

Wednesday, March 10

- from 13:00 Registration
- 15:00 - 15:10 Welcome and Introduction (Organizers)

Session 1 Analytics for and in Metabolomics

- 15:10 - 15:50 **NMR based Screening Approaches in Biofluids**
Dr. Hartmut Schäfer, Bruker BioSpin GmbH, Germany
- 15:50 - 16:30 **Targeted Metabolomics for Biomarker Discovery in Clinical Diagnostics**
Dr. Klaus Weinberger, Biocrates Life Sciences AG, Austria
- 16:30 - 17:10 **Targeted and Untargeted Metabolomics and Lipidomics: Tools and Applications**
Dr. Patrick Giavalisco, Max Planck Institute of Molecular Plant Physiology, Germany
- 17:10 - 17:30 Coffee Break

Evening Session

- 17:30 - 18:10 **Plenary Lecture: Metabolomics – Bringing Solutions to the Challenges of Health and Agricultural Sustainability**
Prof. Bruce German, UC-Davis, USA
- 18:10 - 18:50 **Plenary Lecture: 2nd Generation Metabolomics – Progressing from Metabolome Analyses to Proof of Clinical, Nutritional and Toxicological Utility**
Dr. Arno Krotzky, metanomics GmbH, Berlin, Germany
- 18:50 - 19:10 Welcome Address Organizers and Prof. Dr. Horst Domdey, Bio-M
- 19:10 - 19:30 Welcome Address Vicepresident TUM: Prof. Dr. Thomas Hofmann
- 19:30 - 19:50 Welcome Address President & CEO Helmholtz Zentrum München: Prof. Dr. Günther Wess
- from 20:00 Bavarian Evening

Thursday, March 11

- from 08:30 Registration

Session 1 Analytics for and in Metabolomics continued

- 09:00 - 09:40 **Lipidomics – Novel Tools and Applications**
Prof. Dr. Markus Wenk, National University of Singapore
- 09:40 - 10:20 **Measuring the Blood Metabolome by Ion Mobility Mass Spectrometry**
Prof. Dr. Herbert H. Hill, Washington State University, USA
- 10:20 - 11:00 **Mass Spectrometry-Based Therapeutic Metabolomics from Biofluids and Tissues**
Prof. Gary Siuzdak, Scripps Center for Mass Spectrometry, USA
- 11:00 - 11:30 Coffee Break

Session 2 OMICS & Genotype/Systems Biology/Natural Variation

- 11:30 - 12:10 **mQTL – The Missing Link between Metabolome-Wide Association Studies and Systems Biology**
Dr. Marc-Emmanuel Dumas, Imperial College London, UK
- 12:10 - 12:50 **Individual Human Phenotypes in Metabolomics Research**
Prof. Dr. Claudio Luchinat, University of Florence, Italy
- 12:50 - 14:00 Lunch and Posters

Session 2a OMICS and Genotype continued

- 14:00 - 14:40 **High throughput Intracellular Metabolomics and what Concentration Data tell us**
Prof. Dr. Uwe Sauer, Institute of Molecular Systems Biology, Zurich, Switzerland
- 14:40 - 15:20 **Genetics meets Metabolomics: New Insights on Genetically Determined Metabotypes**
Prof. Dr. Karsten Suhre, Institute of Bioinformatics and Systems Biology, Helmholtz Zentrum München, Germany
- 15:20 - 16:00 **Metadata Integration using Quantitative Metabolomics and Proteomics in Genome Annotation and Systems Biology**
Prof. Dr. Wolfram Weckwerth, Department for Molecular Systems Biology, University of Vienna, Austria

- 16:00 - 17:00 Postersession A and Coffee

Session 4 Metabolomics in Nutrition & Food

- 17:00 - 17:40 **The Role of Metabolite Profiling in Nutritional Research**
Prof. Dr. Elaine Holmes, Imperial College London, UK
- 17:40 - 18:20 **Deciphering Nutrition and Lifestyle Interactions with Metabolomics**
Dr. Laurent Fay, Nestlé Research Center, Switzerland



Session 3 Data Analysis/Databases

- Learning to Survive in the Data Jungle**
Dr. Werner Kremer, LipoFIT Analytic GmbH, Regensburg, Germany
- Metabolite Identification and Quantification: New Approaches to an Old Problem**
Dr. David Wishart, Department of Computing Science and Biological Sciences, Edmonton, Alberta, Canada
- Towards a Standardized Metabolomics Repository**
Dr. Oliver Fiehn, UC-Davis Genome Center, California, USA

