

The Pharmacologist

Vol. 49 Number 3 **2 0 0 7** September

ASPET Centennial Meeting at Experimental Biology 2008 San Diego, CA **April 5 - 9**





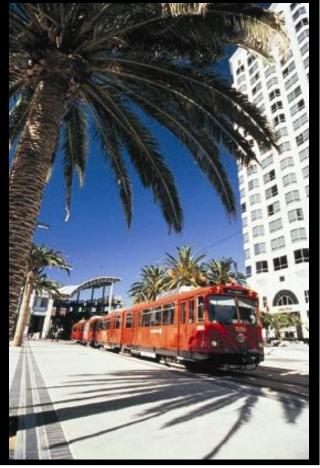




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The PHARMACOLOGIST

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Reminder: Dues Notices for 2008 will be mailed out this month. Please be sure to pay your dues before January 1, 2008. Payment may be made online at

www.aspet.org

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Suzie Thompson

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MESSAGE FROM THE PRESIDENT



Dear ASPET Members,

I am deeply honored to have been elected President of ASPET for this joyous centennial year. As we celebrate the founding of our society by John Jacob Abel one hundred years ago, we must continue to both honor the past and work for the future. We will have a grand celebration during our annual meeting in San Diego April 5-9, 2008. This auspicious event will include terrific science, wonderful social opportunities, special gifts, and a grand centennial birthday party! I urge everyone to make every effort to attend what will no doubt be the pharmacological event of the century!

However, as we celebrate the past and the many contributions of our discipline to health and society, we must also prepare for the difficult challenges awaiting us in the future. The

current era of constrained budgets and new regulatory challenges presents a daunting task to ensure the continued health and well-being of our discipline. There is increasing interest by the general public in prescription and over-the-counter medications and their costs and potential risks, as well as increasing use and regulatory concerns related to the use of herbals and natural products. For these reasons, the expertise of the ASPET membership has become increasingly relevant.

We must continue to reach out to undergraduate and graduate students, as well as to young scientists, to increase interest in pharmacology. This is most important, since our membership continues to age, and young scientists increasingly pursue multi-disciplinary studies and often do not identify with pharmacology as a discipline. We must maintain the momentum generated by the formation of the divisions and their ability to attract and develop future leaders by involving more young scientists. We should devote as much of our resources as possible to reaching out to young scientists to attract them to our meetings and publish in our journals.

We must maintain and increase the quality and impact of our scientific journals and meetings. These are the primary means by which cutting edge research in our discipline is disseminated and published, and they are a major source of revenue for our Society. We must address the issue of open Web access with the compelling argument for maintaining quality control through a well-organized peer review system. Such quality control can only be accomplished by the participation of expert and motivated individuals provided by professional societies such as ours.

We must continue and increase our efforts in the American political system. We must make our political leaders and regulatory agencies more aware of the resources we as a society can provide. We must become more involved in the important scientific debates on evaluation of drug safety and new scientific advances related to pharmacology. We must also continue to push for further increases in research funding, on the grounds of the potentially enormous payoff.

We must continue to lead in the development of new scientific knowledge regarding the principles and applications of pharmacology. The enormous fund of knowledge of our members puts us in a position to continue to play a major role in the development of new knowledge, particularly in systems and integrative biology. It also allows us to provide the much needed well-trained pool of personnel required for pharmaceutical, biotech, and academic institutions. ASPET and its members are in a unique position to play an important role in the implementation of translational research projects in the NIH Roadmap.

As we celebrate the centennial of our founding, ASPET is fortunate to be well positioned to assist in addressing important problems in American society. Advances in drug therapy have played a huge role in the increase in the quality and quantity of life for many Americans. As we honor our past, we must also honor our future by continuing to actively participate in outstanding scientific research, train dynamic new leaders, educate an increasingly interested and able public, and provide wise counsel to our political representatives and their staff. Such commitments should make our second century even more exciting and fruitful!

Kenneth P. Murenon



Preliminary Program for Experimental Biology 2008

SPECIAL CENTENNIAL SYMPOSIA

Sunday, 9:00-11:30 AM

DRUG DISCOVERY PARADIGMS: PAST, PRESENT, FUTURE

Chair: Robert R. Ruffolo

TBD. Graeme Milligan, University of Glasgow TBD. Brian Zambrowicz, Lexicon Genetics

TBD. Sam J. Enna, University of Kansas Medical Center

TBD. Robert R. Ruffolo, Wyeth Research

* THE G-WHIZARDS OF GPCR/G-PROTEIN SIGNALING

Chair: Lee E. Limbird

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

Sunday, 2:30-5:00 PM

PHARMACOTHERAPEUTICS FOR DRUG ABUSE - THE COCAINE CHALLENGE

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, HDA, NIH Employment-based reinforcement in the treatment of cocaine addiction. 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

Chair: Jeffrey S. Fedan

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

Monday, 9:00-11:30 AM

THE OBESITY EPIDEMIC: PHARMACOLOGICAL CHALLENGES

Chair: Ismail Laher

Molecular aspects of energy balance. Matthias H. Tschop, University of Cincinnati College of Medicine TBD. Frank P. Kuhajda, Johns Hopkins Bayview Medical Center



Molecular basis of pharmacotherapy of obesity. Stephen R. Bloom, Hammersmith Hospital, Imperial College London TBD. Xavier Pi-Sunyer, St. Luke's/Roosevelt Hospital

TBD. D. Scott Weigle, University of Washington

P450S: STRUCTURE, FUNCTION, IN SILICO PREDICTIONS

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

Monday, 2:30-5:00 PM

NEW CONCEPTS IN AN OLD SYSTEM - RENIN-ANGIOTENSIN SYSTEM BLOCKADE AS THERAPY FOR **GENERAL CV DISEASE**

Chairs: 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 inflammatiion 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

DEVELOPMENT OF INHIBITORS OF THE SOLUBLE EPOXIDE HYDROLASE AS A NOVEL TREATMENT FOR HYPERTENSION, VASCULAR INFLAMMATION AND END ORGAN DAMAGE

Chairs: Bruce D. Hammock and John D. Imig

Epoxide hydrolases, from xenobiotic metabolism to pharmaceutical target. Michael Arand, University of Zurich 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 Georgia

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 at 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

Tuesday, 9:00-11:30 AM

ABC TRANSPORTERS: FROM DRUG RESISTANCE TO DRUG RESPONSE

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

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



NEW EXPERIMENTAL APPROACHES TO THE TREATMENT OF SCHIZOPHRENIA: MOVING BEYOND MONOAMINE ANTAGONISTS

Chairs: 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. Schoepp, Merck Research Laboratories

De novo design of potent GlyT1 inhibitors: In vitro and in vivo profiles. Craig W. Lindsley, Vanderbilt University Medical Center

* Jointly sponsored by ASBMB

Sunday, 9:00-11:30 AM

CANNABINOID CB1 RECEPTOR INTERDEPENDENCE WITH OTHER RECEPTOR SYSTEMS AS A TARGET FOR **MEDICATION DEVELOPMENT**

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 heteromeric receptor complexes with adenosinergic, nicotinic, dopaminergic and opioid receptors. Sergi Ferre, NIDA, NIH

Drug-discrimination and in-vivo microdialysis procedures for studying adenosinergic, 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 Medicine 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. Daniele Piomelli, University of California-Irvine

PHARMACOLOGY EDUCATION FOR THE NEXT 100 YEARS: PREPARING THE NEXT GENERATION OF **PHARMACOLOGISTS**

Chairs: Lynn M. Crespo and Joey V. Barnett

Sunday, 2:30-5:00 PM

REGULATION OF ION CHANNELS IN CARDIOVASCULAR DISEASES

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 AND DISEASE CONTEXT

Chair: Sandra Siehler

Physiological relevance of Galpha₁₂ and Galpha₁₃ in various tissues. **Stefan Offermanns**, *University of Heidelberg* Role of G_{12/13} signaling in cancer invasion and metastasis. Patrick J. Casey, Duke University Medical Center Regulation of phospholipase C-epsilon by G_{12/13} and RhoA. T. Kendall Harden, University of North Carolina School of Medicine

Specific interplay of G_{12/13} and RhoGEF proteins in the regulation of Rho activation. **Philip Wedegaertner**, *Thomas* Jefferson University

Mechanistic insights and therapeutic impact of G_{12/13}-related signaling of G protein-coupled receptors. Sandra Siehler, Novartis Pharma AG, Basel, Switzerland

Monday, 9:00 - 11:30 AM

THE EMERGING SCIENCE OF DRUG SAFETY

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. Sir Alasdair M.

Breckenridge, Medicines and Healthcare Products Regulatory Agency, London, U.K.

Development of informatics to support post-marketing surveillance in the United States. Kenneth D. Mandl, Harvard University-MIT

Monday, 2:30-5:00 PM

NEUROPLASTICITY IN ADDICTION: PICKING UP THE PIECES

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, UCF

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, 9:00-11:30 AM

INTEGRATIVE UROGENITAL PHARMACOLOGY: IMPLICATIONS TO THE TREATMENT OF BLADDER DISEASE

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

DRUG METABOLISM, BIOACTIVATION AND CHEMICAL-INDUCED TOXICITIES: LESSONS LEARNED AND **CONTEMPORARY ISSUES**

Chair: Terrence J. Monks and Kenneth E. Thummel



Drug toxicities - Lessons learned. **M.W. Anders**, *University of Rochester*Cytochrome P450 mediated drug bioactivation and idiosyncratic toxicities. **B. Kevin Park**, *University of Liverpool*Transporters and drug-induced toxicities. **Susan P.C. Cole**, *Queen's University*

Wednesday, 8:00-10:30 AM

INFLAMMATION: EARLY DISEASE MARKER, DRUG RESPONSE MODIFIER, THERAPEUTIC TARGET

Chairs: Donald W. Miller and Daniel S. Sitar

Inflammation markers as early diagnostic tools and potential drug targets for disease. **B. Alex Merrick**, *NIEHS*, *NIH*, *Research Triangle Park*

Inflammation and drug idiosyncrasy - Is there a connection? **Patricia E. Ganey**, *Michigan State University*Role of the blood-brain barrier in central nervous system inflammation. **Donald W. Miller**, *University of Manitoba*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*

