



**SCIENTIFIC
UPDATE**

We've got chemistry

2 day
Course

2020

ORGANOFLUORINE CHEMISTRY:

Synthesis, Applications,
Source and Sustainability

**NEW
COURSE**

30

Celebrating 30 years serving
the global chemistry industry

1989 - 2019

ORGANOFLUORINE CHEMISTRY: SYNTHESIS, APPLICATIONS, SOURCE AND SUSTAINABILITY

A 2 day course

INTRODUCTION

Organofluorine compounds are frequently encountered in the pharmaceutical, agrochemical and fine chemical industries. Often the selective introduction of a fluorine atom or functional group into a molecule can be challenging, particularly at scale, with chemists often designing synthetic routes in which fluorine is introduced through strategic sourcing of raw materials rather than synthetically.

This two-day course aims to provide an overview of fluorination technology and synthetic methods- both traditional and state of the art- highlighting industrial application. Detailed case studies are used to provide context and workshops enable delegates to familiarize themselves with the chemistry described.

WHAT WILL YOU GAIN?

- > A comprehensive overview of synthetic organofluorine chemistry and its application in the synthesis of pharmaceuticals, agrochemicals and fine chemicals.
- > Learn how and when to incorporate fluorine in a synthetic route.
- > Information on fluorine containing building blocks and commercial synthons.
- > An understanding of the processes involved in the development and scale-up of fluorination chemistry.
- > An appreciation of the role of fluorine in medicinal chemistry

COURSE OUTLINE

Introduction:

- > Unique properties of fluorine
- > Historical context
- > Sources of fluorine
- > Handling and toxicity

Methods of introducing fluorine:

- > Aromatic and heteroaromatic fluorination
- > Nucleophilic and electrophilic fluorinating reagents
- > Aliphatic fluorination
- > Heterocyclic fluorination
- > Radical methods, photoredox and electrochemistry
- > Large scale application of fluorination methods

Fluorinated functional groups:

- > Trifluoromethylation, difluoromethylation, monofluoromethylation
- > Fluoroalkenes
- > SF₃, SF₅
- > -OCF₃, OCHF₂, OCH₂F
- > Perfluoroalkyl

Miscellaneous fluorination methods

- > Fluorination of enolates and organometallics
- > Biocatalytic methods
- > Hydrodefluorination
- > Asymmetric fluorination
- > Late stage fluorination

Fluorine in medicinal chemistry and agrochemicals

- > Role of fluorine in drugs and agrochemicals and natural products
- > Fluorinated drugs
- > Fluorinated amino acids and proteins
- > ¹⁸F and PET

Fluorinated building blocks, synthons and materials

- > Liquid crystals and optoelectronics
- > Fluorine containing organocatalysts
- > Fluorinated solvents

WHO SHOULD ATTEND

- > Discovery/Synthetic organic chemists
- > Process development chemists
- > Anyone wishing to learn more about organofluorine chemistry

IN-HOUSE COURSE

For 8+ people contact us to discuss holding this event In-House - sciup@scientificupdate.com



SCIENTIFIC UPDATE

We've got chemistry

Start 9.00am on Day 1

Finish 3.30pm on Day 2

Course dinner 6.30pm

Course fees include a comprehensive course manual, refreshments throughout each day, lunches and one course dinner on the first evening

For all prices and dates please refer to our website



IT'S EASY TO REGISTER ONLINE

COURSE TUTORS

John started his industrial career at Rhone-Poulenc (formerly RTZ chemicals) in Avonmouth- Bristol, working on fluorination technology, before gaining a chemistry degree and organic chemistry PhD at the University of Bath in 1995. He then did postdoctoral research at the University of Sheffield before joining the process chemistry group at Oxford Asymmetry working on route development and optimization, scale-up and custom synthesis.

In 1999 John joined Vertex Pharmaceuticals (Europe) in the discovery chemistry department, spending a number of years working in oncology and inflammation therapeutic areas. He then formed a scale-up group to support synthesis of pre-clinical candidate molecules and intermediates and in 2010 oversaw construction and commissioning of a new kilo lab facility. In 2012 John was appointed to head of process chemistry for Vertex (Europe), overseeing synthesis of compounds for preclinical toxicology assessment, designing safe, scalable synthetic routes and working with external vendors and global CRO's to deliver key intermediates and develop new enabling technologies. He was also responsible for developing chemistry for cGMP synthesis of early phase clinical material. John recently joined Scientific Update as Scientific Director.

He is involved in running training events and advising on scientific content for the conference programme. He also supports the consultancy arm of the business and has a keen interest in scientific writing and communication.



Dr John Studley

@ johns@scientificupdate.com

CONSULTANCY SOLUTIONS

OUR EXPERTISE

We are specialists in Industrial Organic Chemistry, solving problems and managing projects in Process Research and Development covering the following industries:

- > Pharmaceuticals
- > Fine Chemicals
- > Agrochemicals
- > Flavour & Fragrance
- > Specialty Chemicals

OUR TEAM

You will be assigned one leading consultant but you will benefit from our team with over 100 years collective industrial experience.

OUR APPROACH

We will sign a CDA and discuss your project by telecom or webinar to assess what benefits we can offer. This initial consultation is free of charge. After which we will offer a detailed proposal with the service we can provide tailored to your individual requirements.

REGISTRATION

Use our **fast online booking system by visiting**

www.scientificupdate.com

Alternatively you can 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 (Amex, 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, on booking, 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 £300.00 (or equivalent in €/€) processing fee. Unfortunately refunds are not possible after that date. Substitutions can be made at any time.

DON'T MISS OUT - REGISTER TODAY

EVENT:**DATES:****LOCATION:****No. of attendees****Price****NEW FAST ONLINE REGISTRATION**

Why not register quickly online and receive instant confirmation? Look for the **register** button on the event of your choice. www.scientificupdate.com

First attendee

Company
 Title (Dr/Prof/Mr/Mrs/Ms)
 First name
 Surname
 Job Title
 Address

 Post Code / Zip
 Country
 Tel
 Fax
 Email
 Mobile
 Special Diet
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 What's new in Process Chemistry?

Second attendee

Title (Dr/Prof/Mr/Mrs/Ms)
 First name
 Surname
 Job Title
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 What's new in Process Chemistry?

Third attendee

Title (Dr/Prof/Mr/Mrs/Ms)
 First name
 Surname
 Job Title
 Tel
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Invoice Address (if different to delegate address)

Address

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 Country
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 Please invoice my company
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Payment Methods

Payment will be made by:

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In Currency:

 Euros GBP or Dollars

We accept the following credit cards:



Amex*



Mastercard



Visa

To pay by credit card a secure link will be provided once you receive your booking confirmation email, this will then take you to a secure payment gateway.

*payments via Amex can only be made in US dollars

Currency Payments

If you select to pay in a different currency than the event is advertised in, the amount charged will be based on the exchange rate at the time of preparing the invoice.

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.

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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:

For full terms of business and payment details please see our website

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 Scientific Update, Maycroft Place, Stone Cross, Mayfield, E. Sussex TN20 6EW, UK
 +44 (0)1435 873062 sciup@scientificupdate.com