ASPET 2008 Centennial Meeting Program

Symposia

Centennial Symposia

Sunday, April 6
9:00 - 11:30 am

Drug Discovery Paradigms: Past, Present & Future (Division for Drug Discovery, Development & Regulatory Affairs)
Chair: Robert R. Ruffolo

One hundred years of drug discovery
R. Alan North, University of Manchester
Evolution of pharmacology in drug discovery - The future is bright
Graeme Milligan, University of Glasgow
Using mouse genetics to guide drug discovery
Brian Zambrowicz, Lexicon Pharmaceuticals
CNS drug discovery: Back to the future.
Sam J. Enna, University of Kansas Medical Center
Drug discovery of the future.
Robert R. Ruffolo, Wyeth Research

The G-Whizards of GPCR/G-Protein Signaling (Division for Molecular Pharmacology, jointly sponsored by ASBMB)
Chair: Lee E. Limbird
Stream video or download to your iPOD

How the seed was sown: The interdependent evolution of the GPCR/G protein signaling field
Lee E. Limbird, Meharry Medical College
Seven transmembrane receptors
Robert J. Lefkowitz, Duke University Medical Center
Where are we?
Alfred G. Gilman, University of Texas Southwestern Medical School
Receptor-catalyzed activation of heterotrimeric G proteins
Heidi E. Hamm, Vanderbilt University Medical Center

Julius Axelrod Symposium
Celebrating a Pioneer Pharmacologist and His Legacy: Creating New Drugs by Revealing Mechanisms of Drug Action on Fundamental Biological Processes
Chair: Lee E. Eiden
Stream video or download to your iPOD

A brief history of ASPET's Julius Axelrod Award and introduction of Randy Blakely, the 2008 Julius Axelrod Awardee.
David R. Sibley, Chair, ASPET Julius Axelrod Award Committee; NINDS, NIH
Julie Axelrod: A legacy of fundamental research for drug discovery.
Lee E. Eiden, NIMH, NIH
Methylation pharmacogenomics: Neurotransmitters to drug response.

Richard M. Weinshilboum, Mayo Clinic College of Medicine
Neurotransmitter transporters: New views of form and function

Susan G. Amara, University of Pittsburgh School of Medicine
Biochemical and behavioral actions of monoamines in genetic animal models

Marc G. Caron, Duke University Medical Center

Cannabinoid CB1 Receptor Interdependence with Other Receptor Systems as a Target for Medication Development
(Sponsored by the Divisions for Behavioral Pharmacology, Neuropharmacology, Molecular Pharmacology, Systems & Integrative Pharmacology)
Chair: Steven R. Goldberg

Introduction: Cannabinoid CB1 receptor interdependence with other receptor systems as a target for medication development

Steven R. Goldberg, NIDA, NIH
Cannabinoid CB1 receptors form functional heteromers with dopamine, adenosine and opioid receptors

Sergi Ferre, NIDA, NIH
Drug-discrimination and in-vivo microdialysis procedures for studying nicotinic, dopaminergic and opioid receptor interactions with cannabinoid CB1 receptors in rats.

Marcello Solinas, University of Poitiers, France
Drug self-administration and conditioned place preference procedures for studying interactions between cannabinoid CB1 receptors and other receptor systems in rodents

Walter Fratta, University of Cagliari, Italy
Intravenous drug self-administration procedures in nonhuman primates for studying interactions between cannabinoid CB1 receptors and other receptor systems

Zuzana Justinova, University of Maryland School of Medical
Cannabinoid CB1 receptor interdependence with other receptor systems as a target for medication development: Future directions and potential payoff for human health in the next 10 years

TBD

Pharmacology Education for the Next 100 Years: Preparing the Next Generation of Pharmacologists
Sponsored by the Division for Pharmacology Education

Chairs: Lynn M. Crespo and Joey V. Barnett
Pharmacologists in Pharma.

D. Euan MacIntyre, Merck Research Laboratories
Pharmacologists in government and regulation.

Aisar H. Atrakchi, FDA
Pharmacologists in academia.

