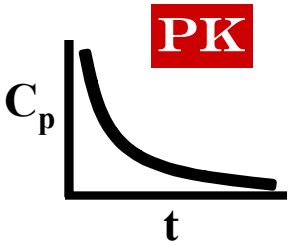
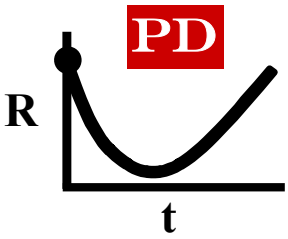
MAY 12-14, 2025: BUFFALO, NEW YORK

PHARMACOKINETIC-PHARMACODYNAMIC MODELING



In Person



COURSE OUTLINE

We present the theory and applications of *pharmacodynamics*. With diverse *pharmacokinetic-pharmacodynamic modeling* concepts it is possible to describe and predict the time course of drug effects under various physiological and pathological conditions. The study of PK/PD and Disease Progression relationships can be of considerable value in understanding drug action, summarizing extensive data, building a knowledge repository, finding optimal dosing regimens, and in making predictions under new circumstances. More advanced PK/PD models have evolved into Systems Pharmacology.

Our classic 3-day course on the concepts and applications of PK/PD modeling will be presented on a level suitable for those knowledgable in basic pharmacokinetics.

Special Note: We are offering this course and hotel venues adjacent to Niagara Falls with a large array of vacation activities including casinos. Bring your family!

"Thank you for the excellent PK/PD course. I really enjoyed the lectures and the "Pearls of Wisdom".
EGT

"The lectures were very educational, and fun too".
LZ

"Exceptional course format".
SM

COURSE DIRECTION

William J. Jusko, PhD

Dr. Jusko is SUNY Distinguished Professor of Pharmaceutical Sciences at the University of Buffalo and Director of the Center of Excellence in Pharmacokinetics and Pharmacodynamics. He is the former Editor-in-Chief of JPKPD, has authored over 650 publications, and consults for the FDA, NIH, and the pharmaceutical industry. His research emphasizes PBPK modeling, protein therapeutics and immunosuppressive drugs.

Donald E. Mager, PhD

Dr. Mager is Chair and Professor of Pharmaceutical Sciences at the University at Buffalo. He is CEO of ePD and past-president of ISoP and ACCP and has served as Visiting Professor at the Université Paris Descartes and on the Advisory Committee on Clinical Pharmacology to the FDA. His research invokes PK/PD systems analysis with particular interest in anti-cancer therapy and immunomodulatory pharmacotherapy.

Ancillary Courses

VIRTUAL May 19-21, 2025

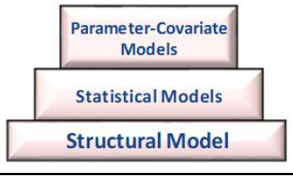
Monoclonal Antibody PK &ADAPT-Biologics Workshop
Dr. J.P. Balthasar & Dr. D.Z. D'Argenio
UB CPT & Univ. So. California.

USC University of Southern California

ADAPT

HANDS- ON May 7-9, 2025
AN INTRODUCTORY WORKSHOP in POPULATION PK DATA ANALYSIS with NONMEM®
Prof. J. Fiedler-Kelly

SimulationsPlus



University at Buffalo
School of Pharmacy and Pharmaceutical Sciences

COURSE PROGRAM

May 12 *Monday*
08:00-08:30 Continental Breakfast/Registration
08:30-08:45 Dr. W.J. Jusko: **Introductions**
08:45-09:45 Dr. W.J. Jusko: **Overview of PK/PD**
09:45-10:45 Dr. D. Mager: **Art of Modeling**
10:45-11:00 Coffee
11:00-12:00 Dr. D. Mager: **Basic Pharmacology**
12:00-01:00 Lunch
01:00-02:00 Dr. W.J. Jusko: **Modeling Biophase Distribution**
02:00-03:00 Dr. W.J. Jusko: **Basic Indirect Response Models**
03:00-03:15 Break
03:15-04:15 Dr. D. Mager: **Modeling Transduction Processes**
04:15-05:15 Dr. W.J. Jusko: **Slow & Irreversible Effects**
05:15-06:00 Cocktail Reception
06:00-07:30 Group Dinner

