DIVISION REPORTS TO COUNCIL

Officers
Jeff Conn (Chair)
David R. Sibley (Past Chair)
Margaret Gengy (Chair Elect)
Margarita Dubocovich (Secretary/Treasurer)
Sandra P. Welch (Past Secretary/Treasurer)
Lynda Dykstra (Secretary/Treasurer Elect)
Christian C. Felder (Industry Rep)
Phil Skolnick (Industry Rep)
Melissa I. Torres-Altoro (Student Rep: 2007 Predoctoral Competition Winner)
Lisa Hazelwood (Fellow Rep: 2007 Postdoctoral Competition Winner)
Susan Amara (ASPET Council Liaison)
Christie Carrico (Staff Liaison)

The new members of the executive committee are Dr. Elliott Richelson (Mayo Clinic, Jacksonville, FL) and Dr. Peter Kalivas (Department of Neuroscience at Medical University of South Carolina).

A. Annual Meeting Programming

EB2008 Meeting Program

Symposia: At the EB2008 meeting in San Diego, taking place April 5-9, 2008, the Division of Neuropharmacology will sponsor three primary symposia in addition to the Ray Fuller Symposium, and will co-sponsor two symposia with other divisions.

► New Experimental Approaches to Treatment of Schizophrenia: Moving Beyond Monoamine Antagonists
(Sponsored by the Division for Neuropharmacology)
Chairs: P. Jeffery Conn and Carol A. Tamminga

- Treatments for schizophrenia: Targeting psychosis and cognition.
  Carol A. Tamminga, University of Texas Southwestern Medical Center.
- Allosteric activators of muscarinic receptors as a novel approach for treatment of schizophrenia.
  P. Jeffrey Conn, Vanderbilt University.
- Metabotropic glutamate receptors as novel targets for treatment of schizophrenia: Progress, issues, and challenges.
  Darryle D. Schoepp, Merck Research Labs.
- De novo design of potent GlyT1 inhibitors: In vitro and in vivo profiles.
  Craig W. Lindsley, Vanderbilt University Medical Center.

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

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

► **Emerging Importance of Allosteric Receptor Modulation in Drug Discovery**
(Sponsored by the Divisions for Neuropharmacology, Systems & Integrative Pharmacology, Drug Discovery, Development & Regulatory Affairs, Behavioral Pharmacology, Molecular Pharmacology, Clinical Pharmacology, Translational Medicine & Pharmacogenomics)
Chair: **Guibao Gu**
• Topography in drug discovery: The challenge of allosteric modulators.
  **Arthur Christopoulos**, *Monash University, Australia.*
• Positive allosteric modulation of GABAB receptors: A novel therapeutic strategy for anxiety and drug dependence.
  **John F. Cryan**, *University College Cork, UK.*
• Allosteric modulation of serotonin transporters: Lessons learned from the development of escitalopram.
  **Connie Sanchez**, *Lundbeck Research USA.*
• Allosteric modulation of GPCRs as a novel therapeutic direction for the treatment of CNS disorders.
  **Colleen Niswender**, *Vanderbilt University Medical Center.*

► **Cannabinoid CB1 Receptor Interdependence with Other Receptor Systems as a Target for Medication Development**
(Sponsored by the Divisions for Behavioral Pharmacology, Neuropharmacology, Molecular Pharmacology, Systems & Integrative Pharmacology)
Chair: **Steven R. Goldberg**
• Introduction: Cannabinoid CB1 receptor interdependence with other receptor systems as a target for medication development.
  **Steven R. Goldberg**, *NIDA, NIH.*
• Cannabinoid CB1 receptors form functional heteromers with dopamine, adenosine and opioid receptors.
  **Sergi Ferre**, *NIDA, NIH.*
• Drug-discrimination and in-vivo microdialysis procedures for studying nicotinic, dopaminergic and opioid receptor interactions with cannabinoid CB1 receptors in rats.
  **Marcello Solinas**, *University of Poitiers, France.*
• Drug self-administration and conditioned place preference procedures for studying interactions between cannabinoid CB1 receptors and other receptor systems in rodents.
  **Walter Fratta**, *University of Cagliari, Italy.*
• Intravenous drug self-administration procedures in nonhuman primates for studying interactions between cannabinoid CB1 receptors and other receptor systems.
  **Zuzana Justinova**, *University of Maryland School of 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.
  **TBD.**
A Century of Development of Concepts of Ion Channel Receptors: Past Milestones and Contemporary Development for the Next Decade
(Sponsored by the Divisions for Molecular Pharmacology, Behavioral Pharmacology, Neuropharmacology, and the American Society of Biochemistry and Molecular Biology)
Chair: Palmer W. Taylor

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

Ray Fuller Symposium: The Division received four nominations for the Ray Fuller Symposium for EB 2008. The Executive Committee selected Dr. Phil Skolnick for presentation of the Ray Fuller Lecture, and to organize the Ray Fuller Symposium.

Monday, April 7
8:00 - 8:50 AM
▶ Ray Fuller Lecture
- Broad Spectrum Antidepressants: Variations on a Monoamine Theme
  Phil Skolnick, Dov Pharmaceuticals, Inc.

