



## **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. Bree Sargent, M.S., Leanne Miceli, A.S., and  
Jennifer Corrigan, 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	<b>Biomethods: Handling, Restraint &amp; IP and Sub Q Injections</b> (Lab, GRB 3245) Biomethods Training Team, The Jackson Laboratory
2:45-3:00pm	<b>Break</b>
3:00-4:30pm	<b>Male and Female Anatomy: Demonstration and Practical</b> (Lab, GRB 3245) Jennifer Corrigan, M.S., Leanne Miceli, A.S., The Jackson Laboratory
4:30pm	<i>Transportation from GRB Training Lab to Highseas</i>
6:00-7:00pm	<b>Dinner</b> (Highseas)

## **Tuesday, March 10, 2026**

7:00-8:00am	<b>Breakfast</b> (Highseas)
8:00 – 8:15am	<i>Transportation from Highseas to Bld 64, B115</i>
8:15-9:00am	<b>Liquid Nitrogen Safety, Dry Shippers, Biobank</b> (Bld 64, B115) Michelle Burns and Bree Sargent, M.S., The Jackson Laboratory
9:00-9:15am	<b>Walk to GRB Training Laboratory</b> (Lab, GRB 3245) Michelle Burns and Bree Sargent, M.S., The Jackson Laboratory
9:15-11:15am	<b>Concurrent Electives: Demos and Hands-on</b> (Lab, GRB 3245) <ul style="list-style-type: none"> <li>• <b>Microcapillary Transfer Pipetting</b></li> <li>• <b>Pulling Microcapillary Transfer Pipettes</b></li> <li>• <b>Flushing Embryos produced from Natural Matings</b></li> <li>• <b>Selecting Mice in Estrus for the Generation of Pseudopregnant Females</b> Bree Sargent, M.S., Rachael Pelletier, B.S., Leanne Miceli, A.S., and Jennifer Corrigan, M.S., The Jackson Laboratory</li> </ul>
11:30-12:30pm	<b><i>In-Vitro</i> Fertilization: Strain Selection, Superovulation, Project Planning and Trouble Shooting</b> (Breezeway Classroom) Bree Sargent, M.S., The Jackson Laboratory
12:30-1:30pm	<b>Lunch</b> (Roscoe's)
1:30-3:00pm	<b>How to Generate New Mouse Models Using CRISPR Technology</b> (Breezeway Classroom) Rebecca Boumil, Ph.D., The Jackson Laboratory
3:00-3:15pm	<b>Break</b>

- 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)  
Bree Sargent, M.S, Rachael Pelletier, B.S., 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
- 12:00-1:00pm     **Lunch** (Roscoe's)
- 1:00-1:30pm      ***In Vitro* Fertilization Change-Over** (Lab, GRB 3245)  
Bree Sargent, M.S., Rachael Pelletier, B.S., Leanne Miceli, A.S., and Jennifer  
Corrigan, M.S., The Jackson Laboratory
- 1:30-1:45pm      **Break**
- 1:45-4:00pm      **Surgical Procedures: Vasectomy and Embryo Transfer** (Lab, GRB 3245):  
Bree Sargent, M.S, Rachael Pelletier, B.S., Leanne Miceli, A.S., and Jennifer  
Corrigan, M.S., The Jackson Laboratory
- 4:00pm            *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	<i>Transportation from Highseas to GRB Training Lab</i>
8:15-8:45am	<b>Count/Evaluate Embryos from IVF</b> (Lab, GRB 3245) Leanne Miceli, A.S., Jennifer Corrigan, M.S., and Bree Sargent, 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> (Breezeway Classroom) 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., 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., Leanne Miceli, A.S., and Jennifer Corrigan, M.S., The Jackson Laboratory</li> <li>• <b>Vitrification Method</b> Barbara Stone, Ph.D., Paratechs, Bree Sargent, M.S., 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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