

Session title	Chairs	Speakers	Affiliation	Title of Presentation
<b>Opening keynote address</b>				
	Xiaoliang Wang		Institute of Materia Medica, Chinese Academy of Medical sciences, Beijing, China	
	Jun-Yan Hong		University of Medicine and Dentistry of New Jersey, USA	
		Honghao Zhou	Central South University, China	TBD
<b>Regular sessions</b>				
P450 structure and function - structure and drug design				
	J. Halpert	J. Halpert	University of California, San Diego, USA	Conformational plasticity of rabbit cytochrome P450 2B4 and human cytochrome P450 2B6: implications for prediction of drug metabolism and interactions
	I.Pikuleva	I.Pikuleva	Case Western Reserve University, USA	Drug binding to cholesterol-metabolizing CYP46A1 as elucidated by X-ray crystallography
		E. Johnson	Scripps Research Institute, USA	Structural adaptations underlying cytochrome P450 metabolic diversity
The epigenetics of drug metabolism and transport				
	M. Ingelman-Sundberg	M. Ingelman-Sundberg	Karolinska Institute, Stockholm, Sweden	Genetic and epigenetic regulation of drug response; Mechanistic and clinical aspects

	D. Waxman		Boston University, USA	Epigenetics and the sex-specific regulation of hepatic DMEs
	Tsuyoshi Yokoi		Kanazawa University, Japan	Regulation of human cytochrome P450s and nuclear receptors by microRNAs
Nuclear receptor signaling and crosstalk				
	R. Prough	R. Prough	University of Louisville, USA	AP1 Regulation of foreign compound metabolizing genes in vascular tissues
	M. Negishi	M. Negishi	National Institute of Environmental Health Sciences, NIH, USA	Nuclear xenobiotic receptor CAR and cell signals
	J. Hayes		University of Dundee, Scotland, UK	Gene activation by redox and electrophile stressors via the Nrf2-Keap1 pathway
Identification of molecular and cellular targets of drug metabolites				
	P.F. Guengerich	P.F. Guengerich	Vanderbilt University, USA	Characterization of DNA adducts and crosslinked DNA products by mass spectrometry
	W.G. Humphreys	W. G. Humphreys	Bristol-Myers Squibb, USA	Investigation of drug metabolism mediated toxicity during drug development
	D. Liebler		Vanderbilt University, USA	Regulation of stress signaling by electrophile-protein adducts
Environmental xenobiotic metabolism and biomarkers in humans				
	C.S. Yang		Rutgers University, USA	

	Yuxin Zheng	National Institute of Occupational Health and Poison Control, Chinese Center for Disease Control and Prevention, Beijing, China	PAHs metabolism and influences on the biomarkers
	S. Hecht	University of Minnesota, USA	Carcinogen metabolite biomarkers for studies on tobacco and cancer
	T. Kensler	Johns Hopkins University, USA	Use of aflatoxin biomarkers as intermediate endpoints in cancer chemoprevention trials
Pharmacogenomics of drug metabolism and transport			
	L. Kaminsky	Stratton VA Medical Center, Albany, NY, USA	
	T. Kamataki	Tokyo Institute of Technology, Japan	
	S. Leeder	Children's Mercy Hospitals and Clinics, Kansas City, USA	TBD
	M. Pirmohamed	The University of Liverpool, UK	TBD
	Ichiro Ieiri	Kyushu University, Japan	Pharmacogenomics of drug transporters in humans
Humanized mice – applications to drug development and risk assessment			
	F. Gonzalez	F. Gonzalez National Cancer Institute, NIH, USA	Pregane X Receptor-humanized Mice
	Gary Perdew	Penn State University, USA	Human Ah receptor exhibits differential activity in a humanized mouse model