Jordan E. Warnick, University of Maryland School of Medicine
The pharmacology curriculum - past vs. present

Lynn M. Crespo, University of Central Florida College of Medicine
Sunday, April 6
2:30 - 5:00 pm

Pharmacotherapeutics for Drug Abuse - The Cocaine Challenge (Division for Behavioral Pharmacology)
Chair: Alice M. Young

Pharmacological modification of drug taking: Origins and evolution.
William Woolverton, University of Mississippi Medical Center
Cocaine: Consequences of rapid elimination.
James H. Woods, University of Michigan Medical School
Benztropine-related dopamine uptake blockers that prevent cocaine effects
Jonathan Katz, NIDA, NIH
Kenneth Silverman, Johns Hopkins University
Where will it go in ten years?
Maxine L. Stitzer, Johns Hopkins Bayview Medical Center

Chance Favors the Prepared Mind: A Nobel Perspective (Division for Pharmacology Education)
Chair: Jeffrey S. Fedan
Stream video or download to your iPOD

The role of serendipity and luck in the discovery of the NO and cyclic GMP signaling pathway and their exciting future in drug development
Ferid Murad, University of Texas, Houston
When you come to a fork in the road, take it
Alfred G. Gilman, University of Texas Southwestern Medical Center
The road to Stockholm - A Nobel mission
Louis J. Ignarro, UCLA School of Medicine

Regulation for Ion Channels in Cardiovascular Disease
(Sponsored by the Divisions for Cardiovascular Pharmacology and Molecular Pharmacology)
Chairs: Swapnil Sonkusare and Nancy J. Rusch

Distinct regulation of L-type Ca(2+) channels localized to caveolae in heart
Timothy J. Kamp, University of Wisconsin
The role of potassium channels in neurovascular coupling
Mark T. Nelson, University of Vermont
Auto-inhibitory control of L-type Ca(2+) channels in heart
William A. Catterall, University of Washington School of Medicine
Vascular ion channel remodeling in hypertension
Swapnil Sonkusare, University of Arkansas for Medical Sciences
Regulation of K(+) channels in nitrate tolerant arteries
Stephen T. O’Rourke, North Dakota State University College of Pharmacy
**G12/13 Signaling of Cell Surface Receptors: Molecular Insights & Disease**

**Context**
(Sponsored by the Divisions for Molecular Pharmacology, Cardiovascular Pharmacology, and the American Society of Biochemistry and Molecular Biology)

Chair: Sandra Siehler

Physiological relevance of Galpha12 and Galpha13 in various tissues
- Stefan Offermanns, University of Heidelberg, Germany

Role of G12/13 signaling in cancer invasion and metastasis
- Patrick J. Casey, Duke University Medical Center

Regulation of phospholipase C-epsilon by G12/13 and RhoA
- T. Kendall Harden, University of North Carolina School of Medicine

Novel localizations and functions of G12/13-regulated RGS-RhoGEFs
- Philip Wedegaertner, Thomas Jefferson University

Mechanistic insights and therapeutic impact of G12/13–related signaling of G protein-coupled receptors
- Sandra Siehler, Novartis Pharma AG, Basel, Switzerland

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**Monday, April 7**
**9:00 - 11:30 am**

**P450s: Structure, Function, In Silico Predictions** (Division for Drug Metabolism)
Chairs: James R. Halpert and Eric F. Johnson

Drug metabolism and cytochrome P450
- Anthony Y.H. Lu, Rutgers University

Mechanisms of P450-dependent drug oxidation
- Paul R. Ortiz de Montellano, UCSF

Protein and substrate dynamics of cytochromes P450
- William Atkins, University of Washington

Crystal structures of P450 active sites
- Eric F. Johnson, Scripps Research Institute

In silico predictions of P450 catalysis
- Lovisa Afzelius, AstraZeneca R&D

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**The Obesity Epidemic – Pharmacological Challenges** (Division for Systems & Integrative Pharmacology)
Chair: Ismail Laher

The current molecular model of body weight regulation
- Matthias H. Tschoep, University of Cincinnati College of Medicine

Pharmacological therapy of obesity
- D. Scott Weigle, University of Washington

Physiological regulators of appetite as a basis for pharmacotherapy of obesity
- Stephen R. Bloom, Hammersmith Hosp., Imperial College London, UK

