

Metabolic Phenotyping in Human Disease Diagnosis & Personalised Health Care

20th-23rd October 2009

Imperial College London

Flowers Building, South Kensington, London SW7 2AZ, UK

This course offers a general overview of theoretical and practical aspects of metabolic profiling technology, with opportunity for deeper exploration into specific techniques and mathematical modelling. Lectures will be reinforced through hands-on workshops. Participants will be given the chance to interrogate experts from both academia and industry. For those who already have a working knowledge of chemometrics, a subsidiary module on multivariate statistical methods is offered.

Speakers:

Elaine Holmes, *IC*
John Lindon, *IC*

Muireann Coen, *IC*
Hector Keun, *IC*
Jasmina Saric, *IC*

Elizabeth Want, *IC*
Mark Dumas, *IC*

Tsz Tsang, *IC*

Ian Wilson, *AstraZeneca*

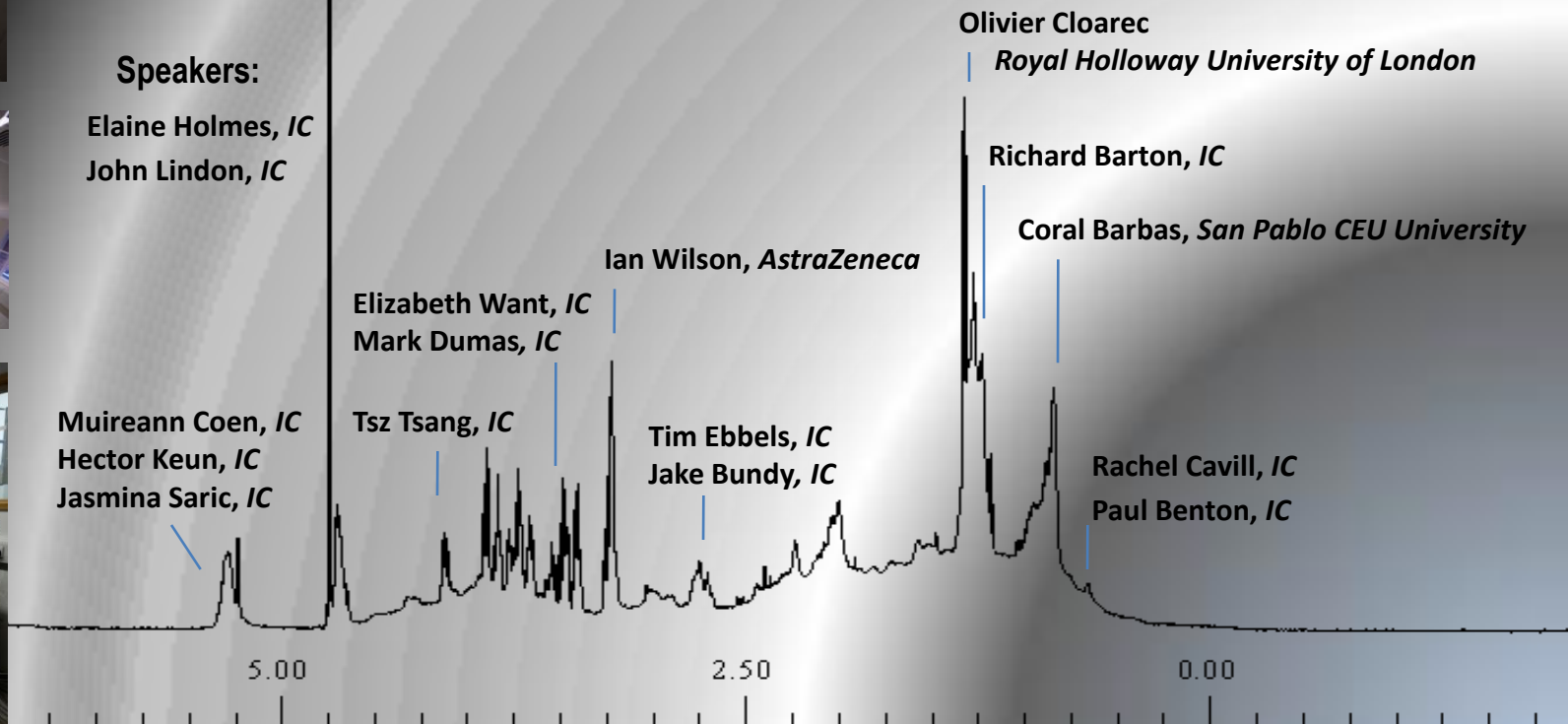
Tim Ebbels, *IC*
Jake Bundy, *IC*

Olivier Cloarec
Royal Holloway University of London

Richard Barton, *IC*

Coral Barbas, *San Pablo CEU University*

Rachel Cavill, *IC*
Paul Benton, *IC*



Metabolic Phenotyping in Human Disease Diagnosis and Personalised Health Care



DAY 1 **TUESDAY OCTOBER 20th**
0900 *Registration and Coffee*
0930 *Course Overview*
1000 *NMR background (John Lindon)*
1100 *Coffee*
1115 *Metabolite ID using NMR (Richard Barton)*
1215 *Lunch*
1315 *Lab Tour (Olaf Beckonert)*
1400 *Clinical Applications of Metabonomics (Elaine Holmes)*
1500 *Neurological Applications of Metabonomics (Tsz Tsang)*
1530 *Coffee*
1600 *Exploring and exploiting the metabolic phenotype of cancer using metabonomics (Hector Keun)*

1700 *Close*

DAY 2 **WEDNESDAY OCTOBER 21st**
0900 *Coffee*
0930 *The Role of MS in Metabonomics (Elizabeth Want)*
1030 *Coffee*
