ASPET Preliminary Program for Experimental Biology 2003

**Symposia**

*Saturday Morning*

**Inverse agonism: translation to in vivo function**

Chairs: James H. Woods and Richard Neubig

Current status of inverse agonism as a pharmacological and therapeutic tool. **Graeme Milligan, Univ. of Glasgow, Scotland**

Delta-opioid inverse agonists. **Chris J. Evans, UCLA**

Inverse agonists in chemokine receptors. **M.R. Brann, Acadia Pharmaceut.**

Inverse agonists and competitive antagonists in benzodiazepine dependent monkeys. **Charles P. France, Univ. of Texas Hlth. Sci. Ctr., San Antonio**

**Actions of hallucinogens and atypical antipsychotic drugs at serotonin receptors**

Chairs: Bryan L. Roth and David R. Sibley

Atomic and molecular mechanisms of 5-HT2A receptor activation, targeting and trafficking. **Bryan L. Roth, Case Western Reserve Univ. Med. Sch.**

RNA editing and genomic polymorphisms: relevance for schizophrenia, atypical antipsychotics and hallucinogens. **Elaine Sanders-Bush, Vanderbilt Univ. Med. Sch.**

Functional roles of 5-HT2A receptors in the prefrontal cortex. **Rodrigo Andrade, Wayne State Univ. Med. Sch.**

5-HT2A receptors in psychosis and antipsychotic treatments: insights from knockout mice. **Jay Gingrich, Columbia Univ.**

Serotonin 2C receptor distribution in the ventral tegmental area. **Marcy J. Bubar, Univ. of Texas Med. Br. at Galveston (Abstract 3105)**

**A pharmacology core curriculum: to be or not to be**

Chairs: Patricia B. Williams and Gregory D. Fink

Introduction: More than facts: knowledge, skills and attitudes. **Patricia B. Williams, Eastern Virginia Med. Sch.**

The knowledge objectives and essential drug list. **Gary Rosenfeld, Univ. of Texas-Houston Med. Sch.**

A view from the top: a chairman speaks. **Kenneth E. Moore, Michigan State Univ.**

Teaching medical school pharmacology in the 21st Century – can a core knowledge base be defined? **Eric P. Brass, Harbor-UCLA Med. Ctr.**

Beyond medical schools: health professions with prescribing authority. **Jean D. Deupree, Univ. of Nebraska Med. Ctr.**

**Two pore-domain potassium channels: background currents come to the fore**

Chair: Steven J. Feinmark

The K_{2P} channels: dedicated and dynamic potassium leak pathways. **Steven A. Goldstein, Yale Univ. Sch. of Med.**

TREK and TASK channels: structure, regulation, pharmacology and implications in disease states. **Michel Lazdunski, CNRS, Valbonne, France**

Mechano- and lipid-sensitive two pore-domain potassium channels in the heart and brain. **Donghee Kim, Finch Univ. of Hlth. Sci.**

Lipid-dependent modulation of TASK-1 function: is there a role in dysregulation of cardiac rhythm? **Richard Robinson, Columbia Univ.**
Functions of TASK channels in the mammalian central nervous system: modulation by protons, neurotransmitters and volatile anesthetics. **Douglas A. Bayliss, Univ. of Virginia**

**Use of genomic data on drug metabolizing enzymes and drug transporters to assess risk**

Chairs: Richard T. Okita and Rebecca Blanchard

Building a pharmacogenetics database from scratch. **Teri E. Klein, Stanford Univ.**

Genetic regulation of ABC transporters. **John Schuetz, St. Jude Children's Research Med. Hosp.**

Pharmacogenetics of human sulfotransferases. **Rebecca Blanchard, Fox Chase Cancer Ctr.**

Cytochrome P450 protein models for predicting metabolic events important in risk assessment, drug design and toxicology. **Jeff Jones, Washington State Univ.**

Identification and characterization of polymorphic variants of CYP3A5. **Su Jun Lee, NIEHS, Research Triangle Park, NC (Abstract 9024)**