May 13 *Tuesday*
08:00-08:30 Continental Breakfast
08:30-09:45 Dr. D. Mager: **Review & Exercises I**
09:45-10:00 Coffee
10:00-11:00 Dr. W.J. Jusko: **Chemotherapy Models**
11:00-12:00 Dr. W.J. Jusko: **Indirect Response Complexities**
12:00-01:00 Lunch
01:00-02:00 Dr. W.J. Jusko: **Modeling Tolerance Processes**
02:00-03:00 Dr. D. Mager: **Target-Mediated PK/PD Models**
03:00-03:15 Refreshments
03:15-04:15 Dr. W.J. Jusko : **Modeling Drug Interactions**
04:15-05:15 Pf. J. Fiedler-Kelly: **Population PK/PD Models**

May 14 *Wednesday*
08:00-08:30 Continental Breakfast
08:30-09:45 Dr. W.J. Jusko: **Review & Exercises II**
09:45-10:00 Coffee
10:00-11:00 Dr. D. Shah: **PKPD Monoclonal Antibodies**
11:00-12:00 Dr. W.J. Jusko: **Disease Progression Models**
12:00-01:00 Lunch
01:00-02:00 Dr. D. Mager: **Species Scaling in PKPD**
02:00-03:00 Dr. J. Earp: **FDA & Pharmacometrics**
03:00-03:15 Refreshments
03:15-04:15 Dr. D. Mager: **Systems Modeling in PK/PD**
04:15-04:30 Dr. W.J. Jusko: **Final Discussion and Summary**

REGISTRATION INFORMATION

Course location: The course will be held in person at The Niagara Falls Convention Center (NFCC), 101 Old Falls Street, Niagara Falls, NY 14303. USA. Phone: (716) 278-2100. Fax: (716) 278-0008. The Center is 28 min from the Buffalo/Niagara International Airport. Website: https://www.niagarafallsusa.com/convention-center/

Accommodations: Several nearby hotels within walking distance are available. Please book directly as soon as registered for this course. Possible hotels: Sheraton Niagara Falls, Quality Hotel & Suites At The Falls, Hyatt Place Niagara Falls, Wingate by Wyndham Niagara Falls, Comfort Inn The Pointe, The Cadence, Seneca Niagara Resort & Casino, Holiday Inn Niagara Falls-Scenic Downtown, The Giacomo, and others including those nearby in Canada.

Fee: Individual fee: $2800. This includes course documentation, continental breakfasts, mid-session refreshments, lunches and opening dinner. Up to 5 graduate students may enroll at $1400 (registered MS & PhD).

Registration: Online registration will begin **January 27th, 2025**. The course is limited to the capacity of 40 participants. Confirmation email of registration will be returned upon successful registration and payment at the following website: http://pharmacy.buffalo.edu/ under Quick Links.

Cancellations: Cancellations with a full refund may be made until **March 17th, 2025**. No refund is possible on cancellations received after this date. Substitutions may be made at any time.

Payment: Mastercard, Visa, American Express, and Discover card payments will be accepted only at the following website: http://pharmacy.buffalo.edu/ under Quick Links. Contact course secretary: Suzette Mis, (716) 645-4831; mis@buffalo.edu, if you need further assistance.

Antibody PK and ADAPT Workshop: This will be a separate 3-day **virtual Zoom** workshop on Monoclonal Antibody PK with hands-on ADAPT modeling components by Drs. Joseph Balthasar, Dhaval Shah, Donald Mager, and David D'Argenio. Laptops are required for ADAPT modeling. *See separate flyer for details*. The fee is $2800. Graduate Students $1400.

NONMEM® Course: A separate 3-day **hands-on** tutorial course in Population PK Data Analysis using NONMEM® will be provided by Prof. Jill Fiedler-Kelly and colleagues from Simulations Plus, Inc. Laptops are required. *See separate flyer for details*. The fee is $2800, which includes a textbook. Graduate Students $1400.

COVID STATEMENT: Masks are optional for in-person classes and hands-on training. The University at Buffalo, Simulations Plus, Inc., The Niagara Falls Convention Center (NFCC), and hotels are not liable for any COVID-19 related issues. Proper protocols must be followed if implemented. Full vaccination is highly recommended. Rigorous cleaning protocols are performed.