Pre-Conference Workshop 4
What Do Animal Models Tell Us About Drug Abuse and its Treatment?
Wednesday February 24, 2009; Hilton Hotel, Baltimore, Maryland
Co-Organizers: Darlene Brunzell and Marina Picciotto

Drug addiction is a complex biobehavioral phenomenon with great financial and emotional costs to society and the individual. Animal studies provide controlled model systems that enable us to extrapolate biological contributions to behaviors relevant to drug abuse in humans. This transdisciplinary workshop will explore the neurochemical and molecular contributions to drug reward, withdrawal, tolerance, and sensitization. In exploring biological systems that control behaviors relevant to drug addiction, these presentations will identify potential biological targets for the treatment of addiction and related illness.

8:30-8:50 Continental Breakfast and Registration

8:50-9:00 Opening Remarks, Darlene Brunzell, PhD, Virginia Commonwealth University, Richmond, VA

Session 1: “Molecular basis for nicotine effects: nicotinic receptors and their regulation”
Chair, Imad Damaj, Virginia Commonwealth University, Richmond, VA

9:00-9:45 “Nicotinic receptor subtype location and function in rodents: implications for subtype-selective therapies for smoking” Sharon Grady, PhD, University of Colorado Institute for Behavioral Genetics, Boulder, CO

9:45-10:30 “Comparative Up-Regulation of Nicotinic Cholinergic Receptors” Ken Kellar, PhD, Georgetown University School of Medicine, Washington DC

10:30-11:15 “Modulation of proteasomal function: a receptor-independent mechanism for nicotine’s actions” Mariella DeBiasi, PhD, Baylor College of Medicine, Houston, TX

11:15-12:00 “Optimizing cholinergic tone: endogenous allosteric modulators of nicotinic receptors” Julie Miwa, PhD, Caltech, Pasadena CA

12:00-1:00 Lunch

Session 2: "Systems that regulate addiction: behavioral and pharmacological studies"
Chair, David Balfour, University of Dundee Medical School, Dundee, Scotland

1:00-1:45 “Signal transduction and drug abuse: distinct roles for calcineurin in responses to nicotine and cocaine” Marina Picciotto, PhD, Yale University, New Haven, CT

1:45-2:30 “Incubation of Drug Craving” Yavin Shaham, PhD, Intramural Research Program, National Institute on Drug Abuse, Bethesda Maryland

2:30-3:00 Coffee Break

3:00-3:45 “Identification & localization of nicotinic acetylcholine receptors that modulate alcohol consumption” Andrew Tapper, PhD, University of Massachusetts Medical School, Worcester MA

3:45-4:30 "Learning from our mistakes - critical contributions of orbitofrontal signaling" Geoffry Schoenbaum, MD, PhD, University of Maryland School of Medicine, Baltimore, MD

4:30-5:00 General Discussion and Closing Remarks