JAX SEMINARS™

Bangalore NCBS - Tuesday, May 30
Hyderabad NCLAS - Thursday, June 1

World Class Mouse Colony Management
Janine Low Marchelli, Ph.D. JAX

Maintaining the Health Status of Laboratory Mice
Cynthia Alvarado, DVM JAX

Basics in Mouse Genetics and Introduction to the Mouse Genome Engineering Tool Kit
Aurelie Jory, Ph.D. NCBS

Designing & Optimizing Breeding Schemes
Janine Low Marchelli, Ph.D. JAX

Common Clinical Conditions in Laboratory Mice and their Research Implications
Cynthia Alvarado, DVM JAX

Achieving Reproducible Mouse Studies
Janine Low Marchelli, Ph.D. JAX

Space is limited / Registration is mandatory

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The Jackson Laboratory
Leading the search for tomorrow's cures

Brief Descriptions:

World Class Mouse Colony Management

In today's economic climate, research funding and vivarium space often are becoming increasingly limited. As a result, investigators are challenged with managing their mouse colonies more efficiently and economically. Join this seminar to learn about the following topics:

- Factors affecting mouse breeding performance
- Best practices for data collection and maintaining genetic stability of mouse colonies
- Tips for maximizing mouse colony productivity and minimizing cost

Common Clinical Conditions in Laboratory Mice and their Research Implications

The health status of the laboratory mouse is one of the most important factors in managing a consistent and reproducible phenotype in mouse models. In this seminar, we will focus on health conditions that may be seen in mice of lower health status. We will discuss:

- Conditions with gross lesions
- Conditions which may not show clinical signs but have research or public health impact
- Treatment considerations

Maintaining the Health Status of Laboratory Mice

When significant investments are made in new or renovated facilities, or in cleaning up a colony of infected mice, the researcher and veterinarian are highly motivated to keep these colonies free from infection. In this seminar, we will discuss the most modern techniques utilized by leading researchers and veterinarians to manage animal health.

- Guidelines for animal housing and husbandry
- Facility management strategies
- Reducing risks associated with research procedures

Basics in Mouse Genetics and Introduction to the Mouse Genome Engineering Tool Kit

This course will give a brief introduction explaining the fundamental concepts and terminologies of mouse genetics and genome engineering. We will then give an overview of how the most common mouse genetic tools (such as CRE/lox , Flp/FRT, TetOn/TetOff, …) work and how they can be engineered using Crispr/Cas or other technologies to generate novel mouse models. (Presented by Aurelie Jory, PhD.)

Designing & Optimizing Breeding Schemes

Have you ever had to delay an experiment because you didn't design your breeding scheme to produce enough knockout (KO) or control mice? Are you unsure of the most efficient way to set up your cross? Get a refresher on the fundamentals of basic mouse genetics and learn some tricks from our experts to plan your next experiment better. Join us for this seminar to learn:

- How to apply Mendelian genetics to mouse crosses

• How to use Punnett squares to calculate expected genotypes
• Ways to design efficient breeding schemes to create simple and complex genetic models that combine two or more alleles

Achieving Reproducible Mouse Studies

Success in the drug development pipeline depends on success in basic and preclinical research. Join us to learn about unique experimental design considerations for mouse-based research. During this seminar we will discuss topics critically important to the reproducibility of your mouse studies:

• Appropriate model and control selection
• Suitability of phenotypic readout
• Sample size planning