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13th International Conference on

METABOLOMICS AND SYSTEMS BIOLOGY

October 11-12, 2018
Zurich, Switzerland



SCIENTIFIC PROGRAM

DAY 1
Thursday, 11th October

08:30-09:00 **Registrations**

09:00-09:30 **Introduction**

09:30-09:50 COFFEE BREAK

09:50-11:50 Meeting Hall 01 **KEYNOTE LECTURES**

11:50-13:10

MEETING HALL 01	MEETING HALL 02
Talks On:	**Talks On:**
Metabolomics	Diagnostic Biomarkers in Metabolomics
Cancer Metabolomics	Metabolic Modeling and Synthetic Biology

13:10-13:15 GROUP PHOTO

13:15-14:00 LUNCH BREAK

14:00-16:00

MEETING HALL 01	MEETING HALL 02
Talks On:	**Talks On:**
Clinical and Precision Medicine Metabolomics	Edibilomics
Metabolomics in Drug Discovery	Lipidomics

16:00-16:20 COFFEE BREAK

MEETING HALL 01 (16:20-17:00)	MEETING HALL 01 (17:00-18:00)
Young Researchers in Metabolomics and System Biology	Workshop

DAY 2
Friday, 12th October

09:00-10:30 Meeting Hall 01 — **KEYNOTE LECTURES**

10:30-10:50 COFFEE BREAK

10:50-12:50

MEETING HALL 01	MEETING HALL 02
Talks On:	**Talks On:**
Plant and Environmental Metabolomics	Computational Methodologies
Transcriptomics and Proteomics	Systems Biology

12:50-13:35 LUNCH BREAK

13:35-15:55

MEETING HALL 01	MEETING HALL 02
Talks On:	**Talks On:**
Analytical Techniques in Metabolomics	Metabolomic Devices
Recent Advancements in Metabolomics	Disease-Focused Research in Metabolomics
Metabolomic Syndrome	

15:55-16:15 COFFEE BREAK

MEETING HALL 01 (16:15-17:00)	MEETING HALL 01 (17:00-18:00)
Young Researchers in Metabolomics and System Biology	Workshop

Awards & Closing Ceremony

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13th International Conference on Metabolomics and Systems Biology

October 11-12, 2018 Zurich, Switzerland

Scientific Advances In Metabolomics and Systems Biology

Tools for data-driven network analysis of metabolomics data

Alla Karnovsky

University of Michigan, USA

Alla Karnovsky got her PhD in Cell and Developmental Biology from the Russian Academy of Sciences, Russia. She did her Postdoctoral work at the University of Colorado Boulder, USA followed by nine years of bioinformatics work in pharmaceutical industry.. Currently she is a Research Assistant Professor of Computational Medicine and Bioinformatics at the University of Michigan, USA. Her research interests involve the analysis of high throughput omics data, focusing primarily on metabolomics, and the development of computational methods and tools for the analysis and integration of metabolomics data with other types of genomic data.

Effects of Boron Supplementation on Peripartum Dairy Cows' Health: a metabolomic approach

Abdullah Basoglu

Selcuk University Faculty of Veterinary Medicine

Abdullah Basoglu, Prof.Dr has been working at Selcuk University, as an expert on NMR based matabolomics, boron metabolism and metabolic diseases seen in animals. He coordinated some proposals related to metabolomics at University of Florence, CERM in Italy.

Plasma metabolomics for identifying diagnostic and prognostic biomarkers of oral cancer

Eloiza H Tajara

University of São Paulo

Eloiza H Tajara obtained her Bachelor's in Biological Sciences (1969) and PhD Degree in Genetics (1980) at the University of São Paulo, Brazil. She did her Postdoctoral studies at the Southwest Biomedical Research Institute (Arizona, USA) and was a Fellow of the Union for International Cancer Control in the Eleanor Roosevelt Institute for Cancer Research (Colorado, USA) in 1994 and in the University of Chicago (USA) in 1997. She is currently an Associate Professor at the Faculty of Medicine of São José do Rio Preto, Sao Paulo, Brazil. She is the Coordinator of GENCAPO (Head and Neck Genome Project), a consortium of research groups from universities and hospitals in the State of São Paulo, in collaboration with researchers from the Federal University of Espírito Santo and the International Agency for Research on Cancer, Lyon, France whose goal is to develop clinical, epidemiological and molecular analysis of head and neck cancer.

SPEAKER SLOTS AVAILABLE

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Academia Sinica , Taiwan

Glimpses of Metabolomics Conferences













ZURICH Attractions



















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Scientific Program

5th International Conference and Exhibition on Metabolomics

Osaka, Japan May 16-18, 2016

UK: Conference Series llc LTD
47 Churchfield Road, London, W3 6AY

Day 1 May 16, 2016

08:00-08:30 Registrations

RUBY

conferenceseries.com 08:30-09:00 **Opening Ceremony**

Keynote Forum

09:00-09:30 **Title: ^{18}O-assisted ^{31}P NMR and mass spectrometry: From phosphometabolomics to fluxomics**
Petras Dzeja, Metabolomics NMRS Core, Mayo Clinic, USA

09:30-10:00 **Title: Diet, amino acids profile, and diabetes risk**
Lu Qi, Tulane University, USA