MITOCHONDRIA IN LIFE AND DEATH: FROM BIOGENESIS TO AUTOPHAGY

Chair: Rick G. Schnellmann

* NICOTINIC RECEPTORS AND LIGAND GATED ION CHANNELS

Chair: Palmer W. Taylor

EMERGING IMPORTANCE OF ALLOSTERIC RECEPTOR MODULATION IN DRUG DISCOVERY

Chairs: Carol A. Murphy and Guibao Gu

Topography in drug discovery: The challenge of allosteric modulators. **Arthur Christopoulo**s, *Monash University* Positive allosteric modulation of GABAB receptors: A novel therapeutic strategy for anxiety and drug dependence. **John F. Cryan**, *University College Cork*

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

Chairs: Steven Leeder and Ron Hines

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 bronchodilator medication: Use of whole genome data. **Scott T. Weiss**, *Brigham and Women's Hospital, Harvard Medical School* Genetic variation in statin response. **Ronald Krauss**, *Children's Hosp. Oakland Research Institute* TBA. **Herbert Y. Meltzer**, *Vanderbilt University Medical Center*

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DIVISION SESSIONS

BEHAVIORAL PHARMACOLOGY DIVISION SYMPOSIUM: TRANSLATIONAL RESEARCH IN 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

CARDIOVASULAR PHARMACOLOGY DIVISION JUNIOR SCIENTISTS' COMPETITION AND PAUL M. VANHOUTTE **DISTINGUISHED AWARD LECTURE**

CLINICAL PHARMACOLOGY, TRANSLATIONAL MEDICINE AND PHARMACOGENOMICS DIVISION SYMPOSIUM: DRUG RESPONSE PREDICTIONS: GENOTYPE VS PHENOTYPE

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

DRUG DISCOVERY, DEVELOPMENT AND REGULATORY AFFAIRS DIVISION SYMPOSIUM: SIGNAL TRANSDUCTION BIOINFORMATICS: INTEGRATING PHARMACOLOGY AND SIGNALING MOLECULE DISCOVERY

Chair: Lee E. Eiden

Introduction: Drug discovery, signaling molecule discovery and integrating 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 lyengar, Mount Sinai School of Medicine Pathway analysis in bioinformatics-nodal inhibition and its relevance to drug discovery. Gary D. Bader, University of

Defining drug targets in yeast haploinsufficiency screens: Application to human translational pharmacology. Michel Roberge, University of British Columbia Faculty of Medicine

Workshop rapporteur (STKE perspective) and closing remarks. Nancy R. Gough, Science's STKE

DRUG METABOLISM DIVISION JAMES GILLETTE BEST PAPER AWARD WINNERS' PLATFORM SESSION

MOLECULAR PHARMACOLOGY DIVISION POSTDOCTORAL AWARD FINALISTS

NEUROPHARMACOLOGY DIVISION POSTDOCTORAL SCIENTIST AWARD FINALISTS

SYSTEMS AND INTEGRATIVE PHARMACOLOGY DIVISION SYMPOSIUM: ION CHANNEL DYSFUNCTION AND **DISEASE THERAPY**

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 TBD. Louis J. Ptadek, UCSF

TBD. Andrew R. Marks, Columbia University College of Physicians and Surgeons

TOXICOLOGY DIVISION SYMPOSIUM: ROLE OF TRANSPORTERS IN PREVENTION AND EXACERBATION OF TOXICITY

Chair: Mary E. Vore

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*

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. Susan Michaelis, Johns Hopkins School of Medicine

LECTURES

RAY FULLER LECTURE: BROAD SPECTRUM ANTIDEPRESSANTS: VARIATIONS ON A MONOAMINE THEME Lecturer: Phil Skolnick, DOV Pharmaceuticals, Inc.

EPHAR LECTURE: CALCIUM SENSORS AND POTASSIUM CHANNELS IN THE VASCULATURE

Lecturer: Arthur Weston, University of Manchester

B.B. BRODIE LECTURE

P.B. DEWS LECTURE

SPECIAL SESSIONS

Saturday

2008 TEACHING INSTITUTE: HOW TO TEACH GRADUATE STUDENTS

Chair: William B. Jeffries

DIVERSITY COMMITTEE SYMPOSIUM: IMPLICATIONS OF PHARMACOGENOMICS FOR HEALTH DISPARITIES

Chairs: Sakina E. Eltom and Martha I. Davila-Garcia

Genetics and health disparities in cardiovascular drug therapy. **Dan M. Roden**, *Vanderbilt University School of Medicine*

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*

GRADUATE STUDENT-POSTDOC COLLOQUIUM: LEARNING FROM THE PAST, TRAINING FOR THE FUTURE

Chairs: Lynn L. Crespo and Tarik Smith

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. TBD.

Sunday

JULIUS AXELROD SYMPOSIUM: CELEBRATING A PIONEER PHARMACOLOGIST AND HIS LEGACY: CREATING NEW DRUGS BY REVEALING MECHANISMS OF DRUG ACTION IN FUNDAMENTAL BIOLOGICAL PROCESSES

Chair: Lee E. Eiden

Julie Axelrod: A legacy of fundamental research for drug discovery. **Lee E. Eiden**, *NIMH*, *NIH*Drugs and novel signaling pathways. **Solomon H. Snyder**, Johns Hopkins University School of Medicine
Methylation pharmacogenomics: Neurotransmitters to drug response. **Richard M. Weinshilboum**, *Mayo Clinic College of Medicine*

TBD. 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*



Monday

RAY FULLER SYMPOSIUM: ANTIDEPRESSANTS FOR THE NEW MILLENNIUM: CIRCUMVENTING THE **MONOAMINE SYNAPSE**

Chair: Phil Skolnick

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

Tuesday

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 a 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.

SATELLITE MEETINGS

Friday, April 4 - Saturday, April 5

3rd RGS Protein Colloquium

Chairs: Richard R. Neubig and Michael Koelle

Recent Advances in Muscarinic Receptor Pharmacology and Therapeutics

Chair: Richard M. Eglen

Behavioral Pharmacology Society Meeting

Contact Galen R. Wenger: grwenger@uams.edu or 501-686-8040



CENTENNIAL UPDATE

Wow, the summer's over and guess what that means? Its time to start planning your attendance to next year's Experimental Biology 2008 Meeting in San Diego, CA, April 5 - 9. The upcoming meeting is especially exciting as it will be the official celebration of ASPET's 100th Anniversary. Register for the meeting now at www.eb2008.org.

To commemorate ASPET's 100 years of championing the discipline of pharmacology and spreading pharmacological knowledge, and to celebrate past achievements while fueling excitement for the future of pharmacology, we have planned several exciting Centennial activities for the meeting. Be sure to check out the schedule of our special Centennial symposia on page 72.

In addition to the symposia, there will also be several parties you won't want to miss, including:



Opening Ceremony – Taking place outside on the West Terrace of the Convention Center on Saturday evening, the reception will feature music, food, and plenty of social networking opportunities. This event is free.



Nobel Laureate Reception for Students - Following the Special Centennial symposium, Chance Favors the Prepared Mind: A Nobel Perspective, there will be a reception honoring ASPET's Nobel Laureates. This is your chance to speak with some of the brightest minds in pharmacology. The reception will feature appetizers and drinks and is free to students.



ASPET Student Fiesta - Following the Student/Post Doc Poster competition, the fiesta themed party will give students the chance to network with each other while enjoying food and drinks. A live Mariachi band will provide music for dancing. This event is free.



ASPET Birthday Party – In celebration of the big 100, this ticketed event is not to be missed. Open to all ASPET members and friends of ASPET, this birthday bash will take place on a private block in the exciting Gaslamp Quarter of San Diego. The street festival will feature dinner, drinks, giveaways, live music, street entertainers, and much more! Tickets may be purchased when you register for the meeting online.

Stay informed of ASPET Centennial News

Get details and stay on top of all our planned activities.

Be sure to visit our website often:

http://www.aspet.org/public/Centennial/Centennial_home.htm

WE CORDIALLY INVITE YOU TO ATTEND THE ASPET STREET FESTIVAL!!!



Don't miss this exciting, once in a lifetime event, celebrating the 100^{th} anniversary of the American Society for Pharmacology and Experimental Therapeutics.

Date: Monday, April 7th 2008

Time: 7p.m. - 10p.m.

Place: "J" Street between 4th and 5th Street

Gaslamp Quarter, San Deigo

The ASPET Street Festival will be taking place on a private block of the Gaslamp Quarter, open only to ASPET members and friends. This ticketed event will feature:

- Large Buffets Catered by Jolt'N Joe's and Red Pearl Restaurants
- Outdoor and Indoor Cocktail Bars
- Live Music by The Mar Dels (playing everything from disco to pop music)
- Street Entertainers
- Door Prizes
- Giveaways
- Private Use of the Restaurants on the Block
- Indoor and Outdoor Seating
- Dance Floor
- Billiards and Darts
- Birthday Cake
- Plus much more!



Ticket Prices:
\$25 - ASPET Members and
Family of ASPET Members
\$15 - ASPET Student Members
\$35 - Non-ASPET Members



Purchase your tickets when you register to attend the Experimental Biology 2008 Meeting

April 5 - 9, San Diego, CA

www.eb2008.org

3rd RGS Colloquium

April 4-5, 2008, San Diego, CA

Organized by: Michael Koelle, PhD and Richard R. Neubig, MD, PhD
This is a Satellite Meeting to Experimental Biology 2008

Topics and Speakers include:

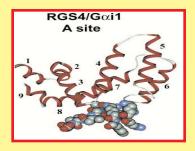
RGS Structure/Function:

John Tesmer, University of Michigan

Roles of RGS proteins and RGS homology domains in signaling scaffolds

John Sondek, University of North Carolina at Chapel Hill

R7-family RGS proteins





RGS Targeting/Cellular Localization

John R. Hepler, Emory University

RGS proteins as multifunctional scaffolding proteins in cell physiology

Kendall J. Blumer, Washington University School of Medicine

Post-translational modifications regulating RGS protein shuttling

Kirill Martemyanov, University of Minnesota

Macromolecular complexes of RGS9 - master regulators of G protein signaling in retina and striatum

Marilyn G. Farquhar, University of California at San Diego

Roles of RGS-PX1 in endocytosis and G protein signaling

Andrew Tinker, Royal Free & University College Medical School

The molecular basis of the pleiotropic effects of RGSs in the regulation of G-protein gated K+ channels

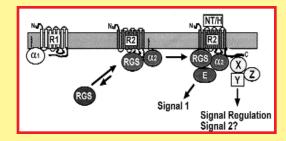
Novel Interactions/Functions

Vladlen Slepak, University of Miami

Structure and function of Gbeta5-R7 complexes: 10th anniversary

Peter Chidiac, University of Western Ontario

Novel regulatory properties of RGS2



speakers will be selected from meeting registrants based on their submitted abstracts

RGS Action In Vivo

John H. Kehrl, National Institute of Allergy and Infectious Diseases
Insights into RGS protein function from the analysis of RGS
and Gi alpha knock-out mice

John Traynor, University of Michigan

RGS proteins as a potential drug target for depression

Vanna Zachariou, University of Crete

A role of RGS9, RGS4, and RGSz in addiction and analgesia

Additional Program Information and Registration at:

http://www.aspet.org/public/meetings/meetings.html

We anticipate, but cannot guarantee, being able to provide some funds to assist junior scientists with travel to the meeting. See website for details.

