ADVANCED METHODS OF
PHARMACOKINETIC AND PHARMACODYNAMIC
SYSTEMS ANALYSIS

May 19 – 20, 1995
Marina International Hotel
4200 Admiralty Way
Marina del Rey, California

Sponsored by
and
BIOMEDICAL RESEARCH TECHNOLOGY PROGRAM
NATIONAL CENTER FOR RESEARCH RESOURCES
NATIONAL INSTITUTES OF HEALTH

With special thanks to
MCNEIL PHARMACEUTICAL CORP.

Chairman and Organizer:
David Z. D’Argenio, Ph.D.
Co-Director, Biomedical Simulations Resource
Workshop Schedule
Friday, May 19, 1995

8:30    Introductory Remarks
        David Z. D'Argenio
        University of Southern California

8:35    Delivery of Macromolecules to Tumors:
        Insights from Intravital Microscopy and
        Fluorescence Photobleaching
        David Berk
        Harvard Medical School

9:15    Physiologic Basis of Macromolecular
        Pharmacokinetics
        Robert L. Dedrick
        National Institutes of Health

9:55    Pharmacometrics in Drug Development:
        Experience in Preclinical and Clinical
        Drug Evaluation
        Jean-Louis Steimer
        Sandoz Pharma Ltd., Switzerland

10:35   Break

10:50   Pharmacokinetic/-Dynamic Modeling of a
        Bivariate Control System: Luteinizing
        Hormone and Testosterone Response to the
        GnRH Antagonist Antide
        Lewis B. Sheiner
        University of California, San Francisco

11:30   Analysis of Demand Frequency/Opioid
        Concentration Relationships During PCA
        (Patient-Controlled Analgesia) Therapy
        Thomas Kramer
        University of Pennsylvania

12:10   Lunch Break

1:30    Modeling Physiologic Indirect
        Pharmacodynamic Responses
        Hui C. Ko
        State University of New York at Buffalo

2:10    Issues in Pharmacodynamic Parameter
        Estimatability
        William Ebling
        State University of New York at Buffalo

2:50    Model Building in nonlinear Mixed
        Effects Models
        José Pinheiro
        University of Wisconsin at Madison

3:30    Break

3:45    A New Method for the Nonparametric
        Estimation of Parameter Distributions
        in Pharmacokinetic Population Studies
        Alan Schumitzky
        University of Southern California

4:25    Pharmacokinetics of IGF-I: A Case Study in
        Population Pharmacokinetic Modeling with
        Time-Dependent Covariates
        David M. Giltinan
        Genentech, Inc.

5:30    Reception
Workshop Schedule
Saturday, May 20, 1995

8:30       Volterra Series Modeling of PK/PD Data       Davide Verotta
            University of California, San Francisco

9:10       Generalized Modeling of Nonlinear Pharmacokinetics       William Gillespie
            Food and Drug Administration

9:50       Pharmacokinetics of Multiple High-Dose Cancer Chemotherapeutic Agents       Gary Rosner
            Duke University

10:30      Break

10:45      Pharmacodynamic Models for the Combined Action of Multiple Agents       William Greco
            Roswell Park Cancer Institute

11:25      Forecasting the Outcome of Clinical Trials       C. Anthony Hunt
            University of California, San Francisco

12:05      Lunch Break

1:30       Impact of Noncompliance on Survival in Clinical Trials       Mark Sale
            Georgetown University

2:10       Modeling and Control in Anesthesia       Steven Shafer
            Veteran's Administration Medical Center & Stanford University

2:50       Break

3:05       Sampling Based Approaches to the Design of Dosage Regimens       Jon Wakefield
            Imperial College of Science & Technology

3:45       Control of Uncertain Pharmacodynamic Processes       David Z. D'Argenio
            University of Southern California

4:25       Closing Remarks     David Z. D'Argenio
            University of Southern California

