Simulations Plus presents: The Advanced GastroPlus™ DMPK and Clinical Pharmacology Workshop



March 22-23, 2018 in Mainz, Germany

Simulations Plus, the industry's leading provider of simulation and modeling software for drug discovery and development, will be hosting its "Advanced GastroPlus™ DMPK and Clinical Pharmacology Workshop" in Mainz, Germany on March 22 - 23, 2018.

This 2-day hands-on course will provide an in-depth knowledge of the theories and application of state-of-the-art simulation and modeling software as it applies to problems facing DMPK and Clinical PK/PD scientists dealing with complex effects on drug absorption, pharmacokinetics, pharmacodynamics, and drug-drug interactions. A combination of presentations and interactive examples, taken from actual industry experience, will illustrate how to recognize and deal with the multiple interacting phenomena that affect the absorption, PBPK/PD, and DDIs of particular drugs, dosing routes, and dosage forms in different populations.

This is an advanced course – a prerequisite is familiarity with setting up and running basic GastroPlus simulations, including database and support file structures, basic inputs for physicochemical and formulation parameters, and basic physiology options for human and animal simulations, as these items will not be covered in this course due to time constraints. If you are not yet familiar with all of these concepts, you can gain the required familiarity in our "Introductory GastroPlus[™] Simulation and Modeling Workshop" that will be held immediately preceding this workshop.



Attendance for this event is limited, so register today!

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Who should attend?

This workshop is appropriate for scientists working in preclinical and clinical pharmacokinetics and pharmacodynamics who want an in-depth understanding of how the highly interactive processes of absorption (passive and carrier-mediated), metabolism in the gut and other tissues, and whole-body distribution affect PK and PD. Although the course will use GastroPlus for all case studies, 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. Past GastroPlus workshop attendees have commented that the 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 an understanding of the interactions that exist among the various mechanistic phenomena affecting drug absorption, pharmacokinetics (employing both compartmental PK and physiologically based pharmacokinetics - PBPK), pharmacodynamics, and DDIs. You should be able to decide when a mechanistic absorption/PBPK model is more appropriate for building your PD models. And you should be able to communicate readily with the groups that produce both preclinical and clinical data to express your data needs as well as present your results clearly back to them and to project leaders and management.

You will gain experience with:

- screening small compound libraries for absorption (transcellular & paracellular) from chemical structure and *in vitro* data.
- recognizing when to use PBPK vs. standard compartmental PK models
- predicting first-in-human doses with available preclinical and *in vitro* data (IVIVE)
- using *in vitro* data to define whole-body, permeability-limited models to simulate tissue uptake (transporter-based IVIVE)
- tracking parent and metabolite concentrations through multiple pathways, in plasma and tissues
- defining inputs to simulate prodrug/drug exposure
- assessing the potential for biliary excretion and modeling enterohepatic circulation
- building PBPK/PD models using simulated target tissue concentrations
- predicting drug-drug interactions for various situations (e.g., auto-inhibition)
- simulating populations including selected mixes of ages, gender ratios, and ethnicities
- predicting pediatric exposure from adult PBPK models
- understanding optimization methods, objective function weighting, and constraints

How will the workshop operate?

All presentation files and data sets needed to run case studies will be available in electronic format. The University will provide computers for attendees.

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

Where will this be held?





The workshop will be held at:

Johannes Gutenberg University Mainz Building 1430 Anthopologie Anselm-Franz-von-Bentzel-Weg 7 Room 00 101 55099 Mainz, Germany



A limited number of discounted rooms will be available for attendees of the workshop at:

The Hotel Hammer in Mainz, Germany Bahnhofpl. 6, 55116 Mainz, Germany Phone: +1+49 (0) 6131 96 528-0 Fax: +1+49 (0) 6131 96 528-88 www.hotel-hammer.com



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REGISTRATION FORM

Attendance is limited • Please register by March 5, 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 Advanced GastroPlus[™] DMPK and Clinical Pharmacology Workshop March 22 - 23, 2018 in Mainz, Germany

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

FIRST NAME:		
LAST NAME:	COMPANY:	
POSITION:	DEPARTMENT:	
ADDRESS:		
TELEPHONE:	EMAIL:	
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· · ·	March 5, 2018 will be eligible for an 80% refund. Refu ransactions. Substitutions are allowed up to 10 days	•

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.

