



Comprehensive Approaches to the *in vivo* Assessment of Cardiovascular Function in Mice

June 21-26, 2009

Contact: Laura Lelansky – Events and Meetings Planner
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Draft Schedule – subject to change

Sunday, June 21, 2009

Travel Day for Participants and Speakers

Monday, June 22, 2009

7:45 – Vans arrive at Bar Harbor Grand Hotel

8:00 – Vans depart and bring to Main Lobby at Jackson Lab

Location: The Jackson Laboratory LCC Auditorium

- 8:30-8:45 **Course Evaluations**
Suzanne Hart, University of Maine
- 8:45-9:45 **Mouse genetics**
John Macauley, Ph.D., The Jackson Laboratory
- 9:45-10:45 **Mouse genetic nomenclature: What's in a name?**
Jennifer Corrigan, M.S., The Jackson Laboratory
- 10:45-11:00 **Break**
- 11:00-12:00 **Basic cardiac physiology**
Ronglih Liao, Ph.D., Harvard Medical School
- 12:00-12:45 **Lunch at Roscoe's**

12:45-1:45 **Using mouse models to reveal the mysteries of cardiovascular disease**
Kenneth Roos, Ph.D., UCLA

1:45-2:45 **Induced models of cardiac disease**
Robert F. Hoyt, Jr., DVM, MS, DACLAM, NHLBI

2:45-3:45 **Anesthesia and analgesia**
Anthony Nicholson, B.V.S.c., Ph.D., The Jackson Laboratory

3:45 -4:00 **Break**

Location: GRB Training Lab

4:00-5:00 **Biomethods**
Kristin Cough, B.S., The Jackson Laboratory

5:00 – Van pick up at GRB training lab and take participants to BH Grand Hotel

Tuesday, June 23, 2009

8:30 – Vans arrive at Bar Harbor Grand Hotel

8:45 – Vans depart and bring to Main Lobby at Jackson Lab

Location: The Jackson Laboratory LCC Auditorium

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

10:00-11:00 **Telemetry Applications in Small Animals**
Klaas Kramer, Ph.D., Free University, Amsterdam

11:00-11:30 **Break**

11:30-12:30 **Applied Telemetry in Measuring Thermal Responses in Mice**
Steven Swoap, Williams College

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

1:30-2:30 **Modeling Efficacy and Safety in Mice: choosing the right model**
Lewis Kinter, Ph.D., AstraZeneca

Location: GRB Training Lab

2:30-3:00 **ECG & BP Measurements in Mice**

3:00-6:00 **Lab: Telemetry (DSI) EKG, BP**

- **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**

6:00 – Van pick up at GRB training lab and take participants to BH Grand Hotel

Wednesday, June 24, 2009

8:30 – Vans arrive at Bar Harbor Grand Hotel

8:45 – Vans depart and bring to Main Lobby at Jackson Lab

Location: The Jackson Laboratory LCC Auditorium

9:00-10:00 **Introduction to Micro-Ultrasound of the Mouse with Cardiovascular Applications**
Stuart Foster, Ph.D., University of Toronto

Location: GRB Training Lab

10:00-10:30 **Break**

10:30-11:30 ***In Vivo* Imaging demonstration and hands-on student session on general and cardiovascular imaging**
Stuart Foster, Ben Deeley, and Fred Roberts - VisualSonics Inc.

11:30-12:30 **Lunch at Rosoe's**

12:30-4:30 ***In vivo* Imaging demonstration and hands-on student session on general and cardiovascular imaging in Normal, Artherosclerosis and Myocardial Infarct mouse models**
Stuart Foster, Ben Deeley, and Fred Roberts - VisualSonics Inc.

4:30pm – Van pick up at GRB training lab and take participants to BH Grand Hotel

Thursday, June 25, 2009

8:30 – Vans arrive at Bar Harbor Grand Hotel

8:45 – Vans depart and bring to Main Lobby at Jackson Lab

Location: The Jackson Laboratory LCC Auditorium

9:00-9:30 **Comparative cardiac physiology**
Ronglih Liao, Ph.D., Harvard Medical School

10:00 **Break**

10:30-12:00 **Mouse Solid State Pressure Volume catheter technology theory and application**
Jeff Harris, ADInstruments and Ronglih Liao, Ph.D., Harvard Medical School

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

Location: GRB Training Lab

1:00-3:00 **Demonstration and hands-on student sessions**

- **Catheterization techniques**
- **intra-cardiac pressure-volume measurements**
- **LV catheter placement utilizing real-time PV Loop feedback**
- **Left ventricular pressure volume data collection**

3:00-4:30 **Catheterization options**

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

4:30-5:30 **Data analysis**

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

5:30 – Van pick up at GRB training lab and take participants to BH Grand Hotel

Friday, June 26, 2009

8:30 – Vans arrive at Bar Harbor Grand Hotel

8:45 – Vans depart and bring to Main Lobby @ Jackson Lab

Location: The Jackson Laboratory LCC Auditorium

9:00-10:30 **Analysis and interpretation of HF ultrasound**
Ronglih Liao, Ph.D., Harvard Medical School

10:30 **Break**

11:00- 12:30 **Course Wrap-Up**
Anthony Nicholson, Ph.D., The Jackson Laboratory
Ronglih Liao, Ph.D., Harvard Medical School

12:30 Departure

12:30pm – Van pick up at The Jackson Lab Lobby and take participants to BH Grand Hotel