

## STATISTICAL ANALYSIS OF RESEARCH DATA

in Natcher Conference Center

is sponsored by the NCI Center for Cancer Research

Office of Training and Education.

The lecturer is Paul Thurman of Columbia University (Paul.Thurman@Columbia.edu).

### AGENDA

#### **Mar 46, 2018 Univariate Data Analysis**

- 9:00 a.m.      • Introduction and case overview (including review of first assignment)  
                  • Descriptive Statistics  
                  • Data/probability distributions (with focus on Normal)  
                  • Sampling distributions (mean and variance)
- 10:30 a.m.      Break
- 10:45 a.m.      • Sampling distributions (mean and variance, continued)
- 12:00 noon      Lunch Break
- 1:00 p.m.      • Small vs. large samples  
                  • One-sample inferential statistics: means, variances, confidence intervals
- 3:00 p.m.      Break
- 3:15 p.m.      • Two-sample inferential stats: two-sample t-tests (paired vs.  
                  independent; means and proportions)
- Tutorials:      Excel tutorials on descriptive statistics, histograms, two-sample tests*
- 5:00 p.m.      Bivariate statistics (covariance, correlation, etc.); end by 6:00 p.m.

#### **Mar 47, 2018 Bivariate Data Analysis**

- 9:00 a.m.      • Simple linear regression
- 10:30 a.m.      Break
- 10:45 a.m.      • Multiple linear regression
- 12:00 noon      Lunch Break
- 1:00 p.m.      • Multiple linear regression (continued)
- 2:00 p.m.      Break (if needed)
- 2:15 p.m.      • Non-parametric tools: Chi-squared, Wilcoxon, Mann-Whitney goodness  
                  of fit tests (as time permits)
- Tutorials: Regression, Chi-Squared, and ANOVA tests (as time permits)*
- 3:00 p.m.      Close (latest 3:30 p.m.)

For additional information contact the Course Coordinator, Dr. Terry Moody  
([moodyt@mail.nih.gov](mailto:moodyt@mail.nih.gov)).