Recent Advances in Muscarinic Receptor

Pharmacology and Therapeutics April 4 - 5, 2008

San Diego Marriott Hotel and Marina, San Diego, CA

Organized by Richard Eglen, Nigel Birdsall, Christian Felder, Allison Fryer and Neil Nathanson

Topics and Speakers Include:

Physical/Biophysical Studies:

M₁ muscarinic receptors: Structure-function relationships

Ed Hulme, MRC National Institute for Medical Research

Muscarinic receptor dimers and clustering - single molecule studies on living cells

Nigel Birdsall, MRC National Institute for Medical Research

Novel Aspects of Muscarinic Receptor Pharmacology:

At long last - emerging selective muscarinic receptor pharmacology
Christian Felder, Eli Lilly & Company

Potential for allosteric activators of M₁ and M₄ muscarinic receptors in

the treatment of schizophrenia

Carrie Jones, Vanderbilt University

Optimizing inhaled muscarinic receptor antagonist dissociation rates to enhance duration and subtype selectivity

Steven Charlton, Novartis

Muscarinic Receptor Signaling and Phenotypes:

Regulation of muscarinic receptor expression and function
Neil Nathanson, University of Washington
Emerging data from transgenic models
Jurgen Wess, NIDDK/NIH

Subtype-specific functions of mAChRs revealed by the use of knockout mice

> Minoru Matsui, Dartmouth College Muscarinic signaling in striatum TBD

Therapeutic Uses of Muscarinic Drugs:

Muscarinic receptor agonists: a novel treatment for schizophrenia
Anantha Shekhar, Indiana University

Muscarinic antagonists and bladder dysfunction
Clare Fowler, University College, London

Muscarinic antagonists and lung dysfunction
Allison Fryer, Oregon Health & Science University

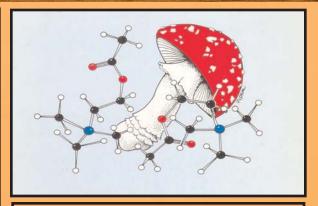
Emerging Areas and Novel Concepts:

Non neuronal muscarinic systems
Sergei Grando, University of California at Irvine
Muscarinic receptors and apoptosis
Andrew Tobin, University of Leicester

Plenary Lecture:

Structure and dynamics of the human beta₂ adrenergic receptor

Brian Kobilka, Stanford University



Awards Opportunities

Otto Loewi New Investigator Awards and Lectures:

To recognize and encourage the work of young scientists, the Colloquium will offer prizes to up to three young investigators for scientific studies on muscarinic receptors.

Ruth Levine Award:

To recognize Ruth Levine's outstanding encouragement and promotion of the research of graduate and immediate post-doctoral scientists, three presenters will be selected by the Scientific Committee in advance of the meeting on the basis of their poster abstracts and will be asked to present orally their most important findings. The best presentation, based on both oral presentation and poster, will be awarded the first Ruth Levine Award.

For more information and to apply, visit the meetings section on www.aspet.org

Additional Program Information and Registration at: http://www.aspet.org/public/meetings/meetings.html

NEW ASPET DATABASE

This summer has been a very busy time in the ASPET office. Over the summer we have been working very hard to convert all of our membership data and our subscription data into a new database that will allow us to more effectively manage our activities and to provide the members with more efficient service. The database we have been using for the past 15 years was outdated, and the programming was beginning to degrade. Moving to a new system allowed us to combine the membership information with our subscription information in a single database to more effectively manage both sets of data. The project started late last year when we interviewed multiple vendors and ultimately selected the product we are now using. Over the summer we had to figure out what data to move over, figure out just where that data was in the old database, pull it from the old database and make it compatible with the new one. We did this once in April to create a test system so that programming could be done to make the system compatible with the needs of ASPET and to allow us to test the data and to be trained. We did this a second time in late August for the final data upload. Since August 30, we have been working from the new system. The transition has not been without headaches and frustrations. No two organizations operate the same way, and thus no membership system is going to come equipped to do everything the way we do. In some cases, we have had to rethink how we do our processes. In other cases, we have had to work closely with the programmers to get the desired results out of the database. We still aren't where we want to be yet, but we are getting closer every day.

One especially difficult aspect (but hopefully one that will prove worth it) is the integration of the new database with our web site. Our new member web interface provides, for the first time, an online ASPET directory separate from the FASEB online directory. It lets you search for members by a variety of criteria, including division. Based on input from our member survey done this summer and on feedback from members frustrated with the FASEB online directory, we decided not to password protect the member directory. You may exclude your information from the directory if you choose to opt out.



However, there is a password protected section of the web site that will let members pay their dues (or any other outstanding invoice) online, view their member information profile and make any changes they want, register for meetings, take surveys, see what meetings they have attended, vote in the elections, and order Centennial products online. Many of these things you can do without logging in, but if you log in, all of your address and contact information is provided, and you don't have to retype it in. These interactive pages have a new and different look and feel to them and should be a useful tool for our members. Unfortunately, not all of the options are available right

now, but we will roll out more options as the integration work is finished.

You should have received an email with your username and password. Your username is your email address, and if you subsequently change your email address, your username will change to reflect that new email. You have been assigned a password, but one of the options available to you is to change that to something you prefer. The system has a "forgotten password" option, plus most staff members can provide you with your password by going into your record in the database. If you do not have an email address, a username has been assigned to you by the system.

New options will appear on the left navigation bar of the web site, including "Member Login" and "ASPET Membership Directory." Once you are logged in, you will also have menu options to "Logout" and go to "My Homepage." We invite you to try the new member interface and take advantage of ASPET's move into the 21st century of information management!



ASPET MEMBERSHIP SURVEY RESULTS

Thank you to all ASPET members who participated in the 2007 ASPET Membership Survey. The annual survey is designed to give each of our members a voice in the workings of the Society. By offering your opinions, criticisms and suggestions, you are allowing us to examine how we are doing and what we can do to improve membership in ASPET. This year we had 1008 members respond to the survey. We asked a variety of questions to cover the different areas of membership concerns. A summary of the survey results are outlined below.

General Membership and Benefits:

We are happy to report that 93% of respondents feel that ASPET is successfully meeting their professional needs. The other 7% provided us with a variety of comments regarding why we are not meeting their professional needs. These range from being retired to feeling that ASPET does not provide enough attention to education or that ASPET is too oriented towards academia. We appreciate all the comments we received and will consider them in future planning to improve in these areas.

In reviewing our membership benefits, the survey reveals that free online access to ASPET journals and back issues is considered the most useful benefit by our members. Other important benefits to our members include free subscription to Molecular Interventions and reduced registration fees for the Annual meeting.

We also asked a couple of questions regarding our current new member process. Our current membership process requires new applicants to fill out an application form, send their CV and have two ASPET members sponsor their application. The ASPET office will get complaints from time to time from new applicants regarding the need for sponsorship on applications; therefore, we wanted to know if our members thought this process was too restrictive, too easy or reasonable. A strong majority of 91.6% of respondents feel that membership requirements are reasonable.

We also wanted to know how many, if any, new member applications you have sponsored. It turns out that 50.1% of respondents have never sponsored an application. However, a significant portion of respondents (27.2%) have sponsored between two and five applications. If you have never sponsored an application before, please take the time to recruit a colleague, student, or friend to ASPET and act as their sponsor.

ASPET Website:

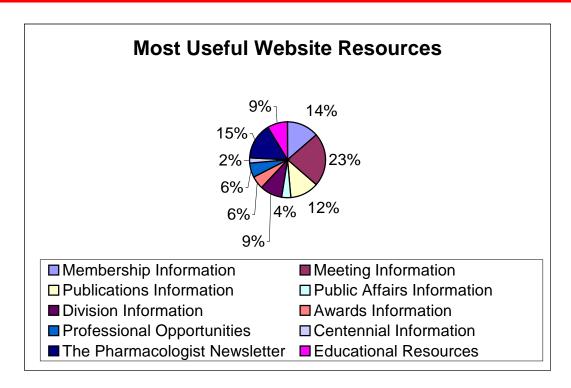
With our new Membership Database coming in, ASPET has the opportunity to make our website more user friendly to our members and offer some new features that we have not had before. With this in mind, we asked your opinion on several topics related to our website.

67.6% of survey respondents told us that they prefer to pay their dues online; however quite a large number of members (32.4%) prefer to mail in their dues payment. We will continue to provide both paper invoices and email reminders for dues payments. For those who wish to pay online, we have added new features to the website which will allow you to pay your dues online more easily than in past years. You can now log into the website and pay your dues without having to re-enter all your information.

Another survey question attempted to find out how often you visit our website and what resources you find most useful. Most respondents only visit the ASPET website once every couple of months. As we continue to provide you with more and more information regarding meetings, the ASPET Centennial, job opportunities and much more on the ASPET website, we hope that you will continue to regularly visit the website, www.aspet.org.



ASPET MEMBERSHIP SURVEY RESULTS



We also had several respondents offer suggestions about what they would like to see on the ASPET website. Most of the comments said that they wanted to see more information provided on the website. The top request for more information was a tie between more information on training and workshops and more information on funding opportunities. Other top requests include pharmacology related news, recent discoveries and developments, more information on other related meetings, job opportunities, and a "paper of the month." There were one or two requests for having blogs and podcasts and more specific things such as a list of FDA approved drugs, list of pharma reps willing to speak at events, etc. Again all of this information is greatly appreciated and will be reviewed for website discussions.

