



## **Making and Genetically Manipulating Mouse Embryos**

March 9-12, 2026

The Jackson Laboratory in Bar Harbor, Maine

### **Sunday, March 8, 2026**

3:00-6:00pm      **Registration & Check-In** (Highseas)

6:00-7:00pm      **Dinner** (Highseas)

### **Monday, March 9, 2026**

7:00-8:00am      **Breakfast** (Highseas)

8:00-8:30am      **Course Overview and Introductions** (Highseas Classroom, 3<sup>rd</sup> floor)  
Robert Taft, Ph.D. and Bree Sargent, M.S. The Jackson Laboratory

8:30-9:00am      **Cryobiology**  
Robert Taft, Ph.D., The Jackson Laboratory

9:00-9:30am      **Male and Female Reproductive Anatomy**  
Robert Taft, Ph.D., The Jackson Laboratory

9:30-9:45am      **Break**

9:45-10:45am      **Using Assisted Reproductive Technologies (ARTs) to Generate Zygotes and Preserve Embryos**  
Robert Taft, Ph.D., The Jackson Laboratory

10:45-11:00am      **Break**

11:00-12:00pm      **Anesthesia, Analgesia and Aseptic Surgery Methods**  
Hironori Kawano, D.V.M., The Jackson Laboratory

12:00-1:00pm      **Lunch** (Highseas)

1:00-1:30pm      *Transportation from Highseas to GRB Training Lab (meet in Highseas lobby)*

1:30- 2:45pm      **Biomethods: Handling, Restraint & IP and Sub Q Injections** (Lab, GRB 3245)

Biomethods Training Team, The Jackson Laboratory

2:45-3:00pm **Break**

3:00-4:30pm **Male and Female Anatomy: Demonstration and Practical** (Lab, GRB 3245)  
Jennifer Corrigan, M.S., Leanne Miceli, A.S., The Jackson Laboratory

4:30pm *Transportation from GRB Training Lab to Highseas*

6:00-7:00pm **Dinner** (Highseas)

**Tuesday, March 10, 2026**

7:00-8:00am **Breakfast** (Highseas)

8:00 – 8:15am *Transportation from Highseas to Bld 64, B115*

8:15-9:00am **Liquid Nitrogen Safety, Dry Shippers, Biobank** (Bld 64, B115)  
Michelle Burns A.S. and Bree Sargent, M.S., The Jackson Laboratory

9:00-9:15am **Walk to GRB Training Laboratory** (Lab, GRB 3245)  
Michelle Burns A.S. and Bree Sargent, M.S., The Jackson Laboratory

9:15-11:15am **Concurrent Electives: Demos and Hands-on** (Lab, GRB 3245)

- **Microcapillary Transfer Pipetting**
- **Pulling Microcapillary Transfer Pipettes**
- **Flushing Embryos produced from Natural Matings**
- **Selecting Mice in Estrus for the Generation of Pseudopregnant Females**  
Bree Sargent, M.S., Rachael Pelletier, B.S., Leanne Miceli, A.S., and  
Jennifer Corrigan, M.S., The Jackson Laboratory

11:30-12:30pm ***In-Vitro* Fertilization: Strain Selection, Superovulation, Project Planning  
and Trouble Shooting** (B18, 1020 Staff Conference Room)  
Bree Sargent, M.S., The Jackson Laboratory

12:30-1:30pm **Lunch** (Roscoe's)

1:30-3:00pm **How to Generate New Mouse Models Using CRISPR Technology** (B18, 1020 Staff  
Conference Room)  
Rebecca Boumil, Ph.D., The Jackson Laboratory

3:00-3:15pm **Break**

3:15-5:30pm **Non-Surgical Embryo Transfer (NSET and Cervical Manipulation)** (Lab, GRB 3245)

Barbara Stone, Ph.D., Paratechs

5:30pm *Transportation from GRB Training Lab to Highseas*

6:00-7:00pm **Lobster Dinner** (Highseas)

**Wednesday, March 11, 2026**

7:00-8:00am **Breakfast** (Highseas)

