Action**
Noel Dybdal, Ph.D., D.V.M., Associate Director, Principal Scientist, Safety Assessment, Genentech, Inc.

**2:35 PANEL DISCUSSION: How Well Can We Correlate in vitro and in vivo Models to Predict Cardiotoxicity?**
Moderator: Thomas Force, M.D., Professor of Medicine and Clinical Director of the Center for Translational Medicine, Thomas Jefferson University

**3:05 Presentations**
New Regulatory Landscapes for the Prospective Exclusion of Unacceptable Cardiovascular Risk: FDA and EMA Documents addressing the Development of New Anti-diabetic Drugs for Type 2 Diabetes Mellitus
J. Rick Turner, Ph.D., Senior Scientific Director, Cardiac Safety Services, Quintiles

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**WEDNESDAY, JUNE 16**

**7:30 am Continental Breakfast Breakout Discussions**
See Page 4 for Details.

**Creative Options for Predicting Drug Safety**

**8:30 Chairperson’s Remarks**
Ernest D. Bush, Ph.D., Vice President & Research Director, Cambridge Healthtech Associates

**8:40 ASAT: The Netherlands Program to Develop Alternatives to Animal Testing for Drug Safety**
Michael Liebman, Ph.D., President & Managing Director, Management, Strategic Medicine, Inc.

**9:10 Moving the Safety Elephant: The Challenges in Getting From The Good Idea to Business As Usual**
David Cook, Ph.D., Associate Director, Pharmacology and Toxicology, AstraZeneca R&D

**9:40 Developing Cell Models and Assays with Improved Predictivity for Drug Toxicity Testing**
Stephen Minger, Ph.D., Head of R&D Cell Technologies, GE Healthcare

**9:55 Presentation**
Sponsored by caprotec bioanalytics GmbH

**Does Capture Compound Mass Spectrometry (CCMS) Elucidate Drug Actions?**
Friedrich Kroll, Ph.D., Head, Medicinal Chemistry, caprotec bioanalytics GmbH

**10:10 Networking Coffee Break, Poster and Exhibit Viewing**

**10:50 EXPERT PANEL: Casting the Right Safety Net: Exploring Creative Options for Predicting Drug Safety**
Panelists:
David Cook, Ph.D., Associate Director, Pharmacology and Toxicology, AstraZeneca R&D
Michael Liebman, Ph.D., President/Managing Director, Management, Strategic Medicine, Inc.
Paul Watkins, M.D., Director, Hamner-UNC Institute for Drug Safety Sciences, University of North Carolina at Chapel Hill
Shama M. Kajiji, Ph.D., MBA, Director, Pipeline and Portfolio Management, Merck & Co.
Peggy Guzzie-Peck, Ph.D., DABT, Vice President, Head of Toxicology, Pathology & IAM, Johnson & Johnson, Pharma R&D
Stefan Platz, Ph.D., D.V.M., Head of Toxicology/Pathology, F. Hoffmann-La Roche Ltd

**12:20 pm New Systems for High-Throughput Cell Analysis and for Analysis of Beatin Cardiomyocytes**
Sponsored by Roche

Manfred Watzele, Ph.D., Director R&D, Roche Diagnostics GmbH
Yama A. Abassi, Senior Director of Assay Development and Cell Biology, ACEA Biosciences

**1:20 pm End of Conference**


**Injury and Toxicity**

Sam Sofer, Ph.D., PE, President, solmedx

**3:05 ROX and BOX: New Tools for Detecting Patient and Allied Diseases**

**2:35 Renal Complications of Tyrosine Kinase Inhibitors**

University Health Network and University of Toronto

Andrew M. Herzenberg, M.D., FRCPC, Assistant Professor, Pathology, Consultant Nephropathologist,

**2:05 Kidney Biopsy Diagnosis of Diseases Caused by Nephrotoxic Drugs**

University

Bruce A. Molitoris, M.D., Director, Division of Nephrology and Professor of Medicine, Indiana University

**1:35 Utilizing 2-Photon Fluorescent Microscopy to Understand Nephrotoxicity and Hepatotoxicity**

Bruce A. Molitoris, M.D., Director, Division of Nephrology and Professor of Medicine, Indiana University

**1:25 pm Chairperson’s Remarks**

Joseph Bonventre, Ph.D., Professor of Medicine, Harvard Medical School; Chief, Renal Division, Brigham and Women’s Hospital

**11:55 Luncheon Presentations** (Sponsorship Opportunities Available) or Lunch on Your Own

**10:50 EXPERT PANEL: Casting the Right Safety Net: Exploring Creative Options for Predicting Drug Safety**

Panelists:

