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 knowledgeable 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.”

“...The lectures were very educational, and fun too.”

William J. Jusko, PhD
Dr. Jusko is SUNY Distinguished Professor and Chair of Pharmaceutical Sciences at the University of Buffalo and Director of the Center of Excellence in Pharmacokinetics and Pharmacodynamics. He is Editor-in-Chief of JPKPD, has authored over 580 publications, consults for the FDA, NIH, and the pharmaceutical industry, and is listed in ISI Most Highly Cited in Pharmacology.

Donald E. Mager, PhD
Dr. Mager is an Associate Professor of Pharmaceutical Sciences at the University at Buffalo. He has served as Visiting Professor at the Université Paris Descartes and on the Advisory Committee on Clinical Pharmacology to the FDA. His research involves PK/PD systems analysis with particular interest in anti-cancer and immunomodulatory pharmacotherapy.

Ancillary Courses

|----------------|----------------|----------------|----------------|
**COURSE PROGRAM**

### May 16 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**
- 04:15-05:00 Dr. W.J. Jusko: **Slow & Irreversible Effects**
- 06:00-07:30 Group Dinner

### May 17 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: **Modeling Chemotherapeutic Effects**

### May 18 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 P.J. Fiedler-Kelly: **Population PK/PD Models**
- 02:00-03:00 Dr. J. Earp: **FDA & Pharmacometrics**
- 03:00-03:15 Refreshments
- 03:15-04:15 Dr. W.J. Jusko: **Computational Issues in PK/PD**
- 04:15-04:30 Dr. W.J. Jusko: **Final Discussion and Summary**

### Course Location:
The course will be held at the Conference Center Niagara Falls, 101 Old Falls Street, Niagara Falls, NY 14303. USA. Phone: (716) 278-2100. Fax: (716) 278-0008. The Center is 28 min from Buffalo Niagara Falls, NY 14303. USA. Phone: (716) 285-3361. The price is $120/night. Website: [http://sheratonatthefalls.com](http://sheratonatthefalls.com)

### Hotel Location:
Sheraton at the Falls, 300 Third Street, Niagara Falls, NY 14303. USA. Phone: (716) 285-3361. The price is $120/night. [Hotel Deadline: April 11th, 2016](http://sheratonatthefalls.com), website: [http://sheratonatthefalls.com](http://sheratonatthefalls.com)

### Fee:
Individual fee: $2400. This includes course documentation, mid-session refreshments, lunches and opening dinner. Up to 5 graduate students may enroll at a fee of $1200 (registered MS and PhD). US Government rate: $1800 (FDA and NIH employees only).

### Registration:
Online registration will begin October 1st, 2015. The course is limited to the capacity of 40 participants. Confirmation email of registration will be returned upon successful registration at the following website: [http://pharmacy.buffalo.edu](http://pharmacy.buffalo.edu) under Quick Links.

### Cancellations:
Cancellations with a full refund may be made until March 25, 2016. No refund is possible on cancellations received after this date. Substitutions may be made at any time. Please inform course secretary of any substitutions.

### Payment:
Mastercard, Visa, American Express, and Discover card payments will be accepted only at the following website: [http://pharmacy.buffalo.edu](http://pharmacy.buffalo.edu) under Quick Links. Contact course secretary: Suzette Mis, (716) 645-4831; [mis@buffalo.edu](mailto:mis@buffalo.edu), if you need further assistance. Those registering for the PK/PD course will receive 20% discount on any other courses.

### Ancillary Antibody PK/PD Workshop:
This will be a separate 2-day workshop on Monoclonal Antibody PK/PD by Drs. Joseph Balthasar and Dhaival Shah. This course will utilize the facilities at the Conference Center Niagara Falls. The fee is $1800. Federal Govt. $1200. Graduate Students $800.

### Ancillary ADAPT-Biologics Course:
This will be a separate 2-day hands-on workshop on use of ADAPT for PK modeling of biologics. This course will use the facilities at The Conference Center Niagara Falls. Laptops are required. See separate flyer for details. The fee is $600. Federal Govt. $400. Graduate Students $200.

### Ancillary 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 Cognigen. Laptops are required. See separate flyer for details. The fee is $2500. Federal Govt. $1900. Graduate Students $1200.

### Ancillary Certara™ Course:
A separate 3-day hands-on tutorial course on use of Phoenix software for PK/PD Modeling. Laptops are required. Temporary access to software provided. The fee is $2000. Federal Govt. $1600. Graduate Students $1200.

### Social Activities:
Cognigen Corporation will sponsor evening excursions on Thursday, May 12 and Tuesday, May 17.