1045 *GC-MS in Metabonomics Studies (Coral Barbas)*
1130 *Chemometrics (Tim Ebbels)*
1230 *Lunch*
1330 *Omics Data Integration in Systems Biology (Olivier Cloarec)*
1430 *Tropical Medicine Applications (Jasmina Saric)*
1500 *Coffee*
1515 *Data Processing Workshop*
1730 *Close*

Course Dinner

Registration Fees:

Academic: £350 for 4 day course or £100/day

Industry: £990 for 4 day course or £250/day

To book, please follow the link:

http://www5.imperial.ac.uk/medicine/coursebookings/metabolic_phenotyping_1009.html

For more details, please contact Dr Elizabeth Want

Tel: 0207 594 3023, Email: e.want@imperial.ac.uk

DAY 3 **THURSDAY OCTOBER 22nd**
0900 *Coffee*
0930 *Getting LC-MS-based metabonomics to work for you (Ian Wilson)*
1030 *Coffee*
1045 *Toxicological Applications of Metabonomics (Muireann Coen)*
1130 *CE-MS and Metabonomics (Coral Barbas)*
1215 *Lunch*
1315 *Data Processing Workshop*
1545 *Coffee*
1600 *Grill the Panel - an opportunity to ask anything you want*
1645 *Tips and tricks for data handling (Richard Barton, Elizabeth Want)*
1730 *Close*

DAY 4 **FRIDAY OCTOBER 23rd : ADVANCED DATA ANALYSIS**
0900 *Introduction (Hector Keun)*
0915 *Advanced processing of LCMS data (Paul Benton)*
0945 *Normalisation: implications & novel methods (Hector Keun)*
1015 *Coffee*
1045 *Genetic algorithms for feature selection (Rachel Cavill)*
1115 *Modelling interferences: the crucial advantage of PLS models (Hector Keun)*

1145 *Non-linear pattern recognition analysis (Tim Ebbels)*
1230 *Lunch*
1330 *Metabolic modelling in microbial systems (Jake Bundy)*
1400 *Direct metabolic quantitative trait loci mapping (Marc Dumas)*
1430 *Pathway analysis with transcriptomic and metabonomics data (Rachel Cavill)*

1500 *Summary and forward look (Tim Ebbels)*
1530 *Close*