- David Cook, Ph.D., Associate Director, Pharmacology and Toxicology, AstraZeneca R&D
- Michael Liebman, Ph.D., President/Managing Director, Management, Strategic Medicine, Inc.
- Ernest D. Bush, Ph.D., Vice President & Research Director, Cambridge Healthtech Associates
- Paul Watkins, M.D., Director, Hamner-UNC Institute for Drug Safety Sciences, University of North Carolina at Chapel Hill
- Shama M. Kajiji, Ph.D., MBA, Director, Pipeline and Portfolio Management, Merck & Co.
- Peggy Guzzi-Beck, Ph.D., DABT, Vice President, Head of Toxicology, Pathology & LAM, Johnson & Johnson, Pharma R&D
- Stefan Platz, Ph.D., D.V.M., Head of Toxicology/Pathology, Hoffman-La Roche Ltd

**12:20 pm Label Free, High Content Cellular Analysis for the Assessment of Compound-Induced Hepatic and Cardiomyocyte Cytotoxicity**

Stefan Platz, Ph.D., D.V.M., Head of Toxicology/Pathology, Hoffman-La Roche Ltd

Sponsored by Roche

**Tuesday, June 15**

7:00 am Registration and Morning Coffee

8:15 Chairperson’s Opening Remarks

Stephen Furlong, Ph.D., Safety Science Lead, U.S. Patient Safety, AstraZeneca

8:25 The Damaged Nephron Defends the Urinary System by Delivering NGAL

Jonathan M. Barasch, M.D., Ph.D., Associate Professor, Medicine, Anatomy and Cell Biology, Columbia University Medical Center

8:55 NGAL as a Biomarker of Acute Kidney Injury and Nephrotoxicity

Prasad Devarajan, M.D., Professor of Pediatrics and Developmental Biology, University of Cincinnati College of Medicine

9:25 Approaches to Regulatory Qualification of Safety Biomarkers

Jonathan A. Phillips, Ph.D., Senior Scientist, Integrative Toxicology, Boehringer-Ingelheim Pharmaceuticals, Inc.

9:55 Networking Coffee Break

10:25 Practical Considerations for Introducing New Safety Biomarkers into Clinical Trials

Stephen Furlong, Ph.D., Safety Science Lead, U.S. Patient Safety, AstraZeneca

**10:50 KEYNOTE ADDRESS**

Biomarkers of Nephrotoxicity: Uses and Challenges in Pre-Clinical and Clinical Studies

Joseph Bonventre, Ph.D., Professor of Medicine, Harvard Medical School; Chief, Renal Division, Brigham and Women’s Hospital

11:25 PANEL DISCUSSION: How Successful Will Biomarkers be in Predicting Renal Injury?

Moderator: Stephen Furlong, Ph.D., Safety Science Lead, U.S. Patient Safety, AstraZeneca

11:55 Luncheon Presentations (Sponsorship Opportunities Available) or Lunch on Your Own

**Tools for Detecting and Imaging Renal Injury**

1:25 pm Chairperson’s Remarks

Bruce A. Molitoris, M.D., Director, Division of Nephrology and Professor of Medicine, Indiana University

1:35 Utilizing 2-Photon Fluorescent Microscopy to Understand Nephrotoxicity and Hepatotoxicity

Bruce A. Molitoris, M.D., Director, Division of Nephrology and Professor of Medicine, Indiana University

2:05 Kidney Biopsy Diagnosis of Diseases Caused by Nephrotoxic Drugs

Andrew M. Herzenberg, M.D., FRCPC, Assistant Professor, Pathology, Consultant Nephropathologist, University Health Network and University of Toronto

2:35 Renal Complications of Tyrosine Kinase Inhibitors

Ilya Glezerman, M.D., Assistant Attending Physician, Renal Service, Memorial Hospital for Cancer and Allied Diseases

3:05 ROX and BOX: New Tools for Detecting Patient Injury and Drug Toxicity

Sam Sofer, Ph.D., PE, President, solmedx

4:15 PLENARY KEYNOTE PANEL

See Page 2 for Details.

5:45 Happy Hour in the Exhibit Hall

6:45 End of Day

**Wednesday, June 16**

7:30 am Continental Breakfast Breakout Discussions

See Page 4 for Details.

**Creative Options for Predicting Drug Safety**

Shared Session with Monitoring Cardiotoxicity and Drug Safety

8:30 Chairperson’s Remarks

Ernest D. Bush, Ph.D., Vice President & Research Director, Cambridge Healthtech Associates

8:40 ASAT: The Netherlands Program to Develop Alternatives to Animal Testing for Drug Safety

Michael Liebman, Ph.D., President/Managing Director, Management, Strategic Medicine, Inc.

