





2nd International Conference on Multiple Comparisons-

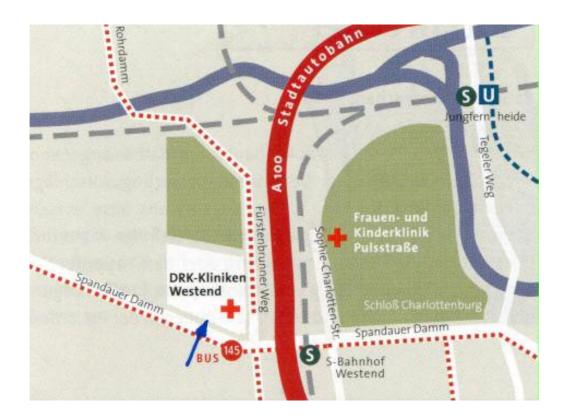
with medical applications

Humboldt University/ Charité, Berlin, Germany, 25-28 June 2000

PROGRAM

PUBLIC TRANSPORTATION:

S-Bahn-Station Westend (+3 min walking) or Bus 145 directly at DRK



From Tegel Airport please use a taxi (less than DEM 30) or Bus X9 (3 stations) or Bus 109 (5 Stations) until S-Bahn Jungfernheide, switch to S4 (direction Bernau/Buch), S45 (direction Schönefeld) or S46 (direction Königswusterhausen) one station until Westend (Conference site) or two stations until Witzleben (Hotel IBIS) (DEM 3.90 or 7.80 24h-ticket).

The IBIS hotel is near ICC (Internat. Conference Center- Messe). From the hotel to conference site please use S-Bahn (one station) or Bus 139 (or you can even walk)

CAR:

Use Autobahn A100 until crossing Spandauer Damm. Parking lots are available in the DRK-Kliniken ONLY Sunday; Monday-Wednesday try to find one in the neighborhood.

International Scientific Program Committee

Chairperson: Ludwig A. Hothorn (University of Hannover, Germany)

Members: Ajit Tamhane (Northwestern University, USA)

Chihiro Hirotsu (University of Tokyo, Japan)

Jason Hsu (Ohio State University, USA)

Sture Holm (Chalmers University, Sweden)

Gerhard Hommel (Mainz University, Germany)

Peter Westfall (Texas Tech University, USA)

Yoav Benjamini (Tel Aviv University, Israel)

LOCAL ORGANIZING COMMITTEE

K.-D. Wernecke (Humboldt University, Germany)

CONFERENCE SITE:

DRK-Kliniken Westend Building S (*Aula*) Spandauer Damm 130 (Main entrance) D-13344 Berlin



SCIENTIFIC PROGRAM

Sunday, June 25

SESSION 1: NEW APPROACHES

14.00-14.10 h Introduction

14.10-14.45 h **Juliet Popper Shaffer** (University of Berkeley,

USA)

Directional vs. Nondirectional Inference: Exploration

of Their Relations and Suggested Compromises

14.50-15.10 h **Yosef Hochberg** (Tel Aviv University, Israel)

On Posterior P-values

15.15-15.35 h **Yoav Benjamini** (Tel Aviv University, Israel)

The multiplicity problem in scientific research: what is being done about it - and what could be done

instead.

15.40-16.00 h **Jason C. Hsu, James Rogers** (Ohio-State University,

USA)

Multiple comparisons of biodiversity

Coffee break

(Speakers are <u>underlined</u>)

Sunday, June 25

SESSION 2: VERY LARGE MULTIPLICITY PROBLEMS AND FDR

- 16.35-17.10 h Felix Abramovich, Yoav Benjamini (Tel Aviv University, Israel), <u>David Donoho</u>, Iain Johnston (Stanford University, USA)
 Adapting to unknown sparsity by control of the False Discovery Rate
- 17.15-17.35 h **V. Guiard** (FBN Dummerstorf, Germany)
 Multiple Test Problems in Detecting of Genes a small overview
- 18.05-18.25 h Yekutieli D., Benjamini Y. (Tel Aviv University, Israel)
 Genetic dissection of quantitative traits using the False
 Discovery Rate criterion
- 18.30-18.50 h **William C. Horrace** (University of Arizona, USA)
 On the Ranking Uncertainty of Labor Market Wage
 Gaps
- 19.15 h Come-together (Aula)

SESSION 3: MULTIPLE ENDPOINTS AND DOSE FINDING

- 9.00-9.35 h **George Y. H. Chi** (FDA, USA) Clinical Decision Rules and Multiple Endpoints
- 9.40-10.15 h Nancy L. Geller (National Heart, Lung, Blood Institute, USA)

