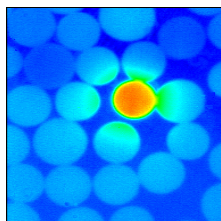


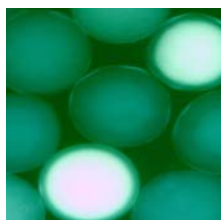


University  
of Southampton



## 5<sup>th</sup> International Residential School Parallel and Combinatorial Chemistry: Synthesis, Optimisation and Analysis

Monday 13<sup>th</sup> to Thursday 16<sup>th</sup> September 2004



[www.chemistry.soton.ac.uk](http://www.chemistry.soton.ac.uk)

[www.chemsoc.org/networks/ccn/reschools.htm](http://www.chemsoc.org/networks/ccn/reschools.htm)

Recognised by the Royal Society of Chemistry  
for the purposes of  
Continuing Professional Development



**Combinatorial Centre of Excellence**

# Residential School: Combinatorial Chemistry



Monday 13<sup>th</sup> to Thursday 16<sup>th</sup> September 2004  
School of Chemistry, University of Southampton.

Combinatorial Chemistry 2004 will be the fifth iteration of a course which began as a collaboration between the Industrial Consortium to Support Combinatorial and Solid Phase Chemistry (ICCSP), the Royal Society of Chemistry and the School of Chemistry, University of Southampton in 1998. This year's programme will be based on the well regarded schools held between 1999 and 2002, details of which may be found at [www.chemsoc.org/networks/ccn/reschools.htm](http://www.chemsoc.org/networks/ccn/reschools.htm). Many of the presentations will be updated in order to include the latest developments in the area.

## Who should attend?

The school is aimed at a number of different communities within the industrial and academic sectors.

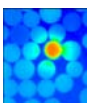
- Employees with limited experience in the application of combinatorial techniques and equipment.
- More experienced employees seeking an opportunity to identify applications of combinatorial/high throughput methods in their own research.
- Academics seeking an overview of the current state of the art.
- Post-graduate students embarking upon, or currently undertaking, research in combinatorial chemistry.

## Objectives

The course is an introduction to combinatorial chemistry as an alternative to single compound synthesis. Review lectures cover the background to, and significant recent developments in, both solid and solution phase chemistries. Current analytical methods for rapid compound analysis will also be covered in the programme. The course content is intended to provide a comprehensive basic knowledge of combinatorial strategies as well as offering opportunities to discuss some of the more advanced developments. An opportunity will be provided to see some of the more recent technological developments through demonstrations from companies who develop and manufacture the equipment.

## Teaching Methods

Representatives from both academia and industry will act as lecturers and tutors throughout the school. About 70% of the programme will consist of a combination of review and application lectures the remaining 30% will include an interactive computer workshop concerning library design and demonstrations of the latest equipment supporting solid and solution phase combinatorial chemistry.



## Course Content

1. **A series of perspective and review lectures will be delivered by academic staff from the University of Southampton:-**

**Professor Mark Bradley, Dr. Richard Brown, Dr. Ganesan,  
Dr. Bruno Linclau, Professor Chris Frampton, Professor Brian Hayden**

These lectures will cover the topics outlined below.

- A Historical Overview of Combinatorial Chemistry.
- Reagents and Scavengers for Combinatorial Synthesis.
- Solid Phase Synthesis.
- Solution Phase Methodology for Parallel Synthesis.
- Combinatorial Catalyst Arrays: Synthesis and Screening.
- New Developments and Techniques in Combinatorial Chemistry.
- High Throughput X-ray Analysis for Polymorph Screening and Salt Selection.
- Catalyst screening.

2. **The science discussed in the section above will be placed in context by a series of lectures delivered by colleagues from the industrial sector.**

In the past we have had presentations from Merck, Sharp and Dohme; Aventis, GlaxoSmithKline; Johnson Matthey; Pfizer; Roche Products; Millenium Pharmaceuticals; Vernalis. In 2004 we will have up to seven invited industrialists providing lectures detailing particular facets of their approaches in various areas of chemistry.