**Saturday Afternoon**

**Cannabinoids: pharmacological actions and interactions between endogenous brain cannabinoid and opioid systems**

Chair: Steven R. Goldberg

Introduction. Recent progress in cannabinoid research. **Steven R. Goldberg, NIH, NIDA, Baltimore**

Preclinical pharmacology of natural and synthetic cannabinoids: tolerance, dependence and behavioral and physiological actions. **B.R. Martin, Virginia Commonwealth Univ.**

Endogenous cannabinoid systems and brain-behavior mechanisms. **Daniele Piomelli, UCI**

Involvement of endogenous opioid systems in cannabinoid dependence. **Rafael Maldonado, Univ. of Pompeu Fabra, Barcelona, Spain**

Cannabinoid dependence in humans: role of endogenous opioid systems. **Margaret Haney, New York State Psychiatric Inst. and Columbia Univ.**

New developments in the search for natural and synthetic cannabinoids. **A. Makriyannis, Univ. of Connecticut**

**Trophic effects of estrogen in the brain: protection for memory, aging and neurodegenerative disease**

Chairs: Cynthia M. Kuhn and Rochelle D. Schwartz-Bloom

Rapid signaling events mediate trophic actions of estrogen. **Dominique Toran-Allerand, Columbia Univ. Col. of Physicians and Surgeons**

Estrogen and neuroinjury. **Patricia Hurn, Johns Hopkins Univ.**

Estrogen is trophic for dopamine neurons: implications for Parkinson's disease and addiction. **Eugene Redmond, Yale Univ.**

Estrogen and cognitive performance: basic and clinical findings. **Robert B. Gibbs, Univ. of Pittsburgh Sch. of Med.**

**Teaching pharmacology to diverse audiences**

Chairs: Jack W. Strandhoy and Patangi K. Rangachari

Introduction. **Jack W. Strandhoy, Wake Forest Univ. Sch. of Med.**

PBL for undergraduate and graduate students: for the few and the many. **Patangi K. Rangachari, McMaster Univ. Hlth. Sci. Ctr.**

Designing facilities and programs to optimize education in the health professions. **O. Theodore Wendel, Arizona Sch. of Hlth. Sci.**

Inquiry-based teaching of pathophysiology and pharmacology to 11th and 12th grade students. **Jeffrey L. Osborn, Trinity Col. and Academy, Hartford, CT**

Tailoring problem based learning approaches to your audience. **Ann Lambros, Wake Forest Univ. Sch. of Med.**
G-protein-coupled receptor kinases: hope or hype for heart failure
Chair: Susan F. Steinberg

The structural basis of subtype specific signaling of beta adrenoceptors in cardiac myocytes. Brian K. Kobilka, Stanford Univ.


Distinct cardiomyocyte B1- and B2-adrenergic receptor signaling phenotypes to cAMP and other effectors. Susan F. Steinberg, Columbia Univ.


Sunday Morning

Developing novel antidepressant drugs
Chair: Irwin Lucki

How antidepressants work: pathways to better drugs. Alan Frazer, Univ. of Texas Hlth. Sci. Ctr., San Antonio

Cellular and molecular targets for antidepressant drugs. Julie Blendy, Univ. of Pennsylvania

PDE inhibitors as novel targets for antidepressants. James O'Donnell, Univ. of Tennessee Hlth. Sci. Ctr.

Pharmacogenetic targets determining antidepressant drug effects. Irwin Lucki, Univ. of Pennsylvania


Developmental neurotoxicology induced by NMDA antagonists/GABA agonists
Chair: William Slikker

The importance of the NMDA receptor system to normal and abnormal development. William Slikker, NCTR/FDA, Jefferson, AR

Commonly used anesthesia protocol causes neuronal suicide in the immature rat brain. Vesna Jevtovic-Todorovic, Univ. of Virginia

Ethanol induced developmental neurotoxicity: apoptotic mechanism of the fetal alcohol syndrome? Meena Kumari, Kansas State Univ.

