

Simulations Plus presents  
The GastroPlus™ PBPK Modeling & Simulation Workshop:  
From Lead Optimization to Clinical Development



**July 9-11 at Chungnam National University**

Simulations Plus, the industry's leading provider of simulation and modeling software for drug discovery and development, will be hosting its "GastroPlus™ PBPK Modeling & Simulation Workshop: From Lead Optimization to Clinical Development" at Chungnam National University in Daejeon, South Korea on July 9 - 11, 2018.

This three-day, hands-on course provides a working knowledge of the theories and application of our state-of-the-art PBPK modeling and simulation software from discovery through clinical development. A combination of presentations and interactive examples, taken from actual industry experience and using GastroPlus, illustrate how to recognize and deal with the multiple interacting phenomena that affect the absorption, pharmacokinetics, and pharmacodynamics of drugs as they progress to the clinic.



Attendance for this event is limited, so register today!



**SimulationsPlus**  
SCIENCE + SOFTWARE = SUCCESS

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fax: +1-661-723-5524 • email: [info@simulations-plus.com](mailto:info@simulations-plus.com) • [www.simulations-plus.com](http://www.simulations-plus.com) • NASDAQ: SLP

## Who should attend?

This workshop is appropriate for research scientists and engineers in the areas of medicinal chemistry, DMPK, ADME, biopharmaceutics, and clinical pharmacology. Prior experience with GastroPlus is not required. The course will use GastroPlus for all case studies, but the guiding principles will be taught in a software-independent manner. Class size is limited to encourage interaction with the course instructors and among attendees. Interaction and networking among industry, government, and academic scientists is an important and valuable part of the experience!

## What will you learn?

Upon completion of this course, you should have a solid understanding of the interactions that exist among the various mechanistic phenomena affecting drug dissolution, absorption, pharmacokinetics (employing both compartmental PK and physiologically based pharmacokinetics - PBPK), and pharmacodynamics.

### You will understand and learn to recognize potential interactions among such factors as:

- pKa – ionization effects on dissolution, precipitation, absorption, and distribution
- solubility and permeability changes in the various environments in the gastrointestinal tract
- differences in physiology between human and preclinical species
- transit times through various gut regions and how and why they may vary
- formulation effects, including particle size distributions and controlled release dosage forms
- influx and efflux transporters in the gut wall and in other tissues
- metabolizing enzymes in the gut wall and in other tissues
- renal clearance and its variables

### You will gain experience with:

- screening compound libraries for absorption and bioavailability using chemical structures
- recognizing when to use PBPK vs. standard compartmental PK models
- predicting first-in-human doses with available preclinical and *in vitro* data
- assessing formulation strategies such as micronization and nanoparticles
- simulating populations including selected mixes of ages, gender ratios, and ethnicities
- estimating local concentration of drug following dermal and pulmonary administration
- understanding optimization methods, objective function weighting, and constraints
- modeling nonlinear absorption and/or metabolism kinetics
- evaluating drug-drug interaction (DDI) risks using data at different stages

Simulations Plus' South Korean Distributor



## How will the workshop operate?

All presentation files and data sets needed to run case studies will be available in electronic format. All attendees will be responsible for bringing their own laptop computers, with GastroPlus™ and ADMET Predictor™ installed prior to the course.

GastroPlus & ADMET Predictor™ software training is best done in an environment where each person operates the program and takes an active part in running simulations along with the instructor. As much as possible, the training uses PowerPoint slides to introduce software features. Once a feature is discussed, trainees then use it on their individual computers to see how it works. We find this instruction method to be much more effective than starting with a lecture that explains the entire program and later having students operate the program.

Continental breakfast, refreshment breaks, and lunch will be provided.

## Where will this be held?



The workshop will be held July 9 - 11, 2018 at the College of Pharmacy (Sam-Nam Hall, 1st floor), Chungnam National University in Daejeon, South Korea. Chungnam National University is a “reference university” for Simulations Plus, with students and professors using our modeling & simulation technology to assist with their research.



The workshop is co-hosted by the Institute of Drug Research & Development and the BK21 Plus Program, College of Pharmacy, Chungnam National University

For further information in Korean, please contact:  
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# REGISTRATION FORM

Attendance is limited • Please register by June 25, 2018

Please fill in this form and return to Renee Bouche (renee@simulations-plus.com) Fax: +1-661-723-5524  
To register by phone, please call Renee at +1-661-723-7723 ext. 227

## The GastroPlus™ PBPK Modeling & Simulation Workshop: From Lead Optimization to Clinical Development on July 9 - 11, 2018 in Daejeon, South Korea

Title: Professor / Dr. / Mr. / Mrs. / Miss / Ms.

FIRST NAME: \_\_\_\_\_

LAST NAME: \_\_\_\_\_

COMPANY: \_\_\_\_\_

POSITION: \_\_\_\_\_

DEPARTMENT: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

TELEPHONE: \_\_\_\_\_

EMAIL: \_\_\_\_\_

PURCHASE ORDER NO. (if applicable): \_\_\_\_\_

Cost for the workshop is 550,000 Korean Won (KRW - Industry), 275,000 (KRW - Academic/Government) per person and includes all workshop materials, continental breakfast, refreshment breaks, and lunch each day. Also, a one (1) month single-user license to GastroPlus™, with all optional modules, will be available after the workshop.

Hotel accommodation is not included with registration.

### Method of payment (Please check one)

Credit card (a confirmation message will be sent to the email address provided)

Name on card: \_\_\_\_\_ Email: \_\_\_\_\_ Tel: \_\_\_\_\_

Card billing address: \_\_\_\_\_

\_\_\_\_\_ Zip/Post Code: \_\_\_\_\_

Type of card:  Visa  MasterCard  AMEX Card Number: \_\_\_\_\_

Expires: \_\_\_\_\_ Security code: \_\_\_\_\_

Payment by check (you will be invoiced upon receipt of your completed registration form)

Payment by wire transfer (you will receive wire transfer information upon receipt of your completed registration form)

Payment online (you will be redirected to the payment portal when registering online at [simulations-plus.com/workshops](http://simulations-plus.com/workshops))

### Terms and Conditions

Cancellation Policy: Cancellations made prior to June 25, 2018 will be eligible for an 80% refund. Refunds for cancellations will be honored up to 45 days after the date of payment for credit card transactions. Substitutions are allowed up to 10 days before the event.

Payment Terms: Following completion and return of the registration form, the total fee must be paid within 30 days of receipt of invoice. All fees must be paid in full prior to the start of the workshop.



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