EB/ASPET Annual Meeting:

2008 will be ASPET's 100th Anniversary, and we plan on celebrating in a huge way at our Annual Experimental Biology meeting. We asked how many of you are already planning to attend the Centennial meeting. We are happy to see that 38% of you are planning to attend. There are still 36% of you who are undecided about going. We hope that you will take advantage of this exciting time and decide to attend the meeting in San Diego. Please visit our website at www.aspet.org or the EB website at www.eb2008.org for more information regarding programs, events, and opportunities at the upcoming meeting.

Journals:

As many publishers toy with the idea of going online-only, ASPET wanted to know what you think about this. We asked how often you read a print copy of our journals. The results are below:

Journal	Every Issue	Sometimes	Never
Molecular Interventions	54.2%	33.6%	12.2%
Journal of Pharmacology and Experimental Therapeutics	19.1%	57.8%	23.1%
Pharmacological Reviews	18.1%	55.5%	26.4%
Drug Metabolism and Disposition	8.7%	30.5%	60.8%
Molecular Pharmacology	17.4%	51.5%	31.1%



ASPET MEMBERSHIP SURVEY RESULTS

We also asked you how important it was that the journals you publish in have both an online and print edition. The majority of you said that it was very important, and 35% of you said it was somewhat important, with very few respondents saying it was not important. However, when asked how it would affect your decision to publish in ASPET journals if they were to go online only, a very strong majority responded that you would continue to publish your papers anyway.

Public Affairs:

We asked your primary source of research funding. The results are found below:

Source	Response Percent
NIH	51.2%
Other Federal Agency	4.8%
HHMI/Private Foundation	3.1%
State/Municipal	5.6%
Other	35.3%

Within the NIH research funding, we found the following:

National Institute on Drug Abuse	17.0%
National Institute of General Medical Sciences	11.8%
National Institute of Mental Health	8.3%
National Cancer Institute	10.7%
National Institute of Neurological Disorders and Stroke	8.5%
National Heart, Lung, Blood Institute	13.8%
National Institute on Alcohol Abuse & Alcoholism	4.2%
National Institute of Allergy & Infectious Diseases	1.3%
National Eye Institute	1.1%
National Institute of Arthritis & Musculoskeletal & Skin Diseases	0.6%
National Institute of Child Health & Development	1.9%
National Institute of Diabetes & Digestive & Kidney Diseases	7.2%
National Institute on Aging	2.5%
National Institute on Deafness & Other Communication Disorders	0.2%
National Center for Complementary & Alternative Medicine	1.3%
National Human Genome Research Institute	1.0%
National Institute of Biomedical Imaging and Engineering	0.6%
National Institute of Environmental Health Sciences	8.0%

And within Other Federal Agency research funding, we found the following:

NSF	53.7%
VA	29.2%
DOE	12.2%
DOA	4.9%

Overall, we have found the survey results to be very helpful in reviewing the work of ASPET and what our work means to you, the member. We are happy to see that in many ways our members are very happy with our services. We also recognize that there is always room for improvement, and your suggestions are helpful to us in reviewing where we need to change and grow.

It doesn't have to take a survey to tell us what you think. Please feel free to contact the ASPET office if you ever have any ideas, concerns, questions or comments...good or bad. Your input is very valuable to us, and we hope that you will stay active and satisfied with membership in the American Society for Pharmacology and Experimental Therapeutics.



Journals





2008 Prices Set

ASPET's Board of Publications Trustees set 2008 subscription prices and page charge fees for the Society's journals on June 14. Nonmember and institutional subscription rates will increase by 5% for JPET, Pharmacological Reviews, Molecular Pharmacology, and Molecular Interventions. Drug Metabolism and

Disposition will go up by 6%. DMD is projected to publish 13% more pages in 2007 over 2006 with a further increase planned for 2008.

Effective with articles published in the January 2008 issues of JPET, MolPharm, and DMD, page charges will rise to \$80 per page for nonmembers and \$40 per page for members (up from \$70 and \$35, respectively). Page charges help but do not cover actual publications costs.

ASPET's \$50 manuscript submission fee was not increased. Likewise, color figure fees remain \$400 per figure for nonmembers and \$200 per figure for members.

Subscriptions Management Comes In House

All subscriptions management functions for ASPET's five journals, both online and print, are now being handled at the ASPET office. Member subscriptions have been managed by ASPET staff for many years, but nonmember and institutional subscriptions were handled under a contract with the FASEB Dues and Subscriptions Department for the last nine years. The Society's new database was the primary reason for bringing management of all ASPET subscriptions in house.

ASPET and FASEB formerly used the same database software to maintain membership and subscription Although we used the same software, ASPET member records were in one database, and nonmember/institutional subscriptions were in another. The two databases were on the FASEB server, but only a few ASPET staff members could access the nonmember records. Getting subscription statistics, preparing mailing labels, and pulling records for HighWire Press for the online journals took double the work because records had to be pulled from one database and then the other.

This summer, ASPET converted to a new database that is not being used by FASEB. It made more sense to combine all of the Society's subscription records in the new database rather than have FASEB continue to work with only the nonmember and institutional orders.

At the beginning of August, Ron Hanks joined ASPET as the Society's new Subscriptions Assistant. Ron is responsible for all nonmember and institutional subscriptions. Member subscriptions continue to be processed by Bobby Phipps, ASPET's Membership Assistant, as part of the membership renewal process. However, Ron and Bobby are able to help each other process orders because they both use the same database. Ron also provides support for both member and institutional online subscriptions.

Another advantage of having our own Subscriptions Assistant is that the Society now has someone working full time on subscription fulfillment. We had a great working relationship with the FASEB Dues and Subscriptions Department, but we shared one staff person with other FASEB customers. Ron enables ASPET to provide better and faster service to our nonmember and institutional subscribers. Institutions represent 90% of ASPET's subscription customers.



JOURNALS

Bench>Press Coming to Pharmacological Reviews

This fall, Pharmacological Reviews will get its own version of Bench>Press, the highly successful online manuscript submission and peer review system that has been used by JPET, MolPharm, and DMD for several years. The system is expected to be online by the end of November. It will allow the Editor, Deputy Editor, authors, reviewers, and staff to check the status of manuscripts at any time. Once Bench>Press PharmRev is in place, all new manuscript submissions will be processed only through the online system.

Papers published in Pharmacological Reviews are generally invited by the Editor after consideration of recommendations from the Associate Editors. Others who have an interest in writing for Pharmacological Reviews are encouraged to send proposals to the Editor. The proposal should include a detailed outline of the proposed article and a brief curriculum vitae. For more information, please see the Instructions to Authors available at pharmrev.aspetjournals.org.

New Member Numbers & Online Access

When we moved member and nonmember/institutional subscription records to ASPET's new database in August, all members got new member numbers. Nonmembers and institutions got new customer numbers as well. If you activated your online subscription to ASPET's five journals, this change does not affect your online access to the journals, and you don't need to do anything about your subscription. Your new member number will appear in your online subscription record. However, once a subscription is activated, access is by user name and password.

For anyone who has not activated his or her subscription, you will need your new member number. By mid-October, we expect to convert all member and customer numbers for subscriptions at HighWire Press to the numbers from the new database. Activation instructions emailed to members prior to September contained member numbers from the old database, and those numbers will not work after the conversion at HighWire is complete.

If you had a member online subscription prior to September and didn't get a chance to activate your subscription, please send a message to info@aspet.org to get your new member number. We will gladly help you get online access to the Society's five journals as quickly as possible!

TAKE ADVANTAGE OF EMAIL ALERTS

A free service providing email-based alerts for ASPET's journals! Customize alerts to meet your needs: Announcements, Future Table of Contents, Fast Forward Articles, Table of Contents, CiteTrack Alerts including Citation Alerts and Keyword & Author Alerts

Create your alerts at:

JPET.aspetjournals.org/subscriptions

PHARMREV.aspetjournals.org/subscriptions

MOLPHARM.aspetjournals.org/subscriptions

DMD.aspetjournals.org/subscriptions

MOLINTERV.aspetjournals.org/subscriptions



Public Affairs/ Government Relations





Status of NIH and FDA Appropriations

The new fiscal year (FY'08) began October 1 with no resolution for many of the spending bills, including funding for the NIH. A continuing resolution (CR) has been enacted to keep federal programs running until November 16. The most likely scenario is that eventually all the appropriations bills not passed will be bundled together as part of a larger omnibus spending bill. The biomedical research community has advocated for a

6.7% increase in FY'08 (and '09, '10) to help restore the buying power lost since the doubling was completed in 2003. But that hoped for increase cannot be achieved. The CR funds programs at the FY 2007 levels. The Senate may take up the FY 2008 Labor/HHS appropriations bill that funds the NIH the week of October 15. The Senate Committee bill would provide \$29.9 billion for the NIH, approximately \$250 million above the House-approved level, and \$1.2 billion more than the President's FY08 request. The Senate number is below the biomedical research inflation index but is likely to be the high mark whenever the final numbers for NIH's FY'08 are determined.

For the FDA, the outlook in FY'08 is brighter. The Senate appropriations number for FY'08 is \$186 million (12%) above FY'07. This increase, if it holds, would be significant - almost as much as the FDA increases over the past 3 years combined. The House bill passed provides an increase of \$128 million above FY'07. There will be no separate Senate floor vote on the Agriculture appropriations bill, and the goal is to get the House to accept the higher Senate number in whatever conference comes before the likely omnibus appropriations bill. Without a floor debate in the Senate, advocates will lose out on the opportunity to have an open and visible public debate about the appropriate funding level for the FDA in FY'08. There is little chance of any increase above the Senate numbers in the final omnibus. But it is possible that funding levels could fall to the House level – or lower. As part of the continuing resolution, FDA will be funded at current FY'07 levels until November 16. At that time, the omnibus bill must be completed or another CR will need to be implemented. ASPET is working with the FDA Alliance to help maintain the Senate numbers.

