



**Short Course on Complex Trait Analysis**

**September 16 – 22, 2006**

Contact Information: [toni.joerres@jax.org](mailto:toni.joerres@jax.org)

**Toni Joerres, 207-288-6263**

**COURSE SCHEDULE *draft subject to change***

**Saturday, September 16<sup>th</sup>**

**PM**

**12:00-2:30** Registration with luncheon buffet

**2:30-5:30** Free Time

**6:00-7:00** Dinner

**7:00-7:30** Welcome: *Gary Churchill, Ph.D., The Jackson Laboratory, Organizer*

**Sunday, September 17<sup>th</sup>**

**AM**

**7:00-8:15** Breakfast

**8:30- 8:45** **Opening Remarks:** *Richard Woychik, Ph.D., Director,  
The Jackson Laboratory*

**8:45- 9:00** **Course Evaluation:** *Suzanne Hart, The University of Maine Orono*

**9:00-10:30** **Introduction to QTL mapping in model organisms:**  
*Karl Broman, Ph.D., Johns Hopkins University, Co- Organizer*

**10:30-11:00** Break

**11:00-12:00** **A missing data perspective on QTL mapping:**  
*Saunak Sen, Ph.D. University of California, San Francisco*

**PM**

**12:00-1:00** Lunch

**1:00-2:30** **QTL examples:** *Gary Churchill, Ph.D, The Jackson Laboratory*

**2:30-3:00** Break

**3:00-5:00** **Lab I: R/qtl :** *Karl Broman Ph.D., Johns Hopkins University*

**6:00-7:00 Dinner**

**Monday, September 18<sup>th</sup>**

**AM**

**7:30-8:45 Breakfast**

**9:00-10:30 Bayesian model selection for multiple QTL :**  
*Brian Yandell, Ph.D., University of Wisconsin, Madison*

**10:30-11:00 Break**

**11:00-12:00 JAX PGA: New Models of Heart, Lung, Blood, and Sleep Disorders:**  
*Karen Svenson, B.A., The Jackson Laboratory*

**PM**

**12:00-1:00 Lunch**

**1:00-2:00 J/qtl Demo**  
*Randy von Smith, Ph.D., The Jackson Laboratory*

**2:00-5:00 Free Time – Computer Lab Available**

**6:00-7:00 Dinner**

**7:00-8:30 Overview of Complex Trait Analysis in Humans:**  
*Eleanor Feingold, Ph.D., University of Pittsburgh*

**Tuesday, September 19<sup>th</sup>**

**AM**

**7:00-8:15 Breakfast**

**8:30-10:00 Linkage Analysis-Binary Traits:**  
*Josee Dupuis, Ph.D., Boston University*

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

**10:30-12:00 Linkage analysis: Quantitative traits:**  
*Eleanor Feingold, Ph.D., University of Pittsburgh*

**PM**

**12:00-1:00 Lunch**

**1:00-2:30 Experimental Design for Mapping Studies:**  
*Jaya Satagopan, Ph.D., Memorial Sloan-Kettering Cancer Center*

**2:30-3:00 Break**

**3:00-4:00 A Case Study**  
*Jin Szatkeiwicz, Ph.D., The Jackson Laboratory*

**4:00-5:00**      **Free Time** – Computer Lab Available

**6:00-7:00**      **Dinner**

**7:00-8:30**      **Evening Discussion (Living Room)**

**Wednesday, September 20<sup>th</sup>**

**AM**

**7:00-8:15**      **Breakfast**

**8:30-10:00**      **Haplotype Analysis and Population Genetics of Complex Traits**  
*Hongyu Zhao, Ph.D., Yale University*

**10:00-10:30**      **Break**

**10:30-12:00**      **Canine Genetics: A Fetching Model System**  
*Mark Neff, Ph.D., UC Davis School of Veterinary Medicine*

**PM**

**12:00-1:00**      **Lunch**

**1:00-6:00**      **Free Time**

1:00-3:00      Optional Bike Ride/Hike around Witch Hole Pond, Acadia National Park.  
Bikes will be rented at Bar Harbor Bike Shop, courtesy of The Jackson Laboratory

**6:00-7:00**      **Dinner**

**7:00-8:30**      **Special Guest Lecture: On Functional Categories Enriched for Differentially Expressed Genes**  
*Michael Newton, University of Wisconsin*

**Thursday, September 21<sup>st</sup>**

**AM**

**7:00-8:15**      **Breakfast**

**8:30-10:00**      **ANOVA Methods for Microarray Analysis:**  
*Gary Churchill, Ph.D., The Jackson Laboratory*

**10:00-10:30**      **Break**

**10:30-12:00**      **Introduction to Systems Genetics Using [www.Genenetwork.org](http://www.genenetwork.org):**  
*Elissa Chesler, Ph.D., University of Tennessee, Memphis*

**PM**

**12:00-1:00 Lunch**

**1:00-2:30 Empirical Bayes Methods and Software for Analysis of Microarray and eQTL Mapping Experiments**

*Christina Kendziorski, Ph.D., University of Wisconsin*

**2:30-3:00 Break**

**3:00-5:00 Lab II: R/maanova: Keith Shockley, Ph.D., The Jackson Laboratory**

**6:00-7:00 Dinner**

**7:00-8:30 Evening Discussion (Living Room)**

**Friday, September 22<sup>nd</sup>**

**AM**

**7:00-8:15 Breakfast**

**8:30-10:00 Gene Expression Analysis with R/Bioconductor :**

*Rafael Irizarry, Ph.D., Johns Hopkins University*

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

**11:00-12:00 TBA**

**PM**

**12:00-1:00 Lunch**

**1:00-5:00 Free Time – Computer Lab Available, Introduction to Bioconductor**  
*Benilton Carvalho*

**6:00-8:00 Lobster Dinner**

**End of Course**