Tuesday, October 9, 2007

9:00 - 12:00

SHORT COURSE 1

P450-dependent Metabolism in Extrahepatic Tissues: Implications for Drug Disposition and Toxicology

Co-Chairs: Kazuhide Iwasaki, Pfizer Global R&D, Aichi, Japan
Laurence Kaminsky, New York State Dept of Health, Albany, NY, USA

P450-dependent Metabolism of Endogenous and Exogenous Compounds in the Brain
Rachel Tyndale, University of Toronto, Toronto, Canada

Role of P450 in Presystemic Disposition of Drugs in the Intestine
Kenneth Thummel, University of Washington, Seattle, WA, USA

P450-dependent Metabolism of Drugs in the Kidney
Jorge Capdevila, Vanderbilt University, Nashville, TN, USA

P450-dependent Disposition of Drugs from the Skin.
Hollie Swanson, University of Kentucky, Lexington, KY, USA

SHORT COURSE 2

Novel Technologies for Transport Study in Drug Discovery and Development

Co-Chairs: Tetsuya Terasaki, Tohoku University, Sendai, Japan
David E. Smith, University of Michigan, Ann Arbor, MI, USA

Overview: Significance and Challenges of Current Drug Transport Research
Tetsuya Terasaki, Tohoku University, Sendai, Japan

How Can LC-MS/MS Rationally Solve the Problems of Drug Transport?
Application to Quantitative Proteomics of Transporter and Cocktail Transport Studies
Tetsuya Terasaki, Tohoku University, Sendai, Japan

International Standardization of the Methods for In-vitro Functional Analysis of Drug Transporters
Toshitaka Ishikawa, Tokyo Institute of Technology, Tokyo, Japan

Utilization of Membrane Vesicle Preparations to Study Drug-ABC-Transporter Interactions
Hristos Glavinas, SOLVO, Budaors, Hungary

How Can Knockout Animals Be Used to Elucidate the Significance of Transport Proteins on Drug Kinetics and Dynamics?
David E. Smith, University of Michigan, Ann Arbor, MI, USA

Prespective: Conclusions, Insight and Future Directions
David E. Smith, University of Michigan, Ann Arbor, MI, USA

SHORT COURSE 3

Drug Toxicity and Safety Predicted by Toxicogenomics
Co-Chairs: Shogo Ozawa, National Institute of Health Science, Tokyo, Japan
Fred P. Guengerich, Vanderbilt University, Nashville, TN, USA

Perseollome Toxicogenomics Project for Predictive Toxicology
Jun Kanno, National Institute of Health Sciences, Tokyo, Japan

New Approach for Toxicologically Responsible Biomarkers
Ikou Horii, Pfizer Inc., Aichi, Japan or Hiroshi Yamada, Pfizer Inc., Aichi, Japan

Applying Mechanisms of Chemical Toxicity to Predict Drug Safety
Fred P. Guengerich, Vanderbilt University, Nashville, TN, USA

Application of Toxicogenomics in Drug Safety Assessment
James Stevens, Lilly Research Laboratories, Greenfield, MI, USA

12:00 - 14:00
LUNCH FOR SHORT COURSE ATTENDEES

14:00 - 17:00

SHORT COURSE 4

Prediction of Pharmacokinetics and Drug-drug Interactions in Humans: Quantitative In Vitro-In Vivo Extrapolation
Co-Chairs: Ikumi Tamai, Tokyo University of Science, Tokyo, Japan
Geoff Tucker, University of Sheffield, Sheffield, UK

In Vitro-In Vivo Extrapolation (IVIVE) of Clearance and Drug Interactions: From Known Knowns to Known Unknowns
Geoff Tucker, University of Sheffield, Sheffield, UK
IVIVE: An Industrial Viewpoint  
Rob Riley, AstraZeneca, Leicestershire, UK

IVIVE Versus Allometric Scaling  
Thierry Lave, Roche, Basel, Switzerland

Prediction of Oral Drug Absorption in Human - From Cultured Cell Lines and from Experimental Animals  
Shinji Yamashita, Setsunan University, Osaka, Japan

SHORT COURSE 5

Metabolism-Based Neurotoxicity by Xenobiotics: Mechanisms & Biomarkers  
Co-Chairs: Shigeru Ohta, Hiroshima University, Hiroshima, Japan  
Ramesh C. Gupta, Murray State University, Hopkinsville, KY, USA

Modulation of CYP1A1 and 1B1 Metabolizing Enzymes by Xenobiotics  
Yhun Yhong Sheen, Ewha Womans University, Seoul, Korea