9:10 Moving the Safety Elephant: The Challenges in Getting From The Good Idea to Business As Usual

David Cook, Ph.D., Associate Director, Pharmacology and Toxicology, AstraZeneca R&D

9:40 Developing Cell Models and Assays with Improved Predictivity for Drug Toxicity Testing

Sponsored by

Stephen Minger, Ph.D., Head of R&D Cell Technologies, GE Healthcare

10:10 Networking Coffee Break, Poster and Exhibit Viewing

10:50 EXPERT PANEL: Casting the Right Safety Net: Exploring Creative Options for Predicting Drug Safety

Panelists:

- David Cook, Ph.D., Associate Director, Pharmacology and Toxicology, AstraZeneca R&D
- Michael Liebman, Ph.D., President/Managing Director, Management, Strategic Medicine, Inc.
- Paul Watkins, M.D., Director, Hamner-UNC Institute for Drug Safety Sciences, University of North Carolina at Chapel Hill
- Shama M. Kajiji, Ph.D., MBA, Director, Pipeline and Portfolio Management, Merck & Co.
- Peggy Guzzi-Beck, Ph.D., DABT, Vice President, Head of Toxicology, Pathology & LAM, Johnson & Johnson, Pharma R&D
- Stefan Platz, Ph.D., D.V.M., Head of Toxicology/Pathology, Hoffman-La Roche Ltd

12:20 pm Label Free, High Content Cellular Analysis for the Assessment of Compound-Induced Hepatic and Cardiomyocyte Cytotoxicity

Sponsored by Roche

Manfred Watzele, Ph.D., Director R&D, Roche Diagnostics GmbH

Kyle Kolaja, Ph.D., Director, Early Safety Assessment, Department of Nonclinical Safety, Hoffman-LaRoche

1:20 pm End of Conference

Kyle Kolaja, Ph.D., Director, Early Safety Assessment, Department of Nonclinical Safety, Hoffman-LaRoche
**Third Annual**

**Early Assessments for Predicting Hepatotoxicity**

Defining Early, Efficient and Effective Ways for Predicting Drug Safety

**June 16-17**

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**Recommended Short Courses**

Monday, June 14

9:00 am – 12:00 pm

(SC3) Translating Safety Biomarkers from the Lab to the Clinic

(SC4) Use of Stem Cells for Safety Screening

2:00 pm – 5:00 pm

(SC6) Addressing Safety Concerns for Biological Drugs

(SCB) Mechanistic Insights into Cardiotoxicity

Wednesday, June 16

6:00 pm – 9:00 pm (Dinner will be served)

(SC9) Mechanistic Insights into Hepatotoxicity

*Separate Registration Required; Please See Page 3 for Details.

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**Tackling Idiosyncratic Hepatotoxicity**

1:55 Chairperson’s Opening Remarks

Arie Regev, M.D., Hepatology Consultant and Chair, Liver and GI Safety Committee, Global Patient Safety, Eli Lilly and Company

2:00 Early Prediction of Drug-Induced Hepatotoxicity: Where are We Now and Where are We Going?

Arie Regev, M.D., Hepatology Consultant and Chair, Liver Safety Committee, Global Patient Safety, Eli Lilly and Company

2:30 Better Prediction of Idiosyncratic Hepatotoxicity in Pre-Clinical Species Using a Multiple -Omics Approach

William Salminen, Ph.D., DABT, Director, Center for Hepatotoxicity, U.S. FDA National Center for Toxicological Research

3:00-3:15 Multiplex Evaluation of Mitochondrial Toxicity

Wei Zheng, M.S., Ph.D., Immunoassay Team Lead, Research & Development, Merck KGaA, EMD Chemicals (North America)

3:35 Strategic Use of High-Content Technologies to Predict and Characterize Hepatotoxicity

Eric Blomme, D.V.M., Ph.D., D.A.C.V.P., Senior Project Leader, Abbott Laboratories

3:30 Networking Refreshment Break, Poster and Exhibit Viewing

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**Unraveling Mechanisms Underlying Hepatotoxicity**

8:20 am Chairperson’s Remarks

Yvonne Will, Ph.D., Associate Research Fellow, Compound Safety Prediction, Pfizer Global R&D

8:30 Transcriptional and Signaling Regulation of Hepatic ABCC Genes by Hepatotoxicant Treatment

José E. Manautou, Ph.D., Associate Professor of Toxicology, Department of Pharmaceutical Sciences, University of Connecticut

9:00 Probing Mechanisms of Inter-Individual Susceptibility to Toxicants with Population-Based Experimental Approaches

Ivan Rusyn, M.D., Ph.D., Associate Professor of Environmental Science and Engineering, University of North Carolina

9:30 Mitochondrial Toxicity in Drug-Induced Liver Injury: Pre-Clinical Screening

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**New Assays and Markers for Predicting Hepatotoxicity**

1:15 pm Chairperson’s Remarks

Eric Blomme, D.V.M., Ph.D., D.A.C.V.P., Senior Project Leader, Abbott Laboratories

1:25 Quantitative Liver-Specific Blood Protein Fingerprint: A Signature for Hepatotoxicity

Zhiyuan Hu, Ph.D., Research Scientist, Institute for Systems Biology

1:55 In Vitro Prediction of Hepatotoxicity

Stefan Platz, Ph.D., D.V.M., Head of Toxicology/Pathology, F. Hoffmann-La Roche Ltd.

