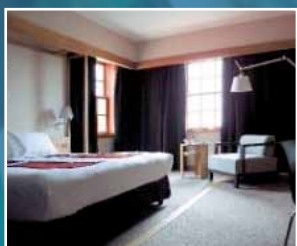
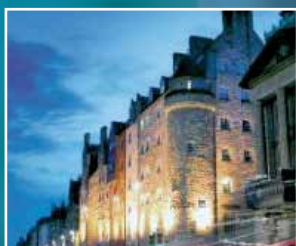


Medicinal Chemistry

for Organic Chemists

25 - 27 April 2012

The Radisson Blu Hotel, Edinburgh, Scotland



“A very useful and enjoyable course.
Time well spent! It was well organised
and executed.”

PROFESSIONAL DEVELOPMENT TRAINING

Scientific Update provides training courses for industrial chemists and chemical engineers in chemical development and scale-up and many other specialist topics in organic and process chemistry.

Our short intensive training courses enable scientists to learn about highly relevant topics, to broaden their knowledge and to keep abreast of new science, new technology and new techniques.

www.scientificupdate.co.uk | info@scientificupdate.co.uk

SCIENTIFIC

UPDATE
We've Got Chemistry

Medicinal Chemistry

for Organic Chemists

25 - 27 April 2012 The Radisson Blu Hotel, Edinburgh, Scotland

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 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

Venue

The Radisson Blu Hotel

80 High Street, The Royal Mile
Edinburgh, EH1 1TH, Scotland
Tel: +44 131 557 9797

www.radissonblu.co.uk/hotel-edinburgh

The Radisson Blu Hotel is located halfway between Edinburgh Castle and Holyrood Palace and within a few minutes walk from the designer shops on Princes Street. Waverley Station is only a 5 minute walk away.

A limited number of rooms have been reserved at the hotel for the special rate of £110 per night including VAT and a full Scottish breakfast.

Course Tutors



Dr David Clark

Dr David E. Clark is Director of Computer-aided Drug Design (CADD) and Information Services at Argenta, of

which he was a founding scientific team member in August 2000. David began his career working for Proteus Molecular Design for three years where he was involved in developing software for de novo ligand design and protein-ligand docking. He then spent four years working in the CADD group of Aventis/Rhône-Poulenc Rorer before joining Argenta. David is a graduate of the University of Oxford where he studied chemistry. His post-graduate studies (MSc, PhD) were carried out at the Department of Information Studies at University of Sheffield under the supervision of Professor Peter Willett. In 2003, David was the recipient of the Corwin Hansch award, which is presented annually by the QSAR and Modelling Society.



Dr Mary Donnelly

Mary Donnelly obtained a Ph.D in Bioanalysis and Clinical Pharmacokinetics and a BSc (Hons) in Chemistry, both from

the University of Glasgow. Her industrial career began as a pharmacokineticist at Beechams. She moved to GSK (then Glaxo) in 1990, to join the drug metabolism and pharmacokinetic research group, where she contributed to drug discovery projects in neuroscience, cardiovascular, respiratory and inflammatory areas. In 2001, Mary was appointed Director of Research DMPK for the Stevenage site; a department dedicated to the support of respiratory and inflammatory projects in the discovery phase. In 2003 Mary was appointed Global Project Leader for the development of novel respiratory and inflammatory products. Mary moved to MedImmune

Register for this course by using the form overleaf or call:

Fee & General Information

£1295 plus VAT

Includes lunch & refreshments, course dinner and comprehensive course manual.

The course begins with registration from 08.30 on Wednesday 25 April and finishes after lunch at approximately 14.00 on Friday 27 April.



in 2008 to become a Product Development Leader of biologic assets for cardiovascular, autoimmune and respiratory disorders.

In 2010 Mary founded MDPharmasolutions, a consultancy business providing lead optimisation and early development support to BioTech and Pharma companies.

Dr Geoff Lawton

Dr Geoff Lawton was formerly Director of Chemistry at Roche UK and Vice President Chemistry and Preclinical Sciences at Roche Bioscience, Palo Alto, California and has extensive experience of new medicine discovery and early development. In 2001 he became an independent consultant in all aspects of drug discovery from target identification, through lead finding and optimisation to drug candidate selection and evaluation. He was the founding Research Director with Lectus Therapeutics and he is a founder of INMedD, a new medicine discovery social enterprise.



Dr Alan Naylor

Alan Naylor is a medicinal chemist with over 30 years experience in Research and Development within GlaxoSmithKline. He

previously held the position of Vice President and Director of Medicinal Chemistry within the GSK Drug Discovery organization and has lead strategic, matrix and line functions involving significant international responsibilities. He has an extensive track record of success, across a wide range of therapeutic areas, having played a major role in the discovery of over 30 development compounds, and is a co-inventor of Serevent, a major advance in the treatment of asthma.