Group Photo

Networking and Refreshments Break: 10:00-10:20 @ Foyer

Session Introduction

Track 1: Metabolomic Profilingi
Track 2: Clinical Metabolomics & Lipidomics
Track 3: Cancer Therapeutic Approaches

Session Chair: Petras Dzeja, Metabolomics NMRS Core, Mayo Clinic, USA
Session Co-Chair: Björn Riefke, Bayer Pharma AG, Germany

10:20-10:40 **Title: Metabolic and epigenetic alterations in patients with Alzheimer's disease**
Eugenia Trushina, Mayo Clinic College of Medicine, USA

10:40-11:00 **Title: Fucoidan inhibitory function in cancer in vivo and in vitro: Role in the development of human anti-cancer therapeutic intervention**
Hsien-Yeh Hsu, National Yang-Ming University, Taiwan

11:00-11:20 **Title: Interference with glutamine metabolism: A novel approach for treatment of acute myeloid leukemia**
Ashkan Emadi, University of Maryland School of Medicine, USA

11:20-11:40 **Title: Myc induces expression of glutamine synthetase through promoter demethylation**
I-Chen Peng, National Cheng Kung University, Taiwan

11:40-12:00 **Title: Slow-MAS NMR Metabolomics**
Jian Zhi Hu, Pacific Northwest National Laboratory, USA

Lunch Break: 12:00-13:00@ Salon Panoroma

13:00-13:20 **Title: Prevention of metabolite change due to enzymatic post-sample activity using heat based enzyme inactivation**
Mats Borén, Denator, Sweden

13:20-13:40 **Title: Clinical metabonomics for biomarker discovery of malignant pleural effusions (MPE)**
Ching-wan Lam, The University of Hong Kong, Hong Kong

13:40-14:00 **Title: Mass spectrometry-based metabolomics reveals that serum lysophospholipids are associated with incident type 2 diabetes**
Yonghai Lu, National University of Singapore, Singapore

Special Session

14:00-15:00 **Title: Metabolomics in neuroscience: Old tools for new models and new tools for old models**
Andrea Armirotti, Istituto Italiano di Tecnologia, Italy

Networking and Refreshments Break: 15:15-15:35 @ Foyer

Track 10: Plant & Environmental Metabolomics
Track 13: Food & Nutritional Metabolomics

Session Chair: Ching-wan Lam, The University of Hong Kong, Hong Kong

Session Co-Chair: Yongyu Zhang, Shanghai University of Traditional Chinese Medicine, China

15:20-15:40 **Title: ERRα induces mitochondrial glutaminase expression guiding anaplerosis upon osteogenic differentiation of mesenchymal stem cells**
Min Guan, Chinese Academy of Sciences, China

15:40-16:00 **Title: Urine metabolomics study on unilateral ureteral obstruction induced renal fibrosis in rats and intervention effects of total aglycone extracts of Scutellaria baicalensis**
Yongyu Zhang, Shanghai University of Traditional Chinese Medicine, China

16:00-16:20 **Title: Serum lipid alterations identified in chronic Hepatitis b, Hepatitis b virus-related cirrhosis and carcinoma patients**
Tao Wu, Shanghai University of Traditional Chinese Medicine, China

16:20-16:40 **Title: Metabolism alterations in aggressive lymphomas**
Pier Paolo Piccaluga, Bologna University School of Medicine, Italy

16:40-17:00 **Title: The correlation of polar lipids changes with TAG accumulation under nitrogen deprivation in Nannochloropsis oceanica based on lipidomics**
Song Xue, Dalian Institute of Chemical Physics-CAS, China

Panel Discussion

Day 2 May 17, 2016

RUBY

Keynote Forum

09:00-09:30 **Title: Plasma metabolic profiles are associated with habitual dietary patterns**
Choon Nam ONG, National University of Singapore, Singapore

09:30-10:00 **Title: NMR Metabolomics Studies of Mice Exposed to Ionizing Radiation**
Jian Zhi Hu, Pacific Northwest National Laboratory, USA

Track 11: Metabolic Syndrome
Track 12: Metabolomics in Precision Medicine

Session Chair: Robert Plumb, Imperial College London, UK

Session Co-chair: Houkai Li, Shanghai University of Traditional Chinese Medicine, China

10:00-10:20 **Title: Biomarker Discovery in Cardiovascular Disease and role of LC/MS**
Jose Castro-Perez, Waters Corp, USA

10:20-10:40 **Title: Metabolomic study on the different responses to simvastatin therapy in normal and antibiotic-treated mice**
Houkai Li, Shanghai University of Traditional Chinese Medicine, China

10:40-11:00 **Title: Understanding human health and disease with LC/MS based metabolic phenotyping**
Robert Plumb, Imperial College London, UK

11:00-11:20 **Title: Treatment of natural plants on diabetes and metabolic syndrome**
Jingxin Zhou, Beijing University of Chinese Medicine, China

Networking and Refreshments Break: 11:20-11:40 @ Foyer

Special Session

11:40-12:40 **Title: Two cases of the serious dementia improved dramatically by placing denture**
Yoshiro Fujii, Shin Kobe Dental Clinic, Japan

Poster Presentations 12:30-13:30

P01 **Title: Elevation in liver function marker (alanine aminotransferase) and plasma metabolites with aging**
Minjoo Kim, Yonsei University, Korea