NIGMS Anticipates New Round of Proposals for Summer Short Course in Integrative Pharmacology

It is anticipated that NIGMS will solicit (fall 2007) a new round of proposals to continue the summer short courses from 2009 - 2012. NIGMS has recognized the importance of training that enables scientists to integrate information from the most basic molecular and cellular systems to the whole organism and to relate such studies to the human condition. The majority of current graduate students receive relatively little training in physiology and integrative pharmacology, and hands-on experience is particularly lacking in the appropriate selection and use of in vivo and intact organ models. Relatively few institutions have sufficient faculty expertise and infrastructure to provide this training. The need for scientists with training in this area continues to be high in industry, government, and academia, where further attrition of faculty is expected due to retirement trends. In 2004, NIGMS solicited proposals to address this training need, and four programs were funded beginning in summer 2005. For information on the summer short courses visit: http://www.nigms.nih.gov/Training/IOSP.htm

ASPET-IOSS Fund Application Guidelines

The ASPET-IOSS Fund was created to provide support for graduate students and post-doctoral researchers seeking training in integrative whole organ systems sciences. The fund is currently supported by Abbott Laboratories, Merck Research Laboratories, Pfizer and Wyeth Research. The goal is to help augment developing programs (see above) that provide training of students in this field. For application information, visit: http://www.aspet.org/public/public affairs/pa sip.html

NAS Seeks Experts to Form New Biodefense Committee

The National Academies of Sciences is forming a new standing committee on Biodefense. Funded by DoD, the committee's goal is to advance basic and applied research leading to the development of broad spectrum countermeasures against advanced bioterror agents (beyond anthrax/smallpox). There is special interest in discussing obstacles to getting diagnostics, vaccines, or treatments into use. One of the first areas of focus for the committee will be the FDA's animal rule. Members of the standing committee will meet three or four times per year. Individuals on the



PUBLIC AFFAIRS/GOVERNMENT RELATIONS

committee will have an opportunity to directly impact DoD decision makers. Among the areas of expertise desired are pharmacology, diagnostics, drug development/ manufacturing of vaccines or therapeutics, and animal models/animal rule. Experts in these fields are encouraged to submit short biographies. Contact Kerry Brenner at kbrenner@nas.edu.

Conflict of Interest Toolkit

FASEB launched the "COI Toolkit" – a website containing recommendations, tools, and resources for the conduct and management of financial relationships between academia and industry in biomedical research. View http://opa.faseb.org/pages/Advocacy/coi/Toolkit.htm

New FASEB "Breakthroughs" Publication

FASEB released its latest article in the Breakthroughs in Bioscience series. "Breathtaking Discoveries: How Basic Research Led to Treatments for Asthma" describes how fundamental understanding of the immune system, inflammation. and the underlying causes of asthma have resulted in successful treatments for this complex disease, including improved inhalers and leukotriene inhibitors. The *Breakthroughs in Bioscience* series is a collection of illustrated articles, published by FASEB, that explain recent developments in basic biomedical research and how they are important to society. To Breakthroughs in Bioscience Web CODY of these publications, visit the (http://opa.faseb.org/pages/Publications/breakthroughs.htm) or contact FASEB's Office of Public Affairs at (301) 634-7650.

KEEP ASPET INFORMED...

Have you moved?





Changed your e-mail address?

Graduated from your training program?



Help us keep your information accurate so that you don't miss out on any important news or events! Please send all your information changes to Robert Phipps at rphipps@aspet.org.



DIVISION NEWS

Division Executive Committees 2007-2008

DIVISION FOR BEHAVIORAL PHARMACOLOGY

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Alice M. Young, Past Chair (2007-2009)**
Leonard L. Howell, Secretary/Treasurer (2007-2009)*
Elise M. Weerts, Past Secretary/Treasurer (2007-2009)
Susan K. Wood, Student/Fellow Councilor (2007-2009)
Mary Jeanne Kallman, Councilor (2005-2008)
Carol A. Paronis, Councilor (2005-2008)
Annette E. Fleckenstein, ASPET Council Liaison
Christine K. Carrico, Staff Liaison

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Mariana Morris, Past Chair

Debra I. Diz, Secretary/Treasurer (2006-2008)

John C. Kermode, Secretary/Treasurer-Elect (2008-2010)

Edwin K. Jackson, Past Secretary/Treasurer

William Armstead

Alan S. Bass

Ryan M. Fryer

Steven P. Jones

Richard Kennedy

Benedict R. Lucchesi

Carrie Northcott

Ann A. Tobin

David D. Ku

Joseph R. Stimers

Hemal Patel

Biny K. Joseph

Bryan F. Cox, ASPET Council Liaison Christine K. Carrico, Staff Liaison

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Shinya Ito
Laura James
Evan D. Kharasch
Dan M. Roden
John S. Lazo, ASPET Council Liaison
Christine K. Carrico, Staff Liaison

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Michael F. Jarvis, Past Secretary/Treasurer (2005-2007)
Craig Beeson (2009)
Anindya Bhattacharya (2009)
Jerry Buccafusco (2009)
R. William Caldwell (2008)
Marlene L. Cohen (2008)
Timothy Esbenshade (2009)
Robert Leadley (2009)
Rebecca Roof, Student/Fellow (2010)
Shiladitya Sengupta (2009)
Janice Stickney (2010)
Thomas Stover (2009)
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Melissa Runge-Morris, Secretary/Treasurer-Elect
Jeffrey Stevens, Past Secretary/Treasurer
Emily E. Scott, Councilor (2009)
Hollie Swanson, Councilor (2008)
David E. Williams, Councilor (2007)
Chi Chen, Junior Councilor-in-Training (2008)
Eric F. Johnson, ex officio
Terry Monks, ASPET Council Liaison
Christine K. Carrico, Staff Liaison

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Myron L. Toews, Secretary/Treasurer-Elect
Lee M. Graves, Past Secretary/Treasurer
John R. Hepler
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^{*} Representative to the Council of Division Chairs

^{**}Representative to the Program Committee

^{*} Representative to the Nominating Committee at EB'08

MEMBERS IN THE NEWS



Marcus M. Reidenberg, MD, was elected Chairman of the World Health Organization Expert Committee on the Selection and Use of Essential Medicines at its meeting at WHO headquarters in Geneva, Switzerland, on March 19–23, 2007. The WHO Essential Medicines program was started in 1976, and Dr. Reidenberg was appointed to its Expert Panel and Expert Advisory Committee in 1989. The WHO appoints a panel of international experts after receiving approval from their member states. Dr. Reidenberg's appointment was approved by the U.S. government. Members of the Expert Committee are selected from members of the Expert Panel. The Essential

Medicines program established the essential medicines concept, that a limited list of essential medicines to meet the medical needs of the vast majority of a population be purchased and made available to everyone in the population before money is spent purchasing other medicines. One hundred and fifty-six countries have adopted this concept in principle. This Expert Committee advises the Director General of WHO about policies and issues related to essential medicines and regularly updates a Model List of Essential Medicines to show how the concept can be implemented. In 1977, the first Model List contained 186 drugs. Now, 30 years later, it contains somewhat over 300. The Model List itself is used as a purchasing list by many countries with limited resources that are helped by this international expert advice in setting their priorities for purchasing essential medicines. Most, if not all, donor agencies such as UNICEF will purchase only medicines on the Model List. In addition, non-governmental organizations and charities use this list as a guide to their donations. This WHO program has had global impact on making essential medicines available to those who need them.

Mariana Morris, PhD, professor and chair of the department of pharmacology and toxicology at Wright State University, recently won the Fulbright Research/Teaching Scholarship. Read about Dr. Morris and her scholarship in the Wright State University Dialogue newsletter at http://www.wright.edu/cgi-bin/cm/dialogue/dialogue.cgi?action=features&id=702

Catherine C. Fenselau, PhD, professor in the department of chemistry and biochemistry at the University of Maryland, will receive the *Frank H. Field and Joe L. Franklin Award for Outstanding Achievement in Mass Spectrometry*, an award sponsored by Waters Corporation. Dr. Fenselau will receive the award at the 235th ACS National meeting.



Darrell R. Abernathy, MD, PhD, has been appointed the Chief Science Officer of U.S. Pharmacopeia. His notable appointment was featured in the October 1, 2007 issue of *The Washington Post*, Business Section. His interview highlighted his career moves and how he was able to get to his current position.

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NEW ASPET MEMBERS

ASPET WELCOMES THE FOLLOWING NEW MEMBERS:

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De Godoy, Marcio, Thomas Jefferson Univ

Dolezal, Vladimir, Institute of Physiology CAS

Dong, Feng, Univ of Wyoming School of Pharmacy

El-Mas, Mahmoud, East Carolina Univ School of Medicine

Fawzi, Ahmad, Acucela Inc.

Fernandez-Perez, Leandro, Univ of Las Palmas De Gran Canaria

Ghose, Romi, Univ of Houston College of Pharmacy

Gokhale. Aarti. Genomics Institute

Hammond, Rebecca, NICHD/NIGMS NIH

Jacques-Silva, Maria, Univ of Miami

Khroyan, Taline, SRI International

Kim, Jung-Ae, Yeungnam Univ College of Pharmacy

Krajcsi, Peter, Solvo Biotechnology Inc

Krasnova, Irina, NDA/NIH/DHHS

Lamba, Jatinder, St. Jude Children's Research Hospital

Li, Qun, Univ of Wyoming School of Pharmacy

Li, Tiangang, Northeastern Ohio University College of Med

Li, Ye, Univ of Kansas Medical Center

Martin, William, Theravance, Inc.

McVie-Wylie, Alison, Genzyme Corporation

Rios, Jose-Luis, Univ of Valencia Faculty of Pharmacy

Rudolph, Uwe, Harvard Medical School McLean Hospital

Schiffer, Hans, Acadia Pharmaceuticals

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Mallva, Anita, Kenvon College

Matthews, Shelton, Grambling State Univ

May, Sarah, Univ of Cincinnati

McClure, Allison, Michigan State Univ

Nelson, Brian, Univ of North Dakota

Pace-Graczyk, Billie, Drake Univ

Palma, Alexandra, Univ of Colorado-Denver HSC

Patni, Meghan, Univ of Kansas Medical Center

Pribula, Jacqueline, Univ of North Dakota

Priestley, Jessica, Michigan State Univ

Prior, Sara, Univ of Arkansas

Schluentz, Steven, Albion College

Sun, Yamin, Univ of Texas-San Antonio HSC

Tsai, Hobart, Univ of Michigan

Vonadeelerd. Somsri. Mahidol Univ

White, Kate, Univ of Illinois

Whittle, Martin, Univ of Puget Sound

Xu, Ke, Univ of North Dakota

Zepeda, **Jessie**, Univ of Arizona



John Paul Long, PhD



John Paul Long (J.P. to those in the know) died of natural causes on Sunday, June 10, 2007, after a day spent gardening, one of his favorite activities.

