

## **STATISTICAL ANALYSIS OF RESEARCH DATA**

is sponsored by the NCI Center for Cancer Research  
Office of Training and Education.

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

Course sessions are on Wednesdays, January 13, 27, February 3, and 10, from 1pm-5pm EST, via online instruction. We will take short breaks every 90 minutes or so.

### **AGENDA**

#### January 13, 2021: Univariate Statistics I

- Descriptive statistics and normal distributions (of data)
- Random sampling and sampling distributions of the mean
- Estimating a population mean with an interval estimate
- Small vs. large sample considerations

#### January 27, 2021: Univariate Statistics II

- Inferential statistics and hypothesis testing (including errors)
- Two-sample tests of means: paired and independent samples
- Small vs. large sample considerations

#### February 3, 2021: Bi- and Multivariate Statistics I

- Bivariate statistics: covariance, correlation, etc.
- Simple linear regression (one input)
- Regression diagnostics
- Multiple regression (two or more inputs)

#### February 10, 2021: Multivariate Statistics II

- Multiple regression (continued)
- Multivariate regression diagnostics
- Nonparametric statistics: Chi-squared test for randomized response (time permitting)

For additional information, please contact the Course Coordinator, Dr. Terry Moody, at moodyt@mail.nih.gov