Toxicologic Implications of Carboxylesterases-Novel Biomarker of Organophosphate Exposure  
Tetsuo Satoh, Chiba University, Chiba, Japan

Metabolomic Mechanisms and Biomarkers of Neuronal Damage  
Ramesh C. Gupta, Murray State University, Hopkinsville, KY, USA

Disposition Process of Parkinsonism-causing Neurotoxins  
Shigeru Ohta, Hiroshima University, Hiroshima, Japan

SHORT COURSE 6

Application of Genomic Data on Clinical Events  
Co-Chairs: Ken-ichi Inui, Kyoto University Hospital, Kyoto, Japan  
Allan E. Rettie, University of Washington, Seattle, WA, USA

Pharmacogenomics of Oral Anticoagulants  
Allan E. Rettie, University of Washington, Seattle, WA, USA

Pharmacogenomics of Cancer Therapy  
Howard L. McLeod, University of North Carolina, Chapel Hill, NC, USA

Drug Transporter Pharmacogenomics and Personalized Medicine  
Richard B. Kim, University of Western Ontario, London, ON, Canada

Personalized Tacrolimus Therapy in Patients after Liver Transplantation  
Ken-ichi Inui, Kyoto University Hospital, Kyoto, Japan

18:00 - 20:00

WELCOME RECEPTION

Wednesday, October 10, 2007

8:00 - 9:00

INFOMERCIAL SESSION

9:00 - 9:20

WELCOME ADDRESS - OPENING
SYMPOSIUM 6
Lipid Homeostasis and Metabolic Regulation
Co-Chairs: Jin Ding Huang, National Cheng University Medical College, Tainan, Taiwan
Jeff Staudinger, University of Kansas, Lawrence, KS, USA

CAR Mediates Induction of Drug Metabolism in Poorly Managed Type 1 Diabetes
David Moore, Baylor College of Medicine, Houston, TX, USA

Orphan Nuclear Receptors in Xenobiotic and Endobiotic Homeostasis
Wen Xie, University of Pittsburgh, Pittsburgh, PA, USA

Nuclear Receptors, Cell Signaling, and Drug Metabolism
Jeff Staudinger, University of Kansas, Lawrence, KS, USA

Nuclear Receptor Regulation of Bile Acid and Drug Metabolism
John Chiang, Northeastern Ohio University College of Medicine, Rootstown, OH, USA

SYMPOSIUM 7
Current Issues on Reactive or Unique Metabolites
Co-Chairs: Tsuyoshi Yokoi, Kanazawa University, Kanazawa, Japan
Robert A. Roth, Michigan State University, East Lansing, MI, USA

Inflammatory Stress as a Susceptibility Factor for Drug Hepatotoxicity
Robert A. Roth, Michigan State University, East Lansing, MI, USA

Covalent Adduction of Proteins Causing Alkylation Damage
Daniel Liebler, Vanderbilt University, Nashville, TN, USA

A Model System to Assess the GSH Conjugating Activity Using gclm(-/-) Gene-targeted Mice
Terrance J. Kavanagh, University of Washington, Seattle, WA, USA

Investigation of Drug Induced Hepatotoxicity by Knockdown of Glutathione Synthesis
Tsuyoshi Yokoi, Kanazawa University, Kanazawa, Japan

SYMPOSIUM 8
Interplay of Metabolism and Transport in Drug Disposition
Co-chairs: Hiroshi Suzuki, Tokyo University, Tokyo, Japan
Dietrich Keppler, Deutsches Krebsforschungszentrum, Heidelberg, Germany

The Role of MRPs in the Cellular Efflux of Glucuronides: Studies with KO Mice
Piet Borst, The Netherlands Cancer Institute, Amsterdam, The Netherlands

Interplay of Conjugating Enzymes with OATP and MRP Transporters in the Elimination of Drugs: Studies with Multiple-transfected Cells and Mathematical Modeling of Vectorial Transport
Dietrich Keppler, Deutsches Krebsforschungszentrum, Heidelberg, Germany
SYMPOSIUM 10

New Technology and Bioinformatics in Evaluating and Preventing Drug Toxicity

Co-chairs: Toshihiko Ikeda, Sankyo Co. Ltd., Tokyo, Japan
          Galrod S. Yost, University of Utah, Salt Lake City, UT, USA

Glutathione Adducts: Finding and Identifying Electrophiles

Galrod S. Yost, University of Utah, Salt Lake City, UT, USA

Biomarker Discovery by Metabolome Analysis

Tomoyoshi Soga, Keio University, Yamagata, Japan

2D Electrophoresis Coupled to MS/MS - Identification of Protein Targets of Toxic Lipid Aldehydes

Dennis Petersen, University of Colorado, Denver, CO, USA

SYMPOSIUM 11

What Determines a Significant Metabolite?