P02 **Title: Fenofibrate regulates cell energy metabolism by restricting hypoxia-induced factor expression in human glioma cells**

Wan-Rou Shih, Central Taiwan University of Science and Technology, Taiwan

P03 **Title: Augmentation in LDL-cholesterol with aging leads to oxidative stress and disturb sphingolipid metabolism**

Miso Kang, Yonsei University, Korea

P04 **Title: Urine metabolomics revealed complex pesticide exposure in farmers in Chinese**

Yan-xin Zhang, Harbin Institute of Technology, China

P05 **Title: Ferrous glycinate reverses epithelial mesenchymal transition and drug resistance to BCNU by suppression of hypoxia-induced factor in human U87 glioma cells**

Yu-Syuan Lin, Taipei Medical University, Taiwan

P06 **Title: Combining in vitro and in silico techniques: a complex case of metabolite structural assignment**

Minkyung Kim, Yonsei University, Korea

P07 **Title: Development of quantitative analytical method using liquid chromatography-tandem mass spectrometry for the trytophan and its metabolites in serum and gastric juice to discovery biomakers for the diagnosis of gastric cancer**

Byung Hwa Jung, Korea Institute of Science and Technology, Republic of Korea

P08 **Title: Comparison of three mobile phase with liquid chromatography/time-of-flight mass spectrometry (LC/TOF-MS) for urine metabonomics analysis**

Pan Zou, Harbin Institute of Technology, China

P09 **Title: Ferrous glycinate regulates cell energy metabolism via suppression of hypoxia-induced factor in human A549 cells**

Jhong-Huei Jheng, Taipei Medical University, Taiwan

P10 **Title: The association between carbon and nitrogen stable isotope ratios of human hair and cardiovascular risk factors**

Song Vogue Ahn, Yonsei University, South Korea

P11 **Title: Alteration of plasma acylcarnitines and glycerophospholipids between metabolically healthy and unhealthy overweight subjects**

Seung Han Baek, Yonsei University, Korea

P12 **Title: Heat-killed and live Lactobacillus reuteri GMNL-263 exhibit similar effects on improving metabolic functions in high-fat diet-induced obesity rat**

Wu Ching-Shuang, Kaohsiung Medical University, Taiwan

P13 **Title: Replacing carbohydrate with protein and fat affects PBMC metabolites in prediabetes or type-2 diabetes: Comparison with plasma metabolites**

Hye Jin Yoo, Yonsei University, Korea

P14 **Title: Development and mechanism research of multi functional peptide product**

I-Chuan Sheih, Ta Hwa Institute of Technology, Republic of China

P15 **Title: A 1H-NMR-Based Metabolomics Investigation on The Effect of Saffron Extract and Crocin on Rats Fed a High Fat Diet**

Fatin Najwa, Universiti Putra Malaysia, Malaysia

P16 **Title: Nα-(carboxymethyl) lysine decreases insulin secretion in beta cells through mitochondrial dysfunction and mitophagy**

Mei-Chen Lo, Taipei Medical University, Taiwan

P17 **Title: Praeruptorin A regulates bone metabolic diseases via anti-osteoclastogenic acitivity by p38/Akt-c-Fos-NFATc1 signaling and PLCγ-independent Ca2+ oscillation**

Sik-Won Choi, National Institute of Crop Science, Republic of Korea

P18 **Title: The targeted and untargeted analysis of serum indicate changes in the urea cycle of psoriasis patients**

Aigar Ottas, University of Tartu, Estonia

P19 **Title: Plasma taurine, genetic predisposition, and changes of insulin sensitivity in response to weight-loss diets: The POUNDS lost**
Yoriko Heianza, Tulane University, USA

P20 **Title: Development of galectin-12 siRNA to defeat metabolic disorders**
Yen-Ju Lin, Industrial Technology Research Institute, Taiwan

P21 **Title Brain metabolic change in the dorsolateral prefrontal cortex and its correlation with anxiety levels in patients with generalized anxiety disorder: 1H-MR spectroscopy**
Gwang-Woo Jeong, Chonnam National University Hospital, Republic of Korea

P22 **Title: Skin metabolomics approach for the development of biomarkers in psoriatic disease**
Ewelina P Dutkiewicz, National Chiao Tung University, Taiwan

P23 **Title: Platelet activation markers overexpressed specifically in aspirin-exacerbated respiratory disease**
Chihiro Mitsui, Sagamihara National Hospital Clinical Research Center, Sagamihara, Japan

Lunch Break: 13:40-14:40 @ Salon Panoroma

Track 14: Frontiers of Metabolomics Research
Track 16: Therapeutic Metabolomics
Track 18: Transcriptomics & Metabolic pathways

Session Chair: Andrea Armirotti, Istituto Italiano di Tecnologia, Italy
Session Co-chair: Horng-Mo Lee, Taipei Medical University, Taiwan

14:40-15:00 **Title: Metabolomic biomarkers for amyotrophic lateral sclerosis (ALS) in patients and animal models of ALS**
Loeffler Jean Philippe, Université de Strasbourg, France

15:00-15:20 **Title: Comparative assessment of phenolic compounds and antioxidant properties related to the harvest times from the leaves of Korean barley (Hordeum vulgare L.) cultivars**
Woo Duck Seo, National Institute of Crop Science, Republic of Korea