2:25 Ice Cream Refreshment Break in the Exhibit Hall

3:05 Sandwich-Cultured Hepatocytes: An in vitro Tool to Predict Hepatic Exposure of Drugs/Generated Metabolites and Hepatotoxicity

Kim L.R. Brouwer, Pharm.D., Ph.D., Chair, Division of Pharmacotherapy and Experimental Therapeutics, The University of North Carolina at Chapel Hill

3:35 Strategic Use of High-Content Technologies to Predict and Characterize Hepatotoxicity

Eric Blomme, D.V.M., Ph.D., D.A.C.V.P., Senior Project Leader, Abbott Laboratories

4:05 PANEL DISCUSSION: Effective Evaluation and Utilization of Tools for Predicting Hepatotoxicity

Moderator: Eric Blomme, D.V.M., Ph.D., D.A.C.V.P., Senior Project Leader, Abbott Laboratories

4:35 End of Conference

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- Your research will be seen by leaders from top pharmaceutical, biotech, academic and government institutes

**Poster Deadline is April 30, 2010**

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**Wednesday, June 16**

12:30 pm Registration

**New Approaches to Understand and Predict Idiosyncratic Hepatotoxicity**

Paul B. Watkins, M.D., Director, Hamner-UNC Institute for Drug Safety Sciences, Verne S. Caveness Distinguished Professor of Medicine, University of North Carolina at Chapel Hill

5:00 PANEL DISCUSSION: Early Prediction of Idiosyncratic DILI: What is the Forecast for This Decade and What Should Drug Makers Do Today?

Moderator: Arie Regev, M.D., Hepatology Consultant and Chair, Liver and GI Safety Committee, Global Patient Safety, Eli Lilly and Company

5:30 End of Day

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**Third Annual**

**Early Assessments for Predicting Hepatotoxicity**

Defining Early, Efficient and Effective Ways for Predicting Drug Safety

**June 16-17**

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**4:30 KEYNOTE ADDRESS**

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**Thursday, June 17**

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**Poster Deadline is April 30, 2010**
TUESDAY, JUNE 15

Miniaturization: The How and Why of Making Assays Smaller
8:15 Chairperson’s Opening Remarks
Daniel G. Sipes, Director, Advanced Automation Technologies, Genomics Institute of the Novartis Research Foundation
8:25 Cell-Based Assay Miniaturization and Automation at GNF: Screening and More
Daniel G. Sipes, Director, Advanced Automation Technologies, Genomics Institute of the Novartis Research Foundation
8:55 Novel Methodologies and Technologies for Cell Based Screening at the Nano-Scale
Anthony Davies, Ph.D., Director, Trinity HCA, Clinical Medicine, Trinity College Dublin
9:25 Orthogonal Compound Differentiation: Where do Label-Free technologies have a potential?
Clay Scott, Ph.D., Associate Director, Lead Generation, AstraZeneca Pharmaceuticals
9:55 Networking Coffee Break
10:25 Applying HTS Technologies toward the Rapid Biological Characterization of Small Molecules.
Fred King, Ph.D., Research Investigator, The Novartis Institute of Biomedical Research
10:55 Doing More With Less: Advances in Miniaturization for HTS
Eric Johnson, Ph.D., Sr. Rsch.Fellow, Automated Biotechnology, Merck Research Laboratories
11:25 A 3-D Cell Culture Microarray System for Early Toxicity Screening
David Rozzell, Ph.D., President and CEO, Solidus Biosciences, Inc.