8:00-8:15am *Transportation from Highseas to GRB Training Lab*

8:15-9:45am ***In-Vitro* Fertilization Using Fresh Sperm** (Lab, GRB 3245)  
Rachael Pelletier, B.S, Bree Sargent, M.S, Amy Roux, ALAT, Leanne Miceli, A.S., and Jennifer Corrigan, M.S., The Jackson Laboratory

9:45-10:00am **Break**

10:00-12:15pm **CRISPR Reagent Delivery via Electroporation of Mouse Zygotes** (Lab, GRB 3245)  
Peter Kutny. B.S., The Jackson Laboratory

12:15-1:15pm **Lunch** (Roscoe's)

1:15-1:45pm ***In Vitro* Fertilization Change-Over** (Lab, GRB 3245)  
Rachael Pelletier, B.S, Bree Sargent, M.S, Amy Roux, ALAT, Leanne Miceli, A.S., and Jennifer Corrigan, M.S., The Jackson Laboratory

1:45-2:00pm **Break**

2:00-4:15pm **Surgical Procedures: Vasectomy and Embryo Transfer** (Lab, GRB 3245):  
Leanne Miceli, A.S., Chrissy Woodward, Bree Sargent, M.S, Rachael Pelletier, B.S., and Jennifer Corrigan, M.S., The Jackson Laboratory

4:15pm *Transportation from GRB Training Lab to Highseas*

6:00-7:00pm **Dinner** (Highseas)

**Thursday, March 12, 2026**

7:00-8:00am **Breakfast** (Highseas)

8:00am *Transportation from Highseas to GRB Training Lab*

8:15-8:45am	<b>Count/Evaluate Embryos from IVF</b> (Lab, GRB 3245) Rachael Pelletier, B.S., Amy Roux, ALAT, Leanne Miceli, A.S. and Jennifer Corrigan, M.S., The Jackson Laboratory
8:45-9:45am	<b>Evaluate Electroporated Zygotes and Q&amp;A</b> (Lab, GRB 3245) Peter Kutny, B.S., The Jackson Laboratory
9:45-10:00am	<b>Break</b>
10:00-10:45am	<b>Introduction to Embryo Cryopreservation: Controlled Rate &amp; Vitrification</b> (B18, 1020 Staff Conference Room) Bree Sargent, M.S., The Jackson Laboratory Barbara Stone, Ph.D., Paratechs
10:45-12:00pm	<b>Embryo Cryopreservation: Controlled Rate Freeze Method</b> (Lab, GRB 3245) Bree Sargent, M.S., Rachael Pelletier, B.S., Amy Roux, ALAT, Leanne Miceli, A.S., and Jennifer Corrigan, M.S., The Jackson Laboratory
12:00-1:00pm	<b>Lunch</b> (Roscoe's)
1:00-2:00pm	<b>Embryo Cryopreservation: Vitrification Method</b> (Lab, GRB 3245) Barbara Stone, Ph.D., Paratechs
2:00-3:00pm	<b>Thawing Embryos: Demonstration &amp; Hands-on</b> (Lab, GRB 3245) <ul style="list-style-type: none"> <li>• <b>Controlled Rate Method</b> Bree Sargent, M.S., Chrissy Woodward, Leanne Miceli, A.S., and Jennifer Corrigan, M.S., The Jackson Laboratory</li> <li>• <b>Vitrification Method</b> Barbara Stone, Ph.D., Paratechs, Rachael Pelletier, B.S., Amy Roux, ALAT, Leanne Miceli, A.S., and Jennifer Corrigan, M.S., The Jackson Laboratory</li> </ul>
3:00pm	<i>Transportation from GRB Training Lab to Highseas</i>
6:00-7:00pm	<b>Dinner</b> (Highseas)

### **Friday, March 13, 2026**

7:00-9:00am	<b>To-Go Breakfast &amp; Check Out</b> Participants may remain on the 1 <sup>st</sup> floor until 12:00pm if needed
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