- Array synthesis
- Lead optimisation
- Experimental design
- Case histories
- MedChem hit to lead
- Parallel purification
- Analysis
- Microwave irradiation

3. **It is the tradition that practical sessions are part of the programme in the Southampton Combinatorial Chemistry summer school, which have always enjoyed huge success among the delegates.**

In 2004, the non-lecture based components will consist of:

- Computational aspects of library design, a practical computer workshop.
- Demonstrations from visiting technology suppliers and displays of their instrumentation.
- A practical lab-based component, targeting delegates with no experience of solid-phase practical work. This part consists of two afternoon lab-sessions illustrating practical solid-phase synthesis.

To help us with the arrangements for these events, please ensure that you complete the relevant section of the application form at the end of this leaflet.

## Advanced Registration Form



Residential School - Combinatorial Chemistry 2004

Monday 13<sup>th</sup> to Thursday 16<sup>th</sup> of September 2004

School of Chemistry, University of Southampton.



### Section 1.01 Please tick the appropriate boxes

Title:  Mr  Ms  Miss  Mrs  Dr  Professor

Sex:  F  M

Initials:

Surname:

First Name:

Company/Institution:

Mailing address:

Tel:

Email:

Special Dietary Requirements:

### Registration Fees (these fees are not subject to VAT)

**Tuition Fees** (inclusive of course manual, reception and course dinner)

Delegate Registering before 15<sup>th</sup> June 2004  £720

Delegate Registering After 15<sup>th</sup> June 2004  £800

Full time student Registering before 15<sup>th</sup> June 2004  £180

Full time student Registering After 15<sup>th</sup> June 2004  £240

### Section 1.02 Accommodation Fee

(accommodation for Sunday night to Wednesday night inclusive)

en-suite facilities, bed, breakfast, lunch and dinner **OR**  £275

Shared bathroom facilities, bed, breakfast, lunch and dinner  £225

Registration forms or enquiries should be directed to:

Course Secretary: Mrs. Julia Quinn-Parsons, School of Chemistry,  
University of Southampton, Highfield, Southampton SO17 1BJ.

Tel: 023-8059-3466; Fax: 023-8059-6766; e-mail: [jqp@soton.ac.uk](mailto:jqp@soton.ac.uk).

Course Coordinator: Dr. Bruno Linclau

Tel: 023-8059-3816; e-mail: [bruno.linclau@soton.ac.uk](mailto:bruno.linclau@soton.ac.uk)

P.T.O.



### Bursaries

A limited number of bursaries covering part or all of the tuition fees for the course will be made available to students in full time higher education. Application forms for the bursaries are available from Mrs J. Quinn-Parsons, The School of Chemistry, The University of Southampton, Highfield, Southampton SO17 1BJ.



### Non-lecture components of the course

Please indicate your interest in the components of the course outlined below:

- |   | Yes                      | No                       |
|---|--------------------------|--------------------------|
| 1. I am interested in attending the computer workshop session on Diversity in Library Design. | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. I am interested in participating in the practical lab-based component.                     | <input type="checkbox"/> | <input type="checkbox"/> |

### Section 1.03 Data Protection

The companies that attend the Residential School to exhibit their technology often request access to the contact details of the delegates. Please tick the  box if you do NOT wish your contact details to be circulated in this manner

### Where did you first hear about this course?

word of mouth  *via* this circular  advert  where?.....

internet site  (please specify) .....

other  (please specify).....



## Accommodation

Accommodation will be provided in Highfield Hall, a small hall of residence provided with both en-suite facilities or bedrooms with a shared bathroom, within 5 minutes walk of the School of Chemistry. The en-suite rooms will be allocated on a first come, first served basis unless applicants specifically request shared facilities. Evening meals will be in Highfield Hall except for the conference dinner that will be at a local hotel. More details about the University and the City of Southampton may be found at [www.soton.ac.uk/](http://www.soton.ac.uk/).



## Travel

Southampton can be easily reached by car, train, or plane.

Car: From London, follow the M3 (about 1h driving time).

From Portsmouth/Bournemouth, follow the M27. For directions:

[www.soton.ac.uk/~indexes/maps/highfield.html](http://www.soton.ac.uk/~indexes/maps/highfield.html)

Trains from London leave from Waterloo station. Leave the train at Southampton Airport Parkway or Southampton Central. The journey takes 60-90 min.

Flights: Southampton Airport is located near the University. Regular services are provided by British Airways, Scotairways and Flybe. In addition, Ryanair flies to Bournemouth airport, which is also nearby (30 minutes by train).