



Biostatistics & Medical Informatics/Statistics 546
Practicum in Biostatistics, Animal Science Room 150
Professor: Dr. Rick Chappell, chappell@biostat.wisc.edu
Teaching Assistant: Scott Hetzel, shetzel@wisc.edu



Guest lecturers:

Dr. David DeMets, demets@biostat.wisc.edu

Dr. Ron Gangnon, ronald@biostat.wisc.edu

Dr. Sunduz Keles, keles@biostat.wisc.edu

Dr. Rob Lemanske, rfl@medicine.wisc.edu

Revised 5/24/2006

Week 1 6/12-6/16

- 6/12 Types of Medical Studies (Chappell)
- 6/13 *How to download and get started with R* (Hetzel)
- 6/14 Surrogate Outcomes; Cardiac Arrhythmia Suppression Trial (DeMets)
- 6/15 Types of Clinical Studies (DeMets)
- 6/16 R Lecture and lab practice (Hetzel)

Week 2 6/19-6/23

- 6/19 R Lecture and lab practice (Hetzel)
- 6/20 Study replication; VEST and congestive heart failure
Subgroup Analyses; PRAISE I and PRAISE II trials in congestive heart failure
(DeMets)
Data Analysis Projects handed out by RC
- 6/21 R Lecture and Lab practice (Hetzel)
- 6/22 Intent to Treat (ITT) Principle; Anturane Reinfarction Trial. (DeMets)
- 6/23 Fraud in Clinical Trials (DeMets)

Week 3 6/26-6/30

- 6/26 Introduction to genomic analysis (Keles)
- 6/27 R Lecture and lab practice (Hetzel)
Trip to Nimblegen 3-4pm
- 6/28 Survey of methods for genomic analyses (Keles)
- 6/29 Case study for genomic analysis (Keles)
- 6/30 R Lecture and lab practice (Hetzel)

Week 4 7/3-7/7

- 7/3 Descriptive Statistics and graphics, applied to COAST (Gangnon)
- 7/4 No class, party at RC's with fireworks after 6pm-11pm
- 7/5 Medical background of the COAST Study (Rob Lemanske)
- 7/6 One sample inference for continuous outcomes, applied to COAST (Gangnon)
Trip to Waisman Lab 3-4pm

- 7/7 Two- sample inference for continuous outcomes, applied to COAST (Gangnon)

Week 5 **7/10- 7-14**

- 7/10 Underlying assumptions for inference- detection, corrective action, robustness applied to COAST (Gangnon)
- 7/11 The Second Hong Kong Nasopharyngeal Carcinoma Trial and survival outcomes (Chappell)
- 7/12 Estimating survival curves for censored data, applied to HKNPC02 (Chappell)
- 7/13 R Lecture and Lab Practice (Hetzel)
- 7/14 The Cox proportional hazards model, applied to HKNPC02 (Chappell)

Week 6 **7/17- 7/21**

- 7/17 R Lecture and lab practice (Hetzel)
- 7/18 Group project collaboration
- 7/19 Group Project collaboration
- 7/20 Group Project Presentation
- 7/21 No class/ Farewell Lunch