## Rat Genetics and Genomics For Psychiatric Disorders and Addiction Workshop

University of Chicago June 29, 2015

9:00 am Introduction

Da-Yu Wu, NIDA/NIH

Abraham Palmer, University of Chicago

9:10 am Session I: Recent Advances in the Genetics of Substance Abuse and Addiction

This session presents the most recent developments and challenges in behavioral genetics and rat modeling of human behavior, substance use and

dependence.

9:10 am Paul J. Kenny, Ph.D. Icahn School of Medicine at Mount Sinai

Regulation of nicotinic receptor signaling in the rat habenulo-interpeduncular

system

9:40 am Subhash C. Pandey, Ph.D. University of Illinois at Chicago

Brain epigenetics in anxiety and alcoholism

10:10 am Daniel McGehee, Ph.D. University of Chicago

Exploring Nicotine-Induced Reward and Aversion with Optogenetic and

**Genomic Approaches** 

10:40 am - 11:00 am Coffee Break and Poster Session

11:00 am T. Celeste Napier, Ph.D. Rush University Medical Center

Utility of self-administering HIV-1 transgenic rats to model addiction-HIV/AIDS

comorbidity

11:30 am Marina Wolf, Ph.D. Rosalind Franklin University of Medicine and Science

Synaptic mechanisms maintaining persistent cocaine craving

12:00 am Margret McCarthy, Ph.D. University of Maryland School of Medicine

Epigenetics of sex differences in rat brain

12:30 noon – 1:45 pm Lunch and Poster Session (vote for three best posters)

1:45 pm Session II: Advances in Rat Genetics and Genomics for Human Disease

Modeling

This session provides a rigorous discussion on opportunities and challenges in

rat genetics and genomics in modeling substance use and addiction.

1:45 pm (Keynote) J. David Jentsch, Ph.D. University of California, Los Angeles

Genetic and genomic basis of impulsivity and drug self-administration in inbred

mice

2:30 pm Aron Geurts, Ph.D. Medical College of Wisconsin

Genetic Engineering in rat models, progress and challenges for addiction and

behavioral research

3:00 pm Mark S. Brodie, Ph.D. University of Illinois at Chicago

Epigenetic regulation of sensitivity to GABA in the ventral tegmental area during ethanol withdrawal: Histone deacetylase inhibitors reverse some alcohol-induced

brain changes

3:30 pm – 3:50 Coffee Break and Poster Session

3:50 pm Abraham Palmer, Ph.D. University of Chicago

Center for GWAS in outbred rats: current activities and opportunities for future

collaborations

4:20 pm Thomas Jhou, Ph.D.

Heritability of cocaine avoidance behavior in rats, and its implications for

transitioning from occasional to heavy patterns of drug use

4:50 pm Amelia Baud, Ph.D. University of Oxford

The genetic basis of social effects

5:20 pm David Goldman NIAAA/NIH

Exome of heritable addiction phenotypes and psychiatric disorders

5:50 pm Poster Award Presentation

5:55 pm Adjourn