(Organized by the Committee on Regulatory Affairs)

Co-chairs: Takahiko Baba, Shionogi & Co Ltd, Osaka, Japan
          Steven Wrighton, Eli Lilly & Co., Indianapolis, IN, USA

Safety Assessments of Drug Metabolites

Masahiro Tohkin, NIH, Tokyo, Japan

Case Studies in Pharmaceutical Industries and Perspective

Takafumi Iwatsubo, Astellas, Tokyo, Japan

Leveraging Drug Metabolism and Excretion Data in MIST (Metabolites In Safety Testing) Strategies

Scott Obach, Pfizer, Groton, CT, USA

Unique/major Human Metabolites: Why, How and When to Test for Safety in Animals

Debra Luffer-Atlas, Eli Lilly & Co., Indianapolis, IN, USA

SYMPOSIUM 12

Role of Pharmacokinetic Modeling and Simulation in Drug Development

Co-chairs: Yuichi Sugiyama, University of Tokyo, Tokyo, Japan
          Stephen D. Hall, Indiana University Dept. of Medicine, Indianapolis, IN, USA

Unexpected Interactions Between Drug Transport and Phase I and Phase II Drug Metabolism

Thomas Friedberg, University of Dundee, Dundee, UK

Synergistic Role of Breast Cancer Resistance Protein (BCRP/ABCG2) and Sulfotransferases in Regulating the Drug Disposition

Jun-ichi Enokizono, Kyowa Hakko Kogyo Co., Shizuoka, Japan

Interplay of P-450 Enzymes with Uptake and Efflux Transporters in Drug Disposition: Studies in Cellular Systems, Perfused Organs, Whole Animals and Humans

Leslie Z. Benet, University of California San Francisco, San Francisco, CA, USA

11:30 - 13:00

LUNCHEON SEMINAR

POSTER VIEWING

13:00 - 14:00

PLENARY LECTURE 2

Mitochondrial Toxicity – From Basic Mechanisms to Idiosyncratic Drug-induced Liver Injury

Urs A. Boelsterli, National University of Singapore, Singapore and University of Connecticut, Storrs, CT, USA

14:30 - 17:30

EXCURSION/MATSUSHIMA

18:00 - 21:00

BANQUET

FRIDAY, October 12, 2007

9:00 - 11:30

SYMPOSIUM 9

Nuclear Transfactor Interplay

Co-Chairs: Kiyoshi Nagata, Tohoku Pharmaceutical University, Sendai, Japan
          Frank J. Gonzalez, NIH/NCI, Bethesda, MD, USA

Introduction

Frank J. Gonzalez, NIH/NCI, Bethesda, MD, USA

Analysis of the Intrinsic Pysiological Function of AhR

Yoshiaki Fuji-Kuriyama, University of Tsukuba, Tsukuba, Japan

Nuclear Receptor: Cross-talk and Consequences

Patrick Maurel, INSERM, Montpellier, France

Nuclear Receptors CAR and PXR Mediate Xeno-Endo Cross-talk in Hepatic Energy Metabolism

Masahiro Negishi, NIEHS, Research Triangle Park, NC, USA

Analysis of Transcription Factor Interplay Assessed by Adenovirus siRNA

Kiyoshi Nagata, Tohoku Pharmaceutical University, Sendai, Japan
PBPK Modeling for Transporter-mediated Drug Disposition in the Body: Prediction from In Vitro to In Vivo and from Animal to Human
Yuichi Sugiyama, University of Tokyo, Tokyo, Japan

Mechanism Based PK/PD Modeling
Meindert Danhof, Leiden/Amsterdam Center for Drug Research, Amsterdam, The Netherlands

Clinical PK/PD Studies for the Validation of Biomarkers as Surrogate Endpoints
Akihiro Hisaka, University of Tokyo, Tokyo, Japan

Propagation of Genetic & Ethnic Variability in Drug Metabolism to Pharmacological Response: Expectations vs. Realities
Amin Rostami-Hodjegan, University of Sheffield, Sheffield, UK

15:30 - 16:00
COFFEE BREAK

16:00 - 17:00
POSTER AWARDS

17:00
CLOSING
Announcing the 9th International ISSX Meeting
Announcing other ISSX Meetings