The endocannabinoid system as a new regulator of energy balance
- Xavier Pi-Sunyer, St. Luke's/Roosevelt Hospital

Fatty acid metabolism and energy regulation: New pharmacological strategies for obesity therapy
- Gabriele Ronnett, Johns Hopkins Bayview Medical Center
Ray Fuller Symposium
Preceded by the Ray Fuller Lecture from 8:00 - 8:50 am

Antidepressants for the New Millennium: Circumventing the Monoamine Synapse
Chair: Phil Skolnick
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The role of the NMDA receptor signaling cascade in antidepressant activity.
  Ian A. Paul, University of Mississippi Medical Center
Neurotrophic and neurogenic actions of antidepressants.
  Ron S. Duman, Yale University School of Medicine
AMPA receptor potentiation: A core antidepressant pathway?
  Jeffrey M. Witkin, Eli Lilly and Co.
Potentiation of synaptic AMPA/NMDA mediated throughput in the development of novel therapeutics for mood disorders.
  Carlos Zarate, NIMH, NIH

The Emerging Science of Drug Safety
(Sponsored by the Divisions for Clinical Pharmacology, Translational Medicine & Pharmacogenomics, Drug Discovery, Development & Regulatory Affairs, Toxicology, Behavioral Pharmacology, Cardiovascular Pharmacology, Drug Metabolism)
Chairs: Darrell R. Abernethy and Judith K. Jones

Introduction. Darrell R. Abernethy, U.S. Pharmacopeia
  Approaches to enhance drug safety in the ambulatory outpatient setting
      Michael Murray, University of North Carolina School of Pharmacy
  Identification and evaluation of drug induced disease
      Judith K. Jones, The Degge Group, Ltd., Arlington, VA
  European experience with active surveillance methods to identify drug safety problems
  Development of informatics to support post-marketing surveillance in the United States
      Kenneth D. Mandl, Harvard-MIT

Monday, April 7
  2:30 - 5:00 pm

Development of Inhibitors of the Soluble Epoxide Hydrolase as a Novel Treatment for Hypertension, Vascular Inflammation and End Organ Damage
(Division for Toxicology)
Chairs: Bruce D. Hammock and John D. Imig

Epoxide hydrolases, from xenobiotic metabolism to pharmaceutical target
  Michael Arand, University of Zurich, Switzerland
Stabilization of epoxyeicosanoids by inhibitors of the soluble epoxide hydrolase as treatments for hypertension, vascular inflammation and end organ damage
  John D. Imig, Medical College of Wisconsin
Genetic polymorphisms of the soluble epoxide hydrolase are associated with risk of stroke and vascular disease
  Darryl C. Zeldin, NIEHS, NIH
Biochemistry, structure and the design of inhibitors for the soluble epoxide hydrolase
  Bruce D. Hammock, University of California - Davis
Translation of soluble epoxide hydrolase inhibitors to the clinic
Heather Webb, Arête Therapeutics
The impact of research on epoxide hydrolases and epoxyeiconsanoids on human health
William B. Campbell, Medical College of Wisconsin

New Concepts in an Old System - Renin-Angiotensin System Blockade as Therapy for General Cardiovascular Disease (Division for Cardiovascular Pharmacology)
Chair: Mariana Morris and Carlos M. Ferrario

Renin angiotensin system - A historical perspective.
Ronald D. Smith, Merck, Inc.
Renin inhibition and renin receptors.
Genevieve Nguyen, INSERM U833, Collège de France, Paris
ACE2 as a new target in the RAS.
Mark C. Chappell, Wake Forest University School of Medicine
RAS and the cardiovascular pathologies associated with diabetes.
Khalid M. Elased, Wright State University
RAS and inflammation in cardiovascular disease.
Lisa A. Cassis, University of Kentucky College of Pharmacy
Contribution of tissue RAS inhibition to therapeutic effectiveness.
Michael Bader, Max-Delbrück-Centrum, Berlin

Neuroplasticity in Addiction: Picking up the Pieces
(Sponsored by the Divisions for Neuropharmacology, Behavioral Pharmacology, Systems & Integrative Pharmacology)
Chair: Peter W. Kalivas