	R. Tukey		University of California, San Diego, USA	Humanized UGT1 mice as a model for hyperbilirubinemia, brain toxicity and drug metabolism
Transporter-P450 interplay, probe substrates and inhibitors				
	Y. Sugiyama	Y. Sugiyama	University of Tokyo, Japan	Rate-determining process of a co-substrate of uptake transporter and metabolizing enzyme in the liver
	L. Benet	L. Benet	University of California, San Francisco, USA	TBD
		Xingrong Liu	Genentech, USA	Optimization of drug metabolism and transport in drug design
P450 structure and function - structure and conformation				
	E. Scott	E. Scott	University of Kansas, USA	Structural insights into human CYP2A function and inhibition
	M. Waterman		Vanderbilt University, USA	
		N. Vermeulen	Vrije Universiteit, The Netherlands	TBD
		A. Munro	University of Manchester, Manchester, U.K	Structure and enzymology of the mycobacterium tuberculosis P450s
P450 redox partners in drug metabolism				
	B. S. Masters	B. S. Masters	University of Texas Health Science Center, San Antonio, USA	Molecular and cellular consequences of human mutations in NADPH-cytochrome P450 reductase with various redox partners

	T. Omura		Kyushu University, Japan	
		W. Backes	Louisiana State University Health Sciences Center, New Orleans, USA	Effects of P450-P450 complexes on monooxygenase function
		L. Waskell	University of Michigan, USA	The interaction of cytochrome P450 with its redox partners, cytochrome b5 and cytochrome P450 reductase
Drug metabolism in brain: its impact on pathogenesis and treatment of brain disorders				
	H. W. Strobel	H. W. Strobel	University of Texas-Houston Medical School, Houston, USA	TBD
	V. Ravindranath	V. Ravindranath	National Brain Research Center, India	Cytochromes P4504F, a potential therapeutic target for limiting neuroinflammation
		R. Tyndale	University of Toronto, Canada	P450 enzymes in the brain: In situ activity alters drug response
Regulation of drug metabolizing enzymes and transporters in extrahepatic tissues				
	M. Vore	M. Vore	University of Kentucky, USA	Regulation of transporters in the heart: MRP1 (ABCC1) and protection against cardiac injury
		K. Thummel	University of Washington, Seattle, USA	CYP3A regulation in intestine by VitD receptor
		O. Hankinson	University of California, Los Angeles, USA	Transcriptional regulation and functions of CYPs 1A1, 1B1 and 2S1
Drug-drug interactions - modulation of drug-metabolizing enzyme activity				

	P. Hollenberg	P. Hollenberg	University of Michigan, USA	Mechanism-based Inactivators of cytochromes P450
		Sharon Murphy	University of Minnesota, USA	P450 2A enzymes, inactivation and nicotine metabolism
		Ling Yang	Dalian Institute of Chemical Physics, Chinese Academy of Sciences, China	Overlapping substrate and inhibitor specificities of P450 2C8 and 3A4
Posttranslational modification of drug metabolizing enzymes				
	Y. Osawa	Y. Osawa	University of Michigan, USA	Reactive metabolites and P450 ubiquitination: role of hsp90 and hsp70 chaperones
	Maria Almira Correia	Maria Almira Correia	University of California, San Francisco, USA	Cytochrome P450 ERAD: molecular dissection of the ER-proteasome pathway
		T. Ishikawa	RIKEN, Japan	Quality control of human ABC transporters in the endoplasmic reticulum: ubiquitination and proteasomal degradation
Receptor-mediated drug toxicity and efficacy				
	Q. Ma	Q. Ma	Center for Disease Control, USA	TBD
	Y. Yamazoe		Tohoku University, Japan	
		E. Morgan	Emory University, USA	Modulation of drug metabolism, efficacy and toxicity via cytokine and toll-like receptors
		Masayuki Yamamoto	Tohoku University, Japan	Inflammatory skin lesion model generated by AhR overproduction in keratinocytes

## Drug-herb interactions

Wen Xie      Wen Xie      University of Pittsburgh, USA      Nuclear receptors in herb-drug interactions and beyond

Jin-Ding Huang      National Cheng Kung University, Taiwan

Joan Z. Zuo      The Chinese University of Hong Kong      Mechanistic studies on the herb-drug interactions between Tamiflu and Traditional Chinese Medicines

