

Short Course on the Genetics of Addiction

September 15-20, 2019

Event Schedule

All sessions are at the Highseas Conference Center

Sunday, September 15th

PM

3:00 Highseas Check-In and

5:00 Social Hour

6:00 Dinner

7:00 Software Check-in

Vivek Philip, Ph.D. and Hao He, Ph.D., The Jackson Laboratory

Monday, September 16th

AM

7:30 Breakfast

8:15 **Course Welcome and Introductions**

Elissa Chesler, Ph.D., The Jackson Laboratory

8:30 **Overview of Alcoholism, Addiction, Drugs and the Brain**

Wade Berrettini, M.D., Ph.D., University of Pennsylvania

9:30 **Overview of Model Organism Based Genetic Studies of Addiction**

Elissa Chesler, Ph.D., The Jackson Laboratory

10:30 Coffee Break

11:00 **Methods in Behavioral Phenotyping**

Stacey Rizzo, Ph.D., University of Pittsburgh

PM

12:00

Lunch

1:00

WORKSHOP: Reproducibility and Traceability

Shannon McWeeney Ph.D., Oregon Health and Sciences University

2:30

Coffee Break

3:00

WORKSHOP: Accessing Mouse Data Resources

*Shannon McWeeney Ph.D., Oregon Health and Sciences University and
Vivek Philip, Ph.D., The Jackson Laboratory*

5:00

Town Hall Discussion & Happy Hour

6:00

Dinner

7:00

Student Presentations and Introductions

Tuesday, September 17th

AM

7:30

Breakfast

8:15

Announcements

8:30

High Throughput Genetic Studies of Addiction

Lisa Tarantino, Ph.D., University of North Carolina

9:30

Addiction Related Cognition

David Jentsch, Ph.D., University of California, Los Angeles

10:30

Coffee Break

11:00

WORKSHOP: GeneNetwork, MPD

*Elissa Chesler, Ph.D., The Jackson Laboratory and
Molly Bogue, Ph.D., The Jackson Laboratory*

PM

12:00

Lunch

1:00

Gene Expression

Shannon McWeeney Ph.D., Oregon Health and Sciences University

2:00

Coffee Break

2:30

WORKSHOP: Gene Expression and RNA Sequencing

Shannon McWeeney Ph.D., Oregon Health and Sciences University

5:00

Town Hall Discussion

6:00

Dinner

Wednesday, September 18th

AM

7:30 Breakfast

8:15 Announcements

8:30 **Mapping Addiction in Closely Related Strains**

Vivek Kumar, Ph.D., The Jackson Laboratory

9:30 **F2 Mapping Cross**

Vivek Kumar, Ph.D., The Jackson Laboratory

Vivek

10:00 Coffee Break

10:15 **Career Paths and NIDA Funding Opportunities for Research on the Genetics of Addiction**

Amy Lossie, Ph.D., and Jonathan Pollock, Ph.D., NIDA

11:00 **Complex Trait Analysis and Advanced Mouse Populations; Systems Genetics and Reference Populations**

Elissa Chesler, Ph.D., The Jackson Laboratory

PM

12:00 Lunch

1:00 **WORKSHOP: DO & eQTL Mapping**

Vivek Philip, Ph.D., The Jackson Laboratory

2:30 **Coffee Break**

3:00 **WORKSHOP: QTL2, Sanger Mouse Genomes**

Vivek Philip, Ph.D., The Jackson Laboratory

5:00 **Town Hall Discussion & Happy Hour**

6:00 Banquet Dinner

Thursday, September 19th

AM

7:30 Breakfast

8:15 Announcements

8:30 **Issues in Human Genetics of Addiction**

Laura Bierut, M.D., Washington University, St. Louis

9:30 **Nicotine GWAS**

Thorgerir E. Thorgerirsson, Ph.D., deCODE Genetics

- 10:30 Coffee Break
- 11:00 **Translation of Addiction Research into the Clinic**
Bradley Evanoff, M.D., MPH, Washington University, St. Louis
- PM
- 12:00 Lunch
- 1:00 **Psychiatric Genomics Consortium**
Howard Edenberg, Ph.D., Indiana University School of Medicine
- 2:00 Coffee Break
- 2:30 **Human Genetics, Polygenic Lecture & Workshop**
Sandra Sanchez, Ph.D., University of California, San Diego
- 3:30 **WORKSHOP: Human Genetics and Cross Species Translation**
Timothy Reynolds Ph.D. and Jason Bubier, Ph.D., The Jackson Laboratory and Sandra Sanchez, Ph.D., University of California, San Diego
- 5:00 **Town Hall Discussion**
- 6:00 Dinner

Friday, September 20th

- AM
- 7:30 Breakfast
- 8:15 Announcements
- 8:30 **Modeling Human Sequence Variation Using CRISPR-Cas9**
Kevin Peterson, Ph.D., The Jackson Laboratory
- 9:30 **WORKSHOP: Guide Design**
Kevin Peterson, Ph.D., The Jackson Laboratory
- 10:30 Break
- 11:00 **Modeling Addiction-Relevant SNPs: *Oprm1* in Mice and Men**
Julie Blendy, Ph.D., Perelman School of Medicine, University of Pennsylvania
- PM
- 12:00 Lunch
- 1:00 **Addiction Neuroepigenetics: Deciphering Novel Roles for Aberrant Histone Dopaminylation in Substance Use Disorder**
Ian Maze, Ph.D., Icahn School of Medicine at Mount Sinai
- 2:00 **Epigenetics**
Chris Pierce, Ph.D., University of Pennsylvania
- 3:00 Coffee Break

3:30 **Closing Discussions w/students Elevator and Grant Pitches**

5:00 Adjourn & Dinner on your Own

Saturday, September 21st

AM

7:30 Breakfast

9:00 Highseas Check Out