Role of animal models in understanding cellular neuroplasticity
George F. Koob, Scripps Research Institute
Role of nucleus accumbens CREB in addiction and depression: Implications for co-morbidity
William A. Carlezon, Harvard Medical School/McLean Hospital
Long-term changes in synaptic efficiency by drugs of abuse
Antonello Bonci, UCSF
How molecular plasticity in corticolimbic circuitry translates into novel therapeutics
Peter W. Kalivas, Medical University of South Carolina
Neural encoding of negative affect and its relationship to drug seeking
Robert A. Wheeler, University of North Carolina

Tuesday, April 8
9:00 - 11:00 am

ABC Transporters: From Drug Resistance to Drug Response (Division for Clinical Pharmacology, Translational Medicine, & Pharmacogenomics)
Chair: Richard B. Kim

ABC transporters: Historical perspective and importance in drug disposition
Susan P.C. Cole, Queen's University
ABC transporters and cancer chemotherapy
Susan E. Bates, NCI, NIH
From Mdr1 to Bcrp knockout mice: Relevance to xenobiotic toxicity
Alfred H. Schinkel, The Netherlands Cancer Institute
Interplay between ABC transporters and cytochrome P450 enzymes

**Erin G. Schuetz**, St. Jude's Children's Research Hospital

ABC transporters, where do we go from here?

**Richard B. Kim**, University of Western Ontario, London Health Science Center Hospital

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**New Experimental Approaches to Treatment of Schizophrenia: Moving Beyond Monoamine Antagonists** (Division for Neuropharmacology)

Chairs: **P. Jeffery Conn** and **Carol A. Tamminga**

Treatments for schizophrenia: Targeting psychosis and cognition

**Carol A. Tamminga**, University of Texas Southwestern Medical Center

Allosteric activators of muscarinic receptors as a novel approach for treatment of schizophrenia

**P. Jeffrey Conn**, Vanderbilt University

Metabotropic glutamate receptors as novel targets for treatment of schizophrenia: Progress, issues, and challenges

**Darryle D. Scheppe**, Merck Research Labs

De novo design of potent GlyT1 inhibitors: *In vitro* and *in vivo* profiles

**Craig W. Lindsley**, Vanderbilt University Medical Center

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**Integrative Urogenital Pharmacology: Implications to the Treatment of Bladder Disease**

(Sponsored by the Divisions for Systems & Integrative, Drug Discovery, Development & Regulatory Affairs)

Chairs: **George J. Christ** and **Karl-Erik Andersson**

K channel modulation of bladder contractility

**Mark T. Nelson**, University of Vermont

Molecular mechanisms of bladder dysfunction

**George J. Christ**, Wake Forest University Baptist Medical Center, WFIRM

Integrative control of bladder function: From the CNS to the urothelium

**William C. de Groat**, University of Pittsburgh Medical School

Modulation of electromechanical coupling in the bladder.

**Chris Fry**, University College London

Pharmacological basis and mechanisms for treatment of overactive bladder

**Karl-Erik Andersson**, University of Lund, Sweden/Wake Forest University Baptist Medical Center, WFIRM

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**Drug Metabolism, Bioactivation & Chemical-induced Toxicities: Lessons Learned & Contemporary Issues**

(Sponsored by the Divisions for Drug Metabolism, Toxicology, Clinical Pharmacology, Translational Medicine & Pharmacogenomics, Systems & Integrative Pharmacology)

Chair: **Terry J. Monks** and **Kenneth E. Thummel**

Drug toxicites - Lessons learned

**M.W. Anders**, University of Rochester

Cytochrome P450 mediated drug bioactivation and idiosyncratic toxicities

**B. Kevin Park**, University of Liverpool. UK

Immune-based drug toxicities

**Jack Uetrecht**, University of Toronto

GSH-conjugate mediated neurotoxicity

**Terry J. Monks**, University of Arizona

Transporters and drug-induced toxicities
Wednesday, April 9
8:00 - 10:30 am  - NOTE EARLIER TIME!¾

Inflammation: Early Disease Marker, Drug Response Modifier, Therapeutic Target
(Sponsored by the Divisions for Drug Discovery, Development & Regulatory Affairs, Clinical Pharmacology, Translational Medicine & Pharmacogenomics, Molecular Pharmacology, Toxicology, Systems & Integrative Pharmacology, Drug Metabolism)
Chairs: Donald W. Miller and Daniel S. Sitar

