Conferència a càrrec de,

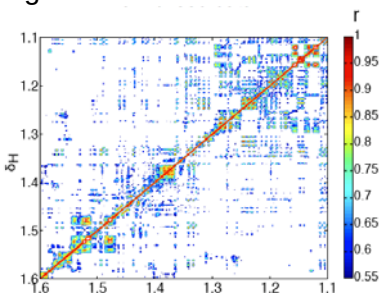
Dr Toby Athersuch
MRC-HPA Centre for Environment & Health
Imperial College London, UK

"*Adventures in metabolic hyperspace: an overview of metabonomic approaches and applications*"

An improved understanding of the biochemical events that underpin human health and disease at the molecular level is critical to providing better healthcare through personalised medicine and informing both public health policy and risk assessment.

Metabolic profiling (metabonomics / metabolomics) is now an established part of the systems biology toolbox, and is a platform for understanding a variety of biological phenomena by the analysis of the complement of small-molecules (<1000 Da) in biological fluids and tissues. These approaches have previously been used successfully to investigate toxicological phenomena are increasingly finding use in a clinical setting, as well as contributing to large-scale epidemiological investigations.

This talk will describe the basics of the metabolic profiling paradigm, highlighting the key analytical methods used for generating multivariate data corresponding to metabolite levels in biological samples, and give examples of common applications. The large datasets that are now routinely produced by these methods require advanced statistical and pattern recognition tools to investigate efficiently, and to integrate them with data from other sources, including other 'omics' platforms. An overview of these techniques will be provided, alongside perspectives on future developments in this expanding field of research.



Data: Divendres 20 de Maig 2011, 12:00 h.
Lloc: Sala de Graus 2, Facultat de Ciències i Biociències, Campus UAB.