4:45       Reception
BIOMEDICAL SIMULATIONS RESOURCE
UNIVERSITY OF SOUTHERN CALIFORNIA

1995 Workshop on
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May 19–20, 1995
Marina del Rey, California

DIRECTORY OF PARTICIPANTS

Peter H. Abbrecht
USUHS
Dept. Physiology
4301 Jones Bridge Rd.
Bethesda, MD 20814-4799

Chul Ahn
City of Hope Medical Center
1500 E. Duarte Rd.
Duarte, CA 91010

Sundra R. B. Allerheiligen
Eli Lilly and Company
Wishard Memorial Hospital
Lilly Clinic
1001 W. 10th Street
Indianapolis, IN 46202

Michael Amantea
731 14th Avenue
Menlo Park, CA 94025

Yuichi Ando
Japanese Red Cross
Nagoya 1st Hospital
Dept. Internal Medicine
3-35 Michishita-cho Nakamura-ku
453 Nagoya
JAPAN

Phil A. Arundel
Zeneca Pharmaceuticals
Mereside Alderley Park
Cheshire SK10 4TG
United Kingdom

Sharyn Baker
Johns Hopkins Oncology Center.
Oncology 1-121
600 N. Wolfe Street
Baltimore, MD 21287

Robert Bauer
2910 Seventh Street
Berkeley, CA 94710
Brian W. Berry
Ontario Cancer Institute
500 Sherbourne St.
Toronto, Ontario M4X 1K9
CANADA

Rene Braeckman
Chiron Corporation
4560 Horton St. G122A
Emeryville, CA 94608-2916

David Berk
Massachusetts General Hospital
Dept. of Radiation Oncology
Boston, MA 02114

Nicholas Brown
University of California, Los Angeles
Dept. of Computer Science
801 Hilgard Avenue
Los Angeles, CA 90024

Diane Brundage
Methodist Hospital - Pharmacy
6500 Excelsior Blvd.
Minneapolis, MN 55426

Richard Brundage
University of Minnesota
College of Pharmacy
HSUUF 9-145, 308 Harvard St. S.E.
Minneapolis, MN 55455

Akiko Chai
City of Hope Medical Center
1500 Duarte Road
Duarte, CA 91010-3000

Sharon Ann Chen
Chiron Corporation
4560 Horton Street
Emeryville, CA 94608-2916

Barbara Conley
University of Maryland
Cancer Center
655 W. Baltimore St.
Baltimore, MD 21201

William R. Crom
St. Jude Children's Research Hospital
Pharmaceutical Sciences Dept.
332 N. Lauderdale
Memphis, TN 38105

David Z. D'Argenio
University of Southern California
Dept. of Biomedical Engineering
OHE 500
Los Angeles, CA 90089-1451

Marie Davidian
Harvard Sch. of Public Health
Dept. of Biostatistics
677 Huntington Ave.
Boston, MA 02115

Lisa E. Davis
600 South 43rd Street
Philadelphia, PA 19104-4495

Robert L. Dedrick
National Institutes of Health
BEIP, NCRR
Building 13, Room 3N17
Bethesda, MD 20892-5766

Joseph J. DiStefano, III
University of California, Los Angeles
Computer Science Dept.
4531 Boelter Hall
Los Angeles, CA 90024-1596

James Dowell
University of Southern California
Dept. of Biomedical Engineering
OHE 500
Los Angeles, CA 90089-1451
Murray P. Ducharme  
University of Montreal  
Faculty of Pharmacy  
P.O. Box 6128 Station A  
Montreal, Quebec H3C 3J7  
CANADA

Sandeep Dutta  
1 LeBrun Road, Apt. #6  
Buffalo, NY 14215

William Ebling  
State University New York at Buffalo  
Dept. of Pharmaceutics  
Buffalo, NY 14260-1200

Merrill J. Egorin  
University of Maryland  
Cancer Center  
655 W. Baltimore St.  
Baltimore, MD 21201

Ene I. Ette  
Food and Drug Administration  
Division of Biopharmaceutics  
HFD-426, Room 13B17  
5600 Fishers Lane  
Rockville, MD 20857

