

## **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 26, 31, February 9, and 14, 2022, from 1pm-5pm EST, via online instruction. We will take short breaks every 75-90 minutes.

### **AGENDA**

#### January 26, 2022: 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 31, 2022: 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 9, 2022: Bi- and Multivariate Statistics I

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

#### February 14, 2022: 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