▶ 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.
**Postdoctoral Research Competition Symposium:** The Division also elected to present a postdoctoral research competition in its program slot at EB 2008. Postdoctoral abstracts submitted for the competition were reviewed by a panel of Executive Committee members. The top five abstracts were chosen based upon the rules adopted by the Division. The postdoctoral candidates chosen and the title of their presentations are listed below. The competition will be judged by a panel selected from the Executive Committee and first-, second-, and third-place winners will be selected and awarded monetary prizes. In addition, the first-place winner will be invited to join the Executive Committee for the following year. Dr. David Sibley will serve as chairperson of the session and also give a presentation. The competition will be held April 8, 2008 from 2:30 – 5:00 PM. Awards will be presented during the Division Business Meeting at 5:00 – 6:15 PM that day.

**Tuesday, April 8**
2:30 - 5:00 PM

**Postdoctoral Scientist Award Presentations**
Chair: **David R. Sibley, NINDS/NIH**

- Keynote: Ethanol potentiation of D1 receptor signaling: The role of PKC

  - Cellular and molecular mechanisms regulating MT1 and MT2 melatonin receptor trafficking.
  - **Yahong Zhang**, *Northwestern University School of Medicine*.

- Comparison of dopamine transporter regulation in rat dorsal striatum versus nucleus accumbens
  - **Toni L. Richards**, *University of Colorado, Denver*.

- Sex differences in the corticotropin-releasing factor receptor and its regulation by stress
  - **Debra Bangasser**, *Children’s Hospital of Philadelphia*.

- Chronic treatment with paliperidone, like lithium and valproate, induces similar changes in expression and phosphorylation at the synaptoneurosomal level in rat prefrontal cortex
  - **Maria Corena Mcleod**, *Mayo Clinic, Jacksonville*.

- Role of NOS-NO signaling in clonidine-ethanol evoked synergistic behavioral impairment
  - **Tara S. Bender**, *East Carolina University*.

**Predoctoral Research Poster Competition:** The Division also received 27 abstracts for the Predoctoral Poster Competition to be held on Sunday, April 6, 2008, from 6:30 – 8:30 PM. The posters will be judged by Division members and first-, second-, and third-place monetary awards will be given. The first-place winner will be asked to join the Executive Committee for the upcoming year.

**Mixer at EB2008 Meeting:** The Neuropharmacology Division Mixer will be held at the Centennial Mixer sponsored by ASPET (possibly the San Diego Zoo or Sea World). The Mixer is to be configured such that each Division will have an area to meet. This would allow for recruiting new members. The Neuropharmacology Division contributed $4,000 to support this event.

**Symposium for the EB 2009 Meeting:** The Division solicited proposals for symposia for the EB 2009 meeting. Seven proposals were submitted with the Neuropharmacology Division as the primary sponsor. The Executive Committee will forward its recommendations to the ASPET Program Committee based upon rankings of the proposals as established by Executive Committee vote. The first five proposals selected are:

1. **J. Cadet.** Neuroplastic and Neurodegenerative Changes Associated with Drug Abuse and Addiction
2. **L. Bohn.** Receptor Signaling & regulation in Neuropsychiatric Research
3. **B. Bahr.** Lysosomal Storage Diseases & Late-onset Neurodegenerative disorders: Pathogenic Similarities that point to Common Treatment Strategies

4. **T. Esbenshade.** Advances in Down Syndrome Neuroscience Research: Implications for Alzheimer's Disease, Dementias, & Other Cognitive Disorders

5. **A. Kawabata.** N-gases as Neuromodulators in Sensing: From Nitric oxide to hydrogen sulfide

David Sibley will contact other Divisions that appear interested in cosponsoring these symposia.

**B. Division Awards**
The Neuropharmacology Graduate Student Best Abstract Awards and the Neuropharmacology Post Doctoral Scientist Awards will be supported by funds received from such corporate sponsors as Cephalon, Lunbeck, and Astra Zeneca.

**C. Nominations for Officers**
Dr. Peggy Gnegy (University of Michigan, Ann Arbor, MI) was elected to the position of President-Elect. Dr. Linda Dykstra (University of North Carolina, Chapel Hill, NC) was elected to the position of Secretary/Treasurer. Terms of office for both newly elected officers will begin in July 2008. Dr. Phil Skolnick is due to rotate off the Executive Committee. Drs. Sandy Welsh and Dave Sibley will also rotate off the Executive Committee, as will the previous poster award winners, Lisa Hazelwood and Melissa Torres-Altoro.

**D. Non-ASPET meetings supported/sponsored by Division**
The Executive Committee of the Neuropharmacology Division of ASPET met during the Society for Neuroscience meeting for lunch on November 6, 2007, at the Marriott San Diego.

The Division held a Neuropharmacology Division Mixer during the 2007 Society For Neuroscience meeting (Sunday, November 4, 2007). The Division advertised the mixer in the SFN 2007 program at a cost of $250 in an attempt to recruit new members. The mixer was co-sponsored by the Behavioral Pharmacology Division. The Neuropharmacology Division contributed $6,000, while ASPET contributed $2000, and the Behavioral Pharmacology Division $1500. Merck Research Labs contributed $1,000 for this event.

**E. Web-Based Activities**
The Division website remains fully operational and new materials concerning the Division and other pertinent matters are constantly being added.

**F. Financial Report**
The expenses continue to be within allocated division funds. The Division has seen continued growth in membership, allowing the Division to continue previous effort into the foreseeable future. Dr. Jeff Conn was very successful in obtaining funds from Merck, Cephalon, Lunbeck, and Astra Zeneca to support predoc and postdocs awards, as well as other costs associated with the programming of Neuropharmacology Division events. We submitted an educational grant to Eli Lilly and Company, but unfortunately funding was declined.

*Prepared by Margarita L. Dubocovich, Ph.D., Division Secretary/Treasurer*  
*March 24, 2008*