Min Huang      Sun Yat Sen University, China      Herb-drug interaction and pharmacogenetics-based pharmacokinetics: application in the Chinese renal transplant recipients

## Prediction of adverse drug reactions: detection of reactive metabolites

J. Stevens      J. Stevens      Pfizer, USA      Linking species differences in thioamide toxicity with flavin monooxygenase expression and function

G. Yost      University of Utah, USA      Remarkable selectivity of P450 enzymes in the formation and enzyme inactivation of electrophilic reactive intermediates

Dafang Zhong      Shanghai Institute of Materia Medica, Chinese Academy of Sciences, China      Detection of reactive metabolites produced from herbal components with adverse drug reactions

## Metabolites In Safety Testing - FDA new requirements and research strategies

A. Nedderman      A. Nedderman      Pfizer, UK      Metabolite identification strategies to clear the MIST

C.H. Yun      C.H. Yun      Chonnam National University, Republic of Korea      Generation of human drug metabolites by bacterial cytochrome P450 enzymes

	G. Dear		GlaxoSmithKline, UK	Early identification and quantification of drug metabolites in humans: an NMR-based approach
Metabolism of natural product drugs				
	Chang-Xiao Liu		Tianjin Institute of Pharmaceutical Research, China	
	Guangji Wang		China Pharmaceutical University, China	Novel insights and strategies into pharmacokinetics and dispositions of complex herbal components
	Chuan Li		Shanghai Institute of Materia Medica, CAS, China	Methodology for multi-component ADME/PK studies of herbal medicines and identification of the PK markers
	TBD		TBD	TBD
Novel aspects of the UGT enzyme family				
	P. MacKenzie	P. MacKenzie	Flinders University, Australia	Characterization of the novel human UDP glycosyltransferase 3 family
		Moshe Finel	University of Helsinki, Finland	Human UGT2A1 and UGT2A2, the nosy UGTs
	J. Miners	J. Miners	Flinders University, Australia	Glucosidation and glucuronidation as complementary metabolic pathways
Metabolomics and bioinformatics in preclinical and clinical drug metabolism				
	Renke Dai	Renke Dai	Guangzhou Institute of Biomedicine and Health, CAS, China	TBD



A. Archakov		Institute of Biomedical Chemistry, Russian Academy of Medical Sciences, Moscow, Russia	
	Zongwei Cai	Hong Kong Baptist University, Hong Kong, China	Mass spectrometry-based metabolomics investigation on aristolochic acids associated with kidney disease
	A. Patterson	National Institute for General Medical Sciences, NIH, USA	Pharmacometabolomics: a small molecule perspective with big implications for drug discovery
Stem cells as tools for studying xenobiotic metabolism			
P. Maurel		National Institute of Health and Medical Research - INSERM, Montpellier, France	
	T. Gasiewicz	University of Rochester, USA	Hematopoietic stem cells as targets of xenobiotic Ah receptor ligands; the Ah receptor is critical to the regulation of these cells
	N. Kobayashi	Okayama Univ, Japan	Stem cell differentiation to hepatocytes
	M. Daujat	National Institute of Health and Medical Research - INSERM, Montpellier, France	Introduction on stem cells and their potential for drug research
Prediction of drug-drug interactions			
T. Tracy	T. Tracy	University of Minnesota, USA	Impact of atypical kinetics and pharmacogenetics on drug interaction predictions
	Magang Shou	Amgen, USA	Simulation and prediction of human CYP-mediated drug-drug Interactions from in vitro induction
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Emerging topics and new trends in drug development

A. Lu

Rutgers University, USA

A. Vaz

Pfizer, USA

Deuterated drugs: opportunities and limits in drug development

Mingshe Zhu

Bristol-Myers Squibb, USA

Novel application of high resolution mass spectrometry in drug metabolite profiling and identification

Su Zeng

Zhejiang University, China

Identification and functional characterization of chiral drug metabolites

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