Evening Programme

- from 19:00
- Welcome Mixer and
- Running Dinner at Z I E L

Friday, March 12

Session 4a Metabolomics in Nutrition & Food continued		Session 5 European Initiatives	
09:00 - 09:40	The Elephant in the Room: Applications of Metabolomics to assess Dietary Intake <i>Prof. Dr. John Mathers, Human Nutrition Research Centre, University of Newcastle, UK</i>	France – Metabolomics & Fluxomics Centre <i>Prof. Jean-Charles Portais, Ingénierie des Systèmes Biologiques et des Procédés, Toulouse, France</i>	
09:40 - 10:20	Towards a Research Roadmap for Nutritional Metabolomics <i>Prof. Dr. Mike Gibney, University College Dublin, Ireland</i>	Netherlands Metabolomics Centre – a new European Research Initiative <i>Prof. Dr. Thomas Hankemeier, Netherlands Metabolomics Centre & Leiden University, The Netherlands</i>	
10:20 - 10:50	Coffee Break		
Session 6 Metabolomics & Disease		Session 7 Short Oral Presentations	
10:50 - 11:30	Changes of Metabolite Levels due to Oncogenes and Inhibitors <i>Prof. Dr. Gerhard Wagner, Harvard Medical School, USA</i>	NMR Spectroscopy – from Epidemiological Research to Clinical Practice <i>Prof. Dr. Matthias Nauck, University of Greifswald, Germany</i>	
11:30 - 12:10	Defining the Role of the PPARs in Diabetes, Obesity and Cancer by Metabolomics of Systemic Metabolism <i>Dr. Julian Griffin, University of Cambridge, UK</i>	MZedDB: A Tool for Signal Annotation in ESI-MS Data using Accurate Mass Information and Predicted Ionisation Behaviour 'Rules' <i>Dr. Manfred Beckmann, Aberystwyth University, UK</i>	
12:10 - 12:50	Genetic and Environmental Determinants of Lipidomic Abnormalities in Vascular and Metabolic Diseases <i>Prof. Dr. Gerd Schmitz, Universität Regensburg, Germany</i>	Metabolic Flux Analysis of Human Cancer by NMR Spectroscopy <i>Fabian Philipp, Ph.D., M.Sc., Burnham Institute for Medical Research, USA</i>	
12:50 - 14:00	Lunch and Posters		
Session 8 Metabolomics & Biomarkers		Session 9 News Corner	
14:00 - 14:40	MuFuMet presents HuMet <i>Prof. Dr. Hannelore Daniel, Z I E L, TU München, Germany</i>	Metabolomic Analysis with LECO TOF Systems – New Statistical Features <i>Christian Zühlke, Leco Instrumente GmbH, Germany</i>	
14:40 - 15:20	The Use of Biochemical Profiling for Biomarker Discovery <i>John Ryals, Ph.D., CEO, Metabolon, Inc., USA</i>	Orbitrap Mass Spectrometry Technology Applied to Metabolomics <i>Martin Hornshaw, PhD, Thermo Fisher Scientific, UK</i>	
15:20 - 16:30	Postersession B and Coffee		
Session 10 Metabolomics goes Dynamic		NMR- and integrated Tools for Food Quality Control and Research <i>Dr. Manfred Spraul, Bruker BioSpin GmbH, Germany</i>	
16:30 - 17:10	Isotopologue Profiling of Metabolic Crosstalk <i>PD Dr. Wolfgang Eisenreich, Department of Biochemistry, TU München, Germany</i>	A Q-TOF Generated LC-MS/MS Library facilitates Compound Identification of Non-Targeted Metabolomics Data <i>Theodore Sana, PhD, Agilent Technologies, USA</i>	
17:10 - 17:50	Metabolic Dysregulation Discerned by Stable Isotope Resolved Metabolomics (SIRM) <i>Dr. Teresa Fan, Department of Chemistry, University of Louisville, USA</i>		
17:50 - 18:00	Closing Session		



General Information

Conference Date: March 10-12, 2010

Organizers

- The Munich Functional Metabolomics Initiative
- Z I E L Research Center for Nutrition and Food Sciences, Freising-Weihenstephan, Germany
- Helmholtz Zentrum München, German Research Center for Environmental Health

Location

Technische Universität München, Campus Freising Weihenstephan, Germany (close to Munich airport)

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