15:20-15:40 **Title: Crosstalk between the circadian clock and cancer metabolism reveals novel anticancer strategies**
Benedetto Grimaldi, Istituto Italiano di Tecnologia, Italy

15:40-16:00 **Title: Ferrous glycinate reverses Warburg effect and regulates cell energy metabolism via suppression of hypoxia-induced factor in human lung adenocarcinoma A549 cells**
Horng-Mo Lee, Taipei Medical University, Taiwan

16:00-16:20 **Title: NMR-based metabolomics analysis of 2D with 3D (Spheroids) of breast cancer cells**
Björn Riefke, Bayer Pharma AG, Germany

Networking and Refreshments Break: 16:20-16:40 @ Foyer

Special Session

16:40-17:30 **Title:Translational Research in Targeting Glucose or Glutamine Dependency in Solid and Hematologic Neoplasms**
Ashkan Emadi, University of Maryland School of Medicine, USA

Day 3 May 18, 2016

RUBY

Track 17: Analytical Platforms in Metabolomics
Track 19: Data Analysis & Systems Biology

Session Chair: Andrea Armirotti, Istituto Italiano di Tecnologia, Italy
Session Co-Chair: Takeshi Kimura, Ajinomoto Co., Inc., Japan

10:00-10:20 **Title: Molecular Mechanism for modulationof a multiple transcriptionfactorcomplexformed on enhancer site upon phosphorylation**
Kazuhiro Ogata, Yokohama City University Graduate School of Medicine, Japan

10:20-10:40 **Title: Development and commercialization of a plasma amino acid based risk diagnosis service**
Takeshi Kimura, Ajinomoto Co., Inc., Japan

10:40-11:00 **Title: Studying Conformational Changes on GDP and GTP Binding with a Novel Visualization Platform**
Darby Tien-Hao Chang, National Cheng Kung University, Taiwan

11:00-11:20	**Title: Using chlorophyll as gamma absorber generated from uranium coated weapons to protect Iraqi children from cancer** **Jaleel Kareem Ahmed,** Babylon University, Iraq
	Networking and Refreshments Break: 11:20-11:40 @ Foyer
11:40-12:00	**Title: Recent advancements in Mendelian genomics and data management at the Yale Center for Genome Analysis** **Shrikant Mane,** Yale University School of Medicine, USA
12:00-12:20	**Title: ERRα induces mitochondrial glutaminase expression guiding anaplerosis upon osteogenic differentiation of mesenchymal stem cells** **Min Guan,** Chinese Academy of Sciences, China
12:20-12:40	**Title: Development and mining of a volatile organic compound database** **Md. Altaf-Ul-Amin,** Nara Institute of Science and Technology, Japan
12:40-13:00	**Title: Detection of Bt protein metabolites presence in insect and their predator transferred through GM rice using ELISA technique** **Zunnu Raen Akhtar,** University of Agriculture Faisalabad, Pakistan
	Lunch Break 13:00-14:00 @ Salon Panoroma
	Awards and Closing Ceremony

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Day 1 **April 27, 2015**

08:30-09:00 **Registrations**

Independence Room-A

OMICS International conferenceseries.com **09:30-10:00**

Opening Ceremony

Keynote Forum

10:00-10:05	**Introduction**
10:05-10:30	**Mukesh Verma** National Institutes of Health, USA
10:30-10:55	**Jian Zhi Hu** Pacific Northwest National Laboratory, USA

Group Photo

Networking & Refreshments Break 10:55-11:10 @ Independence Foyer

Track 1: Metabolomics and Cancer Research
Track 2: Analytical Techniques in Metabolomics
Track 3: Applications of Separation Sciences in Metabolomics
Track 4: Frontiers of Metabolomics Research

Session Chair: Mukesh Verma, NIH, USA
Session Co-Chair: Paola Marignani, Dalhousie University, Canada

Session Introduction

11:10-11:30	**Title: Using stable isotope resolved metabolomics to characterize glycolytic inhibition and to decode synthetic lethality in cancer** **Stefan Kempa,** BIMSB, Germany
11:30-11:50	**Title: Metabolomic approaches in cancer epidemiology** **Mukesh Verma,** NIH, USA
11:50-12:10	**Title: Non-, or minimally invasive intact biological objects using slow magic angle spinning** **Jian Zhi Hu,** Pacific Northwest National Laboratory, USA
12:10-12:30	**Title: Targeting cancer metabolism to overcome treatment resistance in HER2-positive breast cancer** **Paola A Marignani,** Dalhousie University, Canada
12:30-12:50	**Title: Evaluating the association of heme and heme metabolites with lung cancer energetics and progression** **Li Zhang,** The University of Texas at Dallas, USA
12:50-13:10	**Title: Non-invasive biomarker candidates of interstitial cystitis** **Jayoung Kim,** Cedars-Sinai Medical Center, USA

Lunch Break 13:10-14:10 @ Benjamin's

Session Chair: Sam F Y Li, National University of Singapore, Singapore
Session Co-Chair: Houkai Li, Shanghai University of Traditional Chinese Medicine, China

