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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

THE EMERGING SCIENCES OF OMICS

Nawin Mishra

Distinguished Professor of Genetics & Genomics
Department of Biological Sciences
University of South Carolina, Columbia, SC 29208 , USA.

BIOGRAPHY:

Nawin C Mishra is a Distinguished Professor of Genetics and Genomics at the University of South Carolina, Columbia, SC USA. He received his Ph. D. from McMaster University and his postdoctoral training with the late Nobel Laureate Professor E.L. Tatum at the Rockefeller University in New York, supported by The Jane Coffin Childs Fund of the Yale University. He joined Tatum's laboratory later as a Research Associate and then joined the University of South Carolina where he was Professor of Genetics and also Ad-hoc Chair of the Dept. Of Microbiology in the Medical School. Dr. Mishra has served as a Consultant to FAO of the United Nations on different occasions and on the review board of the US Dept. of Energy Human Genome Project. He has organized several International Congresses. He has written three books published by John Wiley & Sons of New York. His Last book, Introduction To Proteomics has been endorsed by Nobel Laureate Professor Gunter Blobel. In 2014 he received Jewels of India Award.

THE ROLE OF PHOSPHOLIPIDS IN ENDOMETRIOSIS PATHOGENESIS

Mainak Dutta

BITS Pilani-Dubai Campus, UAE

BIOGRAPHY:

Dr. Mainak Dutta is Assistant Professor of Biotechnology at Birla Institute of Technology Pilani-Dubai Campus, UAE. He received his PhD from Indian Institute of Technology Kharagpur, India in 2016. After completing his PhD he joined the Institute of Genomics and Integrative Biology, India as a postdoctoral fellow. Dr. Dutta is the recipient of several academic awards including the Fulbright-Nehru Doctoral Research Fellowship, 2014. He was also awarded the Sigma Xi Grants-in-aid for research, Sigma Scientific Research Society, USA, 2015. Dr. Dutta's research interests lie in the use of proteomics, metabolomics and lipidomics approaches to study human diseases. He is also interested in LC-MS method development for increasing the detection coverage of lipid species

A FOLIC ACID DIET FED TO RATS DURING THE CONCEPTION PERIODS MODIFIES THE SERUM AND URINE METABOLIC PROFILES IN THE ADULT

Ying Li

Medical University.China

BIOGRAPHY:

Ying Li, professor, PhD and MD, is from school of public health, Harbin medical university. She is serving as the Standing director of Chinese Nutrition Society, the vice chairman of trace elements professional council of the Chinese Nutrition Society. Her main research interests include research of the association of diet and nutrients with chronic diseases (diabetes, obesity, and CVD) in a cohort study which has been followed up for more than 10y, and the underlying molecular mechanisms of the chronic diseases in terms of diet and nutrients, as well as screening biomarkers of nutrition interference by metabonomics analysis. As a principal investigator, she has presided 14 projects (3 of them were funded by NSFC,national nature scienc fondation of China) funds and published more than 80 papers in reputed journals, such as Diabetes, Diabetes care, Am J Clin Nutr, Int J Obes, Diabetologia and so on..

SPEAKER SLOTS AVAILABLE

TOOLS FOR DATA-DRIVEN NETWORK ANALYSIS OF METABOLOMICS DATA

Alla Karnovsky

University of Michigan, USA

BIOGRAPHY:

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

BIOGRAPHY:

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, Brazil

BIOGRAPHY:

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

FABRIC PHASE SORPTIVE EXTRACTION (FPSE): A PARADIGM SHIFT SAMPLE PREPARATION APPROACH FOR WHOLE BLOOD ANALYSIS TARGETED TO METABOLOMICS DISEASE BIOMARKER DISCOVERY

Abuzar Kabir, PhD

FloridaInternational University, Miami, Florida, USA

BIOGRAPHY:

Dr. Abuzar Kabir is a Research Assistant Professor at the Department of Chemistry and Biochemistry, Florida International University, Miami, Florida, USA. His inventions, fabric phase sorptive extraction (FPSE), and dynamic fabric phase sorptive extraction (DFPSE), capsule phase microextraction (CPME), molecular imprinting technology, super-polar sorbents, In-Vial microextraction (IVME) have drawn global attention. He has developed and formulated numerous high efficiency sol-gel hybrid inorganic-organic sorbents based on Silicon, Titanium, Zirconium, Tantalum, Germanium chemistries. Dr. Kabir has authored 16 patents, 10 book chapters, 52 journal articles and 90 conference papers.

