

### 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



#### Lecture Room A

##### 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** (uneven numbers of posters) 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

#### Lecture Room B

##### 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

	Lecture Room A	Lecture Room B
	<b>Session 4a Metabolomics in Nutrition &amp; Food c.</b>	<b>Session 5 European Initiatives</b>
09:00 - 09:40	<b>The Elephant in the Room: Applications of Metabolomics to assess Dietary Intake</b> <i>Prof. Dr. John Mathers, Human Nutrition Research Centre, University of Newcastle, UK</i>	<b>France – Metabolomics &amp; Fluxomics Centre</b> <i>Prof. Jean-Charles Portais, Ingénierie des Systèmes Biologiques et des Procédés, Toulouse, France</i>
09:40 - 10:20	<b>Towards a Research Roadmap for Nutritional Metabolomics</b> <i>Prof. Dr. Mike Gibney, University College Dublin, Ireland</i>	<b>Netherlands Metabolomics Centre – a new European Research Initiative</b> <i>Prof. Dr. Thomas Hankemeier, Netherlands Metabolomics Centre &amp; Leiden University, The Netherlands</i>
10:20 - 10:50	Coffee Break	Coffee Break
	<b>Session 6 Metabolomics &amp; Disease</b>	<b>Session 7 Short Oral Presentations</b>
10:50 - 11:30	<b>Changes of Metabolite Levels due to Oncogenes and Inhibitors</b> <i>Prof. Dr. Gerhard Wagner, Harvard Medical School, USA</i>	<b>NMR Spectroscopy – from Epidemiological Research to Clinical Practice</b> <i>Prof. Dr. Matthias Nauck, University of Greifswald, Germany</i>
11:30 - 12:10	<b>Defining the Role of the PPARs in Diabetes, Obesity and Cancer by Metabolomics of Systemic Metabolism</b> <i>Dr. Julian Griffin, University of Cambridge, UK</i>	<b>MZedDB: A Tool for Signal Annotation in ESI-MS Data using Accurate Mass Information and Predicted Ionisation Behaviour 'Rules'</b> <i>Dr. Manfred Beckmann, Aberystwyth University, UK</i>
12:10 - 12:50	<b>Genetic and Environmental Determinants of Lipidomic Abnormalities in Vascular and Metabolic Diseases</b> <i>Prof. Dr. Gerd Schmitz, Universität Regensburg, Germany</i>	<b>Metabolic Flux Analysis of Human Cancer by NMR Spectroscopy</b> <i>Fabian Philipp, Ph.D., M.Sc., Burnham Institute for Medical Research, USA</i>
12:50 - 14:00	Lunch and Posters	<b>Lipidomics: Advantages of enhanced Sensitivity, Selectivity and Speed of LC/MS/MS Analysis</b> <i>Dr. Axel Besa, AB Sciex Deutschland GmbH, Germany</i>
14:00 - 14:40	<b>Session 8 Metabolomics &amp; Biomarkers</b>	<b>1 + 1 ≠ 2 ? – Combination Toxicology: Metabolomics as a Tool for Quantitation of Interaction</b> <i>Dr. Hennie Kamp, Metanomics GmbH, Germany</i>
14:00 - 14:40	<b>MuFuMet presents HuMet</b> <i>Prof. Dr. Hannelore Daniel, Z I E L, TU München, Germany</i>	<b>Nutrikinetics of Dietary Polyphenols</b> <i>Ewoud van Velzen, University of Amsterdam, The Netherlands</i>
14:40 - 15:20	<b>The Use of Biochemical Profiling for Biomarker Discovery</b> <i>John Ryals, Ph.D., CEO, Metabolon, Inc., USA</i>	Lunch and Posters
15:20 - 16:30	<b>Postersession B (even numbers of posters) and Coffee</b>	<b>Session 9 News Corner</b>
16:30 - 17:10	<b>Session 10 Metabolomics goes Dynamic</b>	<b>Metabolomic Analysis with LECO TOF Systems – New Statistical Features</b> <i>Christian Zühlke, Leco Instrumente GmbH, Germany</i>
16:30 - 17:10	<b>Isotopologue Profiling of Metabolic Crosstalk</b> <i>PD Dr. Wolfgang Eisenreich, Department of Biochemistry, TU München, Germany</i>	<b>Orbitrap Mass Spectrometry Technology Applied to Metabolomics</b> <i>Martin Hornshaw, PhD, Thermo Fisher Scientific, UK</i>
17:10 - 17:50	<b>Metabolic Dysregulation Discerned by Stable Isotope Resolved Metabolomics (SIRM)</b> <i>Dr. Teresa Fan, Department of Chemistry, University of Louisville, USA</i>	<b>NMR- and integrated Tools for Food Quality Control and Research</b> <i>Dr. Manfred Spraul, Bruker BioSpin GmbH, Germany</i>
17:50 - 18:00	Closing Session	<b>A Q-TOF Generated LC-MS/MS Library facilitates Compound Identification of Non-Targeted Metabolomics Data</b> <i>Theodore Sana, PhD, Agilent Technologies, USA</i>



## 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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