Metabolomics service

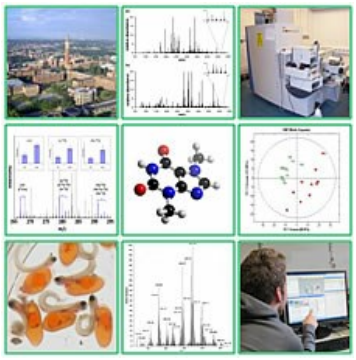
Metabolomics is an experimental technique that is becoming widely used in biology, medicine and the environmental sciences for studying living organisms.

This method measures the concentrations of the large numbers of naturally occurring small molecules (called metabolites) that are present in biological tissues. The pattern, or fingerprint, of metabolites in the sample can be used to study the metabolic state of that sample. Comparisons between the relative concentrations of metabolites can then be made between different population groups in order to determine differences. A variety of biological tissues can be used for analysis including plasma, urine and muscle.

Metabolomics can be used to research subjects as diverse as health, toxicology, pharmacology, nutrition and genetic phenotypes among others One particular application is the study of human disease states, with the aim of finding unique patterns of metabolites that can be used as diagnostic indicators of specific diseases.

Components of a Metabolomics Study

- Robust experimental design
- Collection of samples
- Extraction of metabolites
- Measurement of metabolites using FT-ICR mass spectrometry
- Data analysis including PCA, PLS-DA, PLS-R and univariate statistics



Further information:

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