



# The American Statistical Association

## San Francisco Bay Area Chapter

Since 1928

January, 1995

### Joint Biostatistics and General Applications Program

#### Considerations and Alternatives for Power Analysis in the Design of Longitudinal Clinical Trials

Ronald G. Thomas

Senior Biostatistician, VA Cooperative Studies Program  
Consulting Associate Professor, Stanford University

Clinical trials with repeated response measurements are commonplace. Defining characteristics of data sets resulting from such studies include correlated responses and complex missing data patterns. Ideally information regarding these aspects of the response profiles could be included in the power analysis. Recently, a number of nonparametric and likelihood-based methodologies have been proposed that allow for a valid comparison of treatment groups in longitudinal clinical trials in the face of missing data. The likelihood-based techniques allow for modeling of both the mean and covariance structure of the profiles. This talk will discuss the application of these various methods during the design phase of a longitudinal clinical trial. An example will be given of a recently designed trial for the evaluation of Vitamin E as a treatment for Tardive Dyskinesia, for which pilot data were available.

**Date:** Wednesday, January 11, 1995

**Time:** 3:30 - 4:00 Refreshments  
4:00 - 5:00 Talk

**Place:** North Science Building, Room 215  
California State University, Hayward

**Directions:** From I-880 in Hayward, take the Jackson Street exit east. Turn right onto Harder Rd. Continue up Harder to the campus and park in pay lot G. From the Peninsula, take the San Mateo Bridge into Hayward. This highway becomes Jackson Street. The pay lot fee is \$1.50 in quarters only. See map on reverse.