Since retiring from GlaxoSmithKline in July 2008 Alan has been an independent consultant providing scientific and strategic advice and analysis to major pharma, biotechnology companies, academic groups, capital investment companies and funding bodies on a variety of issues within the drug discovery and healthcare sector.



Dr Will Watson

Will Watson gained his PhD in Organic Chemistry from the University of Leeds in 1980. He joined the BP Research Centre at Sunbury-

on-Thames and spent five and a half years working as a research chemist on a variety of topics including catalytic dewaxing, residue upgrading, synthesis of novel oxygenates for use as gasoline supplements, surfactants for use as gasoline detergent additives and non-linear optical compounds. In 1986 he joined Lancaster Synthesis and during the next 7 years he was responsible for laboratory scale production and process research and development to support Lancaster's catalogue, semi-bulk and custom synthesis businesses. In 1993 he was appointed to the position of Technical Director, responsible for all Production (laboratory and pilot plant scale), Process Research and Development, Engineering and Quality Control. He helped set up and run the Lancaster Laboratories near Chennai, India and had technical responsibility for the former PCR laboratories at Gainesville, Florida. He joined Scientific Update as Technical Director in May 2000. He has revised and rewritten the "Chemical Development and Scale-Up in the Fine Chemical and Pharmaceutical Industries" course and gives this course regularly around the world. He has been instrumental in setting up and developing new courses such as "Interfacing Chemistry with Patents" Making and Using Fluoroorganic Molecules". He is also involved in an advisory capacity in setting up conferences and in the running events. He is active in the consultancy side of the business and sits on the Scientific Advisory Boards of various companies. Will can be contacted by email at will@scientificupdate.co.uk

Course Participants Who is the 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

At the end of the course participants will have gained:

- **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 the 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 of chemical structure and safety



Please register attendee(s) @ £1554.00

First Attendee Name

Company	
Title (Dr/Prof/Mr/Mrs/Ms)	
Job Title	
Name	
Surname	
Address	
<input type="text"/>	
Postcode/ZIP	
Country	
Telephone	
Fax	Mobile
Email	
Special Diet	

Second Attendee Name **SAVE 5%**

Title (Dr/Prof/Mr/Mrs/Ms)	
Job Title	
Name	
Surname	
Address	
<input type="text"/>	
Postcode/ZIP	
Country	
Telephone	
Fax	Mobile
Email	
Special Diet	

Third Attendee Name **SAVE 15%**

Title (Dr/Prof/Mr/Mrs/Ms)	
Job Title	
Name	
Surname	
Address	
<input type="text"/>	
Postcode/ZIP	
Country	
Telephone	
Fax	Mobile
Email	
Special Diet	

Please select to receive the FREE bimonthly e-Newsletter

Purchase Order No.

Payment Method

I would like to charge the fee(s) to my credit card.



Cardholder	
Card No	
Expiry Date	Security No***
Address (if different from first delegate name)	
<input type="text"/>	
Signature	
<input type="text"/>	
Date	
<input type="text"/>	

Please invoice my company

Invoice Address

Name	
Company	
Address	
<input type="text"/>	
Postcode/ZIP	
Country	
Telephone	
Fax	Mobile
Email	

Payment will be made by: cheque bank transfer

Promotional Code

Terms and Conditions of Business

Payments ALL PAYMENTS MUST BE RECEIVED BEFORE THE EVENT DATE. Confirmation of your registration will be supplied by fax or e-mail and an invoice will be sent by post.

Discounts* Complete the details for either two or three delegates and your discount will automatically be applied. This offer only applies where all delegates are booked simultaneously and at the same billing address. Attendee names can be substituted at any time prior to the event date, but please notify us as soon as possible.

Promotional Code (from an advertisement or email) please enter the reference in Promotional Code box above.

Security Number*** This is the last three digits of the number on the signature strip on the BACK of the credit card. For American Express customers, this is the four digit number printed to the right of the main card number on the FRONT of the card.

Substitutions/Cancellations Should you be unable to attend and cancel in writing no later than 28 days prior to each event date, Scientific Update will refund your registration less £300 processing fee. It is regretted that after this date refunds are not possible. Substitutions can be made at any time.

For late applications please register on line at www.scientificupdate.co.uk or fax the completed registration form, including credit card payment information.

Venue/Accommodation You will be sent details of how to reserve your accommodation with your event confirmation details.

Change of Details If the details on the envelope are incorrect or if you do not wish to receive any further information from us, please contact us on +44 (0) 1435 873062. As all literature is mailed at least three months in advance, you may experience a delay in the changing of your details.

Data Protection The personal information on this form may be used by Scientific Update for marketing purposes. If you do NOT wish this information to be disclosed to any third parties, please tick this box.

Please complete this form and fax to +44 (0)1435 872734.

You can also download the PDF from the website, complete the form online and email back.

Scientific Update LLP, Maycroft Place, Stone Cross, Mayfield, E. Sussex TN20 6EW, UK Tel: +44 (0)1435 873062 scup@scientificupdate.co.uk