Chronic exposure to sodium channel and NMDA receptor blockers during development in rats and monkeys: long-term effects on cognitive function. Merle G. Paule, NCTR, FDA, Jefferson, AR (Abstract 2714)


Non-genomic effects of estrogen in endothelial cells
Chairs: Edward J. Kilbourne and James K. Liao


Estrogen stimulates endothelial eNOS through Hsp90 binding. Jeffrey R. Bender, Yale Univ. Sch. of Med.

Estrogen preserves endothelial cell form and function. Ellis R. Levin, Univ. of California at Long Beach and Long Beach Vet. Affairs Med. Ctr.

Estrogen receptors and the cell SRFC (steroid receptor fast-action complex). Philip W. Shaul, Univ. of Texas Southwestern Med. Ctr. at Dallas

Sex hormones and endothelin-TXA2 in Zucker diabetic rats. Adesuyi L. Ajayi, Texas Southern Univ. (Abstract 583)

Monday Morning

Role of GABA-enhancing neurosteroids in neuropharmacology
Chair: Richard W. Olsen

GABA-A receptor subunit specificity in the physiological modulation by neurosteroids. Richard W. Olsen, UCLA
Neurosteroid effects on GABA-A receptor subunit plasticity: synaptic and extrasynaptic actions. Sheryl Smith, SUNY at Brooklyn

Can the anxiolytic and antidysphoric profile of SSRIS be related to their ability to increase neurosteroids active at GABA-A receptors? Alessandro Guidotti, Univ. of Illinois at Chicago

Endogenous GABAergic neurosteroids contribute to ethanol actions: mechanisms and significance. Leslie Morrow, Univ. of North Carolina at Chapel Hill

Trafficking of ion channels
Chair: Arthur M. Brown

Quality control in the ER: dislocation of integral membrane proteins and their processing in the cytosol. Ron R. Kopito, Stanford Univ.

Lipid rafts and membrane ion channels. Michael M. Tamkun, Colorado State Univ.

Ion channel clustering. Peter G. Shrager, Univ. of Rochester

HERG trafficking: pharmacological and physiological chaperones. Eckhard Ficker, Case Western Reserve Univ.

Pharmacological management of septicemia
Chair: J. Thomas Peterson


Regulation and physiological functions of extrahepatic cytosolic sulfotransferases
Chair: Charles Falany

Structure and mechanism of sulfotransferases. Masahiko Negishi, NIH, NIEHS, Research Triangle Park


Expression of human sulfotransferases in bacteria, cell lines and mice for studying their role in the activation of mutagens and carcinogens. Hansruedi Glatt, German Inst. for Human Nutrition, Bergolz-Rehbrucke, Germany

Steroid sulfation in human extrhepatic tissues. Charles Falany, Univ. of Alabama at Birmingham

Physiologic functions of estrogen sulfotransferase as revealed by gene targeting in the mouse. Wenchao Song, Univ. of Pennsylvania

Cyclooxygenase-2 and COX-2 inhibitors in cardiovascular disease
Chairs: Leslie J. Crofford and Ben Lucchesi

The place of COXIBs in the treatment of rheumatic diseases. Leslie J. Crofford, Univ. of Michigan

COX-1 and COX-2-derived prostaglandins in vascular biology. Tilo Grosser, Univ. of Pennsylvania

Prostaglandins and hypertension: implications for use of COXIBs. Tom Coffman, Duke Univ.

Does specific inhibition of COX-2 pose a cardiovascular risk or benefit? Carlo Patruno, Univ. of Rome

Tuesday Morning

Molecular substrates of anxiety: what have we learned from GABA_A receptor heterogeneity?
Chair: Phil Skolnick

Overview. Phil Skolnick, DOV Pharmaceut., Inc.

Molecular pharmacology of GABA_A receptor heterogeneity. Hartmut W.M. Lueddens, Univ. of Mainz, Germany

Analysis of GABA_A receptor functions by knock-in point mutations. Uwe Rudolph, Univ. of Zurich
Subtype selective GABA<sub>A</sub> receptor ligands: can the <i>in vivo</i> and <i>in vitro</i> pharmacologies be reconciled? **Harry June**, Indiana Univ. - Purdue Univ.