11:55 Luncheon Presentation I
Sponsored by
Characterizing Protein-Protein Interactions in Cell Lysates Using Proximity Ligation Assay
Kazuya Machida, Ph.D., MD, Genetics and Developmental Biology, University of Connecticut Health Center

12:25 pm Luncheon Presentation II
Sponsored by
Kinetics on Cells-Bridging the Gap between Traditional Biosensor and Cell Based Assay
Camilla Käck, Ph.D., Research Scientist, Attana

Beyond Test Tubes: High Throughput Flow Cytometry
10:45 Chairperson’s Remarks
Larry A. Sklar, Ph.D., Distinguished Regents Professor of Pathology; Associate Director of Basic Research, University of New Mexico Cancer Center; Director, University of New Mexico Center for Molecular Discovery
10:50 Cell-Based Screening by High Throughput Flow Cytometry
Larry A. Sklar, Ph.D., Distinguished Regents Prof. of Pathology; Associate Director of Basic Rsch., Univ. New Mexico Cancer Ctr. Director, Univ. of New Mexico Center for Molecular Discovery
11:20 Polyplexed High Throughput Protein-Interaction Assays
Richard R. Neubig, M.D., Ph.D., Professor of Pharmacology; Associate Professor of Internal Medicine; Biophysics Research Division - Associated Faculty Medicinal Chemistry IDP; Center for Chemical Genomics, Associate Director, University of Michigan
12:00 PANEL DISCUSSION: Collaborating with Academic Screening Centers
Moderator: Michele Palmer, Ph.D., Director, Chemical Biology Platform, Broad Institute of Harvard and MIT
Panelists:
Peter Hodder, Ph.D., Senior Director, Lead Identification, Translational Research Institute, The Scripps Research Institute
Larry A. Sklar, Ph.D., Distinguished Regents Prof. of Pathology; Associate Director of Basic Rsch., Univ. New Mexico Cancer Ctr. Director, Univ. of New Mexico Center for Molecular Discovery
Charlizad Montrose-Rafizadeh, Ph.D., Senior Research Advisor, Eli Lilly
12:30 pm End of Conference

WEDNESDAY, JUNE 16

7:30 am Continental Breakfast Breakout Discussions
See Page 4 for Details.

Stem and Primary Cells as Reagents
8:30 Chairperson’s Remarks
Wei Zheng, Ph.D., Group Leader, NIH Chemical Genomics Center, National Human Genome Research Institute, National Institutes of Health
8:40 Identification of Chemical Probes to Interrogate Complex Biology Using Integrated Biological Screening and Chemistry
Michelle Palmer, Ph.D., Director, Screening, Chemical Biology Platform, Broad Institute of Harvard and MIT
9:10 Utilization of Primary Cells for Phenotypic Screening in Hit Identification and Compound Profiling
Angela X. Dunne, B.Sc., M.Sc., Principal Scientist, GlaxoSmithKline
9:40 Application of Primary and Stem Cells as the Model System for Drug Screen
Wei Zheng, Ph.D., Group Leader, NIH Chemical Genomics Center, National Human Genome Research Institute, National Institutes of Health
10:10 Networking Coffee Break, Poster and Exhibit Viewing

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**Inaugural**

**Integrating in vivo Molecular Imaging in Drug Discovery & Development**

Advancing Projects by Leveraging Cross Functional Teams, Academic Collaborations and Technology Advancements

**June 16-17**

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**Recommended Short Courses**

**Monday, June 14**

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<thead>
<tr>
<th>9:00 am - 12:00 pm</th>
<th>(SC1) Reactive Metabolites in Drug Discovery and Development: A Critical Examination of the Issues</th>
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<tbody>
<tr>
<td>2:00 pm - 5:00 pm</td>
<td>(SC5) Dealing with the Blood-Brain Barrier</td>
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*Separate Registration Required; Please See Page 3 for Details.*

**WEDNESDAY, JUNE 16**

12:30 pm Registration

**KEYNOTE SESSION**

**in vivo Imaging—Where Is It Having The Biggest Impact In Drug Development?**

1:55 Chairperson's Opening Remarks

Sussana Sarkar, Ph.D., Director, Clinical Imaging, Medicines Development, Oncology R&D, GlaxoSmithKline

2:00 Molecular Imaging Approaches: How can it Help Drug Discovery and Development?

Sussana Sarkar, Ph.D., Director, Clinical Imaging, Medicines Development, Oncology R&D, GlaxoSmithKline

2:30 Platform Imaging Biomarkers—Applications across Pre-Clinical Drug Discovery with a Focus on Neuroscience, Oncology, Cardiovascular and Future Horizons

Thomas Bocan, Ph.D., Senior Director & Head, BioImaging Center, Pfizer Global Research & Development, Pfizer, Inc.