14:10-14:30	**Title: Metal Element on Non-alcoholic Fatty Liver Disease(NAFLD)** **Yongyu Zhang,** Shanghai University of Traditional Chinese Medicine, China
14:30-14:50	**Title: Dynamic pattern and terminal switch of lipid metabolomics in HBV tumorigenesis** **Ih-Jen Su,** National Health Research Institutes, Taiwan
14:50-15:10	**BRMS1L suppresses breast cancer metastasis by inducing epigenetic silence of FZD10** **Chang Gong,** Sun Yat-Sen University, China

Networking & Refreshments Break 15:10-15:30 @ Benjamin's

15:30-15:50	**Title: Combined metabolomic and transcriptomic profiling revealed the time-dependent effects of metformin on LoVo cells** **Houkai Li,** Shanghai University of Traditional Chinese Medicine, China
15:50-16:10	**Title: Metabolomics approach to understanding the metabolic regulatory effects on rats under several kinds of stresses** **Xiaoyan Wang,** Shanghai Center for Systems Biomedicine, China
16:10-16:30	**Title: Mitochondrial DNA depletion in H1299 cells promotes radio-resistance and anti-apoptosis through activation of PI3K/Akt2** **Fuxiang Zhou,** Zhongnan Hospital of Wuhan University, China
16:30-16:50	**Title: Comparative metabolic profiling of halotolerant bacterial strains and identification of novel species-specific metabolites** **Jayaraman G,** VIT University, India

Panel Discussion

Cocktails sponsored by Journal of Metabolomics: Open Access 18:15-19:15 @ Independence Foyer

Independence Room-A

Keynote Forum

09:00-09:25	**Asha R Kallianpur** Cleveland Clinic Lerner College of Medicine, USA
09:25-09:50	**Sam F Y Li** National University of Singapore, Singapore
09:50-10:15	**Vladimir Tolstikov** BERG, USA (Video Presentation)

Networking & Refreshments Break 10:15-10:30 @ Independence Foyer

Track 1: Metabolomics and Cancer Research
Track 4: Frontiers of Metabolomics Research
Track 5: Metabolic Syndrome

Session Chair: Deliang Guo, The Ohio State University, USA
Session Co-Chair: Scott J Tebbutt, University of British Columbia, Canada

Session Introduction

10:30-10:50	**Title: Preferential sequestration of a vanadyl chelate by cancer tissue facilitates 2-(fluorine-18)-2-deoxyglucose (FDG) uptake for Positron emission tomography (PET) imaging** **Marvin W Makinen,** The University of Chicago, USA
10:50-11:10	**Title: Integrated metabolite and RNA biomarker signatures of the late phase asthmatic response** **Scott J Tebbutt,** University of British Columbia, Canada
11:10-11:30	**Title: Mass spectrometry based metabolic profiles of brain cancer** **Khalid Al-Qahtani,** University of Oxford, UK
11:30-11:50	**Title: Use of electricity to direct microbial metabolite production** **John M Pisciotta,** West Chester University, USA
11:50-12:10	**Title: Lipid metabolism in cancer** **Deliang Guo,** The Ohio State University, USA
12:10-12:30	**Title: An metabolomic approaches to identify the endogenous substrate of OCT1** **Ligong Chen,** Tsinghua University School of Medicine, China

Lunch Break 12:30-13:30 @ Benjamin's

13:30-14:30 Poster Presentations

Poster Judge: Sam F Y Li, National University of Singapore, Singapore

Workshop

14:30-15:30	**Title: Metabolomics research using bioelectrochemical systems** **John M Pisciotta,** West Chester University, USA

Track 6: Metabolic Modelling
Track 7: Systems Biology and Computational Biology
Track 8: Bioinformatics and Advancements
Track 9: Data Analysis and Interpretation

Session Chair: John M Pisciotta, West Chester University, USA
Session Co-Chair: Giulia Guerriero, University of Naples Federico II, Italy

Session Introduction

15:30-15:50	**Title: *In silico* identification of gene targets for bioethanol production from lignocellulosic hydrolysates using E. coli** **Shireesh Srivastava,** ICGEB, India
15:50-16:10	**Title: Metabolomics of xylose-fermenting yeast for increasing efficiency in the production of second generation ethanol** **Patricia Verardi Abdelnur,** Embrapa Agroenergy, Brazil
16:10-16:30	**Title: Frontiers in comparative endocrinology: Challenges and opportunities of the "Program of Relevant National Interest"** **Giulia Guerriero,** University of Naples Federico II, Italy

Networking & Refreshments Break 16:30-16:50 @ Independence Foyer

16:50-17:10	**Title: Assessment of reproductive hormones and gynaecomastia in male CML patients with imatinib therapy** **Veena Singh Ghalaut,** PGIMS ROHTAK, India
17:10-17:30	**Title: Tryptase – new diagnostic and prognostic marker for AML AND CML** **P S Ghalaut,** PGIMS Rohtak, India
17:30-17:50	**Title: Isolation, identification and evaluation of highly cellulases producing trichoderma isolates from Egypt** **A I Fahmi,** Menoufia University, Egypt

Cocktails sponsored by Journal of Computer Science and Systems Biology 18:15-19:15 @ Independence Foyer

Day 3 April 29, 2015

Independence Room-A

Track 10: Proteomics and Genomics
Track 11: Clinical Metabolomics and Lipidomics
Track 12: Analytical Platforms Employed in Metabolomics

