

Simulations Plus presents:  
The Advanced GastroPlus™ Pharmaceutical Development Workshop



March 8 - 9, 2018 in San Diego, California

Simulations Plus, the industry's leading provider of simulation and modeling software for drug discovery and development, will be hosting its "Advanced GastroPlus™ Pharmaceutical Development Workshop" in San Diego, California on March 8 - 9, 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 pharmaceutical scientists dealing with drug product effects on dissolution, absorption and pharmacokinetics. Focus will be placed on applications of this technology as it relates to issues defined in the FDA's Critical Path Initiative. 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 dissolution, absorption and pharmacokinetics of particular drugs, dosing routes, and dosage forms.

**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 pharmacokinetic parameters, and basic physiology options for human and animal simulations, as these items will not be covered in this course. 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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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 scientists and engineers working in pharmaceutical development who need an in-depth understanding of how formulation affects the highly interactive processes of dissolution, precipitation, gastrointestinal transit, absorption (passive and carrier-mediated), first-pass metabolism and pharmacokinetics. 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 a solid understanding of the interactions that exist among the various mechanistic phenomena affecting drug dissolution, absorption and pharmacokinetics (employing both compartmental PK and physiologically based pharmacokinetics - PBPK) and how they relate to the development of drug products, both in preclinical and clinical settings.

### You will gain experience with:

- incorporating modeling & simulation to assist with Quality by Design (QbD) implementation
- assessing formulation strategies (e.g., micronization and nanoparticles) earlier in product development
- analyzing the impact of common ion effect on solubility & dissolution
- screening for different salts and understanding the effect on precipitation kinetics
- properly using *in vitro* dissolution data to predict plasma concentration levels
- designing controlled release products to reach therapeutic “windows” or target concentration profiles
- deconvoluting *in vivo* dissolution to help design *in vitro* experiments and generate mechanistic IVIVCs
- identifying food effect, both positive and negative, on absorption
- running virtual bioequivalence studies to estimate sample sizes and achieve adequate power
- understanding optimization methods, objective function weighting, and constraints

## How will the workshop operate?

All presentation slides will be available in electronic format. Laptop computers will be provided with GastroPlus™ preloaded along with all data files needed to run the case studies.

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

## Where will this be held?



### **Hyatt Regency La Jolla at Aventine**

3777 La Jolla Village Drive

San Diego, California, USA, 92122

Tel: +1 858 552 1234

<https://lajolla.regency.hyatt.com/en/hotel/home.html>



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## REGISTRATION FORM

Attendance is limited • Please register by February 28, 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™ Pharmaceutical Development Workshop March 8 - 9, 2018 in San Diego, California

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 USD \$1200 per person (industry) and USD \$600 (academic) 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, is available after the workshop.

Hotel accommodations are not included.

#### 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 February 28, 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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