

## **Biostatistics for the Non-Statistician**

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**Date :** Mar 01, 2018 - 09:00 AM - Mar 02, 06:00 PM

**Event URL :** <http://www.sfbayeventslist.com/events/biostatistics-for-the-non-statistician-mar-2018>

**Organizer :** GlobalCompliancePanel

**Venue :**

**Location :** 407, Squire Rd  
Revere, MA, USA, ZIP: 02151

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### **Why should you attend:**

Statistics is a useful decision making tool in the clinical research arena. When working in a field where a p-value can determine the next steps on development of a drug or procedure, it is imperative that decision makers understand the theory and application of statistics.

Many statistical softwares are now available to professionals. However, these softwares were developed for statisticians and can often be daunting to non-statisticians. How do you know if you are pressing the right key, let alone performing the best test?

This seminar provides a non-mathematical introduction to biostatistics and is designed for non-statisticians. And it will benefit professionals who must understand and work with study design and interpretation of findings in a clinical or biotechnology setting.

The focus of the seminar is to give you the information and skills necessary to understand statistical concepts and findings as applies to clinical research, and to confidently convey the information to others.

Emphasis will be placed on the actual statistical (a) concepts, (b) application, and (c) interpretation, and not on mathematical formulas or actual data analysis. A basic understanding of statistics is desired, but not necessary.

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### **Who will benefit:**

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- Physicians
- Clinical Research Associates
- Clinical Project Managers/Leaders
- Sponsors
- Regulatory Professionals who use statistical concepts/terminology in reporting
- Medical Writers who need to interpret statistical reports

## **Day 1 Schedule**

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Lecture 1 (90 Mins):

### **Why Statistics?**

- Do we really need statistical tests?
  - Sample vs. Population
  - I'm a statistician not a magician! What statistics can and can't do
  - Descriptive statistics and measures of variability
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Lecture 2 (90 Mins):

### **The many ways of interpretation**

- Confidence intervals
  - p-values
  - effect sizes
  - Clinical vs. meaningful significance
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Lecture 3 (90 Mins):

### **Common Statistical Tests**

- Comparative tests
  - Regression analysis
  - Non-parametric techniques
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Lecture 4 (90 Mins):

### **Bayesian Logic**

- A different way of thinking
- Bayesian methods and statistical significance
- Bayesian applications to diagnostics testing
- Bayesian applications to genetics

## Day 2 Schedule

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Lecture 1 (90 Mins):

### Interpreting Statistics – Team Exercise

Team Exercise: Review a scientific paper and learn how to

- Interpret statistical jargon
  - Look for reproducibility, transparency, bias, and limitations
  - Convey information coherently to non-statisticians
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Lecture 2 (90 Mins):

### Study power and sample size

- Review of p-value, significance level, effect size
  - Formulas, software, and other resources for computing a sample size
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Lecture 3 (90 Mins):

### Developing a Statistical Analysis Plan

- Using FDA guidance as a foundation, learn the steps and criteria needed to develop a statistical analysis plan (SAP).
  - An SAP template will be given to all attendees.
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Lecture 4 (90 Mins):

### Specialized topics/Closing Comments/Q&A

- Comparing Survival Curves
- Pharmacokinetics/Pharmacodynamics (PK/PD)
- Taking a holistic view to study design and interpretation
- Question and Answer session

### Elaine Eisenbeisz

Owner and Principal Statistician, Omega Statistics

**Elaine Eisenbeisz**, is a private practice statistician and owner of Omega Statistics, a statistical consulting firm based in Southern California. Elaine has over 30 years of experience in creating data and information solutions for industries ranging from governmental agencies and corporations, to start-up companies and individual researchers.

In addition to her technical expertise, Elaine possesses a talent for conveying statistical concepts and results in a way that people can intuitively understand.

Elaine's love of numbers began in elementary school where she placed in regional and statewide mathematics competitions. She attended University of California, Riverside, as a National Science Foundation scholar, where she earned a B.S. in Statistics with a minor in Quantitative Management, Accounting. Elaine received her Master's Certification in Applied Statistics from Texas A&M, and is currently finishing her graduate studies at Rochester Institute of Technology. Elaine is a member in good standing with the American Statistical Association as well as many other professional organizations. She is also a member of the Mensa High IQ Society. Omega Statistics holds an A+ rating with the Better Business Bureau.

Elaine has designed the methodology for numerous studies in the clinical, biotech, and health care fields. She currently is an investigator on approximately 10 proton therapy clinical trials for Proton Collaborative Group, based in Illinois. She also designs and analyzes studies as a contract statistician for nutraceutical and fitness studies with QPS, a CRO based in Delaware. Elaine has also worked as a contract statistician with numerous private researchers and biotech start-ups as well as with larger companies such as Allergan and Rio Tinto Minerals. Not only is Elaine well versed in statistical methodology and analysis, she works well with project teams. Throughout her tenure as a private practice statistician, she has published work with researchers and colleagues in peer-reviewed journals. Please visit the Omega Statistics website at [www.OmegaStatistics.com](http://www.OmegaStatistics.com) to learn more about Elaine and Omega Statistics.

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[nyeventslist.com](http://nyeventslist.com) for registrations

**Event Categories :**