Omics-based discovery of inflammation markers as diagnostic tools in drug discovery and disease
  B. Alex Merrick, NIEHS, NIH
Idiosyncratic drug-induced liver injury and inflammatory stress
  Patricia E. Ganey, Michigan State University
Role of the blood-brain barrier in central nervous system inflammation
  Donald W. Miller, University of Manitoba, Canada
Emerging anti-inflammatory therapeutics: Perspectives from the laboratory
  David E. Szymkowski, Xencor, Inc.
Emerging anti-inflammatory therapeutics: Perspectives from the clinic
  Robert I. Fox, Scripps Memorial Hospital & Research Foundation

Emerging Importance of Allosteric Receptor Modulation in Drug Discovery
Sponsored by the Divisions for Neuropharmacology, Systems & Integrative Pharmacology, Drug Discovery, Development & Regulatory Affairs, Behavioral Pharmacology, Molecular Pharmacology, Clinical Pharmacology, Translational Medicine & Pharmacogenomics
Chair: Guibao Gu

Topography in drug discovery: The challenge of allosteric modulators
  Arthur Christopoulos, Monash University, Australia
Positive allosteric modulation of GABAB receptors: A novel therapeutic strategy for anxiety and drug dependence
  John F. Cryan, University College Cork, UK
Allosteric modulation of serotonin transporters: Lessons learned from the development of escitalopram
  Connie Sanchez, Lundbeck Research USA
Allosteric modulation of GPCRs as a novel therapeutic direction for the treatment of CNS disorders
  Colleen Niswender, Vanderbilt University Medical Center

The Promise and Challenges of Pharmacogenetics as a Diagnostic Tool
Sponsored by the Divisions for Clinical Pharmacology, Translational Medicine & Pharmacogenomics, Drug Metabolism, Systems & Integrative Pharmacology, Toxicology
Chair: Steven Leeder

The use of pharmacogenetics to optimize cancer chemotherapeutics in children
  William E. Evans, St. Jude Children's Research Hospital
Predictive tests for asthma exacerbations and short acting response to brochodilator medication: Use of whole genome data
  Scott T. Weiss, Brigham and Women's Hospital, Harvard Medical School
Genetic variation in statin response
Mitochondria in Life & Death: From Biogenesis to Autophagy
(Sponsored by the Division for Toxicology)
Chair: Rick G. Schnellmann

The mitochondrial proteome
Bradford W. Gibson, Buck Institute for Age Research
Protein kinase signaling of mitochondrial function following injury
Grazyna Nowak, University of Arkansas for Medical Sciences
Mitochondrial permeabilization in cell death and mitophagy
John J. Lemasters, Medical University of South Carolina
Mitochondrial biogenesis following oxidant injury
Rick G. Schnellmann, Medical University of South Carolina

A Century of Development of Concepts of Ion Channel Receptors: Past Milestones and Contemporary Development for the Next Decade
(Sponsored by the Divisions for Molecular Pharmacology, Behavioral Pharmacology, Neuropharmacology, and the American Society of Biochemistry and Molecular Biology)
Chair: Palmer W. Taylor

The era of chemical characterization of ion channel receptors: The importance of investigating conformation and state changes. Jean-Pierre Changeux, Institut Pasteur, Paris
The acetylcholine binding protein: A model system for nicotinic acetylcholine receptor selectivity.
Titia Sixma, The Netherlands Cancer Institute, Amsterdam
Roles of nicotinic receptors in nicotine addiction and neuroprotection.
Henry A. Lester, Cal Tech
Dynamics in structure-guided drug design: Structurally defined receptors as templates for freeze-frame, click chemistry synthesis of novel ligands.
Palmer W. Taylor, UCSD

Division Sessions

Sunday, April 6
2:30 - 5:00 PM

Drug Metabolism Division James Gillette Best Paper Award Winners Platform Session
Chairs: Ken E. Thummel and Tom A. Kocarek

Monday, April 7
2:30 - 5:00 PM
Translational Research in Behavioral Pharmacology - Division for Behavioral Pharmacology
Chairs: Charles P. France and Alice M. Young