Searching for the "holy grail": can we develop anxioselective drugs? **Arnold S. Lippa**, DOV Pharmaceut., Inc.

Nicotine receptors: connecting basic science to therapeutic potential

Chairs: George J. Christ and Jerry J. Buccafusco
Honorary Chair: John P. Long

**Introduction. Long P. Long**, Univ. of Iowa Col. of Med.

Crystal structure of AChBP. **August B. Smit**, Vrije Univ., Amsterdam, The Netherlands

Phenotypes of nicotinic receptor knock out mice. **Lisa Marubio**, Baylor Col. of Med.

Disease relevance: schizophrenia. **Bob Freedman**, Univ. of Colorado Hlth Sci. Ctr.


Transgenic models of heart failure and heart failure therapeutics

Chairs: J. David Port and Joan Heller Brown

The role of HDACs in modulating cardiac hypertrophy. **Timothy A. McKinsey**, Myogen, Inc., Westminster, CO


Role of G-proteins in the heart failure phenotype. **Gerald W. Dorn**, Univ. of Cincinnati

Myocardial hypertrophy and failure induced by altered contractile proteins. **Leslie A. Leinwand**, Univ. of Colorado

The PDZ binding motif of the beta2 adrenergic receptor modulates receptor trafficking and signaling in cardiac myocytes. **Yan Xiang**, Stanford Univ. (Abstract 8708)

Ophthalmic drug development: new frontiers or me too?

Chair: Benjamin R. Yerxa

Ocular pharmacology, target diversity and drug development. **Gary Novack**, PharmaLogic Development, Inc., San Rafael, CA

Mechanisms in the pathogenesis of age related macular degeneration. **Marco Zarbin**, UMDNJ

Preclinical studies in ophthalmology. **Ward Peterson**, Inspire Pharmaceut., Inc.

Development of antisense therapies for CMV retinitis and other ophthalmic diseases. **Scott Henry**, Isis Pharmaceut., Inc.

Transcriptional suppression of cytochrome P450 genes by endogenous and exogenous chemicals

Chair: David S. Riddick

Positive and negative transcriptional regulation of cytochromes P450 by polycyclic aromatic hydrocarbons. **David S. Riddick**, Univ. of Toronto

Down-regulation of constitutive and inducible cytochromes P450 by inflammatory mediators. **Edward T. Morgan**, Emory Univ.

DHEA suppresses CYP2C11 expression through a PPAR-independent mechanism. **Russell A. Prough**, Univ. of Louisville Sch. of Med.

Bile acid and nuclear receptor regulation of cytochrome P450 gene transcription. **John Y.L. Chiang**, Northeastern Ohio Univ.

**Tuesday Afternoon**

**Animal models of neuropsychiatric diseases**

Chairs: Frank I. Tarazi and Sabina Berretta

- Modeling Huntington's Disease in the mouse: mechanistic and therapeutic insights. **Susan Browne**, Cornell Univ.
- Role of subthalamic nucleus and substantia nigra pars reticulata in primate parkinsonism. **Thomas Wichmann**, Emory Univ. Sch. of Med.
- Role of the amygdala in the pathophysiology of schizophrenia: a "partial" rodent model. **Sabina Berretta**, Harvard Med. Sch.

**Isoform-specific regulation of adenylyl cyclases: a new focus for drug discovery**

Chairs: Ross D. Feldman and Paul A. Insel

- Stoichiometry and compartmentation of signaling via adenylyl cyclases. **Paul A. Insel**, UCSD
- Isoform-specific regulation of adenylyl cyclases by GPCRs. **Daniel R. Storm**, Univ. of Washington
- Development of drugs targeted to specific adenylyl cyclase isoforms. **Yoshihiro Ishikawa**, UMDNJ

