



Draft Schedule – Subject to Change

WORKSHOP ON NEUROGENETIC TOOLS: USING MOUSE MODELS TO STUDY HUMAN DISEASE

Tuesday, June 21 – Friday, June 24, 2016

Course Organizers:

Mike Sasner, Ph.D., The Jackson Laboratory,
Da-Ting Lin Ph.D., National Institute on Drug Abuse and
Kelly LaRue, Ph.D., The Jackson Laboratory

For more information please contact Kelly LaRue, kelly.larue@jax.org

Course Goals

- Participants will be able to describe a diversity of genetic methods and models employed in the study of neuron and circuit function and neurological disease in the mouse.
- Participants will practice laboratory techniques associated with the visualization of genetically expressed markers in the mouse nervous system.
- Participants will be able to navigate bioinformatic tools and databases for neuroscientists.
- Participants will interact with leaders in the field of neurobiology.

Tuesday, June 21

1:00 pm	Introduction Michael Sasner, Ph.D., The Jackson Laboratory and Da-Ting Lin, Ph.D., National Institute on Drug Abuse
1:15	PNS Disease Models Gregory Cox, Ph.D., The Jackson Laboratory
2:15	CNS Disease Models Michael Sasner, Ph.D., The Jackson Laboratory
3:15	Break
3:30	Biomethods Kristin Cough, The Jackson Laboratory

Wednesday, June 22

Systems analysis for neuroscience

8:00 am	Cell type identification through informatics Vilas Menon, Ph.D., The Allen Institute
9:00	Diversity outbred and complex genetics Elissa Chesler, Ph.D., The Jackson Laboratory
10:00	Break
10:15	Workshop: Exploring the Allen Mouse Brain Atlas gene expression datasets and tools Terri Gilbert, Ph.D., The Allen Institute
12:15 pm	Lunch
1:00	Workshop: perfusion James Miller, The Jackson Laboratory
2:00	Workshop: brain dissection Kyuson Yun, Ph.D., The Jackson Laboratory

Thursday, June 23

Genetic tools for neuron function and circuit analysis

8:00 am	Optogenetics Loren Looger, Ph.D., HHMI Janelia Farm Research Campus
9:00	GCaMP Samuel Wang, Ph.D., Princeton University
10:00	Break
10:15	Split CRE/GFP Jonathan Tang, Ph.D., Harvard University
11:15	Viral vectors Rick Maser, Ph.D., The Jackson Laboratory
12:15 pm	Lunch
1:00	Workshop: Tissue Clearing Doug Richardson, Ph.D., Harvard Center for Biological Imaging, Sven Terclavers, Ph.D., Carl Zeiss Microscopy and Nicolas Reiner, Ph.D., Rockefeller University

Friday, June 24

Development of Genetic Disease Models

8:00 am	CRISPR Wen-bo Wang, Ph.D., The Jackson Laboratory
9:00	Behavioral testing Stacey Rizzo, Ph.D., The Jackson Laboratory
10:00	Break
10:15	CRE/LOX repository Steve Murray, Ph.D., The Jackson Laboratory
11:15	Workshop: MGI and CRE/LOX portal Cynthia Smith, The Jackson Laboratory and David Shaw, The Jackson Laboratory
12:15 pm	Lunch
1:00	Model Development: SMA example Cat Lutz, Ph.D., The Jackson Laboratory
2:00	Workshop: Live imaging and image analysis Da-Ting Lin, Ph.D., National Institute on Drug Abuse, Zhong-wei Zhang, Ph.D, The Jackson Laboratory, Bo Liang, Ph.D., National Institute on Drug Abuse and Giovanni Barbera, Ph.D., National Institute on Drug Abuse