Neuropharmacology Division Report (March 2006 to October 2006)

A. Annual Meeting Programming

EB2006 meeting. At the EB2006 meeting in San Francisco in April, 2006 the Division of Neuropharmacology sponsored five symposia and co-sponsored one symposium with the Behavioral Pharmacology Division.

Mood Stabilizers and Antidepressants: New Mechanisms for Old Compounds
Chair: De-Maw Chuang
(Sponsored by the Divisions for Neuropharmacology; Behavioral Pharmacology; Clinical Pharmacology, Experimental Therapeutics & Translational Medicine; Systems & Integrative Pharmacology; and Toxicology)
- Anti-apoptotic effects and therapeutic potentials of mood stabilizers for neurodegenerative diseases
  De-Maw Chuang, National Institute of Mental Health, NIH
- Contribution of hippocampal neurogenesis to behavioral effects of antidepressants
  Rene Hen, Columbia University Medical Center
- Novel therapeutic applications for lithium and valproic acid
  Peter S. Klein, University of Pennsylvania School of Medicine
- Preclinical and clinical evidence for the trophic actions of mood stabilizing drugs
  Husseini Manji, National Institute of Mental Health, NIH
  A junior speaker will be selected from the meeting abstracts to give a short talk in this symposium

Multiple Approaches to NGF Antagonism for Novel Pain Drugs
Chair: Franz F. Hefti
(Sponsored by the Divisions for Neuropharmacology; Behavioral Pharmacology; Clinical Pharmacology, Experimental Therapeutics & Translational Medicine; Drug Discovery, Drug Development & Regulatory Affairs; and Systems & Integrative Pharmacology)
- Introduction
  Franz F. Hefti, Rinat Neuroscience Corp.
- NGF mediates pain sensation in the adult
  Lorne M. Mendell, State University of New York, Stony Brook
- Preclinical and clinical studies with anti-NGF antibodies in pain
  David L. Shelton, Rinat Neuroscience Corp.
- NGF in cancer pain mechanisms
  Patrick W. Mantyh, University of Minnesota
- Peptibody NGF antagonists
  Kenneth D. Wild, Amgen, Inc.

The Division also selected a symposium that was presented in its program slot at EB2006.

Neuroproteomics of the Synapse and Drug Addiction
Chair: Lakshmi A. Devi
- Introduction to neuroproteomics of the synapse and drug addiction
Lakshmi A. Devi, *Mount Sinai School of Medicine*
Proteomics of the PSD: New tricks for an old dog
Bryen A. Jordan, *New York University School of Medicine*
Survey of morphine's effect on synaptic membrane proteins by quantitative profiling
Laszlo Prokai, *University of North Texas Health Science Center at Fort Worth*
Changes in the presynaptic active zone and postsynaptic density proteins during chronic morphine administration
Jose A. Moron-Concepcion, *Mount Sinai School of Medicine*
Quantitation of neuropeptides using mass spectrometry: Application to drug abuse research
Lloyd D. Fricker, *Albert Einstein College of Medicine*

In addition, Dr. Mark Caron was selected by the Division to organize the **Ray Fuller Lecture/Symposium** for the EB2006 meeting. The symposium presented consisted of the following presentations.

**Signal Transduction: Relevance to CNS Disorders and Therapeutic Approaches**
**Chair:** Marc G. Caron

- Signaling pathways that underlie behavioral alternations in neurological disorders
  - Li-Huei Tsai, *Harvard Medical School*
- 5HT2A receptor signaling and hallucinogen action: Implication for the therapy of psychotic disorders
  - Jay A. Gingrich, *Columbia University College of Physicians and Surgeons*
- The yin and yang of 5HT2A receptor signaling: Caveolin and RSK-2
  - Bryan L. Roth, *Case Western Reserve University*
- Targeting of signal transduction mechanisms for therapeutic benefits
  - Husseini Manji, *NIMH, NIH*

**Mixer at EB2006 Meeting.** The mixer hosted jointly by the Neuropharmacology and Behavioral Divisions was attended by over 150 attendees.

**Symposium for the EB2007 Meeting.**

1. The Division solicited proposals for symposia for the EB2007 meeting. Six proposals were submitted with the Neuropharmacology Division as the primary sponsor and four proposals were submitted with the Division as a potential co-sponsor. The Executive Committee will forwarded its recommendations to Council and were fortunate in that all but one were accepted with some modifications. Two symposia were combined and one symposium was accepted as a joint presentation with DDDRA. In addition, Neuropharmacology will co-sponsor nearly a half-dozen other symposia with other Divisions.