PROTEOMIC ADAPTATION IN HIGH AND LOW LIGHT ECOTYPES OF THE MARINE PICOCYANOBACTERIUM *PROCHLOROCOCCUS MARINUS*, AN

Philip J Jackson

Molecular Biology & Biotechnology / Chemical & Biological Engineering, University of Sheffield, UK

BIOGRAPHY:

Phil Jackson received his PhD in Biochemistry at the University of Leeds, UK where his research centered on the control of ATP synthesis in mitochondria. He then joined an instrumentation manufacturer as a product application specialist in proteomics and lipidomics. In 2010, Phil returned to postdoctoral research to work in the laboratories of Professors Neil Hunter, FRS and Mark Dickman at the University of Sheffield. He specializes in biological mass spectrometry, applying this technology to (1) quantitative proteomics of complexes involved in light harvesting and energy transfer in photosynthesis, (2) analysis of protein-protein interactions within complexes that direct photosystem assembly and (3) structural characterization of the enzyme systems responsible for chlorophyll biosynthesis.

DIABETES INSULIN DEPENDENT CASE STUDY

Vivek Kamath

Reiki Master, Mexican Healing Master, Melchizedek Healer, Crystal Healer and Past Life Regression Therapy Expert

BIOGRAPHY:

Vivek Kamath founder of heal the world organization is a Reiki Master, Mexican Healer, Melchizedek Healer, Crystal Healer and Past Life Regression Therapy Expert. He has healed many diabetic patients (Type1, Type2, Type 3/1.5/LADA) without any medicines. He has also healed Cancer (stage 4) blood pressure (both high and low blood pressure), heart disease (removed the heart blockages), removed kidney stones, ovarian cysts, fibrosis of the breast, fatty liver, lungs disease, cured sinusitis, sever joint pain, lumbar L5 spinal disk pain, Sciatica pain, neck pain, constipation, rheumatoid arthritis, glaucoma, migraines, headaches, insomnia, stomach related problem, IBS, diabetic gum problems, skin problems and chronic nasal allergies, nasal blockages without any medicines. Some of the above treatments have been completed within a week to maximum 1 month duration.

SPEAKER SLOTS AVAILABLE

TIME RESOLVED QUANTITATIVE PHOSPHO-TYROSINE ANALYSIS REVEALS BRUTON'S TYROSINE KINASE MEDIATED SIGNALING DOWNSTREAM OF THE MUTATED GRANULOCYTE-COLONY STIMULATING FACTOR RECEPTORS

Pankaj Dwivedi

University of Cincinnati College of medicine, USA

BIOGRAPHY:

PhD in cancer & cell biology/ quantitative proteomics phosphoproteomics from University of Cincinnati (UC). At UC, my research project involved Mass spectrometry based phosphoproteomic analysis of a cytokine receptor signaling and its role in leukemia.He has hands on experience in handling cell cultures, mouse models, processing proteomics samples and operating nano-LC-MS/MS. His skill set also includes cancer biology, cell signaling, bioinformatics, large data analysis using R programming and biostatistics. He has two certificate in data analysis and R programming respectively. He has presented my research work at different national & international conferences. His PhD research work have been published in reputed scientific journals, e.g. Leukemia, Experimental Hematology and Scientific Data etc. His leukemia paper is the top 3 research article published by Leukemia and the findings of the paper, were publicized by several news agencies including NPR.

CLASSIFICATION OF BIOSYNTHESIS PATHWAYS OF ALKALOIDS USING GRAPH CONVOLUTIONAL NEURAL NETWORKS

Ryohei Eguchi

Nara Institute of Science and Technology, JAPAN

BIOGRAPHY:

In 2018, after obtaining doctor's degree in engineering at the Graduate School of Information Science, Nara Institute of Science and Technology, and in the same year he joined the Nara Institute of Science and Technology as a doctoral researcher at the Data Driven Science Creation Center, and has reached the present. I'm involved in the research on gene expression analysis and metabolic pathway prediction of secondary metabolites by applying multivariate analysis and machine learning techniques, mainly in the field of bioinformatics and chemoinformatics.

TRANSCRIPTOMIC AND METABOLIC ANALYSIS OF THE PLANT HORMONES SIGNALLING PATHWAYS IN THE RESISTANT "CALCUTTA 4" AND SUSCEPTIBLE "WILLIAMS" BANANA GENOTYPES DURING THE INTERACTION WITH THE PATHOGENIC FUNGUS *PSEUDOCERCOSPORA FIJIENSIS*

William Hidalgo

Universidad Industrial de Santander. Bucaramanga, Colombia.

