
Princeton-Trenton Chapter



AMERICAN
STATISTICAL
ASSOCIATION

*The Princeton-Trenton Chapter of the American Statistical Association
is pleased to present:*

Spring Seminar

Wednesday, May 7, 2008

Holiday Inn

100 Independence Way, Princeton, NJ 08540

Schedule

8:30 – 9:00 AM	BREAKFAST	
9:00 – 10:00 AM	Adaptive Dose Ranging Clinical Studies	Vladimir Dragalin, Ph.D. Senior Director and Research Fellow, Wyeth Pharmaceuticals.
10:00 – 10:20 AM	BREAK	
10:20 – 11:00 AM	Family of Optimum Two-Stage Designs for Single Arm Phase II Oncology Trials	Muhammad Jalaluddin, Ph.D. Associate Director, Novartis Pharmaceuticals.
11:00 – 11:40 AM	Overview and Practical Advice on Adaptive Designs	Joe Shih, Ph.D. Professor & Chairman Department of Biostatistics, UMDNJ School of Public Health
11:40 – 12:00 PM	Q&A	
12:00 – 1:00 PM	LUNCH	

Registration Instructions

There is a \$35 charge for this event, including breakfast and lunch. Full time students and retired statisticians can attend this event for a charge of \$20. A pre-registration is **REQUIRED** by April 25, 2008. The way to register is to reply to the initial email that contained this attachment with your **Name, Title, and Company/Affiliation**. The payment check should be made out to "Princeton-Trenton Chapter of ASA" and sent to Dr. Isaac Nuamah, Treasurer PT-ASA, 5 Orly Way, Burlington, NJ 08016. Payments must be received before April 25, 2008.

Please note that seating is limited to 75 attendees. If you register and unable to attend please advise as soon as possible so that others on the wait list can attend.

1. Adaptive Dose Ranging Clinical Studies:

Abstract:

The process of implementing an adaptive design in a dose-ranging study will be reviewed with the emphasis on three major steps: planning, simulating, and executing. The first step involves the review of the clinical plan, identification of the protocol design requirements, and the review of potential designs that can best address these requirements. The simulating step consists of comparing the different design options on simulated data for a set of scenarios, reviewing their operating characteristics, and fine-tuning design parameters. As a result, the most appropriate design is selected for implementation. The execution step comprises the finalization of the protocol, SAP, DMC charter, and then conduct of the interim analyses with the pre-planned adaptations.

Bio: Dr. Vlad Dragalin is a Senior Director and Research Fellow, Statistical Research in the Division of Global Biostatistics and Programming at Wyeth Research. Previously he was a Senior Director, Research Statistics in the Division of Biomedical Data Sciences at GlaxoSmithKline. Prior to joining GSK in 1999, Vlad was a Research Assistant Professor at the University of Rochester, NY. Before that, he had a record of distinguished service for more than 15 years in various positions at prestigious research institutions in Moldova, Russia, Italy and Germany. Vlad received his Ph.D. in Probability Theory and Mathematical Statistics from the Steklov Mathematical Institute, Moscow in 1988.

His research interests are focused in sequential analysis with applications in several areas of statistical methodology. The latest research interests are driven by problems arising in drug development: design, monitoring and analysis of sequential clinical trials, adaptive and Bayesian designs, bioequivalence, multi-centre clinical trials, adverse event monitoring in safety trials, response-driven dose escalations, clinical trial simulation.

Vlad is a Member of the American Statistical Association, the Institute of Mathematical Statistics, the Drug Information Association, and an Associate Editor of Journal of Biopharmaceutical Statistics. He is actively involved in the PhRMA Working Group on Adaptive Designs and the PhRMA Working Group on Adaptive Dose Ranging Studies.

2. Family of Optimum Two-Stage Designs for Single Arm Phase II Oncology Trials

Abstract:

Simon's optimum two-stage single arm study design, introduced in 1989, is widely used in oncology drug development programs. This method picks designs with minimum expected sample size ($\min N$) under null hypothesis. One of the main limitations of this approach is that it ignores designs with better operation characteristics when corresponding expected sample size under null hypothesis, $E(n|H_0)$, is slightly larger than $\min N$. This issue has been addressed by introducing the concept of family of optimum designs. For a given hypothesis testing setup and a non-negative real number Δ , a family of optimum two-stage design consists of all designs with $E(n|H_0) \leq \min N + \Delta$. One can choose a design from this family based on his/her selection criteria. For example, a design with maximum probability of early termination (mPET) under null hypothesis, smallest sample size in stage 1, minimax, etc. Methodologies associated with this approach along with examples will be presented.

Key Words: Optimum design, clinical trials, two-stage design.

Bio: Muhammad Jalaluddin is an Associate Director of Oncology B&SR, Novartis. Previously he worked for Pfizer, GlaxoSmithKline, and Statistical Data Analysis Center (SDAC) of University of Wisconsin-Madison. Dr. Jalaluddin has been working in clinical research since 1995. His experiences include early and full clinical development programs in the area of oncology and metabolic disease.

Dr. Jalaluddin's research interests include survival analysis involving frailties and time dependent covariates; clinical trial designs; and statistical computing. He is the winner of 1999 student paper competition of the Statistical Computing Section of the American Statistical Association.

Dr. Jalaluddin is an elected member of International Statistical Institute. He is also a member of the American Statistical Association and the Institute of Mathematical Statistics.

3. Overview and Practical Advice on Adaptive Designs

Abstract:

In this talk I will first overview the so-called adaptive design (AD), give it a general framework and contrast it with group sequential and sample size re-estimation (SSR) methods. Next, I will discuss in depth SSR based on updating the variance estimate, introducing a new method of ‘perturbed unblinding’ with Miller’s (2005) bias correction, for continuous endpoints. I will then review three popular methods: Cui, Huang and Wang (99), Proschan & Hunsberg (95) and Li, Shih et al (02), that appear in the EaStAdaptive package. In conclusion, I will discuss practical recommendations for the process of the carrying out AD or SSR and address the concerns raised at the 2006 workshop on adaptive designs held jointly by the FDA and PhRMA.

Bio:

Weichung Joe Shih is Professor and Chair of the Department of Biostatistics, UMDNJ-School of Public Health Univ. of Medicine & Dentistry of New Jersey, and Director of the Biometrics Division of the Cancer Institute of New Jersey, Robert Wood Johnson Medical School. Served in the FDA’s advisory committee for GI drugs during 2003-2006. ASA Fellow (1996). Worked at Merck during 1982-1999. Serving as Associate Editor for *Statistica Sinica*, *Clinical Trials*, *Statistics in Medicine*, *Statistics in Biopharmaceutical Research*, and *Clinical Cancer Research*.