



**Frontiers in Addiction Research: 2008 NIDA Mini-Convention**  
**Friday, November 14, 2008**  
**8:00 a.m. – 6:10 p.m.**  
**Renaissance Washington DC Hotel**  
**Grand Ballroom North and Central**  
**999 Ninth Street NW**  
**Washington, DC**

**Agenda**

---

**7:00 – 8:00 a.m.**

**Registration**

**8:00 – 8:15 a.m.**

**Welcome**

Nora D. Volkow, M.D.

Director, National Institute on Drug Abuse (NIDA)

**8:15 – 10:00 a.m.**

**Session 1: *Epigenetics and Brain Function***

Our understanding of the role of epigenetics in processes such as brain development, learning and memory, and addiction is still in its infancy. This session will describe epigenetic mechanisms mediating maternal effects on brain and behavior, epigenetic regulation of learning and relapse to drug seeking, epigenetic mechanisms in cocaine addiction, and pharmacological modulators of epigenetic modifying enzymes and their role in cocaine-related behaviors.

**Co-Chairs:**

John Satterlee, Ph.D.

NIDA

Christine Colvis, Ph.D.

NIDA

**Speakers:**

*Epigenetics Mechanisms Mediating Maternal Effects on Brain and Behavior*

Frances Champagne, Ph.D.

Columbia University

*Epigenetic Regulation of Learning and Relapse to Drug Seeking*  
Courtney Miller, Ph.D.  
University of Alabama at Birmingham

*Modulating Cocaine Related Behaviors and Brain Metabolism  
with HDACi and HATi*  
Schahram Akbarian, M.D., Ph.D.  
University of Massachusetts Medical Center, Worcester

*Epigenetic Mechanisms in Cocaine Addiction*  
Eric Nestler, Ph.D.  
Mount Sinai School of Medicine

10:00 – 10:35 a.m.

**Session 2: *Jacob P. Waletzky Memorial Lecture***

**Welcoming Remarks:** Timothy P. Condon, Ph.D.  
Deputy Director, NIDA

**Introduction:** Nora D. Volkow, M.D.  
Director, NIDA

**Jacob P. Waletzky  
Memorial Award**

**Recipient:** (To be announced)

Established in 2003 by the Waletzky family, the Society for Neuroscience's Jacob P. Waletzky Memorial Award is given to a young scientist (within 15 years of receiving a doctoral degree) for innovative research in substance abuse. NIDA is pleased to invite the 2008 awardee to present the keynote speech at the mini-convention. Previous recipients of the award have been: Drs. Marina Picciotto (2007), Yavin Shaham (2006), William Carlezon (2005), Antonello Bonci (2004), and Pier Vincenzo Piazza (2003).

**Co-Chairs:**  
Cathrine Sasek, Ph.D.  
NIDA

Rita Liu, Ph.D.  
NIDA

10:35 – 10:50 a.m.

***Break***

10:50 a.m. – 12:35 p.m.

**Session 3: *Multilevel Multimodal Imaging of Gene Expression, Cells, Neurons, and Circuitry***

Recent groundbreaking optogenetic technology allows optical remote control and real-time tracking of specific types of neurons and circuitry in the brain and behavior of living animals, and offers unprecedented opportunities for biomedical research. The session will cover gene detection, optogenetic interrogation of neural circuitry and behavior, fiber optic fluorescence imaging at the cellular scale in living animals, and magnetic resonance spectroscopy identification of neural progenitor cells in live human brains.

**Co-Chairs:**

Geraline Lin, Ph.D.  
NIDA

Thomas Aigner, Ph.D.  
NIDA

Da-Yu Wu, Ph.D.  
NIDA

**Speakers:**

*Optical Remote Control of Neurons and Behavior in Living Animals*

Karl Deisseroth, M.D., Ph.D.  
Stanford University

*Of Mice and Microscopes: Imaging Function at the Cellular Scale in Behaving Subjects*

Mark Schnitzer, Ph.D.  
Stanford University

*Magnetic Resonance Spectroscopy Identifies Neural Progenitor Cells in the Live Human Brain*

Mirjana Maletic-Savatic, M.D., Ph.D.  
Stony Brook University Medical Center

*Transcription MRI: Viewing Drug-Induced Gene Activation in the Living Brain*

Christina Liu, Ph.D.  
Harvard Medical School, Massachusetts General Hospital

**12:35 – 2:35 p.m.**

**Session 4: *Early Career Investigators Poster Session and Lunch***

This invited poster session showcases drug-abuse and related neuroscience research conducted by early career investigators. The poster session also provides an opportunity for young investigators to speak with mini-convention symposia participants, NIDA staff, and NIDA-supported training directors and researchers. International poster presenters are cosponsored by the International Union of Basic and Clinical Pharmacology, International Brain Research Organization, International Narcotics Research Conference, College on Problems of Drug Dependence, International Cannabinoid Research Society, and International Drug Abuse Research Society.

**Chair:**

Susan Volman, Ph.D.  
NIDA

**2:35 – 4:20 p.m.**

**Session 5: *Willpower: What Really Governs Our Choices?***

What constitutes “free will” is controversial. Is our perception that we control our behavior illusory if the brain acts on deterministically-encoded values of choices? What does this mean for understanding addiction? Neuroimaging provides new insights into how “free will” may or may not be instantiated in the human brain with regard to 1) permitting the willful inhibition of an ongoing action—the neurocircuitry of “free won’t;” 2) weighing the relative values of competing incentives in the environment; and 3) determining our ultimate courses of action.

**Chair:**

James Bjork, Ph.D.  
NIDA

**Speakers:**

*To Do or Not to Do: Endogenous Inhibition of Action*  
Patrick Haggard, Ph.D.  
University College London

*Distinguishing Impulse from Impulse Control with fMRI*  
Brian Knutson, Ph.D.  
Stanford University

*The Neural Basis of Decision Making*

Paul Glimcher, Ph.D.

New York University

*Motivational Factors in Social Decision-Making*

Alan Sanfey, Ph.D.

University of Arizona

**4:20 – 6:10 p.m.**

**Session 6: *Cortical Development and Substance Abuse***

Abnormal cortical development affects emotional, psychological, and locomotor functions, and may play a role in addiction. This symposium covers some of the most exciting discoveries in cortical development research.

**Co-Chairs:**

Da-Yu Wu, Ph.D.

NIDA

Jonathan Pollock, Ph.D.

NIDA

**Speakers:**

*Epigenetic Control of Critical Period Brain Development*

Takao Hensch, Ph.D.

Harvard University, Children's Hospital Boston

*Embryonic Cocaine Exposure Impairs Cortical GABA*

*Neuron Migration*

Pradeep Bhide, Ph.D.

Massachusetts General Hospital

*Neural Cell Differentiation and Neurogenesis in Hippocampal  
Development: Implications for Addiction*

Amelia Eisch, Ph.D.

University of Texas Southwestern Medical Center

*Evolutionary Adaptations in Developing Human Cerebral Cortex*

Pasko Rakic, M.D., Ph.D.

Yale University School of Medicine

**6:10 p.m.**

**Adjournment**