J.P. was a stellar scientist and a pioneer in the field of autonomic pharmacology who published over 300 papers, trained 15 MS students, 23 PhD students and 18 postdoctoral fellows during a half century spent at the University of Iowa. Many of his trainees have themselves gone on to illustrious careers and positions of leadership in academia and industry.

A lifelong lowan (except for two year stints at Sterling-Winthrop and in the Army), J.P. earned his BS in Chemistry and an MS and PhD in Pharmacology at the University of Iowa. J.P.'s research career started auspiciously with his synthesis and evaluation of a new group of cholinesterase inhibitors that included hemicholinium, and it never lost steam. For this and related work he received the John Jacob Abel Award in 1968 from ASPET. J.P. was Head of the Department of Pharmacology at the University of Iowa between 1970 and 1983 and was named a Roy J. Carver Professor in 1984, a position which he held until his retirement in 1996.

In addition to his scientific contributions, J.P. was recognized for his dedicated, inspirational and enthusiastic teaching to medical students, and indeed to any student. His teaching earned him numerous awards and, in recognition of this excellence, a teaching award was named in his honor. J.P. provided sage guidance to graduate students and faculty alike throughout his career - which often included the reminder that his discovery of hemicholinium had been made at midnight in the laboratory. Indeed, it was only last year that J.P. fully retired from teaching and departmental activities.

J.P. was also very active in ASPET, serving as secretary-treasurer on council and on the editorial board for many years.

In recognition of J.P.'s contributions to the discipline, the Department of Pharmacology committed endowment funds to the John Paul and Marilyn Long Chair of Pharmacology. Those who wish to honor J.P.'s role in their own development as scientists, educators and administrators may also contribute to this fund at http://www.uifoundation.org/, through the Carver College of Medicine, Department of Pharmacology link.

Submitted by Donna L. Hammond, Ph.D., Professor of Anesthesia and Pharmacology, Interim Head of Pharmacology.



John J. Burns, PhD



Dr. John J. Burns, a legend in pharmaceutical industry research and an outstanding scientist in his own right, died on July 29, 2007. Born in Flushing, NY on October 8, 1920, he was a graduate of Queens College with a BS degree in 1942 and of Columbia University in 1950 with a PhD degree. During World War II, he served in the US Army where he was assigned to a research group developing new antimalaria drugs.

During his years as Vice President and Director of Research at Burroughs Wellcome and Hoffmann La Roche, Dr. Burns supported basic research more than

any other pharmaceutical executive within his company as well as in the academic community. One of his most outstanding contributions was the establishment of the Roche Institute of Molecular Biology. This institute, which earned a worldwide reputation for outstanding research, is one of John's legacies. John's view that great basic research would always lead to practical results was confirmed when a collaboration between the Roche Institute and Genentech led to the development of important drugs, and many years later to Roche owning a controlling interest in this now major biotechnology company.

In his earlier years John did outstanding research and was the author of several hundred original research papers.

Dr. Burns did much of the early pioneering work on the biosynthesis and metabolism of vitamin C (ascorbic acid). He demonstrated that ascorbic acid is formed in the rat by the following steps: glucose or galactose \rightarrow D-glucuronolactone \rightarrow L-gulonolactone \rightarrow L-ascorbic acid; and he demonstrated that man, monkey and the guinea pig lacked the ability to metabolize gulonolactone to ascorbic acid, which explains why these species require ascorbic acid to prevent scurvy. Dr. Burns found that the half life of ascorbic acid was 4 days in guinea pigs compared to about 18 days in man. The longer half life of ascorbic acid in humans explains why they require a much longer time to develop scurvy than the guinea pig.

Dr. Burns' fundamental studies in the area of drug metabolism helped explain the multiple action of certain drugs. His metabolic studies identified metabolites with high biological activity that have later been used by the medical profession for the treatment of various diseases. Dr. Burns showed that phenylbutazone is converted in man to two major metabolites. One product is formed by the introduction of a phenolic group in the para position of a benzene ring (Metabolite I), and the other by the introduction of an alcohol group on the butyl side chain (Metabolite II). Metabolite I has the potent antirheumatic and sodium-retaining effects of phenylbutazone whereas Metabolite II possesses little sodium retaining and antirheumatic properties but is considerably more potent as a uricosuric agent. These two metabolites can explain the antirheumatic, sodium-retaining and uricosuric activities that are observed when phenylbutazone is administered to man. (oxyphenbutazone, Tandearil) has been used in man as a potent antirheumatic agent in acute gout and rheumatoid arthritis, and a sulfoxide metabolite (sulfinpyrazone) of a thio-ether derivative of phenylbutazone is a potent uricosuric agent that is useful for the treatment of chronic tophaceous gout. Sulfinpyrazone was identified by Dr. Burns as a urinary metabolite of the thio-ether derivative of phenylbutazone. The extensive studies by Dr. Burns and his associates on the metabolism and pharmacological activities of phenylbutazone and its analogs have markedly enhanced our knowledge of the pharmacology of these compounds and were early studies indicating the metabolism of drugs to active metabolites.

As part of his research on phenylbutazone, which was published in the *American Journal of Medicine* in 1954, Dr. Burns compared the antiinflammatory action of this drug with the steroid cortisone and, observing the similarity in mechanism of action between the two compounds, used the term "nonsteroidal antiinflammatory" to describe phenylbutazone. This was the first use of this term which is commonly used today to describe drugs such as Motrin, Aleve and Celebrex.



Dr. Burns did pioneering research on species differences in the rates and pathways of metabolism of phenylbutazone, oxyphenbutazone, ethylbiscoumacetate, meperidine and ascorbic acid. The results of these studies emphasized the difficulties involved in extrapolating drug metabolism data from one species to another and from animals to man. Dr. Burns also did pioneering research on individual variations in human drug metabolism. He found a greater than 10-fold variation in the rate of metabolism of ethyl biscoumacetate (Tromexan) among different human subjects and about a 4-fold difference in the rates of metabolism of phenylbutazone in different subjects. There are now many examples of drugs that are metabolized at different rates in different patients. Because of person-to-person differences in drug metabolism, some human subjects metabolize a drug so rapidly that therapeutically effective blood levels are never achieved while other individuals metabolize the same drug so slowly as to result in toxic side effects. These were early studies on person-to-person differences in the metabolism of drugs.

Dr. Burns found that administration of several drugs such as Chloretone and barbiturates, as well as polycyclic aromatic hydrocarbons, stimulates the metabolism of glucose and galactose via the glucuronic acid pathway to glucuronic, gulonic and ascorbic acid, and he found that those drugs that stimulated ascorbic acid biosynthesis also stimulated the liver microsomal metabolism of drugs.

Dr. Burns was the first to demonstrate the clinical importance of microsomal enzyme induction. He provided early evidence that enzyme induction decreased the action of drugs in both animals and man. Dr. Burns demonstrated that chronic administration of several drugs to rats or dogs stimulated the drugs' own metabolism and decreased their toxicity. These studies have had an important impact on both the interpretation and design of chronic toxicity tests. Studies by Dr. Burns also demonstrated the usefulness of microsomal enzyme induction and inhibition as tools for determining whether drugs are active per se or require metabolism to an active metabolite.

In addition to the fundamental research contributions which are described above, Dr. Burns made enormous contributions to pharmacology and toxicology in the United States and abroad by his leadership role in the American Society for Pharmacology and Experimental Therapeutics, the International Union of Pharmacology, the American College of Neuropsychopharmacology, the Committee on Problems of Drug Safety of the National Academy of Sciences, and as Senior Consultant to the Pharmacology-Toxicology Program, National Institute of General Medical Sciences, and as a consultant to many other groups. Dr. Burns was elected to membership in the National Academy of Sciences in 1975 because of his important contributions to science.

In addition to the above contributions to pharmacology and toxicology, Dr. Burns, while directing research at Burroughs Wellcome and at Hoffman La Roche, was instrumental in the discovery and/or development of drugs such as Levodopa (Parkinson's), Rocaltrol (kidney dialysis), Accutane (cystic acne), Limbitrol (depression), Versed (Anesthesia) and Interferon (hepatitis).

Dr. Burns served as Adjunct Professor of Pharmacology at the Weill Medical College of Cornell University. He was also a scientific advisor to a number of new biotech companies. Dr. Burns was a member of the Institute of Medicine, served as President of the American Society for Pharmacology and Experimental Therapeutics and as President of International Union of Pharmacology. In 1974, Dr. Burns was a member of the Herbal Pharmacology Delegation to the People's Republic of China and in 1973 was a member of the Panel on Chemistry & Health of President Nixon's Scientific Advisory Committee. Dr. Burns was a member of the Steering Committee of the National Academy of Sciences/Institute of Medicine that developed the National Strategy for AIDS. In 1987, he was awarded Honorary Membership in the Japanese Pharmacology Society. In 1987, he received an Honorary Doctor of Science degree from Queens College on the occasion of the College's 50th anniversary celebration.

Prepared by Allan H. Conney and Ronald Kuntzman



Theodore M. Brody, PhD



Theodore Brody, Professor and Chair Emeritus in the Department of Pharmacology and Toxicology at Michigan State University, died June 11 at his home in East Lansing due to complications related to cerebral vascular disease.

Ted was born May 10, 1920, in Newark, NJ. Following graduation in 1943 with a BS in Pharmacy from Rutgers University, he served in the Pacific Theater during WWII. He completed MS (1949) and PhD (1952) degrees in pharmacology at the University of Illinois. Working with his advisor Jim Bain, Ted focused on the *in vitro* actions of drugs on oxidative phosphorylation. An important paper from this work described the preparation and functions of brain mitochondria. In 1952 he

joined the Department of Pharmacology at the University of Michigan as an Instructor and rose through the ranks to Professor in 1963. Throughout his career Ted had strong opinions about a number of issues and was never hesitant to share these opinions. He spoke out forcefully against persons or policies that he considered unjust. For example, during the turbulent early '50s at the University of Michigan, he publicly supported, to the detriment of his own career, a pharmacology colleague whom he felt had been unjustly attacked by Senator Joe McCarthy.

