Agenda NIDA Genetics Consortium Meeting, June 16, 2018, UCSD campus at Medical Education and Telemedicine Building

The goals of this meeting are to:

1. Discuss progress of harmonizing the Opioid Genetics cohorts
2. Discuss the phenotypes used for genetics studies in humans
3. Discuss the phenotypes used for genetics studies in animal models
4. Identify the synergies and gaps in the phenotypic analysis of humans and animal models
5. Identify strategies to integrate genetics and genomics data with phenotypes across species to better understand the biology of substance use disorders and phenotypes associated with addictive behaviors

Meeting logistics:

1. Talks will be 12 minutes, with 3 minutes for questions
2. I drafted potential questions for breakout sessions. Please submit a question for breakout discussions no later than June 2nd
3. You may submit a question if you are unable to attend the meeting
4. We anticipate that postdocs will serve as chairs for the breakout sessions, and will be asked to write up a white paper following the meeting.

Schedule:

9:00 **Laura Bierut**
State of the science for human studies – Triumphs, limitations, opportunities

9:15 **Olivier George**
Phenotypes to examine in animal models, what can be measured?

9:30 **Howard Edenberg**
PGC Update

9:45 **Tamara Phillips**
Background genetics/modifier screens. What can they tell us? What implications does this have for GWAS studies

10:00 *Break*

10:15 **Eric Johnson**
Update from the Meta-analysis

10:30 **Abraham Palmer**
Strategies to Dissect the genetics of various phenotypes associated with SUD from multiple species: Are we measuring the right phenotype?

10:45 **Vanessa Troiani/Wade Berrettini**

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Capitalizing on Large Health Systems to understand prescription opioid addiction

11:00 **Robert Hitzemann**
Accounting for differences in genetic findings for alcohol In humans and rodents

11:15 **Breakout**

Questions (20 minutes/question):

How can animal models be best integrated with human genetic studies? Which phenotypes should be prioritized? How can we correlate animal and human phenotypes?

What are the most effective way to use EHRs to understand the genetics of SUD? What are the advantages? Limitations?

What is needed in future studies to harmonize opioid genetics cohorts (and other large SUD cohorts?)

12:15 *Lunch*

1:45 Susan Tapert
Updates from the ABCD Study

2:00 **Huda Akil**
Elucidating the genetics of SUD using animal models

2:15 **Dan Larach**
Analysis of Persistent Opioid Use in a Surgical Patient Cohort

2:30 **Elissa Chesler**
Integrating human and rodent data

2:45 **Breakout**

Questions:

What are the synergies in the phenotypic analysis of human and animal models?

What are the gaps and challenges to integrate human and animal models?

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What are strategies to integrate genetics and genomics data with phenotypes across species?

How should we prioritize integration? Which phenotypes should we integrate first?

3:45 **Sesh Mudumbai**
SUD and Pain Phenotypes in the Million Veteran Program and at the VA

4:00 **Laura Saba**
Gene Weaver – A platform for understanding the genetics of SUD

4:15 **Danielle Dick**
Gene x Environment Interplay in alcohol use disorders

4:30 **Gary Peltz**
Computational models for identifying genetic factors in SUD

4:45 *Report back from Breakouts*

5:30 *Adjourn*