3:00 The Imaging Probe Development Center at NIH: Novel Imaging Agents for Biomedical R&D and Translational Medicine

Gary L. Griffiths, Ph.D., Director, Imaging Probe Development Center, National Heart, Lung, and Blood Institute, National Institutes of Health

3:30 Networking Refreshment Break, Poster and Exhibit Viewing

4:30 Role for in vivo Imaging in the Development of Companion Diagnostics & Advancement of Drug Discovery

Francis Kalush, Ph.D., Network Leader, Diagnostics, Office of the Center Director, Center for Devices and Radiological Health, FDA

5:00 Novel PET Tracers as Translational Tools in Drug Discovery and Development

Dennis McCarthy, Ph.D., Director, Early Development, AstraZeneca R&D

5:30 End of Day

**THURSDAY, JUNE 17**

**Utilizing CNS Imaging in Pre-Clinical Development**

(Shared Session With Successful Targeting of Alzheimer’s Disease)

8:20 Chairperson’s Remarks

Cornelia Reininger, M.D., Ph.D., Director, Global Clinical Development, Bayer Healthcare Pharmaceuticals

8:30 Imaging of Alzheimer’s Disease: A Drug Discovery and Development Perspective

Thomas Krucker, Ph.D., Head, Molecular Imaging, Global Imaging Group, Novartis Institutes for Biomedical Research, Inc. (NIBRI), USA

9:00 The Role of Amyloid Tracers in Disease Detection in AD, Early Identification and Pre-Selection for Therapy

Cornelia Reininger, M.D., Ph.D., Director, Global Clinical Development, Bayer Healthcare Pharmaceuticals

9:30 Pre-Clinical Imaging of Amyloid-BETA Plaque: In Search of an Animal Model

Cyrille Suc, Ph.D., Director, Imaging, Merck Research Laboratories

10:00 Networking Coffee Break, Poster and Exhibit Viewing

**Imaging & Oncology Drug Development—Tumor Targeting**

10:45 Challenges to the Application of Imaging to the Therapeutic Drug Development Pipeline

James Tatum, M.D., Associate Director, Division of Cancer Treatment and Diagnosis, NC/NIH

11:15 Target-Cell Specific “Smart” Imaging Probes for Super-Specific Cancer Cell Detection

Hisataka Kobayashi, M.D., Ph.D., Chief Scientist, Molecular Imaging Program, NC/NIH

11:45 Luncheon Presentation Sponsored by In Vivo Biophotonic Imaging – Applications within the Cancer Setting

Christine L. Olsson, Ph.D., Commercialization Scientific Director, Taconic

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**Impact on Drug Development Case Studies**

1:15 pm Chairperson’s Remarks

Essa Hu, Ph.D., Principal Scientist, Medicinal Chemistry, Amgen

1:25 Using Imaging Techniques to Characterize Novel Histamine H3 Antagonists

Michael A. Letavic, Ph.D., Research Fellow, Neuroscience, Johnson & Johnson PRD, L.L.C.

1:55 Molecular Imaging of Cancer: Prediction and Early Detection of Therapeutic Response

Jerry D. Glickson, Ph.D., Professor and Director of Molecular Imaging, Department of Radiology, University of Pennsylvania School of Medicine

2:25 Ice Cream Refreshment Break in the Exhibit Hall

**Imaging RNAi and Biologics**

3:05 in vivo Imaging after Non-Viral RNA Gene Delivery to the Brain

James Hecker, Ph.D., M.D., Assistant Professor, Anesthesia and Critical Care, University of Pennsylvania

3:35 From Small Molecules to Biologics and Nanoparticles—(Optical) Imaging Probe Designs for Pre-Clinical Applications and their Potential Translation

Rainer Kneuer, Ph.D., Research Investigator II, Lab Head, Tracer Development, Novartis Institutes for Biomedical Research, Inc.

4:05 EXPERT PANEL: Asking the Right Biological Questions—Tailoring the Imaging Solution

Using Imaging to monitor:

- The distribution of a drug
- Expression of a target
- Drug at the site of target
- Monitoring pharmacological readout

Panelists:

Stacey Oppenheimer, Ph.D., Senior Scientist, Department of Pharmacokinetics, Dynamics, and Metabolism, Pfizer Global Research and Development, Pfizer, Inc.

James Hecker, Ph.D., M.D., Assistant Professor, Anesthesia and Critical Care, University of Pennsylvania

4:35 End of Conference

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Screening and Imaging Summit

Sixth Annual

Pharmacology Driven Assays for GPCRs & Ion Channels
Better Screening Strategies for Current Targets

June 16-17

Recommended Short Courses*
Monday, June 14
2:00 pm – 5:00 pm
(SC5) Dealing with the Blood-Brain Barrier
*Separate Registration Required; Please See Page 3 + 4 for Details.