 Multiple endpoints in clinical trials
- 10.20-10.40 h **Jürgen Läuter** (University of Magdeburg, Germany)

 Analysis of multiple endpoints confidence regions and model selection
- 10.45-11.05 h **Brent R. Logan, Ajit C. Tamhane** (Northwestern University, USA)

 Comparison of Two Treatments Based on Multiple Endpoints

Coffee break

11.35-11.55 h **Ajit C. Tamhane, Brent R. Logan** (Northwestern University, USA)

Multiple test procedures for identifying the minimum effective and maximum safe doses simultaneously

- 12.00-12.20 h

 Peter Bauer, W. Brannath, M. Posch (University of Vienna, Austria)

 Identification of effective and safe treatments
- 12.25-12.45 h **James J. Chen** (FDA, USA)
 Weighted P-Value Adjustments for Animal Carcinogenicity Trend Test

SESSION 4: MULTIPLE TESTING UNDER ORDER RESTRICTION

12.50-13.25 h **Chihiro Hirotsu** (University of Tokyo, Japan)
A relationship between the isotonic inference and the changepoint analysis

Lunch

14.50-15.10 h

Tetsuhisa Miwa (National Institute of Agro-Environmental Sciences, Japan), A. J. Hayter (Georgia Institute of Technology, USA), Wei Liu (University of Southampton, UK)

Exact calculations of the level probabilities in the unbalanced one-way models with applications to Bartholomew's test

- 15.15-15.35 h Tony Hayter (Georgia Institute of Technology, USA), Tetsuhisa Miwa (National Institute of Agro-Environmental Institute, Japan), Wei Liu (University of Southampton, UK)

 Combining the advantages of one-sided and two-sided multiple comparison procedures.
- 15.40-16.00 h Shun-Yi Chen (Tamkang University, Taiwan),
 Hubert J. Chen (University of Georgia, USA)
 A Single-Stage Procedure for Testing Homogeneity of
 Means Against Ordered Alternatives Under Unequal
 Variances

Coffee break

- 16.30-16.50 h T. Lang, A. Auterith, P. Bauer (University of Vienna, Austria)

 Trendtests with Adaptive Scoring
- 16.55-17.15 h **C. Hirotsu, <u>S. Aoki</u>** (University of Tokyo, Japan) Test for the association between the disease and alleles

SOFTWARE DEMO

17.20-17.40 h Guido Giani, Klaus Straßburger, and Helmut Finner (Deutsches Diabetes - Forschungsinstitut, Germany)

Separate-A Program Package for Multiple Comparisons

POSTER SESSION

17.45-17.50 h **Yoav Benjamini, <u>Vered Madar</u>** (Tel Aviv University, Israel)

The modified Benjamini-Stark procedure for non-equivariant simultaneous confidence intervals

- 17.50-17.55 h **Dario Mazzaro, Fortunato Pesarin, <u>Luigi Salmaso</u>** (University of Padova, Italy)

 Permutation tests for effects in repeated measures multiresponse unbalanced factorial designs
- 17.55-18.00 h **G. C. Bhimani , Prashant R. Makwana** (Saurashtra University, India)
 Estimation and Comparison of Survival Rate of Patients with Thalassaemia (Major) under Different Treatment
- 18.00-18.05 h **Ruediger Vollandt, Manfred Horn** (University of Jena, Germany)

 Sample size determination for multiple many-one and pairwise comparisons of proportions
- 18.05-18.10 h Markus Neuhäuser (Byk Gulden Pharmaceuticals, Germany), Frank Bretz (University of Hannover, Germany)
 Nonparametric all-pairs multiple comparisons
- 18.10-18.15 h Nairanjana Dasgupta, Francis G. Pascual (Washington State University, USA)

 Exact unconditional tests for comaparing several logistic regression slopes to a standard

- 18.15-18.20 h **H. P. Piepho** (University Kassel, Germany)

 Multiple treatment comparisons in linear models when the standard error of a difference is not constant
- 18.20-18.25 h Gudrun Bernhard (Novartis Pharma AG, Switzerland), Markus Klein, Gerhard Hommel (University of Mainz, Germany)
 Global and multiple test procedures using ordered p-values
- 18.25-18.30 h <u>Egbert Biesheuvel</u> (Solvay Pharmaceuticals, The Netherlands), **Ludwig Hothorn** (University of Hannover, Germany)

 Many-to-one comparisons in a stratified design maintaining the overall alpha level
- 18.35-18.40 h **I. Novikov** (The Chaim Sheba Medical Center, Israel) Multiple comparisons in one applied ranking problem
- 18.40-18.45 h **Michael Weichert** (Cap Gemeni, Germany)