William Figg  
National Cancer Institute  
Clinical Pharmacology Branch  
Bldg. 10, Rm. 5A01  
Bethesda, MD 20992

Courtney Fletcher  
University of Minnesota  
College of Pharmacy, 7-115 HSUF  
308 Harvard Street S.E.  
Minneapolis, MN 55455

Alan Forrest  
Millard Fillmore Hospital  
Pharmacokinetics Lab  
3 Gates Circle  
Buffalo, NY 14209

William Gillespie  
Food and Drug Administration  
Division of Biopharmaceutics  
HFD-426  
5600 Fishers Lane  
Rockville, MD 20857

Thomas Gilman  
University Southern California  
Pharmaceutical Science Center  
1985 Zonal Ave.  
Los Angeles, CA 90033

David M. Giltinan  
Genentech, Inc.  
460 Point San Bruno Blvd.  
South San Francisco, CA 94080

William R. Greco  
Roswell Park Memorial Institute  
Grace Cancer Drug Center  
New York State Dept. of Health  
Buffalo, NY 14263

Jean-Michel Gries  
UCSF-DSU  
1318 7th Ave.  
San Francisco, CA 94122

L. B. Grochow  
Johns Hopkins Oncology 1-109  
600 N. Wolfe Street  
Baltimore, MD 21287-8934

Suneel Gupta  
950 Page Mill Road  
P.O. Box 10950  
Palo Alto, CA 94303-0802

Andrew Hannaman  
University of California, Los Angeles  
515 Kelton Ave., #M-10  
Los Angeles, CA 90024
Anne Heatherington  
University of Washington  
Center for Bioengineering, FL-2  
Seattle, WA 98195

Thomas Henthorn  
Northwestern University  
Medical School  
Ward Bldg. 12-189  
Chicago, IL 60611

Gilberto Castaneda-Hernandez  
Centro de Investigacion y De Estudios Avanzados del Instituto Politecnico Nacional  
Apartado Postal 22026  
14000 Mexico DF  
MEXICO

Phillip Hong  
Watson Labs., Inc.  
311 Bonnie Circle  
Corona, CA 91720

C. Anthony Hunt  
University of California, San Francisco  
Program in Bioengineering and Dept. of Pharmaceutical Chemistry and Pharmacy  
San Francisco, CA 94143

Agenta Hurst  
University of Southern California  
1985 Zonal Ave., PSC 602  
Los Angeles, CA 90033

Paul R. Hutson  
University of Wisconsin  
School of Pharmacy  
425 N. Charter St.  
Madison, WI 53706

Roger Jelliffe  
University of Southern California  
School of Medicine  
CSC-134-B  
2250 Alcazar St.  
Los Angeles, CA 90033

Donald Jung  
SYNTEX  
3401 Hillview Ave.  
A3-288  
Palo Alto, CA 94304-1320

Atsunori Kaibara  
University of California, San Francisco  
Dept. of Laboratory Medicine  
Room c255 Box 0626  
San Francisco, CA 94143

Christine Kearns  
University of Maryland  
Cancer Center  
BRB 9-015  
655 West Baltimore St.  
Baltimore, MD 21201

Saraswati R. Kenkare  
University of California, San Francisco  
Box 0626 Room C-255  
San Francisco, CA 94143

Hui C. Ko  
State University of New York at Buffalo  
School of Pharmacy  
Dept. of Pharmaceutics  
Buffalo, NY 14260

Ken Kobayashi  
University of Chicago Medical Ctr.  
Dept. Hematology and Oncology  
MC 2115  
5841 S. Maryland Ave.  
Chicago, IL 60637
Thomas Kramer
University of Pennsylvania
Department of Anesthesia
3400 Spruce Street
776 Dulles Bldg./HUP
Philadelphia, PA 19104-4283

Motria Krawczeniuk
Philadelphia College of Pharmacy
and Science
600 South 43rd St.
Philadelphia, PA 19104-4495

Elliot M. Landaw
University of California, Los Angeles
School of Medicine
Dept. of Biopharmaceuticals
Box 951766
Los Angeles, CA 90095-1766

