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!

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 Editor-in-Chief of JPKPD, has authored over 600 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 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 invokes PK/PD systems analysis with particular interest in anti-cancer and immunomodulatory pharmacotherapy.
**COURSE PROGRAM**

**May 8 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 9 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**
- 11:00-12:00 Dr. W.J. Jusko: Complexities of Indirect Responses
- 12:00-01:00 Lunch
- 01:00-02:00 Dr. W.J. Jusko: Review & Exercises II
- 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

**May 10 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

**REGISTRATION INFORMATION**

**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 International Airport. Website: [http://www.ccnfny.com](http://www.ccnfny.com)

**Hotel location:** Sheraton at the Falls, 300 Third St., Niagara Falls, NY 14303. USA. Phone: (716) 285-3361. The price is $124/night single & double occupancy (add $10 per person for triple & quadruple occupancy). Hotel Deadline: April 3rd, 2017. Website: [https://www.starwoodmeeting.com/Book/UBPharmacokinetic2016](https://www.starwoodmeeting.com/Book/UBPharmacokinetic2016)

**Fee:** Individual fee: $2500. This includes course documentation, continental breakfasts, 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: $1900 (FDA and NIH employees only).

**Registration:** Online registration will begin October 15th, 2016. 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 13, 2017. 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/](http://pharmacy.buffalo.edu/) under Quick Links. Contact course secretary: Suzette Mis, (716) 645-4831; mis@buffalo.edu, if you need further assistance.

**Ancillary Antibody PK/PD Workshop:** This will be a separate 2-day workshop on Monoclonal Antibody PK/PD by Drs. Joseph Balthasar and Dhaval Shah. This course will utilize the facilities at The Conference Center Niagara Falls. See separate flyer for details. 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 Corporation, a SimulationsPlus company. Laptops are required. See separate flyer for details. The fee is $2500, which includes a textbook. 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. See separate flyer for details. Temporary access to software provided. The fee is $2000. Federal Govt. $1600. Graduate Students $1200.

**Social Activities:** Cognigen Corporation will sponsor evening excursions, including dinner, on Thursday, May 4th and Tuesday, May 9th, 2017.