 Determining all logical dependencies among pairwise hypotheses using graphs
- 18.45-18.50 h Anat Reiner (Tel Aviv Univeristy, Israel)
 Using the False Discovery Rate Criteria for Simultaneous Hypothesis Testing in Epidemiological Research
- 18.55-19.00 h **Y. Benjamini, <u>Y.E.Kling</u>** (Tel Aviv University, Israel) Aspects of Multiplicity in Statistical Process Control (SPC)
- 19.00-19.05 h <u>Jørgen Hilden</u>, Michael Weis Bentzon (University of Copenhagen, Danmark)
 Bonferroni with contextual P-value transforms: a means to gain power

Tuesday, June 27

SESSION 5: MULTIPLE COMPARISONS FOR DECISION-MAKING AND BAYES PROCEDURES

- 9.00-9.35 h

 John D. Spurrier (University of South Carolina, USA),

 Eleanne Solorzano (University of New Hampshire, USA)

 Comparing More Than One Treatment to More Than One Control in Incomplete Blocks
- 9.40-10.00 h **Shanti S. Gupta** (Purdue University, USA) Empirical BAYES selection procedures for positive exponential family
- 10.05-10.25 h

 Peter H. Westfall (Texas Tech University),

 Russell D. Wolfinger, Randall D. Tobias (SAS Inc.,

 USA)

 New Bayesian and Frequentist Software Solutions for

 Multiple Inferences

Coffee break

- 10.55-11.15 h **Daniel Q. Naiman** (Johns Hopkins University, USA) Tubes and Inclusion-Exclusion Probability Inequalities
- 11.20-11.40 h **Daniel T. Voss** (Wright State University, USA) Analysis of unreplicated factorial experiments

Tuesday, June 27

- 11.45-12.05 h <u>Klaus Straßburger</u>, Guido Giani, Helmut Finner (Deutsches Diabetes-Forschungsinstitut, Germany)
 Stepwise Partitioning Procedures
- 12.10-12.30 h <u>Helmut Finner</u> (Deutsches Diabetes-Forschungsinstitut, Germany),

 Markus Roters (Universität Potsdam, Germany)

 Multiple hypotheses testing and expected type I errors

SESSION 6: RESAMPLING AND NONPARAMETRIC APPROACHES

- 12.35-13.10 h **Rand R. Wilcox** (University of South California, USA)

 Pairwise comparisons of trimmed means for two or more groups
- 13.15-13.30 h Geschäftssitzung der AG Multiple Verfahren

Lunch break

- 14.40-15.00 h **Fortunato Pesarin** (University of Padova, Italy) Nonparametric combination of dependent partial tests
- 15.05-15.25 h <u>Ullrich Munzel</u> (University of Goettingen), **Ludwig Hothorn** (University of Hannover, Germany) Nonparametric Multiple Comparisons in the Presence of Ties

Tuesday, June 27

15.30-15.50 h **Peter Reitmeir** (National Research Center for Environment and Health, Germany)
On the use of Bootstrap Cut-Off Tests in a closed testing procedure

Coffee break

SESSION 7: INTERIM ANALYSIS

- 16.20-16.40 h Martin Posch and Peter Bauer (University of Vienna, Austria)
 Interim Analysis and Sample Size Reassessment
- 16.45-17.05 h **Gerhard Hommel** (University of Mainz, Germany)
 Adaptive modifications of hypotheses after an interim analysis
- 17.10-17.30 h <u>Hans-Helge Müller</u> and Helmut Schäfer (University of Marburg, Germany)

 Monitoring clinical trials: a general statistical principle for design changes
- 17.35-17.55 h Siegfried Kropf, Uwe Schmidt, Marilene S. Jepsen (University of Leipzig, Germany)
 Two-Stage Adaptive Design in a Clinical Trial with Three Study Arms and Multiple Endpoints, Including a Test of Non-Inferiority

Conference dinner at the river boat

Wednesday, June 28

SESSION 8: MULTIPLICITY IN CLINICAL TRIALS

- 9.00-9.35 h **Joachim Röhmel** (Bundesinstitut für Arzneimittel, Germany)
 Multiplicity in Clinical Trials a Regulatory View
- 9.35-10.00 h **Fong Wang-Clow** (Genentech, Inc., USA)
 Alternative Approaches of Multiple Comparisons in Clinical Trials
- 10.05-10.25 h Qian Li, Laura Lu, Mo Huque (FDA, USA)
 A Flexible Multiplicity Adjustment Approach and Its Application
- 10.30-10.50 h **A. J. Sankoh** (Wyeth-Ayerst Research, USA) Non-superiority Clinical Trials and Multiplicity: An Interpretation Issue