Translational medicine in pain research.
  James E. Barrett, Drexel University College of Medicine
Challenging the opiates: Concept, target identification and profile of the central analgesic, F 13640.
  Francis C. Colpaert, Centre de Recherche Pierre Fabre, Castres, France
Use of behavioral pharmacology in rational drug discovery for novel targets in psychiatric disorders.
  Darryle D. Schoepp, Merck and Co.
Cognitive disturbances in depression: Preclinical targets for antidepressant treatment.
  Alan Frazer, University of Texas Health Science Center at San Antonio

Ion Channel Therapy & Disease Therapy - Division for Systems & Integrative Pharmacology
Chairs: Robert S. Kass and Mark T. Nelson
Voltage gated Na channel disorders and excitable tissues.
  Alfred L. George, Vanderbilt University Medical Center
K channels and the long QT syndrome.
  Robert S. Kass, Columbia University Medical Center
CRAC channel regulation in health and disease.
  Richard S. Lewis, Stanford University School of Medicine
Probing the genetic and molecular basis of episodic neurological disease
  Louis J. Ptacek, University of California - San Francisco
Cellular mechanism of arrhythmogenesis in a murine model of congenital catecholaminergic polymorphic ventricular tachycardia (CPVT).
  Marco Mongillo, Columbia University College of Physicians and Surgeons

Tuesday, April 8
9:00 - 11:30 AM

Signal Transduction Bioinformatics: Integrating Pharmacology with Signaling Molecule Discovery - Division for Drug Discovery, Development & Regulatory Affairs
Chair: Lee E. Eiden

Introduction: Drug discovery, signaling molecule discovery and integrationing pharmacology into bioinformatics tools for signal transduction analysis.
  Lee E. Eiden, NIMH, NIH
Pathfinder: A static network analysis tool for pharmacological analysis of signal transduction pathways, and other transduction bioinformatics tools.
  Babru B. Samal, NIMH, NIH
Phosphoproteomics-based kinase substrate discovery in growth factor signaling.
  Michael J. Comb, Cell Signaling Technology, Inc.
Integrating pharmacology into network analysis of signal transduction.
  Ravi Iyengar, Mount Sinai School of Medicine
Pathway analysis in bioinformatics-nodal inhibition and its relevance to drug discovery.
  Gary D. Bader, University of Toronto
Defining drug targets in yeast haploinsufficiency screens: Application to human translational pharmacology.
  Michel Roberge, University of British Columbia Faculty of Medicine
Roundtable discussion
  Nancy R. Gough, Science’s STKE
Tuesday, April 8
2:30 - 5:00 PM

Neuropharmacology Postdoctoral Scientist Award Finalists
Chair: David R. Sibley
Ethanol potentiation of D₁ receptor signaling: The role of PKC
  David R. Sibley, NINDS/NIH

Postdoctoral Scientist Award Presentations:
  Cellular and molecular mechanisms regulating MT₁ and MT₂ melatonin receptor trafficking.
    Yahong Zhang, Northwestern University School of Medicine
  Comparison of dopamine transporter regulation in rat dorsal striatum versus nucleus accumbens
    Toni L. Richards, University of Colorado - Denver
  Sex differences in the corticotropin-releasing factor receptor and its regulation by stress
    Debra Bangasser, Children's Hospital of Philadelphia
  Chronic treatment with paliperidone, like lithium and valproate, induces similar changes in expression
    and phosphorylation at
    the synaptoneurosomal level in rat prefrontal cortex
    Maria Corena Mcleod, Mayo Clinic, Jacksonville
  Role of NOS-NO signaling in clonidine-ethanol evoked synergistic behavioral impairment
    Tara S. Bender, East Carolina University

Role of Transporters in Prevention and Exacerbation of Toxicity - Division for Toxicology
Chair: Mary E. Vore

Characterization of mice null for liver-specific uptake transporter Oatp1b2.
  Curtis D. Klaassen, University of Kansas Medical Center
Regulation of yeast MRP Ycf1p by protein-protein interaction.
  Christian M. Paumi, Johns Hopkins School of Medicine
Glutathione transporters as key regulators of the biological functions of the tripeptide.
  Ned Ballatori, University of Rochester
Modulation of electrophile-mediated signaling by MRP1, GSH and GST.
  Charlie S. Morrow, Wake Forest University School of Medicine

