



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, 3rd 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	<i>Transportation from GRB Training Lab to Highseas</i>
6:00-7:00pm	Dinner (Highseas)

Tuesday, March 10, 2026

7:00-8:00am	Breakfast (Highseas)
8:00 – 8:15am	<i>Transportation from Highseas to Bld 64, B115</i>
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) <ul style="list-style-type: none">Microcapillary Transfer PipettingPulling Microcapillary Transfer PipettesFlushing Embryos produced from Natural MatingsSelecting 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	Count/Evaluate Embryos from IVF (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	Evaluate Electroporated Zygotes and Q&A (Lab, GRB 3245) Peter Kutny, B.S., The Jackson Laboratory
9:45-10:00am	Break
10:00-10:45am	Introduction to Embryo Cryopreservation: Controlled Rate & Vitrification (B18, 1020 Staff Conference Room) Bree Sargent, M.S., The Jackson Laboratory Barbara Stone, Ph.D., Paratechs
10:45-12:00pm	Embryo Cryopreservation: Controlled Rate Freeze Method (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	Lunch (Roscoe's)
1:00-2:00pm	Embryo Cryopreservation: Vitrification Method (Lab, GRB 3245) Barbara Stone, Ph.D., Paratechs
2:00-3:00pm	Thawing Embryos: Demonstration & Hands-on (Lab, GRB 3245) <ul style="list-style-type: none"> Controlled Rate Method Bree Sargent, M.S., Chrissy Woodward, Leanne Miceli, A.S., and Jennifer Corrigan, M.S., The Jackson Laboratory Vitrification Method Barbara Stone, Ph.D., Paratechs, Rachael Pelletier, B.S., Amy Roux, ALAT, Leanne Miceli, A.S., and Jennifer Corrigan, M.S., The Jackson Laboratory
3:00pm	<i>Transportation from GRB Training Lab to Highseas</i>
6:00-7:00pm	Dinner (Highseas)

Friday, March 13, 2026

7:00-9:00am	To-Go Breakfast & Check Out Participants may remain on the 1 st floor until 12:00pm if needed
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