



# SCIENTIFIC UPDATE

*We've got chemistry*

## PRECLINICAL SAFETY ASSESSMENT AND MITIGATION STRATEGIES IN DRUG DISCOVERY

19-20 MARCH 2019

**Boston, MA USA**

Boston Metro  
Meeting Center

**NEW  
COURSE!**



A 1<sup>1/2</sup> day course given by  
**Dr Bryan H. Norman**

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# PRECLINICAL SAFETY ASSESSMENT AND MITIGATION STRATEGIES IN DRUG DISCOVERY

A 1<sup>1/2</sup> day course given by Dr Bryan H. Norman

Multiple attendees discounts  
UP TO 15% available

19-20 March 2019 Boston, MA USA, Boston Metro Meeting Center

## OUTLINE

- > Principles of toxicology and safety assessment.
- > The Investigational New Drug (IND) application.
- > Target assessment, predictive toxicology and in silico methods.
- > Preferred drug properties to minimize toxicological risks.
- > Common off-target safety concerns and mitigation.
- > Managing on-target safety concerns.
- > Pharmacokinetics in preclinical safety assessment.
- > Drug metabolism and bioactivation.
- > Toxicophores and Structure Alerts.
- > Mechanisms and mitigation strategies for Drug-Induced Liver Injury (DILI).
- > Preclinical safety biomarkers and translation to the clinic.
- > Safety assessment and flow scheme design in lead optimization.
- > Clinical candidate selection and FHD enablement.

## COURSE INTRODUCTION

The discovery of new therapeutic agents is met with significant challenges in preclinical discovery and development. Both efficacy and safety endpoints must be adequately assessed prior to testing a new investigational agent in humans. Perhaps the most challenging part of drug discovery is the mitigation of safety risks that arise during most drug discovery optimization efforts. Successful drug discovery teams will properly design and execute experiments that can best assess and discharge risks prior to first human dose (FHD), in the context of anticipated human drug exposures. This course begins with a description of the finish line for preclinical drug hunters--the successful filing of an Investigational New Drug (IND) application to regulatory agencies, such as the FDA or EMA. From there, it explores the current best practices and methods used to identify, understand and mitigate common preclinical safety risks from both a strategic and tactical perspective. Importantly, the course also describes proactive approaches that can help scientists avoid many safety issues and deliver safe small molecule drug candidates in the shortest time possible. While the course has a strong emphasis on mitigation strategies achieved through medicinal chemistry, the content describes methods that are valuable to all disciplines within a cross functional drug discovery team.

## WHO SHOULD ATTEND?

Medicinal chemists, toxicologists, biologists, pharmacologists, pharmacokineticists and program managers will all gain valuable insights into modern preclinical safety assessment strategies. The participation of multiple disciplines encourages cross functional learning through interactive team sessions.

## VENUE

### The Metro Meeting Centers

101 Federal Street, 4th Floor  
Boston  
MA 02110  
USA  
(617) 737 1200

[www.metromeetingcenters.com](http://www.metromeetingcenters.com)

### Transport

Metro Meeting Centers is 10 minutes from Boston's Logan International Airport and within a short distance to public transportation.

A list of nearby hotels will be sent to you when you register.





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**Start** 9.00am - Tuesday 19 March  
**Finish** 12.00 noon - Wednesday 20 March

**Course Fee:** \$1,395

Which includes comprehensive course manual, refreshments throughout the day and lunch.

**Course Fee:** \$1,395

## COURSE TUTOR

### Dr Bryan H. Norman

Bryan H. Norman received his Ph.D. at Emory University and was an NIH Postdoctoral Fellow at Penn State University. After three years at Monsanto/Searle, Bryan joined Eli Lilly and Company in 1993, where he led multiple cross functional drug discovery efforts, many of which culminated in clinical candidates for oncology, endocrine and pain indications. In addition to his expertise in medicinal chemistry, Bryan has significant cross functional drug discovery experience and expertise in additional disciplines, such as biomarkers, pharmacokinetic/pharmacodynamic (PK/PD) relationships, mechanisms of drug metabolism and toxicology.



He has specific expertise in the mechanisms and mitigation strategies to avoid drug-induced liver injury (DILI). The breadth of his background has led to his service on many Due Diligence teams to assess potential in-license opportunities. Bryan is a Volume Editor and serves on the Editorial Board of Burger's Medicinal Chemistry, Drug Discovery and Development. He is currently on the Board of Directors of the Medicinal and Bioorganic Chemistry Foundation and serves on various grant review committees.

He has published over 45 papers in peer-reviewed scientific journals and given many invited lectures at scientific conferences and universities. His most recent research interests have focused on the identification of mechanisms associated with drug-induced liver injury and the discovery of novel analgesic agents for use in chronic pain.

## REGISTRATION

You can either use our fast online booking system or mail or fax the attached registration form to:  
Scientific Update  
Maycroft Place, Stone Cross, Mayfield,  
East Sussex, TN20 6EW, UK  
Fax Number +44 1435 872734

### How to Pay

When you register online, you can have the option to pay via credit card (Mastercard or Visa). A receipted invoice will be automatically generated once paid and sent via email. Should your company wish to pay by cheque or bank transfer bank details will be supplied with an invoice.

### Bank Transfer or Cheque

Should your company wish to pay by cheque or bank transfer, on booking you can choose between paying in either €, \$ or £. All bank details will be supplied with an invoice.

### Group Discounts

Group discounts are available on two or more attendees - see registration form. This offer only applies if bookings are made simultaneously and from the same billing address.

### Confirmation of your registration

These will be sent via email.

### Late Applications

For late applications, please register online or fax the completed registration form, including credit card payment information.

### Cancellations/Refunds

Should you be unable to attend and cancel in writing no later than 1 month before the start of the course, Scientific Update will refund your registration less £300 (or equivalent in €/\$) processing fee. Unfortunately refunds are not possible after that date. Substitutions can be made at any time.

## IN-HOUSE COURSE

For 8+ people contact us to discuss holding this event In-House -  
[sciup@scientificupdate.com](mailto:sciup@scientificupdate.com)

# PRECLINICAL SAFETY ASSESSMENT AND MITIGATION STRATEGIES

19-20 March 2019 Boston, MA USA



## NEW FAST ONLINE REGISTRATION

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[www.scientificupdate.com](http://www.scientificupdate.com)

No. of attendees  @ \$1395

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Register 3 delegates and receive 10% on 3rd booking  
Register 4 or more delegates and receive a 15% discount

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#### \* Currency Payments

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#### Data Protection

Scientific Update Ltd is registered under the Data Protection Act 1998. We will store your information securely and only share your contact details with other attendees at this event. If you are happy for your details to be passed to any third parties please tick here:

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