2. In addition, nominations for the Ray Fuller Symposium for the EB2007 resulted in five nominees from which Dr. Sol Snyder was chosen for recommendation for the Fuller Lectureship at EB2007. Unfortunately, Dr. Snyder withdrew as Ray Fuller
Thus, the Neuropharmacology Division voted on the candidates tied for second place in the previous divisional ballot, Drs. Phil Skolnick and Darryl Schoepp. The Executive Committee approved the choice of Dr. Schoepp being chosen and presented to ASPET for approval, which was subsequently given.

B. Division Awards at Experimental Biology 2006:

Support for the awards at EB06 came in part from the contributions from: Eli Lilly Corporation in support of the Neuropharmacology Graduate Student Best Abstract Awards and DOV Pharmaceuticals in support of the Neuropharmacology Post Doctoral Scientist Awards.

**ASPET Neuropharmacology Graduate Student Best Paper Awards:**

**Graduate Student Awardees:**

1st place was awarded to Julie R. Field, Vanderbilt University (sponsor: Randy Blakely), for her presentation entitled “Identification of residues in the serotonin transporter engaged in high affinity recognition of antidepressants and cocaine”.

2nd place was a tie and was awarded to Laura L. Lash, University of Texas Medical Branch (sponsor: Geoffrey T. Swanson), for her presentation entitled “Pharmacological activity of synthetic analogs of dysiherbaine on glutamate receptors”, and also to Toni L. Richards, University of Kansas Medical Center (sponsor: Beth Levant), for her presentation entitled “Clorgyline-induced modification of sensitization to quinpirole: Effects on behavior and local cerebral glucose utilization”.

3rd place was awarded to Shinjae Chung, University of California, Irvine (sponsor: Olivier Civelli), for her presentation entitled “The central effect of MCH system studied using a specific MCH 1R antagonist isolated from combinatorial libraries”.

**ASPET Neuropharmacology Post-Doctoral Paper Awards:**

**Postdoctoral Scientist Awardees:**

1st place was awarded to Dr. Benjamin Free, NIH/NINDS (sponsor: David Sibley), for his presentation entitled “The chaperone protein calnexin regulates cell surface expression of both D1 and D2 dopamine receptors”.

2nd place was awarded to Dr. Loren K. Henry, Vanderbilt University (sponsor: Randy Blakely), for his presentation entitled ‘A critical site in the human serotonin transporter defines sodium and chloride dependence”.

3rd place was awarded to Dr. Trent Volz, University of Utah (sponsor: Annette Fleckenstein), for his presentation entitled ‘In vitro assessment of dopamine uptake and methamphetamine-induced dopamine efflux at the vascular monoamine transporter-2”.

**Division Awards At Experimental Biology 2007.** There will be competition for
Graduate Student papers presented as posters at the EB2007 meeting in Atlanta. Due to rising costs for large symposia, the free slot of time for Neuropharmacology Division programming be used for a post-doctoral competition in which the post-doctoral submissions previously presented in poster format will now be presented and judged in an oral presentation format with winners announced at a divisional mixer to follow immediately the presentations. The predoctoral competition would be retained as is in the poster format.

C. ASPET 2008
ASPET Centennial plans include a Neuropharmacology Division symposium slot thematically connected to a major past discovery. The Division has been polled for ideas for such a symposium to be included in the 2008 Centennial Program. The Division may also contribute to centennial mini-reviews to be published in connection with the celebration.

D. Election of Officers:
Candidates accepting nomination for Chair included Drs. Charlie Murrin and Jeff Conn. Dr. P. Jeffrey Conn, Vanderbilt University, was elected President-elect. Those nominated for Secretary/Treasurer included Drs. Margarita Dubocovich and Kelly Standifer. Dr. Dubocovich, Northwestern University, was elected by the membership to the position of Secretary/Treasurer. Terms of office for both newly elected officers will begin in July 2007.
Dr. Phil Skolnick, due to rotate off the Executive Committee, was invited to remain on the Executive Committee for 2 additional years.
Drs. Kathryn Cunningham and Charles Murrin have rotated off the Executive Committee, as have the previous poster award winners, Drs. Anita Lakatos and David Arthur.

D. Non-ASPET Meeting Sponsored –

The Division has advertised a mixer in the SFN 2006 program at a cost of $250 in an attempt to draw new members. The mixer will be held at 5:30 PM to attract the most attendees at the Omni Hotel directly across from the Convention Center.

The Executive Committee of the Neuropharmacology Division of ASPET met on April 3, 2006, in the San Francisco Marriott Hotel, ASPET Headquarters at the Experimental Biology ‘06 meeting in San Francisco, CA. The Division will hold an Executive Committee meeting at SFN 2006 in Atlanta, GA in October, 2006.

E. Web-Based Activities – the Division web site remains fully operational and new materials concerning the Division and other pertinent matters are constantly being added.
Financial Report: The expenses continue to be within allocated division funds. Therefore, we should be able to continue our previous efforts.

Prepared by Sandra Welch, Ph.D., Division Secretary-Treasurer August 27, 2006