

"Thank you for everything. This course will absolutely help me to be a better scientist."

**Celon Pharma** 

# MEDICINAL CHEMISTRY

Multiple attendees discounts

UP TO 15% available

5-7 June 2019 Basel, Switzerland, Der Teufelhof Hotel

## **INTRODUCTION**

This course in medicinal chemistry sets out to train organic chemists to understand the key factors in discovering a new drug substance, from target selection, through lead generation and lead optimisation, to the selection of a development candidate. The course will cover aspects of the drug discovery process such as structure activity relationships, the use of computational chemistry in drug discovery, ADME and safety issues.

Medicinal chemists need to understand the relationship between chemical structure and the physical properties of molecules and how this translates into compound stability and the interaction of the molecule with biological structures. These biological targets include proteins, lipids, nucleic acids and cell membranes. Interaction of the molecules with these targets affects the distribution of the compound in biological systems and modulates biological function.

To do this successfully the medicinal chemist needs to be aware of how target selection is carried out and how this affects lead generation. The medicinal chemist needs knowledge of structure property relationships, the physico-chemical properties of drugs and how these molecules interact with the body– pharmacokinetics and ADME (Absorption, Distribution, Metabolism and Excretion).

The course also includes an overview of the use of computational chemistry in virtual screening and library design. The lectures are backed up by a number of case studies and workshop sessions, which involve the participants in using the concepts discussed.

## **COURSE OUTLINE**

- Introduction:
   Overview of drug discovery process, target selection in the post-genomic era.
- Introduction to Medicinal Chemistry, definitions, QSAR studies, drug receptors, physico-chemical properties.
- > Physico-chemical properties of drugs, and implications for Absorption.
- > Lead generation approaches.
- > Lead generation using computational techniques: molecular recognition, structure- and ligand-based virtual screening, success stories.

- > Molecular diversity and combinatorial library design.
- > Pharmacokinetics and ADME, with examples.
- Introduction to Lead Optimisation, Case Studies.
- Overview of some of the reasons for project failure, of Safety, in particular to its relationship to chemical structure and of critical issues in Drug Development
- > Intellectual property issues related to drug discovery.
- > What happens next? a (very) brief overview of process development issues.

## WHAT WILL ATTENDEES GAIN?

- > An understanding of how biological disease targets are selected.
- > An insight into the terms, definitions and analysis methods used by medicinal chemists in the pharmaceutical industry.
- > An introductory knowledge of Pharmacokinetics and ADME (Absorption, Distribution, Metabolism and Excretion) and how physicochemical properties influence absorption.
- > An introduction to the use of computational chemistry including pharmacophore generation, virtual screening and library design.
- > An overview of safety assessment and how chemical structure relates to safety.

## Course Participants - Who is this course aimed at?

- > Young chemists who have just started in industry as medicinal chemists
- Experienced medicinal chemists who wish to gain additional knowledge on how to obtain compounds with optimal drug-like properties and get up to date with the latest thinking.
- > Chemists from other areas of Research and Development who would like to gain an appreciation of the processes and drivers involved in drug discovery.
- > Students who are planning a career in industry and can obtain company sponsorship.



Start 9.00am - Wednesday 5 June Finish 3.30pm - Friday 7 June Course dinner 7.30pm - Wednesday 5 June

Course Fee: €2,099

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

**Course fee:** €2,099

# **COURSE TUTORS**



## **VENUE**

#### **Der Teufelhof Hotel** Leonhardsgraben 49

4051 Basel

#### www.teufelhof.com

The house with hotel, theater, restaurant studio, restaurant Bel Etage, bar & coffee, brewery and a wine shop located in the heart of the old town of Basel, in two merged, historic townhouses from the 18th century. As a popular meeting place, the house combines history and tradition with an artistic, modern and therefore urban ambience.

The hotel offers all the comforts and is officially classified by the Swiss Hotel Association as a Design & Lifestyle, Business and Unique hotel with excellent cuisine. We offer our guests free high-performance WiFi, complimentary buffet breakfast included in the room rate, complimentary coffee and complimentary in-room water, and other amenities.



## **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.

## **MEDICINAL CHEMISTRY**

### **FAST ONLINE REGISTRATION**

Look for the **BOOK NOW** button on the event of your choice **www.scientificupdate.com** 

5-7 June 2019 Basel, Switzerland

No. of attendees

@ €2,099

**Special Offer!** 

Register 2 delegates and receive 5% on 2nd booking Register 3 delegates and receive 10% on 3rd booking Register 4 or more delegates and receive a 15% discount

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