WEDNESDAY, JUNE 16

11:00 am Registration
12:00 pm PANEL DISCUSSION:
Collaborating with Academic Screening Centers
Moderator:
Michele Palmer, Ph.D., Director, Chemical Biology Platform, Broad Institute of Harvard and MIT
Panelists:
Peter Hodder, Ph.D., Senior Director, Lead Identification, Translational Research Institute, The Scripps Research Institute
Larry A. Sklar, Ph.D., Distinguished Regents Professor of Pathology; Associate Director of Basic Research, University of New Mexico Cancer Center; Director, University of New Mexico Center for Molecular Discovery
Chahrzad Montrose-Rafizadeh, Ph.D., Senior Research Advisor, Eli Lilly

12:30 pm Lunch on Your Own

Creating Gold Standards: Novel Approaches & Technologies for Ion Channels

1:55 Chairperson’s Opening Remarks
Gül Erdemli, M.D., Ph.D., Head, Ion Channel Group, Lead Finding Platform, Novartis Institute for Biomedical Research

2:00 Discovery of Potent and Selective T-Type Voltage-Gated Calcium Channel Antagonists
Victor Uebele, Ph.D., Senior Research Biologist, Depression & Circadian Disorders, Merck Research Laboratories

2:30 Automated Electrophysiology Technologies for Ion Channel Drug Discovery and Safety Profiling
Gül Erdemli, M.D., Ph.D., Head, Ion Channel Group, Lead Finding Platform, Novartis Institute for Biomedical Research

3:00 Introduction to the IonWorks Barracuda System: An Automated Electrophysiology Platform for Measuring Ligand- or Voltage-Gated Channels Simultaneously in 384 Wells
Karen Cook, Field Application Scientist, Molecular Devices, Inc.

3:30 Networking Refreshment Break, Poster and Exhibit Viewing

3:40 Medicinal Chemistry Studies Leading to the Discovery of CP-810,123, a Selective α7 nAChR Agonist for the Treatment of Schizophrenia
Christopher J. O’Donnell, Ph.D., Senior Director, Neuroscience Chemistry, Pfizer, Inc.

5:00 Novel Ion Channel-Based Assays for Detecting and Characterizing 7TM Receptor Modulators
Colleen Niswender, Ph.D., Research Assistant Professor, Pharmacology, Vanderbilt University

5:30 End of Day

THURSDAY, JUNE 17

Impacting GPCRs: Dimerization, Modulation and Functional Selectivity

8:20 am Chairperson’s Remarks
Terry Kenakin, Ph.D., Director, Biological Reagents and Assay Development, GlaxoSmithKline R&D

8:30 The Importance of Pharmacology in New Drug Discovery with Reference to Allosteric and Functionally Selective Molecules
Terry Kenakin, Ph.D., Director, Biological Reagents and Assay Development, GlaxoSmithKline

9:00 Functionally Selective and Context-Dependent Pharmacology of GPCR Allosteric Modulators
Colleen Niswender, Ph.D., Research Assistant Professor, Pharmacology, Vanderbilt University

9:30 Precision Pharmacology: GPCR Biased Ligands Elicit Unique Signal Transduction Profiles
Scott DeWire, Ph.D., Senior Research Scientist, Co-founder, Trevena Inc.

10:00 Networking Coffee Break, Poster and Exhibit Viewing
10:45 Identification of Novel GPCR Activators: Small Molecules and Superagonists
Alan S. Kopin, M.D., Professor of Medicine, Director, Molecular Pharmacology Research Center, Tufts Medical Center, Tufts University School of Medicine

11:15 Impact of Heterodimerization of GPCRs in Drug Discovery
Lakshmi Devi, Ph.D., Professor, Pharmacology and Systems Therapeutics, Professor, Psychiatry; Mount Sinai

11:45 Luncheon Presentations (Sponsorship Opportunities Available) or Lunch on Your Own

Advances in GPCR Screening

1:15 pm Chairperson’s Remarks
Lisa K. Minor, Ph.D.

1:25 BacMam: The Solution to 7TM Receptor and Ligand-Gated Ion Channel Assays
Elizabeth A. Davenport, Ph.D., Manager, Cell-Based Assay Development, Department of Biological Reagents and Assay Development, GlaxoSmithKline

1:55 Parallel Screening of Target and Anti-Target Accelerates the Hit-To-Lead Effort
Peter Hodder, Ph.D., Senior Director, Lead Identification, Translational Research Institute, The Scripps Research Institute

2:25 Ice Cream Refreshment Break in the Exhibit Hall

3:05 GPCR Assays for High Throughput and Ultra High Throughput Screening
Priya Kunapuli, Ph.D., Director, In Vitro Sciences, BRSO, Merck Research Laboratories

3:35 Application of Label-Free Assays for GPCR Targets
Hong Xin, Ph.D., Senior Scientist, Lead Generation Biology, Johnson & Johnson, PRD

4:05 High Throughput Screening Strategies for the Identification of Allosteric Modulators of 7TM Receptors
John Watson, Ph.D., Lead Investigator, Bristol-Myers Squibb

4:35 End of Conference
Sponsorship and Exhibit Information

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**Short Course Pricing**  - June 14 & 16, 2010