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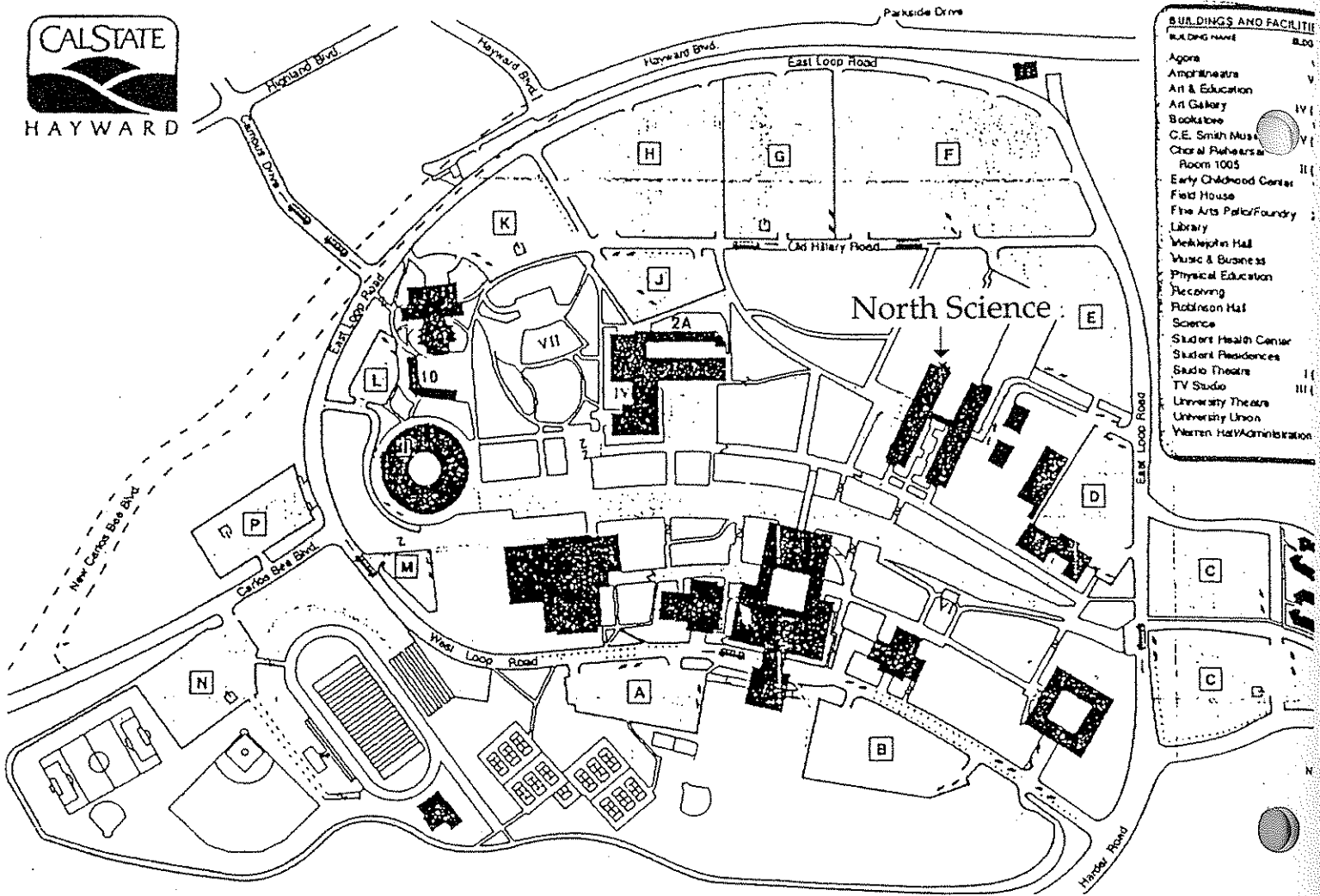
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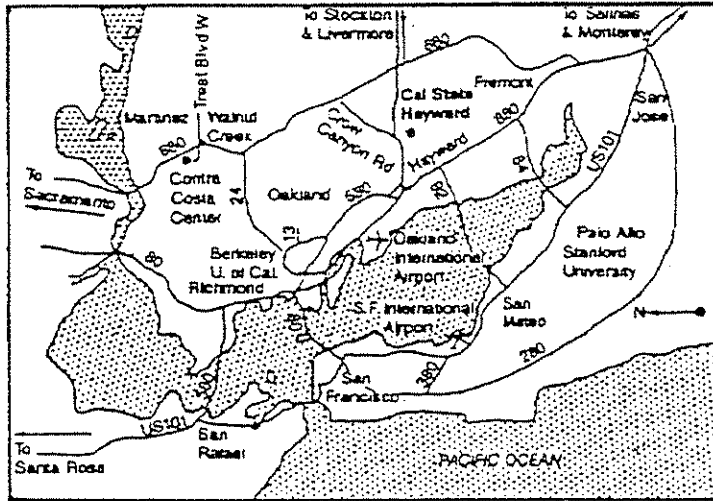
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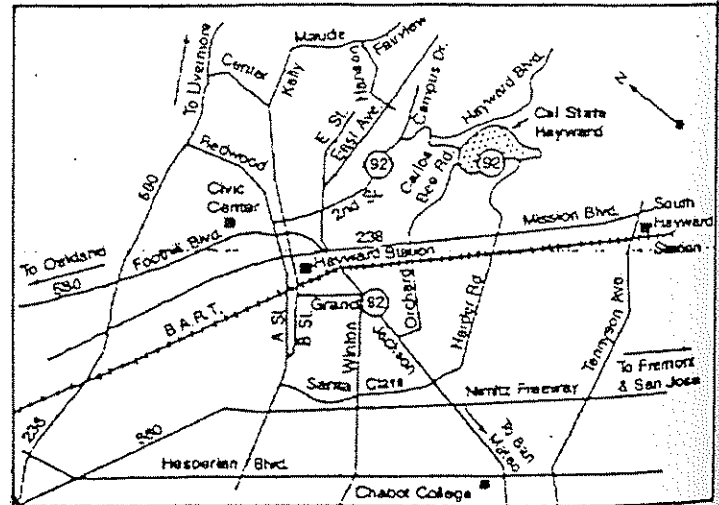
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BUILDING NAME	ALPHA
Agona	ALPHA
Amphitheatre	V
Art & Education	IV
Art Gallery	VI
Bookstore	II
C.E. Smith Music Room 1005	II
Early Childhood Center	II
Field House	II
Fine Arts Palace/Foundry	II
Library	II
Wickiupin Hall	II
Music & Business	II
Physical Education	II
Receiving	II
Robinson Hall	II
Science	II
Student Health Center	II
Student Residences	II
Audio Theatre	II
TV Studio	II
University Theatre	II
University Union	II
Women Hall/Administration	II



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## Job Opportunities

### Statistician

Becton Dickinson Immunocytometry Systems, San Jose

Responsibilities: work closely with teams of scientists, engineers, clinical researchers and regulatory specialists through every phase of the development and testing of a new product. Specific statistical tasks may include designing screening and optimization experiments, equivalence testing, variance component estimation, clinical protocol development, sample size estimation, and quality control testing. Must be able to work independently and be willing to learn and apply new methodology when necessary.

Qualifications: Typically requires a M.S. in statistics or equivalent with 2 years related experience, or Ph.D. in statistics with 0-2 years experience. Expertise in statistical methodology, software languages and computer systems is required; familiarity with Macintosh or Windows environments is a plus.

Contact Craig Andersen, Human Resources, Becton Dickinson, 2350 Qume Drive, San Jose, CA 95131-1807. Phone: (408) 954-2206. Fax: (408) 954-2008.

### Manager, Biostatistician

Supervise 3-5 biostatisticians in a Southern California biotechnology company.