Paul Laub
Fox Chase Cancer Center
Institute for Cancer Research
7701 Burholme Avenue
Philadelphia, PA 19111

Stephane Lecoq
University of Southern California
School of Medicine
2250 Alcazar Street, CSC 134-B
Los Angeles, CA 90033

Angela Lopez
University of California, Los Angeles
3767 Mentone Ave. #116
Los Angeles, CA 90034

Bert L. Lum
P.O. Box 37-1005
Montara, CA 94037

Richard Lush
National Cancer Institute
Clinical Pharmacology Branch
Bldg. 10, Rm. 5A01
9000 Rockville Pike
Bethesda, MD 20892

Timothy Madden
Anderson Cancer Center (Box 90)
1515 Holcombe Blvd.
Houston, TX 77030

Pascal Maire
University of Southern California
School of Medicine
2250 Alcazar Street, CSC 134-B
Los Angeles, CA 90033

Jaap W. Mandema
Stanford University
Medical Center
Department of Anesthesia
300 Pasteur Drive
Stanford, CA 94305-5115

Daniel C. Maneval
Canji, Inc.
3030 Science Park Road
San Diego, CA 92121

Steven W. Martin
University of Washington
Dept. of Pharmaceutics
School of Pharmacy BG-20
H259 Health Science Building
Seattle, WA 98195

Tamara Maryon
City of Hope National Medical
1500 E. Duarte Rd.
Duarte, CA 91010
Eric Masson
St. Jude's Children's Hospital
Pharmacokinetics Department
332 N. Lauderdale
P.O. Box 318
Memphis, TN 38101

Howard S. Mehler
6399 Wilshire Blvd.
Suite 310
Los Angeles, CA 90048

Hironobu Minami
University of Chicago
Medical Center
5841 S. Maryland Ave., MC 2115
Chicago, IL 60637-1470

Nishit B. Modi
Genentech, Inc.
460 Pt. San Bruno Blvd.
S. San Francisco, CA 94080

DJ Murray
Texas Children's Hospital
Depts. Hematology - Oncology
6621 Fannin Street
mc B-3320
Houston, TX 77030

Francisco J. Flores-Murrieta
Apartado Postal 22026
14000 Mexico, D.F.
MEXICO

Jerry R. Nedelman
Sandoz Pharmaceuticals
59 Route 10
East Hanover, NJ 07936

Edward M. Newman
City of Hope Medical Center
Division of Pediatrics
1500 East Duarte Road
Duarte, CA 91010-3000

Thuvan Nguyen
University of California, Los Angeles
Computer Science Dept.
4531 Boelter Hall
Los Angeles, CA 90024-1596

Steve Olson
Parke-Davis Pharm. Res.
2800 Plymouth Road
Ann Arbor, MI 48105-1047

George Papandonatos
SUNY at Buffalo
School of Medicine
Dept. of Statistics
242 Farber Hall
3435 Main Street
Buffalo, NY 14214-3000

Kyungsoo Park
420 7th Avenue, #203
San Francisco, CA 94118

Charles Peloquin
National Jewish Center
Room 212
1400 Jackson St.
Denver, CO 80206

Antonia Periclou
Children's Hospital Los Angeles
4650 Sunset Blvd.
Mail Stop #57
Los Angeles, CA 90027

William P. Petros
Duke University Medical Center
Bone Marrow Transplant Prg.
Box 3961 (DUMC)
Durham, NC 27710
Jack Segal
PRIN
VA Medical Center Res. 151
5901 E. 7th St.
Long Beach, CA 90822

Steven Shafer
Veteran's Administration Medical Center
Anesthesia Service 112A
3801 Miranda Avenue
Palo Alto, CA 94304

Jaymin Shah
2400 Hanover Street
P.O. Box 10950
Palo Alto, CA 94303

Lewis B. Sheiner
University of California, San Francisco
School of Medicine & Pharmacy
Depts. of Lat. Medicine & Medicine
San Francisco, CA 94143