Session Chair: Sam F Y Li, National University of Singapore, Singapore
Session Co-Chair: P K Ragunath, Sri Ramachandra University, India

09:30-09:50	**Title: Total lipid extraction for lipidomics made easy – the BUME method** **Lars Lofgren,** AstraZeneca R&D, Sweden
09:50-10:10	**Title: Relevance of Machine Learning Approach in Analysing Metabolomic Data to gain insights on Comorbidity issues in COPD & Asthma** **P K Ragunath,** Sri Ramachandra University, India
10:10-10:30	**SimMet: Informatics tool for automating LC-MS and MS/MS based large metabolomic data processing and analysis** **Ningombam Sanjib Meitei,** Premier Biosoft, USA
10:30-10:50	**Title: Application of metabolomics for toxicity assessment of solid waste re-utilization** **Sam F Y Li,** National University of Singapore, Singapore

Networking & Refreshments Break 10:50-11:00 @ Independence Foyer

Young Researchers Forum

11:00-11:20	**Title: Dissecting the distinct functions of mitochondria** **Inmaculada Martinez-Reyes,** Northwestern University, USA
11:20-11:40	**Title: Quantifying metabolic fluxes in cancer and stem cells** **Christin Zasada,** BIMSB, Germany
11:40-12:00	**Title: De-differentiation: A critical malignant phenotype in glioblastoma** **Narinderbir Singh,** Deakin University, Australia

Panel Discussion

Lunch Break 12:30-13:30 @ Benjamin's

Poster Presentations

P-01	**Title: System Engineering Tools and Analysis to Leverage Signaling Pathways of Hepatocytes to Determine Toxicity Risk** **James S Gigrich,** Keysight Technologies, USA
P-02	**Title: Refine restraints first-modeling next approach to improve trans-membrane protein modeling** **Rajan Chaudhari,** University of the Sciences, USA
P-03	**Title: Genome size estimation of P. Peltatum using flow cytometry** **Lauren J Brown,** University of the Sciences, USA
P-04	**Title: Brain response during sleep estimated from NMR metabolomics** **Ubeydullah ER,** University of Pennsylvania, USA
P-05	**Title: The new BUME method for rapid automated chloroform-free lipid extraction of biofluids and tissue samples – An option for metabolomics?** **Lars Lofgren,** AstraZeneca R&D, Sweden
P-06	**Title: Combining *in vitro* and in silico techniques: a complex case of metabolite structural assignment** **Paolo Schiavini,** McGill University, Canada
P-07	**Title: Analysis of central metabolism in developing oilseeds of *Brassica napus*** **Nicolas Heinzel,** IPK-gatersleben, Germany
P-08	**Title: Bio-electrochemically formed Geobacter sulfurreducens gas metabolites as phototroph feedstocks** **Nikita Panov ,** West Chester University, USA
P-09	**Title: Reduce apoptosis and enhance autophagy by exercise training and resveratrol in the cortex of aging rats** **Chi-Wen Huang,** China Medical University, Taiwan
P-10	**Title: Mass spectrometry Identification and Quantification of N-oxalylglycinein an inhibitor for 2-Oxoglutarate Oxygenase in Spinach leaves** **Khalid Al-Qahtani, University of Oxford, UK**

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Day 1 March 24, 2014

08:00-09:00 Registrations

Texas E

OMICS Group Conferences
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09:00-09:25 **Opening Ceremony**

Keynote Forum

09:25-09:30	**Introduction**
09:30-09:55	**Bernd Schneider** Max Planck Institute for Chemical Ecology, Germany
09:55-10:20	**Chris Beecher** IROA Technologies, USA
10:20-10:45	**Vladimir V. Tolstikov** Eli Lilly & Company, USA
10:45-11:10	**Stephen E. Reichenbach** University of Nebraska, USA

Coffee Break 11:10-11:20 @ Texas BC

Track 1: Novel Approaches to Cancer Therapeutics
Track 2(ii): LC-MS and GC-MS based metabolomics

Session Chair: **Stephen F. Previs**, Merck & Co., Inc., USA
Session Co-Chair: **Florence I. Raynaud**, ICR, UK

Session Introduction

11:20-11:40	**Title: Kinetics and data normalization: Can we avoid being misled by "omic" investigations?** **Stephen F. Previs**, Merck & Co., Inc., USA
11:40-12:00	**Title: Plasma metabolomic signature of novel signal transduction inhibitors: From preclinical identification to clinical validation** **Florence I. Raynaud**, The Institute of Cancer Research, UK
12:00-12:20	**Title: Regulation of tumor metastasis by endogenous metabolite** **Sudhakar Akul Yakkanti**, Stanford Research Institute (SRI) International, USA
12:20-12:40	**Title: EGFR signaling regulates lipid metabolism in glioblastoma** **Deliang Guo**, The Ohio State University, USA
12:40-13:00	**Title: Mathematical model of β1-adrenergic signaling in mouse ventricular myocytes as an in silico tool for the cardiovascular drug test** **Vladimir E. Bondarenko**, Georgia State University, USA