**Vesicle monoamine transporters (VMATs)**

Chair: Arnold E. Ruoho

- Chemical neuroanatomy of the vesicular amine transporters: autonomous and distributed aminergic phenotypes in the mammalian nervous system. **Lee E. Eiden**, NIMH, NIH
- The ligand binding sites and structure of VMAT2. **Arnold E. Ruoho**, Univ. of Wisconsin Sch. of Med.
- Mechanism of coupling of H+ and substrate fluxes in transporters: EmrE as a model system. **Shimon Schuldiner**, Hebrew Univ. of Jerusalem, Israel
- VMAT2 as a human gene for narcolepsy and dopaminergic disorders: extended human VMAT2 haplotypes, imprinting and relationships to mouse knockout models. **George R. Uhl**, NIDA, NIH, Baltimore

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**Sunday Morning**

**Division for Pharmacology Education Symposium: Who controls and teaches pharmacology in the new integrated curriculum?**

Moderators: Gary C. Rosenfeld and Jack W. Strandhoy

- Multiple learning formats provide opportunities and challenges to teaching pharmacology. **Jack W. Strandhoy**, Wake Forest Univ.
- Pharmacology in the medical school curriculum - experiences at Baylor College of Medicine. **Janet L. Stringer**, Baylor Col. of Med.

**Division for Drug Metabolism Platform Session: Biotransformation and drug transport**

Chairs: Michael R. Franklin and Thomas R. Kocarek

- James R. Gillette Best Paper Awards and selected contributed paper presentations.
**Sunday Afternoon**
**Division for Toxicology Symposium: The dangers of designer drugs**
Chair: Terrence J. Monks

Selective neurotoxic effects of drugs of the amphetamine type. **George Ricaurte**, *Johns Hopkins Univ. Sch. of Med.*

On the chemistry and hepatic metabolism of designer drugs of the ecstasy and new piperazine type. **Hans H. Maurer**, *Univ. of Saarland, Homburg/Saar, Germany*

MDMA metabolism in humans: pharmacodynamic and toxicological implications. **Rafael de la Torre**, *Inst. Municipal D’Investigacio Medica, Barcelona, Spain*

The neurotoxicity of metabolites of ecstasy. **Terrence J. Monks**, *Univ. of Texas at Austin*

**Division for Cardiovascular Pharmacology Best Paper Award Presentations**
Chairs: Mariana Morris and John Kermode

**Division for Clinical Pharmacology Symposium: Adrenergic signaling pathways as a target for pharmacogenetic research**
Chair: Terrence F. Blaschke

Genetic variants of adrenergic receptor signaling components: an introductory overview. **Paul A. Insel**, *UCSD*


Alternative splicing as a mechanism for variation in drug response. **Darrell R. Abernethy**, *NIA, NIH, Baltimore*

Synergistic polymorphisms of the $\beta_1$- and $\alpha_2$-adrenergic receptors and the risk of congestive heart failure. **Kersten Small**, *Univ. of Cincinnati Med. Ctr.*

**Division for Behavioral Pharmacology Symposium: Learning and cognition: behavioral, pharmacological and molecular relationships**
Chair: James E. Barrett


Genetic approaches to study learning and memory. **Theodore G. Abel**, *Univ. of Pennsylvania*


Calcium regulation and gene expression in aging-related memory impairment. **Philip W. Landfield**, *Univ. of Kentucky*

Drug development for cognitive enhancement. **Gregory M. Rose**, *Memory Pharmaceut.*

**Monday Afternoon**
**Division for Drug Discovery, Development and Regulatory Affairs Symposium: Clinical genomics: a source of pre-validated drug targets and smart drugs**
Chair: Benjamin R. Yerxa

Using multiple founder populations to discover new drug targets. **Michael R. Hayden**, *Univ. of British Columbia*

The genealogic approach to finding human drug targets for human disease. **Jeffrey Gulcher**, *deCODE Genetics, Reykjavik, Iceland*


Developing haplotypes for personalized medicine and smarter clinical trials. **Clay Stephens**, *Genaissance Pharmaceut., Inc.*
Division for Drug Metabolism Symposium: Structural domains and motifs: functional implications for drug-sensing transcription factors  
Chair: Masahiko Negishi

Domain analysis of the Ah receptor. **Lorenz Poellinger**, Karolinska Inst, Stolkholm, Sweden.

