

3rd Danish Symposium on Metabolomics

Date: 14. November, 2011: 8.45 – 16.30, Auditorium A 2-70.03 (3-13)

Location: University of Copenhagen, Faculty of Life Sciences, Thorvaldsensvej 40, Frederiksberg C

Organizers: Jan H. Christensen, University of Copenhagen and Kim Højlyns-Larsen, Glostrup Hospital.

Metabolomics is an emerging field of "omics" research concerned with the comprehensive characterization of the small molecule metabolites in biological systems. It can provide an overview of the metabolic status and global biochemical events associated with a cellular or biological system.

The main topic of the 3rd Danish Symposium on Metabolomics is INTRODUCTION TO METABOLOMICS. Two international experts will give 4 hours of introduction lectures in metabolomics. From problem definition, sampling, sample preparation, analytical techniques, data pre-processing and analysis etc. 4 Danish scientists will subsequently give short 15 min presentations (+5 min for discussions) on their use of metabolomics.

Program

08.45 – 09.15 Registration, coffee and exhibition

09.15 – 09.20 Welcome

Session 1: Introduction to metabolomics part I: Problem definition and analytical methods

09.20 – 11.30 **Hans-Gerd Janssen**, Unilever Research and Development, Vlaardingen, the Netherlands.

Dr Janssen is head of the chromatography and mass spectrometry expertise group. Since 2004 he also is a part-time professor at the University of Amsterdam. Dr Janssen's research areas include applications and theoretical aspects of all forms of chromatography and mass spectrometry, especially method development for analyses using Liquid Chromatography, Gas Chromatography and Mass Spectrometry.

11.30– 12.40 *Lunch and exhibition*

Session 2: Introduction to metabolomics part II: Data pre-processing and analysis

12.40 – 14.20 **Timothy M. Ebbels**, Dept. of Surgery and Cancer, Imperial College, London, UK

Dr Ebbels is senior lecturer in Computational Bioinformatics. His research areas include, machine learning, bioinformatics, chemometrics, and multivariate statistics, and on the experimental side, the fields of genomics, proteomics and metabolomics. Dr Ebbels interests is applying diverse computational and mathematical methods in order to disentangle the mass of information at multiple biological levels generated by the -omics technologies.

14.20 – 15.10 *Coffee break and exhibition*

Session 3: Applied metabolomics

15.10 – 15.30 **Julius Fredens**, Department of Biochemistry and Molecular Biology, University of Southern Denmark, "*Molecular Genetics and Quantitative Proteomics to Identify Novel Regulators of Metabolism*"

15.30 – 15.50 **Olivera Magdenoska**, Department of Systems Biology, Technical University of Denmark, "*UHPLC-MS/MS target-metabolomics for highly polar and ionic analytes*"

15.50 – 16.10 **Mogens Johannsen**, Department of Forensic Medicine, Aarhus University, "*Microdialysis and Metabolic Profiling - Monitoring of the Citric Acid Cycle during Ischemia and Reperfusion*"

16.10 – 16.30 **Stefanie Wiese**, Department of Basic Sciences and Environment, University of Copenhagen, "*HPLC-PDA-SPE-ttNMR/high-resolution bioassay - a new analytical platform for chemical and biological profiling*".

16.30 – 16.35 A few final words from the organizers

Registration on-line: www.biopeople.dk. The symposium is free. Registration is required.