Bhasker V. Shetty
Agouron Pharmaceuticals Inc.
3565 General Atomics Court
San Diego, CA 92121

Tetsu Shinkai
National Cancer Center Hospital
Tsukiji 5-1-1
Chuo-ku, Tokyo 104
JAPAN

Robert M. Shore
Millard Fillmore Hospital
Clinical Pharmacokinetics Lab.
3 Gates Circle
Buffalo, NY 14209

David R. Spriggs
Memorial Sloane Kettering
Cancer Center
1275 York Ave.
New York, NY 10021

Grazia Stagni
UTHSC San Antonio
Department of Pharmacology
Clinical Pharmacology
7703 Floyd Curl Drive
McDermott Building
San Antonio, TX 78284-6205

Jean-Louis Steimer
Sandoz Pharma Ltd.
Pharmacometry
WSP/LTG, 386/1336
CH-4002 Basel
Switzerland

Yu-Nein Sun
State University of NY at Buffalo
548 Hochstetter Hall
Buffalo, NY 14260

Timothy W. Synold
City of Hope Medical Center
Medical Oncology
1500 East Duarte Road
Duarte, CA 91016

Istvan Szinai
IDEC Pharmaceuticals Co.
11011 Torreyana Road
San Diego, CA 92121

Frank-Peter Thiel
Hoffman-La-Roche AG
Grenzacher Str. Bldg. 69115a
CH-4002 Basel
SWITZERLAND

Jake J. Thiessen
University of Toronto
Faculty of Pharmacy
19 Russell St.
Toronto M5S 2S2
CANADA
Margaret Tonda  
St. Jude Children's Research Hospital  
Pharmaceutical Division  
332 N. Lauderdale  
Memphis, TN 38105

Jerome Torresyp  
University of Southern California  
Dept. Biomedical Engineering  
OHE 500  
Los Angeles, CA 90089-1451

David G. Udo  
Food and Drug Administration  
Division of Biopharmaceutics  
Room 13B-06, HFD-426  
5600 Fishers Lane  
Rockville, MD 20857

Peter Veng-Pedersen  
University of Iowa  
College of Pharmacy  
118 Pharmacy  
Iowa City, Iowa 52242

Davide Verotta  
University of California, San Francisco  
Pharm. & Pharmaceutival Chemistry  
Epidemiology & Biostatistics  
523 Parnassus  
San Francisco, CA 94143-0446

Russell Wada  
Stanford University  
School of Medicine  
Dept. of Anesthesia  
300 Pasteur Dr.  
Stanford, CA 94305-5117

Jon Wakefield  
Imperial College of Science & Technology  
Dept. of Mathematics  
Exhibition Road  
London, SW7 2AZ  
United Kingdom

Yanfeng Wang  
PDM, Parke-Davis Res. Div.  
Warner-Lambert Co.  
2800 Plymouth Road  
Ann Arbor, MI 48105

Michael M. Weiner  
2058 Lindengrove St.  
Westlake Village, CA 91361

Luman R. Wing  
3050 Science Park Road  
San Diego, CA 92121

Matthew B. Wolf  
University of South Carolina  
School of Medicine  
Dept. of Physiology  
Columbia, SC 29208

Walter Wolf  
University of Southern California  
School of Pharmacy  
1985 Zonal Ave.  
Los Angeles, CA 90033

James R. Woodworth  
Wishard Memorial Hospital  
Lilly Laboratory for Clinical Research  
1001 W. 10th Street  
Indianapolis, IN 46202

Yuri Yanishevski  
St. Jude Children's Research Hospital  
Pharmacokinetics Dept.  
332 N. Lauderdale  
P.O. Box 318  
Memphis, TN 38101

Zhilling Yu  
950 Page Mill Road  
P.O. Box 10950  
Palo Alto, CA 94303-0802
Ruiwen Zhang  
University of Alabama at Birmingham  
Volker Hall 101  
Box 600  
Birmingham, AL 35294-0019

Joan Zuckerman  
ISIS Pharmaceuticals  
2292 Faraday Ave.  
Carlsbad, CA 92008