Drug Response Predictions: Genotype vs. Phenotype - Division for Clinical Pharmacology, Translational Medicine and Pharmacogenomics Division
Chair: Richard B. Kim
Phenotype predictions from genotype: Examples from CYP2D6.
  Andrea Gaedigk, Children's Mercy Hospital, Kansas City, MO
CYP3A5: How important is this enzyme to drug response?
  Evan D. Kharasch, Washington University
In vivo probes of MDR1 and BCRP activity in humans.
  Ute I. Schwarz, University of Western Ontario
Abstract 4856: Prediction of individual variation in thiopurine response phenotypes from genome-wide
    association studies
    Fan Li, Mayo Clinic College of Medicine
Abstract 6187: Expression and functional characterization of murine organic anion transporting
    polypeptide 1b2 (oatp1b2/oatp4/ lst-1)
    Henriette Meyer zu Schwabedissen, University of Western Ontario
Abstract 8836: Dysregulation of intestinal CYP3A4-dependent 1,25-dihydroxyvitamin D3 catabolism: a
    potential mechanism for drug-induced osteomalacia
    Emily Zheng, University of Washington
Molecular Pharmacology Division Postdoctoral Award Finalists

Chair: T. Ken Harden
Connecting A to B - and phospholipase C

T. Ken Harden. University of North Carolina
Suppression of IgE-mediated allergic responses by Rgs13

Geetanjali Bansal. NIAID, NIH. (Advisor: K.M. Druey).

PAR1-mediated stable platelet aggregation requires temporal regulation of Rap1 activity by phosphatidylinositol phosphates (PIPs). 

Michael Holinstat. Vanderbilt University Medical Center. (Advisor: H.E. Hamm).

[beta]1 adrenergic receptor ([beta]1AR)-epidermal growth factor receptor (EGFR) interaction regulates ERK cellular activity

Unraveling the molecular mechanism by which the L148S mutation of GPR54 causes idiopathic hypogonadotrophic hypogonadism

Regulation of TGF-beta signaling by RGS3


Cardiovascular Pharmacology Division Junior Scientists Competition

Chairs: John C. Kermode, Fadi Khasawneh and Jianzhong Shen

Graduate Student Presentations:
O-GlcNAc signaling attenuates mitochondrial permeability transition

Gladys A. Ngoh, University of Louisville (Advisor: Steven P. Jones)

Inhibitory phosphorylation of TASK-1 is associated with atrial fibrillation

Erin Harleton, Columbia University (Advisor: Steven J. Feinmark)

Shaker K,1 channel-MAGUK complexes are down-regulated in cerebral arteries of hypertensive rats

Biny K. Joseph. University of Arkansas for Medical Sciences (Advisor: Nancy J. Rusch)

Improvement of cardiac contractility by proteasome inhibition in the overload heart

Nadia Hedhli, University of Medicine and Dentistry of New Jersey (Advisor: Christophe Depre)

Postdoctoral Scientist Presentations:
Ca²⁺ pulsars: spatially restricted, IP₃R-mediated Ca²⁺ release important for endothelial function

Jonathan Ledoux, University of Vermont (Mentor: Mark T. Nelson)

12- and 15-hydroxyeicosatetraenoic acids may function as endothelium-derived hyperpolarizing factors in the human coronary microcirculation

Brandon T. Larsen, Medical College of Wisconsin (Mentor: David D. Gutterman)

Graduate Student Runners-up Posters:
A novel mechanism of angiotensin II-induced cardiac hypertrophy -- The role of soluble epoxide hydrolase

Ding Ai, University of California at Davis (Advisor: Yi Zhu)

Soluble epoxide inhibition differentially modulates flow induced vascular remodeling in spontaneously hypertensive stroke prone rats and Wistar Kyoto rats

Alexis N. Simpkins, Medical College of Georgia (Advisor: John D. Imig)

Accessory β₃ subunits promote the functional expression of voltage-gated calcium channels in vascular smooth muscle cells

