Wiener Biometrische Sektion
der Internationalen Biometrischen Gesellschaft
Region Österreich – Schweiz

http://www.meduniwien.ac.at/wbs/

Einladung zum

Biometrischen Kolloquium

am Donnerstag, dem 11.10.07, um 16:00 Uhr (s.t.)

in der Bibliothek (gegenüber Lift, Ebene 3, Raum 88.03.806) der
Besonderen Einrichtung für Medizinische Statistik und Informatik
(MSI) der Medizinischen Universität Wien
Spitalgasse 23, 1090 Wien

Es spricht Herr Ass. Prof. Berhard Klingenberg zum Thema:

Testing dose-response with multivariate ordinal data

Wir ersuchen um zahlreichen Besuch für diesen sehr interessanten
und aktuellen Vortrag.

Werner Brannath   Thomas Lang
Präsident   Sekretär

Testing dose-response with multivariate ordinal data

Bernhard Klingenberg

Many assessment instruments used in the evaluation of toxicity, safety, pain or disease progression consider multiple ordinal endpoints to capture the presence and severity of dose effects. Contingency tables underlying these correlated responses are often sparse and imbalanced, rendering asymptotic results unreliable or model fitting prohibitively complex without simplifying assumptions. Instead of modeling the dose response directly, we look at stochastic order as an expression or manifestation of a dose effect under much weaker assumptions. The permutation approach is used throughout to obtain global, subgroup and individual significance levels as it naturally incorporates the correlation among endpoints. Multiplicity adjustments for individual endpoints are obtained via step-down procedures, while subgroup significance levels are adjusted via the full closed testing framework. The proposed methodology is illustrated using a collection of 25 correlated ordinal endpoints to evaluate toxicity of a chemical compound.

Bernhard Klingenberg is Asst. Prof. of Statistics at Williams College. After receiving a Fulbright fellowship in 1999, Dr. Klingenberg obtained a PhD in statistics from the University of Florida in 2004 under Dr. Agresti. Currently, he is on sabbatical from Williams College, spending time in Austria and Italy. His research focuses on topics in categorical data analysis, such as models for binary time series, methods for comparing multivariate binary and ordinal data with applications to drug safety and incorporating model uncertainty in target dose estimation in phase II clinical trials.