



UNIVERSITY OF  
BIRMINGHAM



# Introduction to Metabolomics for the Environmental Scientist

School of Biosciences, University of Birmingham, UK

## Course Programme

Date	Time	Session
Day 1	09.45 – 10.00	Registration
	10.00 – 10.15	Welcome, introduction to the Birmingham Metabolomics Training Centre, <i>Professor Mark Viant</i>
	10.15 – 11.15	Introduction to environmental metabolomics with case studies, <i>Professor Mark Viant</i>
	11.15 – 11.30	Break
	11.30 – 12.00	Importance of experimental design, sample collection, and quality control, <i>Professor Mark Viant</i>
	12.00 – 12.30	Overview of analytical technologies for metabolomics : NMR spectroscopy, <i>Professor Mark Viant</i>
	12.30 – 13.00	Lunch
	13.00 – 13.30	Overview of analytical technologies for metabolomics mass spectrometry, <i>Professor Warwick Dunn</i>
	13.30 – 14.10	Overview of sample preparation techniques, <i>Dr Cate Winder</i>
	14.10 – 15.00	Lab session : Sample prep demonstration (including tour of robotics facility), <i>Dr Cate Winder</i>
	15.00 – 15.15	Break
	15.15 – 16.00	Challenges for metabolite identification, <i>Professor Warwick Dunn &amp; Dr Cate Winder</i>

	16.00 – 16.30	Tour of mass spectrometry instrumentation, <i>Dr Cate Winder</i>
<b>Day 2</b>	09.00 – 11.00	Overview of data processing and statistics for metabolomics, <i>Dr Ralf Weber</i>
	11.00 – 11.10	Break
	11.10 – 12.00	Data analysis, <i>Dr Ralf Weber</i>
	12.00 – 12.15	Feedback survey, <i>David Epps</i>
	12:15 – 13:00	Lunch, Q&A with the experts and networking session