Multiple drug-binding orientations in the crystal structure of the nuclear orphan receptor, PXR. **Matthew R. Redinbo**, Univ. of North Carolina at Chapel Hill

Nrf2 and its protein-protein interactions regulate drug-dependent gene induction. **Masayuki Yamamoto**, Univ. of Tsukuba, Tsukuba, Japan

Mutational analysis of the nuclear orphan receptor CAR. **Masahiko Negishi**, NIEHS, NIH, Research Triangle Park

Division for Molecular Pharmacology Post Doctoral Award Finalists  
Chair: Rick Neubig

Milliseconds to medicines: Regulators of G-protein signaling (RGS) as novel drug targets. **Rick Neubig**, Univ. of Michigan


Ryanodine receptor phosphorylation and diastolic function are increased by CaMKII in cardiomyocytes. **Tony Zhang**, UCSD (Abstract 7565)

Division for Systems and Integrative Pharmacology Symposium: Cocaine neuropharmacology: integrating functional imaging and *in vivo* neurochemistry.  
Chairs: Leonard L. Howell and Michael Nader

Use of PET imaging to characterize cocaine-induced changes in dopamine D2 receptors in nonhuman primates. **Michael A. Nader**, Wake Forest Univ. Med. Sch.


Monoamine transporters and cocaine medication development in nonhuman primates: PET imaging and *in vivo* microdialysis. **Leonard L. Howell**, Emory Univ.


Neurochemical mechanisms mediating cue-induced cocaine craving in humans determined by PET imaging and fMRI. **Anna Rose Childress**, Univ. of Pennsylvania

Division for Neuropharmacology Symposium: Club drugs neuropharmacology: new challenges  
Chair: Jerry Frankenheim

The “club drugs” present new challenges. **Jerry Frankenheim**, NIDA, NIH


Functional consequences of MDMA abuse. **John E. Mendelson**, UCSF

GHB physiology and pharmacology. **O. Carter Sneed, III**, Univ. of Toronto

Hallucinogens: from LSD to mescaline. **Gerard J. Marek**, Pfizer, Inc.

Neurotoxicity of NMDA antagonists (ketamine, PCP, N20, ethanol) in the adult and developing brain. **John W. Olney**, Washington Univ.
Special Sessions

Friday
Teaching Institute: Challenges in pharmacology graduate education
A classical approach to teaching pharmacology to graduate students. Barbara S. Beckman, Tulane Univ.
A core curriculum for graduate studies at MUSC. Perry V. Halushka, Med. Univ. of South Carolina
Experience with a core curriculum for graduate students at LSU/Shreveport: pros and cons. Sandra Roerig, Louisiana State Univ. at Shreveport
Graduate student panel:
Lawrence P. Carter, Univ. of Texas Hlth. Sci. Ctr. at San Antonio, Ted Price, Univ. of Texas Hlth. Sci. Ctr. at San Antonio, Laila Elsherif, Univ. of Louisville

Graduate Student Colloquium: Convocation: Challenges in pharmacology graduate education Practical tips for success in a pharmacology graduate program and beyond
Information overload: swimming rather than sinking in the sea of knowledge. David B. Bylund, Univ. of Nebraska Med. Ctr.

