

Workshop on Colony Management and Biometrics

September 30th- October 4th, 2024

Schedule is subject to change.

All sessions will be held in the Highseas 3rd floor classroom unless stated otherwise.

Sunday, September 29th, 2024 (In person participants only)

4:00 pm Highseas opens for participant arrivals and registration
5:00 pm Welcome reception (Highseas 1st floor)
6:00 pm Dinner (Highseas dining room)

Monday, September 30th, 2024: Biometrics Group 1: First 20 participants to register will attend this session, The second 20 to register will attend Biometrics on Friday, October 4th)

7:00 am Breakfast (Highseas dining room)
8:00 am Transportation from Highseas to GRB Training Laboratory
8:15 am **Welcome & Introductions** (GRB Training Laboratory)
Leanne Miceli, A.S., Angela Begin, MLAS, LVT, RLATg , Kristin Cough, B.S., LATg,
Ben Carter and Samantha Shaneybrook, The Jackson Laboratory
8:45 am **Mouse handling, restraint and Injections: IP, subcutaneous**
10:15 am **Oral gavage and Tail Vein Injection**
12:15 pm Lunch (Roscoe's)
1:15 pm **Blood collection: submental, submandibular, tail tip and cardiac puncture**
3:00 pm **Primary and secondary euthanasia: CO₂, cervical dislocation, decapitation, thoracic puncture, perfusion**
5:30 pm Transportation from GRB Training Laboratory to Highseas
6:00 pm Dinner (Highseas dining room)

Tuesday, October 1st, 2024

7:00 am Breakfast (Highseas dining room)
8:00 am **Welcome**
Leanne Miceli, A.S., The Jackson Laboratory
8:15 am **Mouse Genetics and Strain Nomenclature**
Crystal Davis M.S., The Jackson Laboratory
9:30 am Break

- 10:00 am **Colony Set-up and Breeding Strategies**
Jason Beckwith, M.S., The Jackson Laboratory
- 12:00 pm Lunch (Highseas Dining room)
- 1:00 pm **Genetic Background Effects on Phenotype**
Greg Cox, Ph.D., The Jackson Laboratory
- 2:00 am **Tools for Analyzing Colony Data**
Vivek Philip, Ph.D., The Jackson Laboratory
- 3:00 am Break
- 3:15 pm **Mouse Genome Informatics and Other Resources**
David Shaw, M.S., The Jackson Laboratory
(Problem set will be available in Canvas. Participants will need to provide their own laptop to work through problem set with instructors during this session or at your leisure.)
- 4:45 pm Free period
- 6:00 pm Lobster Dinner (Highseas dining room)

Wednesday, October 2nd, 2024

- 7:00 am Breakfast (Highseas dining room)
- 8:00 am **Practical Guidelines for Maintaining Mouse Health**
Amine Alioua, Ph.D., The Jackson Laboratory
- 9:00 am **Maintaining Severely Immune Compromised Mice**
Amine Alioua, Ph.D., The Jackson Laboratory
- 9:30 am **Eliminating Infectious Contaminants**
Amine Alioua, Ph.D., The Jackson Laboratory
- 10:15 am Break
- 10:30 am **Cryopreservation: A Cool Approach to Colony Management**
Bree Means M.S., The Jackson Laboratory
- 11:15 pm **Using Assisted Reproductive Technologies (ARTs) to Rederive, Rescue, and Rapidly Expand Colonies**
Bree Means M.S., The Jackson Laboratory
- 12:00 pm Lunch (Highseas dining room)
- 1:00 pm **Nutritional Aspects of Maintaining Animal Health and Phenotype**
Melanie Hoar, PMI Nutrition International
- 2:00 pm Break
- 2:15 pm **Genetic Quality Control**
Steven Ciciotte, M.S., The Jackson Laboratory
- 3:00 pm **The Microbiome**
Karen Svenson, Ph.D., Research Science and Education
- 4:00 pm Free period
- 6:00 pm Dinner (Highseas dining room)

Thursday, October 3rd, 2024

- 7:00 am Breakfast (Highseas dining room)
- 8:30 am **Behavioral Phenotyping Using Computer Vision Systems**
Vivek Kumar, The Jackson Laboratory
- 9:30 am Break
- 10:00 am **Technologies & Repositories: PDX, CRISPR-Cas, KOMP, T1D, & JAX Mice**
Peter Kelmenson, BA, The Jackson Laboratory
- 11:30 am Lunch (Highseas dining room)
- 12:30 pm **The Importance of Biomethods Training in Enhancing Animal Welfare and Mitigating Confounding Research Variables**
Jessica Wong, DVM, PhD, DACVP, The Jackson Laboratory
- 1:00 pm **How to Prepare and Submit Samples for Diagnostic Pathology**
Jessica Wong, DVM, PhD, DACVP, The Jackson Laboratory
- 1:30 pm Break
- 1:45 pm **Breeding Efficiency Using Electronic Tracking**
TBD, TransnetYX
- 2:45 pm Free period
- 6:00 pm Dinner (Highseas dining room)

Friday, October 4th, 2024: Biomethods Group 2

- 7:00 am Breakfast (Highseas dining room)
- 8:00 am Transportation from Highseas to GRB Training Laboratory
- 8:15 am **Welcome & Introductions** (GRB Training Laboratory)
Leanne Miceli, A.S., Angela Begin, MLAS, LVT, RLATg , Kristin Cough, B.S., LATg, Ben Carter and Samantha Shaneybrook, The Jackson Laboratory
- 8:45 am **Mouse handling, restraint and oral gavage**
- 10:15 am **Injections: IP, subcutaneous and tail vein**
- 12:15 pm Lunch (Roscoe's)
- 1:15 pm **Blood collection: submental, submandibular, tail tip and cardiac puncture**
- 3:00 pm **Primary and secondary euthanasia: CO₂, cervical dislocation, decapitation, thoracic puncture, perfusion**
- 5:30 pm Transportation from GRB Training Laboratory to Highseas
- 6:00 pm Dinner (Highseas dining room)

Saturday, October 5th, 2024 (In person participants only)

- 7:00 am Breakfast to go (Highseas snack room)
- 9:00 am Check out (Participants may occupy the 1st floor until noon)

Additional Online Content: Registered participants will have access to online content for 3 months following the workshop. Participants will have access to online modules that are intended to complement and enhance the in-person workshop experience. This optional information will be made available to registered participants a few weeks prior to the start of the course.