Group Photo

Lunch Break 13:00-13:40 @ Texas BC

13:40-14:00	**Title: Change in metabolomic profiles due to lung cancer progression in golden syrian hamsters: Preventative effect of curcumin** **Smiti V. Gupta**, Wayne State University, USA
14:00-14:20	**Title: Clinical metabolomics: Case study CKD. cross-platform omics data integration in ingenuity systems** **Vladimir V. Tolstikov**, Eli Lilly & Company, USA
14:20-14:40	**Title: Cancer metabolism meets systems biology: Understanding metabolic master regulators** **Fabian V. Filipp**, University of California Merced, USA
14:40-15:00	**Title: Relative quantitation of diverse classes of lipids using a single step extraction protocol and targeted LC-MS/MS** **Hari Nair**, University of Washington Medical Center, USA
15:00-15:20	**Title: 'Omics' as a paradigm shift in investigating endometrial cancer risk among women with polycystic ovarian syndrome (PCOS)** **Mohamad Nasir Shafiee**, The University of Nottingham, UK

Coffee Break 15:20-15:30 @ Texas BC

15:30-15:50	**Title: Identification of mitochondrial single stranded DNA binding protein (mtSSB) as a novel radioresistance-related protein** **Fuxiang Zhou**, Wuhan University, China
15:50-16:10	**Title: Metabolic profiling in Aspergillus flavus to determine gene function** **Jose Diana Di Mavungu**, Ghent University, Belgium
16:10-16:30	**Title: Bilirubin as a biological marker for metabolic, cardiovascular and oncological disorders; Analysis using GOBIOM database** **Pidugu Vijaya Rao**, GVK Biosciences Private Limited, India
16:30-18:30	**Workshop** **Title: "Advancing metabolomics with high performance GCMS - practices and opportunities"** **By Jeffrey S Patrick**, LECO Corporation, USA
18:30-19:15	**Cocktails:** Sponsored by **Metabolomics: Open Access** **@ Texas BC**

Day 2 March 25, 2014

Texas E

Track 2(i): NMR and mass spectroscopy in metabolomics
Track 2(ii): LC-MS and GC-MS based metabolomics
Track 2(v): Shotgun proteomics

Session Chair: Stephen E. Reichenbach, University of Nebraska, USA
Session Co-Chair: Karen R. Jonscher, University of Colorado, USA

Session Introduction

09:00-09:20	**Title: Application of metabolomics, lipidomics, and kinetic flux profiling to understand the metabolic role in microbial interactions** **Shawn R. Campagna**, University of Tennessee, USA
09:20-09:40	**Title: Spaceflight alters liver metabolic function in mice** **Karen R. Jonscher**, University of Colorado, USA
09:40-10:00	**Title: High performance gas chromatography mass spectrometry in addressing the challenges of metabolomic studies – separation in time and mass** **Jeffrey S Patrick**, LECO Corporation, USA
10:00-10:20	**Title: Complimentary LC- and GC-Mass spectrometry techniques provide broader coverage of the metabolome** **Fadi A. Abdi**, AB SCIEX, USA
10:20-10:40	**Title: Direct regulation of cupins by the metabolic network in C. elegans** **Shane L. Rea**, University of Texas Health Science Center at San Antonio, USA

Coffee Break 10:40-10:55 @ Texas BC

10:55-11:15	**Title: NMR- and MS-based micrometabolic profiling of special plant cell types and tissue** **Bernd Schneider**, Max Planck Institute for Chemical Ecology, Germany
11:15-11:35	**Title: Reverse metabolomics - Metabolomics in drug discovery: Connecting metabolomic profiles with phylogenetic, medicinal and flavoring properties** **Ludger A. Wessjohann**, Leibniz Institute of Plant Biochemistry, Germany
11:35-11:55	**Title: Fast 2D NMR methods for quantitative metabolomics and fluxomics** **Patrick Giraudeau**, University of Nantes, France
11:55-12:15	**Title: Isotope labeling-assisted metabolomics: Novel workflows for improved LC-HRMS based research** **Rainer Schuhmacher**, University of Natural Resources and Life Sciences, Austria
12:15-12:35	**Title: Metabolomics reveals altered metabolic pathways to L-phenylalanine and its catabolic shift in Rubrivivax benzoatilyticus JA2** **Lakshmi Prasuna**, University of Hyderabad, India
12:35-12:55	**Title: Data mining of urine H1-NMR data for metabolomics analysis of T2D diseases** **Halima Bensmail**, Qatar Computing Research Institute, Qatar

Lunch Break 12:55-13:55 @ Texas BC

ABSCIEX Luncheon Workshop — Lunch Break 12:55-13:55 @ Texas BC

Track 4: Toxicology and Drug Metabolism
Track 5: Current Trends and Innovations in Metabolomics

Session Chair: Jun Han, University of Victoria-Genome BC Proteomics Centre, Canada
Session Co-Chair: Byung Hwa Jung, Korea Institute of Science and Technology (KIST), Republic of Korea