Saturday
Workshop: Securing your future through competitive grant writing
(Sponsored by the Minorities Committee)
Moderator: Sunny E. Ohia
Goal: To provide an opportunity for the panelists to discuss their experiences in securing funding from governmental and non-governmental sources based on winning grant proposals.
Funding opportunities at the predoctoral level. Ashiwel S. Undie, Univ. of Maryland Sch. of Pharmacy
Funding opportunities at the postdoctoral level. Richard De La Garza, II, Albert Einstein Col. of Med.
Funding opportunities at the faculty level. Rita J. Valentino, Children’s Hosp. of Philadelphia

Sunday
Symposium: Drug abuse as a gender issue
(Sponsored by the Women in Pharmacology Committee)
Chairs: Linda P. Dwoskin and Kathleen M. Kantak
Response to alcohol and alprazolam in women with potential risk factors for developing substance abuse problems. Suzette M. Evans, Columbia Univ. Col. of P and S
Sex differences in the anxiety-reducing effects of abused drugs. Marlene A. Wilson, Univ. of South Carolina Sch. of Med.
Gender differences in substance use disorders. Kathleen Brady, Med. Univ. of South Carolina
Sex differences in the acquisition, maintenance, reinstatement, and treatment of drug abuse: animal models. Marilyn E. Carroll, Univ. of Minnesota
Hormonal effects on withdrawal and smoking behavior with and without transdermal nicotine in pre- and post-menopausal women during short-term smoking cessation. Sharon Allen, Univ. of Minnesota
Sex differences and nicotine reinforcement in animals and humans. Nadia Chaudhri, Univ. of Pittsburgh

Monday
Symposium: Presentation Skills
(Sponsored by ASPET’s Women in Pharmacology Committee and APS’ Women in Physiology Committee)
Chairs: Carole M. Liedtke, Siribhinya Benyajati, and Joan M. Lakoski

Introduction. **Carole M. Liedtke**, *Case Western Reserve Univ.*

Oral presentations. **Kim Barrett**, *UCSD*

Interviewing skills. **Ann M. Schreihofe**, *Med. Col. of Georgia*

Poster presentations. **Joan M. Lakoski**, *Univ. of Pittsburgh*

Sharing science with the public. **Mary J.C. Hendrix**, *Univ. of Iowa*

Wrap up. **Sinya Benyajati**, *Univ. of Oklahoma Hlth. Sci. Ctr.*

## Lectures

**The Torald Sollmann Award in Pharmacology Oration**

The Changing Face of Pharmacology: A True Chimera or in Transition. **Palmer W. Taylor**, *UCSD*

Saturday

**The Harry Gold Award in Clinical Pharmacology Lecture**


Sunday
Organized by: Roberto Levi, *Cornell University* and David J. Pinsky, *Columbia University*

**Thursday, April 10**

**SESSION I: CURRENT PHARMACOLOGICAL TREATMENT OF STROKE: ARE THE HURDLES INSURMOUNTABLE?**

- Tissue plasminogen activator and stroke. **Sidney Strickland**, *Rockefeller Univ.*
- Why do stroke trials fail? TBD

**SESSION II: VASCULAR COMPROMISE AND NEURONAL DEMISE IN STROKE**

- Microvascular inflammation and coagulation in ischemic cerebral injury. **David J. Pinsky**, *Columbia Univ.*
- Role of inflammatory genes in ischemic brain injury. **Costantino Iadecola**, *Cornell Univ.*
- Does the NMDA antagonist saga signal the death of excitotoxicity? **Charles F. Stevens**, *Salk Inst.*
- Oxidant stress and DNA damage in stroke. **Pak H. Chan**, *Stanford Univ.*
- Pharmacological neuroprotection in animal models. **Richard J. Traystman**, *Johns Hopkins Univ.*

**Friday, April 11**

**SESSION III: STROKE THERAPY: EYE TOWARDS THE FUTURE**

- Nonpharmacologic approach to stroke therapy. Hemicraniectomy: when more is less. **Jeffrey I. Frank**, *Univ. of Chicago*
- Role of hypothermia and albumin as a non-pharmacologic approach to stroke therapy. **Myron D. Ginsberg**, *Univ. of Miami Sch. of Med.*
- Nonpharmacologic approach to stroke therapy: role of growth factors and stem cells. **Seth Finklestein**, *ViaCell, Inc.*
- Stroke therapy: the pharmacological future. **Giora Z. Feuerstein**, *Bristol-Myers Squibb*

Eight Category 1 CME credits towards the American Medical Association Physician’s Recognition Award will be offered