

BIOMEDICAL SIMULATIONS RESOURCE
UNIVERSITY OF SOUTHERN CALIFORNIA

Workshop On

ADVANCED METHODS OF
PHARMACOKINETIC AND PHARMACODYNAMIC
SYSTEMS ANALYSIS

May 21-22, 1993

Marina International Hotel
4200 Admiralty Way
Marina del Rey, California

Sponsored by

BIOMEDICAL RESEARCH TECHNOLOGY PROGRAM
NATIONAL CENTER FOR RESEARCH RESOURCES
NATIONAL INSTITUTES OF HEALTH

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Chairman and Organizer:
David Z. D'Argenio, Ph.D.
Co-Director, Biomedical Simulations Resource

Friday, May 21, 1993

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|-------|---|--|
| 8:30 | Introductory Remarks | David Z. D'Argenio University of Southern California |
| 8:35 | Development of Physiologically Based Pharmacokinetic Models | Robert L. Dedrick National Institutes of Health |
| 9:15 | <i>In Vivo</i> Measurement of Transport Parameters | Fan Yuan Harvard Medical School |
| 9:55 | Simulation and Analysis of Drug Absorption Processes: Scientific and Regulatory Needs | Gordon Amidon University of Michigan |
| 10:35 | Break | |
| 10:50 | Whole Body and Single Organ Distribution Kinetics: Application of Residence Time Theory | Michael Weiss Martin-Luther-Universität |
| 11:30 | Models of Hepatic Clearance for Metabolite Kinetics | K. Sandy Pang University of Toronto |
| 12:10 | Lunch Break | |
| 1:30 | Application of Disposition Decomposition Analysis to Metabolite Kinetics | Haiyung Cheng Merck Research Laboratories |
| 2:10 | Pharmacokinetic and Pharmacodynamic Modeling in Drug Development | Harry Lemmens Stanford University School of Medicine |
| 2:50 | Modeling of the Pharmacodynamics and Pharmacodynamic Interactions of Psychotropic Drugs | Meindert Danhof Leiden University |
| 3:30 | Break | |
| 3:45 | Modeling Multiple Pharmacodynamic End Points | Gary Rosner Duke University Medical Center |
| 4:25 | Application of Neural Networks to Pharmacokinetics and Pharmacodynamics | Peter Veng-Pedersen University of Iowa |
| 5:30 | Reception | |

Saturday, May 22, 1993

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|-------|---|--|
| 8:30 | Semiparametric Statistical Methods for Protein Secondary Structure Prediction | Peter J. Munson National Institutes of Health |
| 9:10 | A Strategy for Oscillatory Drug Release | Ronald A. Siegel University of California, San Francisco Colin G. Pitt , Amgen, Inc. |
| 9:50 | New Approaches to Self-Modeling Nonlinear Regression | Davide Verotta University of California, San Francisco |
| 10:30 | Break | |
| 10:45 | Building Population PK-PD Models | Jaap W. Mandema Stanford University School of Medicine |
| 11:25 | A New Method to Explore the Distribution of the Interindividual Random Effects in Nonlinear Mixed Effect Models | Karin E. Fattinger University of California, San Francisco |
| 12:05 | Lunch | |
| 1:30 | Informatively Right-Censored Ordered Categorical Responses Analyzed with a Random Effects Model for Conditional Survival and Response: A New Analysis for Analgesic Trials | Lewis B. Sheiner University of California, San Francisco |
| 2:10 | Pharmacokinetic Evaluation of Anti-HIV Drug Interactions | James Gallo Fox Chase Cancer Center |
| 2:50 | Break | |
| 3:05 | Prospective Adaptive Feedback Control of Antimicrobial Pharmacokinetics and Pharmacodynamics | Alan Forrest Millard Fillmore Hospital |
| 3:45 | Target Internal Stochastic Control of Drug Delivery | David Z. D'Argenio University of Southern California |
| 4:25 | Closing Remarks | David Z. D'Argenio University of Southern California |
| 4:45 | Reception | |

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