



Comprehensive Approaches to the *in vivo* Assessment of

Cardiovascular Function in Mice

April 9-14, 2007

Contact: Toni Joerres – Event Coordinator

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Course Schedule – [subject to change](#)

All lectures will be held in GRB 3225 unless noted.

Monday, April 9, 2007

PM

4:00-6:00 **Registration** - Highseas

Tuesday, April 10, 2007

AM

7:30-8:30 **Breakfast** – Highseas

8:45 **Jax shuttle van pick-up at Highseas**

9:00-10:30 **Mouse genetics and genetic tools**
John Macauley, Ph.D., The Jackson Laboratory

10:30-11:30 **Mouse genetic nomenclature: What's in a name?**
Jennifer Corrigan, M.S., The Jackson Laboratory

11:30-12:30 **Mouse models for cardiovascular disease**
Karen Svenson, The Jackson Laboratory

12:30-1:30 **Lunch** – Roscoe's

PM

1:30-2:30 **Induced models of cardiac disease**
Robert F. Hoyt, Jr., DVM, MS, DACLAM, NHLBI

2:30-3:30 **Comparative cardiac physiology**
Ronglih Liao, Ph.D., Harvard Medical School

- 3:30-4:30 **Anesthesia and analgesia**
Anthony Nicholson, B.V.S.c., Ph.D., The Jackson Laboratory
- 4:30-5:30 **Biomethods**
GRB Training Lab
- 5:30 Jax shuttle vans pick-up at Main Lab
- 6:00 **Lobster Dinner - Highseas**

Wednesday, April 11, 2007

AM

- 7:30-8:30 **Breakfast – Highseas**
- 8:45 **Jax shuttle van pick-up at Highseas**
- 9:00-10:00 **Introduction to High-Resolution Micro-Ultrasound Focused on Cardiac Micro-Imaging in the Mouse *in vivo***
Quynh-Ai (Ai) Lockard, Ph.D., Molecular Applications Specialist, VisualSonics Inc.
GRB Training lab
- 10:00-12:00 ***In Vivo* Imaging demonstration and hands-on student session on general and cardiovascular imaging**
Quynh-Ai (Ai) Lockard, Ph.D., Molecular Applications Specialist, VisualSonics Inc.
GRB Training Lab

PM

- 12:00-1:00 **Lunch - Roscoe's**
- 1:00-2:00 **Contrast-Enhanced and Molecular Imaging of Biomarkers *In Vivo* using High-Resolution Micro-Ultrasound:**
Quynh-Ai (Ai) Lockard, Ph.D., Molecular Applications Specialist, VisualSonics Inc.
GRB Training Lab
- 2:00-4:30 ***In Vivo* demonstration of molecular imaging and follow up on any general imaging applications**
Quynh-Ai (Ai) Lockard, Ph.D., Molecular Applications Specialist, VisualSonics Inc.
GRB Training Lab
- 4:30 Jax shuttle vans pick-up at Main Lab
- 6:00 **Dinner – Highseas**

Thursday, April 12, 2007

AM

- 7:30-8:30 **Breakfast – Highseas**

8:45 **Jax shuttle van pick-up at Highseas**

9:00-10:30 **History of CV measurement and telemetry**
Steve Hachtman, DSI

10:30-11:30 **Animal Telemetry: Successes, Threats & New Opportunities**
Lewis Kinter, M.D., AstraZeneca, DSI

11:30-12:30 **ECG & BP Measurements in Mice**
Heather Michelau, DSI

PM

12:30-1:30 **Lunch - Roscoe's**

1:30-4:30 **Lab: Telemetry (DSI) EKG, BP**
Heather Michelau, DSI
GRB Training Lab

- **ECG Telemetry implantation demonstration and hands on student surgery session**
- **BP carotid implantation demonstration student BP implantation**
- **Telemetry System Demonstration and data acquisition and analysis**

4:30 Jax shuttle vans pick-up at Main Lab

6:00 **Dinner – Highseas**

Friday, April 13, 2007

AM

7:30-8:30 **Breakfast – Highseas**

8:45 **Jax shuttle van pick-up at Highseas**

9:00-10:30 **Mouse Solid State Pressure Volume catheter technology theory and application**
Jeff Harris, ADInstruments and Ronglih Liao, Ph.D., Harvard Medical School

10:30-12:30 **Demonstration and hands-on student sessions - GRB Training Lab**

- **Catheterization techniques**
- **intra-cardiac pressure-volume measurements**

- LV catheter placement utilizing real-time PV Loop feedback
- Left ventricular pressure volume data collection

PM

12:30-1:30 **Lunch - Roscoe's**

1:30-4:30 **Catheterization options - GRB Training Lab**

- Carotid vs. apical stab approach
- Recording saline bolus data
- Calibration cuvette usage for blood volume measurements
- Comparison of heart disease model data vs. control

4:30 Jax shuttle vans pick-up at Main Lab

6:00 **Dinner - Highseas**

Saturday, April 14, 2007

AM

7:30-8:30 **Breakfast – Highseas**

8:45 **Jax shuttle van pick-up at Highseas**

9:00-10:30 **Data analysis (ADI) - GRB Training Lab**

- Calibrating for absolute volume and parallel conductance
- PV loop interpretation
- Cardiac function data generation
- IVC occlusion and other experimental variants

10:30-12:00 **Analysis and interpretation of HF ultrasound**
Ronglih Liao, Ph.D., Harvard Medical School
 GRB Training Lab

PM

12:00-1:00 **Lunch - Roscoe's**

1:00-? **Data analysis (DSI)**

TBA Jax shuttle vans pick-up at Main Lab