Session Introduction

13:55-14:15	**Title: Application of metabolomics to investigate metabolic change in normal aging process** **Byung Hwa Jung**, Korea Institute of Science and Technology (KIST), Republic of Korea
14:15-14:35	**Title: A UPLC/MRM-MS method for comprehensive metabolic profiling of >50 bile acids in human and mouse samples** **Jun Han**, University of Victoria-Genome BC Proteomics Centre, Canada
14:35-14:55	**Title: Metabolic phenotyping: Applications in diagnosis, treatment prediction and system diagnostics** **Clarence Gillett**, BIOCRATES Life Sciences AG, Austria
14:55-15:15	**Title: Metabolomics of inborn errors of metabolism: A strategy to inform on genetically predisposed allostasis** **Carolus Reinecke**, Manager of the National Metabolomics Platform, South Africa

Coffee Break 15:15-15:30 @ Texas BC

15:30-15:50	**Title: Study on pharmacokinetics and drug-drug interactions of naringin** **Luodi Fan**, Sun Yat-sen University, China
15:50-16:10	**Title: Personalizing drug treatment using pharmacometabonomic approach** **Baharudin Ibrahim**, Universiti Sains Malaysia, Malaysia
16:10-16:30	**Title: Using neurotoxin proteolytic activity and mass spectrometry to determine botulinum neurotoxin A (BoNT/A) in pharmaceutical products** **Ray C T Hung**, Government Laboratory, China
16:30-18:30	**Workshops** **Title: "Isotopic techniques in metabolomics"** **By Chris Beecher**, Chief Scientific Officer, IROA Technologies, USA **Title: "Use of highly 13C enriched biological samples and pure tracer substances for LC-HRMS based metabolomics"** **By Rainer Schuhmacher**, University of Natural Resources and Life Sciences, Austria **Title: "Stable isotope assisted metabolic profiling reveals chronic inflammation and oxidative stress as a consequence of a functional loss of the Parkinson's disease related gene DJ-1"** **By Johannes Meiser**, University of Luxembourg, UK
15:00-16:00	**Poster Presentations** @ Texas BC
18:40-19:25	**Cocktails:** Sponsored by **Journal of Computer Science & Systems Biology** @ Texas BC

Award Ceremony

Day 3 March 26, 2014

Texas E

Track 6: Computational Biology, Synthetic Biology and Systems Biology
Track 8: Metabolomics Syndrome
Track 10: Glycomics and Lipidomics

Session Chair: Chandra Richter, Senior Scientist E&J Gallo Winery, USA
Session Co-Chair: Peter Karp, SRI International, USA

Session Introduction

09:00-09:20	**Title: Turning up the heat on enzyme design** **Corey J. Wilson,** Yale University, USA
09:20-09:40	**Title: Integration of omics into metabolic flux distribution by complementary elementary mode analysis for large-scale metabolic networks** **Md Bahadur Badsha,** Kyushu Institute of Technology, Japan
09:40-10:00	**Title: Impact of error on high content data** **Harry Harlow,** POET, LLC, USA
10:00-10:20	**Title: Conversion of CO2 and xylose to ethylene and organic acids using cyanobacteria** **Jianping Yu,** National Renewable Energy Laboratory, USA

Coffee Break 10:20-10:35 @ Texas BC

10:35-10:55	**Title: Analyzing metabolomics data with smart tables** **Peter Karp,** SRI International, USA
10:55-11:15	**Title: Biomarker discovery in functional genomics using metabolomics** **Preeti Bais,** The Jackson Laboratory, USA
11:15-11:35	**Title: 2-aminoadipic acid is a novel biomarker of diabetes risk and modulates glucose homeostasis** **Nikolaos Psychogios,** Shire, Lexington, USA
11:35-11:55	**Title: Untargeted metabolomics identifies numerous solutes that accumulate when the kidneys fail** **Pavel A Aronov,** Thermo Scientific, USA
11:55-12:15	**Title: A metabolomic perspective on S. cerevisiae in chardonnay wine fermentation** **Chandra Richter,** Senior Scientist E&J Gallo Winery, USA
12:15-12:35	**Title: The biological response of human skin tissue to low dose ionizing radiation - from a metabolomic perspective** **Zeping Hu,** University of Texas, USA
12:35-12:55	**Title: Phospholipid profile of amniotic fluid: A potential tool for the evaluation of physiological and pathological development of fetal lung** **Maria Chiara Mimmi,** University of Udine, Italy
12:55-13:15	**Title: Antioxidant and anti-epileptic activity ofAcalyphaindica leaf extracts** **Anupalli Roja Rani,** Osmania university, India
13:15-13:35	**Title: Metabolic profile of murine melanoma studied by nuclear magnetic resonance** **Said Rahnamaye Rabbani,** Physics Institute of Sao Paulo University, Brazil

Lunch Break 13:35-14:10 @ Texas BC

14:10-14:30	**Title: The protective efficiency of vitamin C against arsenic induced biochemical hazards in rats** **M. G. Shalan,** Al-Ghad International Colleges of Health Sciences, KSA
14:30-14:50	**Title: Effect of monosaccharide rich diets on blood lipid profile of rats** **Manal Salah Abbas El Gendy,** Taibah University, KSA
14:50-15:10	**Title: Effect of quinine therapy on plasma glucose and plasma insulin levels in pregnant women infected with Plasmodium falciparum malaria in Gezira state** **NourEldaim Elnoman Elbadawi,** University of Kassala, Sudan
15:10-15:30	**Title: Dual action antidiabetic compounds obtained from Rhododendron arboreum** **Rabia Raza,** Bahauddin Zakariya University, Pakistan

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