In 1966, Ted became the founding chairman of the Department of Pharmacology at Michigan State University, and for the next 24 years he worked tirelessly to build a strong research and teaching department that serviced the Colleges of Human, Osteopathic and Veterinary Medicine, and the School of Nursing. Ted had very high standards and demanded that his faculty become exemplary educators, serve responsibly on committees, and conduct quality research; emphasis was always on the latter. He published over 160 original research papers, 10 reviews, and numerous book chapters. He was the coeditor of multiple editions of a textbook of pharmacology, now titled *Brody's Human Pharmacology*.

Ted was a member of many scientific societies and was particularly active in the American Society for Pharmacology and Experimental Therapeutics, serving as chair of the Membership, Abel Award and Awards Committees and as Secretary-Treasurer and President of the Society. He was the recipient of two of the Society's most prestigious awards: the Abel and Sollmann Awards. He was on the editorial boards of a number of scientific journals including the *Journal of Pharmacology and Experimental Therapeutics* and *Molecular Pharmacology*.

Ted was a voracious reader, enjoying history and good novels. He was a wordsmith extraordinaire, correcting colleagues' written word and working daily on the New York Times crossword puzzle. He also enjoyed all sports and was particularly enthusiastic about all things golf.

A major legacy of Ted's long and productive career, and one of which he was most proud, was that many of his students and younger colleagues went on to have productive careers of their own. Ted is survived by Ethel, his wife of almost 57 years; children Steven, Debra, Laura, and Elizabeth and seven grandchildren. The Department has established an annual lectureship in his memory; contributions may be made to The Department of Pharmacology and Toxicology c/o Pam Hathaway, Michigan State University, East Lansing, Michigan 48824.

Submitted by Ken Moore



Robert E. Stitzel, PhD

Robert E. Stitzel, PhD, passed away September 1, 2007, in Morgantown, West Virginia. He is survived by his wife, Judith Gold Stitzel, PhD, a son, David Stitzhal; David's partner, Laurel; and a granddaughter, Kaya Seneca. A memorial is planned at the West Virginia University Health Sciences Center on October 28, 2007.

Bob received a BS degree in pharmacy in 1959 and an MS degree in pharmacology from Columbia University in 1961. He earned a PhD in pharmacology from the University of Minnesota in 1964, working in the laboratory of Fred Shideman, under the guidance of Augusto Campos. Remaining at Minnesota for one year, Bob worked as a postdoctoral fellow in drug metabolism with Gil Mannering.

In 1965 Bob joined the faculty of the Department of Pharmacology (later to become the Department of Pharmacology and Toxicology) in the relatively new four-year School of Medicine at West Virginia University, where he developed a rich and rewarding career spanning 42 years, retiring July 1, 2007. His research on catecholamines added to the department's primary strength while his experience with Mannering in drug metabolism brought an important new area of research and teaching to the young and developing department in 1965. His appointment to WVU included the arrangement of a leave-of-absence in 1966-1967 to work in the laboratory of Professor Arvid Carlson, the future Nobel Laureate, in Goteborg, Sweden. This period led to lifelong friendships and collaboration with Swedish pharmacologists.

His scholarly and dedicated approach to teaching of students at all levels and his wonderful sense of humor made Bob a very successful teacher and mentor. Ultimately, this interest led to the co-editing of a textbook, *Modern Pharmacology*, with faculty colleague and friend, Charles R. Craig. This very successful book has appeared in six editions and was translated into several languages for use in other countries. Bob also authored a number of chapters in the book.

His devotion to teaching and mentoring students led to major university-wide recognition. These included multiple teaching awards over the years, the WVU Distinguished Service Recognition (2001), Fannie Lou Hamer Award for Outstanding Leadership and Service to African American Students (2005), selection as West Virginia's Most Loyal Faculty Mountaineer (2006), and in recognition of his life-long devotion to social justice, the Martin Luther King Jr. Achievement Award.

Research also brought success and satisfaction in his career. His broad knowledge and extensive laboratory skills made for wonderful collaborations within the department. Bob's many NIH grants included a five-year Career Development Award. Ultimately, collaborations expanded his research interests to include hypertension and ATP as an adrenergic co-transmitter. A major collaboration and friendship developed with Bob's faculty colleague, Richard Head.

For twenty years, Bob served as associate chair of the department, becoming the interim chair upon my retirement as chair in 1999. His friendship; calm, steady nature; devotion to detail; respect for his colleagues; and sense of humor were irreplaceable assets as an associate chair. In the early 1990s, Bob began to take an increasing role in university-wide functions, including a major role in the WVU Senate and culminating in his appointment as Director, Office of University Graduate Education in the WVU Office of the Provost. This was an important position because WVU's organizational structure does not include a separate graduate school, per se. Thus, Bob fulfilled important functions normally found in the office of a graduate dean. His devotion to graduate students had found a wide opportunity, and he successfully juggled his time between his department and the graduate office. In 2001, much to his disappointment, the WVU Department of Pharmacology and Toxicology was disbanded by the Health Sciences administration, with Bob becoming the associate chair of a combined Department of Biochemistry and Molecular Pharmacology.



Bob's remarkable career extended well beyond WVU, including productive sabbaticals in Austria, England, and Australia (where he continued his collaboration with Richard Head, who had returned to his native country). Bob served on NIH research review committees, including chairing the Neurological Sciences Study Section, 1983-85, and the Ad Hoc Technical Review Group, NCR, in 1987. He served on many ASPET committees, including the Board of Publications Trustees, and he was elected to Council as Secretary-Treasurer (1993-96). He was a member of the Editorial Board of the Journal of Pharmacology and Experimental Therapeutics from 1971-1993, serving as a Field Editor for a number of years, and was Editor-in-Chief of Pharmacological Reviews from 1989-1995. Bob particularly enjoyed his work with *Pharmacological Reviews* because it served such a splendid outlet for his enthusiasm for the history and general principles of pharmacology. At the international level, Bob served on several committees of the International Union of Basic and Clinical Pharmacology (IUPHAR) and chaired the Publications Committee for the 2002 IUPHAR International Congress.

If one were to find words that were keys to Bob Stitzel's life, the prime ones that come to mind are "loyalty" and "dedication"—to family, friends and colleagues; to the discipline of pharmacology; and to his prime professional organization. ASPET. He will be missed by all of these. Friends can reach Judith at 449 Devon Road, Morgantown, West Virginia 26505.

Prepared by William W. Fleming, Professor Emeritus, retired Chair of Pharmacology and Toxicology, WVU School of Medicine

IN SYMPATHY

ASPET notes with sympathy the passing of the following members:

John J. Burns, PhD Rudi Busse, MD, PhD Joseph P. Gilmore, PhD Mannfred A. Hollinger, PhD Lewis S. Seiden, PhD Robert E. Stitzel, PhD Ronald R. Tuttle, PhD James Henry Wills, PhD



Congratulations David and Allison Williams!





David Williams, Senior Editorial Coordinator for the Journal of Pharmacology and Experimental Therapeutics, tied the knot on September 8th 2007! To celebrate and wish the couple a happy marriage, the ASPET staff threw a shower for David and Allison. Staff surprised David with a barbeque lunch, cake, and wedding gifts.







Ron Hanks joined the ASPET staff as the new Subscriptions Assistant on August 6, 2007. As the Subscriptions Assistant, Ron is responsible for handling all payments, claims, back issues, updates and general requests regarding non-member subscriptions to the ASPET journals. Ron comes to us with a background in payments processing and general database handling for membership institutions. He previously worked for Georgetown Hospital and Kaiser Permanente. With his experience and enthusiasm, he has already made a great start, and we are all happy to have Ron join the ASPET family.

ASPET 2008 Dues Notices will be mailed out shortly. Save time and a stamp by paying your dues online.



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CHAPTER NEWS

36th Annual New England Pharmacologists Meeting

Over 125 pharmacologists, graduate students and members of the pharmaceutical industry in the New England region attended this year's 36th Annual New England Pharmacologists Meeting, hosted by the Department of Pharmacology of Boston University School of Medicine. The meeting was held on Friday and Saturday, April 20-21, 2007, at the Hilton Hotel in Dedham, MA and featured over 44 poster presentations, 20 oral presentations, and distinguished keynote speakers. Career counseling sessions were provided by representatives from Boston University, Merck Research, and Wyeth Research.



Dominik Biezonski, U Mass Amherst, discusses his poster with Sophie Desbiens, Boston University



Jacobi Cunningham shares his research with Yinghui Hu and Erika Langer



Fair Vassoler reviews her data with Meaghan Capaccioli and Dmytro Berezhnov

Participating Schools:

- Boston University School of Medicine
- Brown University School of Medicine
- **Dartmouth Medical School**
- Massachusetts College of Pharmacy and Health Sciences
- Massachusetts Institute of Technology
- Northeastern University
- Tufts University School of Medicine
- University of Connecticut School of Pharmacy
- University of Massachusetts Amherst
- University of New England College of Osteopathic Medicine
- University of Vermont College of Medicine



Dr. Zahludoff welcomed by Dr. Alan Eastman

Keynote Speakers:

Sonya Zabludoff, Ph.D., Associate Director, Cancer Bioscience, AstraZeneca R & D "Oncology Drug Discovery Research: An **Evolving Science**"

Lindsay A. Farrer, Ph.D., Chief, Genetics Program, and Professor, Boston University School of Medicine and School of Public Health, "Mining the Human Genome for Therapeutic Targets"

Karen H. Antman, M.D., Dean and Provost, Boston University School of Medicine, "Trends in Cancer Risks"

Mark T. Goulet, Ph.D., Executive Director, Drug Discovery & Optimization, Merck Research Laboratories, "Discovery of a Novel CB-1R Inverse Agonist"



BUSM Dean Karen Antman and Dr. Eastman of Dartmouth Medical School

2007 Graduate Student Awards:

Jamie G. Raudensky, Boston University School of Medicine Chronic Stress Enhances Hypothalamic 5HT1A Receptors and Augments Methamphetamine Increases in Corticosterone and Body Temperature

Kristina F. Fetalvero, University of New England College of Osteopathic Medicine Iloprost Activates GATA-6 in Human Uterine Myometrium

Fakhreya Y. Jalal, Massachusetts College of Pharmacy and Health Sciences Effect of Acetyl-L-Carnitine on Infarct Size in Experimental Focal Cerebral Ischemia



Drs. Farb and Walsh with the 2007 Graduate Student Award Receipients

Lauren E. Oleson, Tufts University School of Medicine

Relation of Genetic Polymorphisms in the 3' Untranslated Region of the Pregnane X Receptor (PXR) Gene to Cytochrome 3A (CYP3A) Activity

CHAPTER NEWS

Jaclyn A. teRiele, University of Vermont College of Medicine Elucidating the Contribution of WAVE1 to PKIA Anchoring and Chemotaxis Using Novel Plasmid System: pSWAP

Career Counseling:

Career Counseling sessions were featured at this year's meeting. Representatives provided counseling on academic career goals as well as information and advice on pursuit of careers in private industry. Merck Research Laboratories and Wyeth Research actively recruited new talent.