Requirements: M.S. (Ph.D. preferred) in biostatistics, biometrics, applied statistics, epidemiology, statistics or applied mathematics with emphasis on statistics. Eight years experience in applied biostatistics in a medical research setting; 5 to 6 years of this experience should be in a pharmaceutical or biotechnology environment with regulated products. Experience in preclinical design and analysis including pharmacokinetics, stability analysis, process development, manufacturing and research. Experience in one or more of the following areas is preferred: wound healing, oncology, dermatology, liver diseases, vaccines or immunology. A strong science background is a plus. Supervisory experience.

For further information or to submit a C.V., please contact Richard Doylon of Brentwood International, (310) 338-5476, Fax: (310) 338-5484.

### Senior Biostatistician

Requirements: M.S. (Ph.D. preferred) in biostatistics, biometrics, applied statistics, epidemiology, statistics or applied mathematics with emphasis on statistics. Six years experience in applied biostatistics in a medical research setting; 4 years of this experience should be in a pharmaceutical or biotechnology environment with regulated products. Experience in one or more of the following areas is preferred: wound healing, oncology,

dermatology, liver diseases, vaccines or immunology. A strong science background is a plus.

For further information or to submit a C.V., please contact Richard Doylon of Brentwood International, (310) 338-5476, Fax: (310) 338-5484.

### Director, Data Operations

Freeman, Sullivan & Co.

Freeman, Sullivan & Co. is a consulting firm specializing in research services for the electric utilities and the health care marketplace. Responsibilities of the position include project work, client relations, staff development, project scheduling, development of standards for data handling, quality assurance review, and participation in senior-level financial review and planning process. The ideal candidate will have a background in consulting, 5 years experience in data management and analysis, 5 years experience supervising a staff, and will be familiar with Novell, Windows, Excel and Word, and be proficient in SPSS or SAS as well as a DBMS language. Experience in marketing services a plus.

Salary range is \$45-\$55K plus benefits (2 weeks vacation, 6 paid holidays, medical coverage and 401(k) plan). Position is open now. Please mail or fax resume to Lisa Sanders, Controller; Freeman, Sullivan & Co.; 131 Steuart St. Suite 500; San Francisco, CA 94105. Phone: (415) 777-0707, Fax: (415) 777-2420.

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## Seeking Employment

### Clinical Data Manager

Experienced in the following clinical data management activities: data verification and cleaning, designing and customizing data entry screens, programming of data edit, logic checks (across fields, records and forms), identifying and collecting missing data, identifying out of range data and outliers, auditing subject ID numbers across forms, auditing electronic data transfer accuracy, re-computation of test scores for data audit, database design, data archiving, documenting data in codebooks, writing SOPs for data handling, designing case record forms in WordPerfect, supervising of data coding and data entry, and writing SAS reports in lists, tables and graphs.

Qualifications: Ph.D. in psychology from a quantitatively oriented program. Seven years of experience doing clinical data management, including observational studies and clinical trials. All tolled, fifteen years of medical research and twelve years of clinical experience. SAS programming in SAS/BASE, SAS/STAT and SAS/FSP.

Contact S. Jerome Kutner, 1121 Topaz Ave., San Jose, CA 95117. Phone: (408) 734-2800, ext. 513 or (408) 241-5360.

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## Newsletter Submissions

If you have a job opening, announcement, or other piece of information you would like to share with chapter members, send it to me to include in an upcoming newsletter. You can use either e-mail via the Internet:

sfasa@stat.berkeley.edu

or send your information through regular mail to Michael Lock, Becton Dickinson, 2350 Qume Drive, San Jose, CA 95131-1807

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## Join the SF Bay Area ASA Chapter

If you are not currently a member of the local chapter of the ASA and would like to join, send a note with your name and address to

Jim Lenihan

1 Appian Way #702-2

South San Francisco, CA 94080

Please enclose a check for one year's membership, \$9, payable to "ASA, Bay Area Chapter". Student membership dues are \$3 per year. You may also join the local chapter when paying dues to the national organization.

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**March Meeting** is tentatively planned for March 2 at Stanford. Professor Nick Jewell of the University of California is scheduled to speak.

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## Gordon & Associates

141 JOSEPHINE STREET

BERKELEY, CA 94703

PHONE: (510) 526-0123

FAX: (510) 526-0475

**Nancy Gordon, M.S.**

BIostatistician

### Technical Specialties:

DESIGN AND ANALYSIS OF EPIDEMIOLOGICAL STUDIES

ANALYSIS OF CLINICAL TRIAL STUDIES

ANALYSIS OF QA/QC STUDIES

SOP, PROTOCOL AND REPORT WRITING

PROJECT MANAGEMENT

STATISTICAL PROGRAMMING

STATISTICAL ANALYSIS

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**Statistical Consulting · SAS Programming · Data Management**



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**American Statistical Association**  
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