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<tr>
<th>Single Short Course:</th>
<th>Commercial</th>
<th>Academic, Government, Hospital-Affiliated</th>
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</thead>
<tbody>
<tr>
<td>$645</td>
<td>$345</td>
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**Required:** Please select the short course(s) you will attend

- SC1 Reactive Metabolites in Drug Discovery and Development: A Critical Examination of the Issues
- SC2 Animal Models of Pain: Progress and Challenges
- SC3 Translating Safety Biomarkers from the Lab to the Clinic
- SC4 Use of Stem Cells for Safety Screening
- SC5 Dealing with the Blood-Brain Barrier
- SC6 Addressing Safety Concerns for Biological Drugs
- SC7 Mechanistic Insights into Cardiotoxicity
- SC8 Mechanistic Insights into Hepatotoxicity

**Conference Pricing**

**Single Conference Pricing** (includes access to 2 conference days, excludes short courses)

| Early Registration until March 12, 2010 | $1,290 |
| Advance Registration Deadline until April 30, 2010 | $1,445 |
| After April 30, 2010 and on-site | $1,645 |

**Multiple Conference Pricing**

| Early Registration until March 12, 2010 | $2,190 |
| Advance Registration Deadline until April 30, 2010 | $2,345 |
| After April 30, 2010 and on-site | $2,495 |

**Required – Please select the one conference you will attend**

- June 15-16
- June 16-17
- Targeting Pain with Novel Therapeutics
- Monitoring Cardiotoxicity and Drug Safety
- New Tools for Detecting Nephrotoxicity
- Evaluating Novel Technologies for Cell Based Screening
- Pharmacology Driven Assays for GPCRs & Ion Channels

**Required – Please select the two conferences you will attend**

- June 15-16
- June 16-17
- Targeting Pain with Novel Therapeutics
- Successful Targeting of Alzheimer’s Disease
- Monitoring Cardiotoxicity and Drug Safety
- Early Assessments for Predicting Hepatotoxicity
- New Tools for Detecting Nephrotoxicity
- Integrating in vivo Molecular Imaging in Drug Discovery and Development
- Evaluating Novel Technologies for Cell Based Screening
- Pharmacology Driven Assays for GPCRs & Ion Channels

**Register 3 – 4th is Free**

Individuals must register for the same conference or conference combination and submit completed registration form together for discount to apply. Please reproduce this registration form as needed.

- I cannot attend but would like to purchase the World Pharmaceutical Congress CD for $750 (plus shipping). Massachusetts delivery will include sales tax.
- I would like to present a poster and you will receive abstract submission instructions via email.

- **Payment Information**
  - Enclosed is a check or money order payable to Cambridge Healthtech Institute, drawn on a U.S. bank, in U.S. currency.
  - Invoice me, but reserve my space with credit card information listed below.
  - Invoices unpaid two weeks prior to conference will be billed to credit card at full registration rate. Invoices must be paid in full and received by the deadline date to retain registration discount. If you plan to register on site, please check with CHI beforehand for space availability.
  - Please charge: **AMEX** (15 digits) **Visa (13-16 digits)** **MasterCard (16 digits)**
  - **Card #** ____________________________  **Exp. date** ____________________________

**Cardholder Information**

- **Cardholder Signature** ________________________
- **Cardholder’s Address (if different from above)** ____________________________________________
- **City/State/Postal Code** ________________________________
- **Country** __________________________________________________________________

**Please refer to the drug registration code below**

**Handicapped Equal Access**

In accordance with the ADA, Cambridge Healthtech Institute is pleased to arrange special accommodations for attendees with special needs. All requests for such assistance must be submitted in writing to CHI at least 30 days prior to the start of the meeting.

**Substitution/Cancellation Policy**

In the event that you need to cancel a registration, you may:
- Transfer your registration to a colleague within your organization.
- Request a refund minus a $100 processing fee per conference.

**Please send information on exhibiting and opportunities to present workshops.**

**Yes, I am interested in presenting a poster at World Pharmaceutical Congress**

**Title** ____________________________

**Additional Registration Details**

Each registration includes all conference sessions, posters and exhibits, food functions, and access to the conference proceedings link.

**Group Discount**

Special rates are available for multiple attendees from the same organization.

**Contact David Cunningham at 781-972-5472 to discuss your options and take advantage of the savings.**

**Barnett Educational Services**

Barnett is a recognized leader in clinical education, training, and reference guides for life science professionals involved in the drug development process. For more information, visit www.barnettinternational.com.

**CHI Insight Pharma Reports**

A series of diverse reports designed to keep life science professionals informed of the salient trends in pharmaceutical technology, business, clinical development, and therapeutic disease markets.

For a detailed list of reports, visit InsightPharmaReports.com, or contact Rose LaRaja, rlaraja@healthtech.com, 781-972-5444.