Meeting Sponsorship:

The meeting was supported by generous donations from ASPET, Merck, Sepracor, Lilly, Wyeth, ESA Magellan Biosciences, CMA/Microdialysis, Molecular Cytomics and USA Scientific.

ASPET provided a booth with detailed information on the organization and membership applications.

Future Meeting:

The 37th New England Pharmacologists' Annual Meeting will be held on February 29 and March 1, 2008, at the Hilton Hotel in Dedham, Massachusetts. It will again be hosted by the Department of Pharmacology and Experimental Therapeutics at Boston University School of Medicine.

More Pictures from the Meeting:



Dr. Zabludoff



Dr. Mark Goulet



Drs. Farb, Gibb, Kornetsky and Farrer share a moment at the reception



Julia Kim explains her methodology to Tara Stewart

AWARD OPPORTUNITY

ASPET-INTEGRATIVE ORGAN SYSTEMS SCIENCES (IOSS) FUND

Supported by Abbott Laboratories Merck Research Laboratories Pfizer Wyeth Research

The ASPET-IOSS Fund was created to provide support for graduate students and post-doctoral researchers seeking training in integrative, whole organ systems sciences. The ASPET-IOSS Fund will help augment developing programs that provide training of students in integrative, whole organ systems sciences. The ASPET-IOSS Fund hopes to contribute to developing infrastructure to sustain and expand training in this critical area of research.

Applications will be reviewed upon receipt and awarded by an ad-hoc committee, appointed by ASPET Council. Applications will be accepted on a continuous basis.

ASPET-IOSS Awards are available for:

- 1. Supporting graduate students who participate in an industry sponsored internship that furthers the students training and exposure to integrative, whole organ biology. Award not to exceed \$2,000.
- 2. Partial support for independent meetings and workshops dedicated to advancing training and research in this discipline; educating public or policy makers of the need to support such activity; or providing a forum for academic and industry leaders that might help reinvigorate the field. Award not to exceed \$2,000.

Criteria for additional awards will be considered by the ASPET-IOSS Fund ad-hoc review committee subject to approval by ASPET Council. Awards will not be made for any ASPET or other professional society Annual Meeting or related activity. Awards contingent upon individual becoming a member of ASPET.

Application information needed from graduate students and post-doctoral researchers:

- 1. Cover letter from applicant (provide all contact information) outlining the internship host and host site, mentor/lab chief name (provide all contact information), duration of internship, and graduate student advisor/mentor (provide all contact information). Mentor/lab chief/graduate student advisor may be contacted by ASPET-IOSS Fund to provide additional information.
- 2. Brief (no more than one page) summary/abstract of goals of internship, how it meets your current research/professional interests and how it may substantially increase your development as an integrative scientist.
- 3. Curriculum Vitae

Application information needed from organizers of meetings:

- 1. Cover letter from organizer outlining topic, dates, expected audience and attendance and goals of meeting or conference.
- 2. Provide as supporting material any brochures, agenda, list of current sponsors, speakers, etc.

Applications should be emailed as Word or PDF to: jbernstein@aspet.org Jim Bernstein **Director, Government & Public Affairs ASPET** 9650 Rockville Pike Bethesda, MD 20814

Tel: 301-634-7062



MEMBERSHIP INFORMATION

Definitions of Categories of ASPET Membership

Regular Members: Any doctoral level investigator who has conducted, and is the primary author on at least one publication of, an original study in the area of pharmacology published in a peer-reviewed journal is eligible for membership in ASPET. Exceptions may be made for someone who does not meet the degree requirement but who has made major research contributions to pharmacology. Dues for regular members are \$140/year. Regular members must be nominated by two (2) Regular or Retired ASPET members.

Affiliate Members: An investigator who does not meet the requirements for Regular membership because of the lack of a degree or lack of publication is eligible to apply for Affiliate membership. Affiliate members receive all the same member benefits as Regular members except that they may not vote in ASPET elections. Dues for Affiliate members are \$105/year. Affiliate members must be nominated by one (1) Regular or Retired ASPET member.

Student Members: Individuals who are enrolled in undergraduate, graduate, or professional degree programs are eligible for Student membership in ASPET. Student members receive all the same benefits as Regular Members except that they may not vote in ASPET elections. Individuals may remain in the Student Member category for up to two (2) years following completion of their research doctoral degree. Undergraduate students pay no dues. Dues for second year and above Student members are \$30. Student members must be nominated by one (1) Regular or Affiliate ASPET member.

Sponsors should send an email or letter addressing the applicant's qualifications for ASPET membership directly to the ASPET office (rphipps@aspet.org).

Regular Member Benefits (Dues \$140):

- Reduced page charges to publish in ASPET journals pay \$35/page instead of \$70/page and save enough with one four-page article to pay your annual ASPET dues!
- Half-price color fees to publish color figures in ASPET journals
- Free full-text access to all five online ASPET journals, including all back issues
- Free subscription to Molecular Interventions (print) and The Pharmacologist (online)
- Reduced subscription rates for ASPET print journals
- Reduced registration fees for ASPET meetings
- Sponsorship of papers at the ASPET meeting
- Best abstract awards for young scientists at the ASPET meeting
- Free listing in the FASEB Directory
- Membership in multiple ASPET Divisions for no additional dues.

Affiliate Members (Dues \$105) have all the benefits of Regular Members except they may:

- Sponsor candidates for Student membership only.
- Not sponsor a paper for a non-member at a Society meeting.
- Not vote in Society elections.
- Not hold an elected office in the Society.

Student Members (Dues \$30) have all the benefits of Regular Members except they:

- Pay no dues their first year.
- Pay only \$30 annual dues thereafter. Undergraduate student members pay no dues and get their first graduate year free.
- Must have their papers at Society meetings sponsored by a member.
- May not vote in Society elections nor hold an elected office in the Society.

2007 Publication Subscription Rates for Members

All Society Members qualify for the following reduced print publication subscription rates:

- Journal of Pharmacology and Experimental Therapeutics (Monthly) \$182/year
- Pharmacological Reviews (Quarterly) \$77/year
- Drug Metabolism and Disposition (Monthly) \$96/year
- Molecular Pharmacology (Monthly) \$131/year
- Molecular Interventions (Bimonthly) included with dues

APPLICATION INSTRUCTIONS

Submit the completed Application for Membership form or use the online application form on the ASPET web site at http://www.aspet.org/public/membership/membership/membership.html. Submit a current *curriculum vitae* including bibliography for Regular and Affiliate Membership. You may e-mail the CV to the ASPET Membership Coordinator, Robert Phipps, rphipps@aspet.org.

Sponsor Statements: Submit a statement(s) of qualifications of the applicant from two Regular/Retired Members of ASPET for Regular Membership or from one Regular/Retired Member of ASPET for Affiliate Membership and Student Membership (Affiliate Members may also sponsor student applicants). In addition to statement certifying that the applicant is qualified for ASPET membership, sponsors please provide your own current address, phone, fax and email It is the responsibility of the applicant to insure that these documents are submitted to the ASPET office.





American Society for Pharmacology and Experimental Therapeutics 9650 Rockville Pike, Bethesda, MD 20814-3995 USA

Phone: 301-634-7060 ♦ Fax: 301-634-7061 ♦ www.aspet.org

Membership Application – TP907

Please Complete All Sections:

Section 1: Application Details		Section 2: Source
Application for:		How did you hear about ASPET:
☐ Regular Membership		□ Meeting
☐ Affiliate Membership		□ ASPET Journal
☐ Graduate Student – Expected Date of Graduation:		□ Mentor
□ Undergraduate Student - Year: □ Fr □Soph □Jr □Sr		□ Other
Section 3: Personal Information		
Name and Address:	Telephone	e:
	Fax:	
	E-mail:	
	Date of Bi	irth (optional):
Section 4: Sponsors (Must be ASPET Members	 s)	
Name, address and email of your sponsor(s): (2 sponsors required)		bership & 1 sponsor for student and affiliate membership)
Please have your sponsor(s) send us a brief letter of ASPET to the Membership Coordinate		
Section 5: Division Selection		
Divisions: Division membership is a benefit of ASPET members		
highly recommended that you join a division so that you may take	e full advantage of	Society participation. Joining a division allows you
to participate in creating the scientific program for the annual me- programs, and receive special notices and newsletters about item Indicate primary (1) and as many seconda	ns and activities of	f interest in your field. Be sure to pick a division!
Division for Behavioral Pharmacology		
Division for Cardiovascular Pharmacology		
Division for Clinical Pharmacology, Pharmacogenomics,Division for Neuropharmacology		
& Translational MedicineDivision for Drug Discovery, Development	Division for Pharmacology Education Division for Systems & Integrative Pharmacology	
& Regulatory Affairs	Division for Tox	
Section 6: Curriculum Vitae		
Regular, Affiliate, and Graduate Student applicants: Please send your <i>Curriculum Vitae</i> (including bibliography) by email to the Membership Coordinator, Robert Phipps, (rphipps@aspet.org).		
Undergraduate Student Applicants Only:		
Current Education :		
Expected Degree & Date School	City/State/Country	/ Major Field