Swapnil Sonkusare, University of Arkansas for Medical Sciences (Advisor: Nancy J. Rusch)
Compartmentation of cellular cGMP-signalling: a mechanism for spatial and temporal regulation of cGMP mediated effects

Lindsay S. Wilson, Queen's University (Advisor: Donald Maurice)

Postdoctoral Scientist Runner-up Poster:
Platelet growth factor regulates smooth muscle cell migration through an integrin-linked kinase-dependent pathway

Mitra Esfandiarei, Child and Family Research Institute, University of British Columbia (Mentor: Cornelius van Breemen)

Tuesday, April 8
4:30 - 5:30 PM

Cardiovascular Pharmacology Division Paul M. Vanhoutte Distinguished Award Lecture
Chair: David D. Ku

Lecturer: Donald D. Heistad, University of Iowa
Endothelial function in the time of the giants

Special Sessions

Saturday, April 5
12:30 - 3:00 PM

Implications of Pharmacogenomics for Health Disparities
(Sponsored by the Committee on Diversity)
Chairs: Sakina E. Eltom and Martha I. Davila-Garcia

Genetics and health disparities in cardiovascular drug therapy.

Dan M. Roden, Vanderbilt University School of Medical Pharmacogenomics and health disparities in cancer disease
Howard L. McLeod, University of North Carolina School of Pharmacy
Racial differences in nicotine pharmacology: Implications for disease risk and addiction
Neal L. Benowitz, UCSF

2008 Teaching Institute
How to Teach Graduate Students
Chair: William B. Jeffries

Principles of adult learning.
Katie N. Huggett, Creighton University
Designing and teaching a graduate course.
Jason C. Bartz, Creighton University
Mentoring graduate students.
Stephanie W. Watts, Michigan State University
Running a graduate program.
Joey V. Barnett, Vanderbilt University
Competency based education in pharmacology graduate programs.
William B. Jeffries, Creighton University School of Medicine

Saturday, April 5
3:15 - 5:45 PM

Graduate Student/Postdoctoral Colloquium
Learning from the Past, Training for the Future

Current trends in pharmacology training.
Joey V. Barnett, Vanderbilt University
What you need to be a success in regulatory affairs.
Nancy Sevieux, Proctor and Gamble
Necessary skills to build a career at the bench in industry.
Lisan L. Parker, Merck Research Laboratories

Tuesday, April 8
8:00 - 10:00 AM

ASPET’s Women in Pharmacology Committee and APS’ Women in Physiology Committee Workshop
Gainfully Employed: From Launching a Job Search to Navigating Negotiations
Chairs: Sinya Benyajati, Colleen Hegg and Jelveh Lameh

This career development symposium will address the needs of early career scientists who will soon transition into a ‘new’ professional appointment. The workshop will provide information regarding 1) launching a job search, particularly for a dual-career couple, 2) delivering a job talk: formal seminar vs. chalk-talk, 3) the art of interviewing, and 4) negotiation tips.

Launching the “successful” job search.
Colleen Cosgrove Hegg, Michigan State University
Delivering a dynamic job talk.
Susan C. McKarns, NIAID, NIH
The art of interviewing: winning the job.
Lynn Wecker, University of South Florida College of Medicine
Navigating negotiations.
Kim E. Barrett, UCSD
Interactive exercises and mock interviews.

Tuesday, April 8
12:00 - 2:15 PM

Poster Discussion
Epoxide Hydrolases
Chairs: Bruce D. Hammock, John D. Imig, Curt J. Omiecinski, and Christophe Morisseau
Lectures

Sunday, April 6
1:30 - 2:20 pm

**Bernard B. Brodie Award Lecture:** Hepatobiliary disposition of xenobiotics
*Curtis D. Klaassen, University of Kansas Medical Center*

Monday, April 7
8:00 - 8:50 am

**Ray Fuller Lecture** - Broad Spectrum Antidepressants: Variations on a Monoamine Theme
*Phil Skolnick, Dov Pharmaceuticals, Inc.*

Followed immediately by the **Ray Fuller Symposium**

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Monday, April 7
1:30 - 2:20 pm

**P. B. Dews Award Lecture:** Contributions of behavioral pharmacology to our understanding of the etiology, prevention and treatment of substance abuse
*Charles R. Schuster, Loyola University*