Coffee break

Wednesday, June 28

SESSION 9: COMPUTATIONAL ASPECTS

- 11.15-11.35 h **Paul Somerville** (University of Central Florida, USA), **Frank Bretz** (Hannover University, Germany)
 Obtaining Critical Values for Simultaneous Confidence Intervals and Multiple Testing
- 11.40-12.00 h F. Bretz (University of Hannover, Germany), A. Genz (Washington State University, USA), L. A. Hothorn (University of Hannover, Germany)
 Studentized multiple contrast tests: distribution under the null and the alternative
- 12.05-12.25 h **Yosef Hochberg and Michael C. Mosier** (Tel Aviv University, Israel)
 Intersection-Union Procedures For Some Restricted Models
- 12.30-12.50 h **Jiayang Sun** (Case Western Reserve University, USA)
 Multiple Comparisons for Infinite Number of
 Parameters

Summary

Please, inform on the final program, abstracts, on-line registration, recent information, hotel reservation, cultural events etc. at:

www. bioinf.uni-hannover.de/~mcp2000

or ask via e.mail:

hothorn@ifgb.uni-hannover.de

or via phone +495117625566

SOCIAL EVENTS

Sunday, June 25 Aula 7 pm

Come-together

Monday, June 26 7 pm

Aula Poster buffet

Tuesday, June 27 (7.30 boarding, 8 pm)

Conference dinner at a river boat

HOTEL

via: http://www.porstmann-kongresse.de/kov/2000/mcp2000/RegiForm.htm

Regular conference hotel: Hotel Ibis Messe

Comfortable 3-star hotel, close to the International Congress Centre Berlin. Public transporation: 1 stop (subway) to the venue. Single room DEM 154.00; Double room DEM 189.00 (Breakfast incl.)

Hotel Seehof

Elegant 4-star hotel, quietly located ashore of the ,Lietzensee' in the center of the Western city. Restaurant with international cuisine, bar, swimming pool, garden terrace. Public transportation: 2 stops (S-Bahn) to the venue. Single room DEM 255.00; Double room DEM 305.00 (Breakfast included)

Hotel am Studio

Comfortable 3-star hotel, close to the Opera House and the Congress Centre Berlin. Public transportation: 4 stops (subway) to the venue. Single room DEM 160.00; Double room DEM 195.00 (Breakfast incl.)

A special thank of the program committee to:

The Patrons of the German Region of the International Biometric Society, the Department of Bioinformatics Hannover University and the Department of Medical Biometry of Humboldt University Berlin, Charité

Deutsche Forschungsgemeinschaft

DAAD

R. W. Johnson Pharmaceutical Research Institute

Monsanto Company (G. D. Searle Pharmaceuticals)

Solvay Pharmaceuticals Hannover

Schering AG Berlin

Aventis Pharma Frankfurt

Knoll AG Ludwigshafen

Gruenenthal GmbH Stolberg

ASTA MEDICA Frankfurt

Glaxo Wellcome Deutschland (status April 2000)

REGISTRATION FORM (please use on-line form if possible!)

Name: First name: Title: Institution: Street:		
City:		
Zip-Code:		
Country:		
Phone:		
Fax:		
Email:		
Conference fee:	\$150 / DM 295	
Come-together, Sunday June, 25 Poster buffet, Monday, June 26th Conference dinner on a river boo		
Participant accomp. Person Kids	\$40 / DM 75 \$30 /DM 60 \$25	
Total:	•••••	•••••

Fax to: +495117624966

Innerhalb Deutschlands zahlen Sie bitte per Banküberweisung.

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PROGRAM OVERVIEW

	Sunday,	Monday,	Tuesday,	Wednesday
	June 25	June 26	June 27	June 28
8.30 - 9.00 h		Registration	Registration	Registration
9.00-11.00 h		Multiple	MCP for	Multiplicity in
		endpoints and	decision-	clinical trials
11.00-13.30 h		dose finding	making and	Computat.
			Bayes	Aspects
	Registration		Procedures	
14.00-16.30 h	New	Multiple	Resampling	
	approaches	testing under	and nonparam.	
		order	approaches	
		restriction		
17.00-19.00 h	Very large	Poster	Interim	
	multiplicity		analysis	
	problems and			
	FDR			
	Come-together	Poster buffet	Conference	
			dinner	

(Note: correct time schedule in the detailed program inside)