BIOGRAPHY:

I am chemist and Doctor in Natural Science from Friedrich Schiller University-Jena. My scientific background is focused in the study of plant chemical defenses especially in the biological system "Musa-Mycosphaerella fijiensis", biosynthesis of natural products and metabolomics studies by using NMR and MS spectrometry techniques. Since March 2017, I joined to Universidad Industrial de Santander as an Assistant Lecturer and researcher. Currently, it is well recognized the importance of the omics in natural science, and therefore, my particular interest is to contribute both in the academic as well as scientific education of our students interested in the subject of metabolomics with the goal to enrich our understanding about certain biochemical phenomena behind of a particular biological system.

SPEAKER SLOTS AVAILABLE

METABOLOMIC AND LIPIDOMIC PROFILE OF CLINICAL SERUM SAMPLES FROM PATIENTS WITH LIVER DISEASES

Andrea Ragusa

Department of Engineering for Innovation, University of Salento, Campus Ecotekne, 73100 Lecce (IT)

BIOGRAPHY:

Andrea Ragusa is an organic chemist with an expertise in analytical techniques. After completing his PhD at the University of Southampton (UK) in 2005, he dedicated himself to nanomedicine and metabolomics by developing novel smart nanovectors for the targeted delivery of drugs and studying their effects *in vitro* through NMR and HPLC-MS investigations. More recently, he shifted his efforts toward the analysis of clinical samples for better understanding the molecular mechanisms involved in several liver-related diseases, with particular attention to HCC, as well as for identifying novel biomarkers and their exploitation, in combination with multivariate statistical analysis, in the early diagnosis and treatment of the disease.

DECIPHERING THE MECHANISMS OF COMPLEX DISEASES USING NETWORK AND MACHINE LEARNING APPROACHES

Tao Huang

Shanghai Institutes for Biological Sciences – CAS

BIOGRAPHY:

Tao Huang has been the Director of Bioinformatics Core Facility at Institute of Health Sciences, Shanghai Institutes for Biological Sciences, Chinese Academy of Sciences (China) since 2014. From 2012 to 2014, he was a Postdoctoral Fellow in the Department of Genetics and Genomics Sciences, Icahn School of Medicine at Mount Sinai, New York City, USA. His research interests include bioinformatics, computational biology, systems genetics and big data research. He has published over 100 articles in peer-reviewed journals. His works have been cited for 3138 times with an h-index of 26 and an i10-index of 64. He has been an Independent Reviewer for about 30 journals. He is the Editor for Book "Computational Systems Biology - Methods and Protocols" of Springer, Guest Editor for BBA Molecular Basis of Disease, BBA General Subjects, Artificial Intelligence in Medicine, BioMed Research International, Combinatorial Chemistry & High Throughput Screening and Computational and Mathematical Methods in Medicine.

THE EFFECT OF GLYCEROL ON SHAPE, SIZE, AND GROWTH RATE OF ESCHERICHIA COLI.

Maryam S. Hosseini-Zare

Texas Southern University, College of Pharmacy and Health Science, Houston, TX, USA

BIOGRAPHY:

Maryam S. Hosseini-Zare received master degree in organic chemistry from Iran University of Sciences and Technology in 2012, and currently she is a Ph.D. student of pharmaceutical sciences at Texas Southern University, USA. Her research interest is cell culturing, drug design, and drug delivery.

SPEAKER SLOTS AVAILABLE

ENHANCED PRODUCTION OF A RECOMBINANT THERMOSTABLE GH FAMILY 12 ENDO-1,4-B-GLUCANASE FROM *THERMOTOGA PETROPHILA* IN A MESOPHILIC EXPRESSION HOST THROUGH VARIOUS CULTIVATION AND INDUCTION STRATEGIES

Irfana Marium

Queen Mary College

BIOGRAPHY:

Prof. Dr. Irfana Mariam has completed her Postdoc from Cornell University, New York, USA, and Ph.D. and M.Phil in Chemistry from University of the Punjab, Lahore, Pakistan. She has been taught BS (Hons), M.Phil and Ph.D. classes in Government College University (GCU), Lahore. She has successfully completed various projects sponsored by HEC, GCU and Ministry of Science and Technology.

A HYPERTHERMOSTABLE MULTIDOMAIN GH FAMILY 3 B-GLUCOSIDASE FROM *THERMOTOGA NAPHTHOPHILA* RKU-10^{T}: CLONING, CHARACTERIZATION AND THERMODYNAMIC ANALYSIS

Ikram Ul Haq

Government College University

BIOGRAPHY:

Ikram Ul Haq has completed his Postdoc from Cornell University, New York, USA, and PhD in Industrial Microbiology from University of the Punjab, Lahore, Pakistan. He has been the Dean, Faculty of Science and Technology and founding Director of Institute of Industrial Biotechnology, Government College University (GCU), Lahore, Pakistan. He has successfully completed 19 Projects sponsored by Pakistan Science Foundation, Pakistan Atomic Energy Commission, HEC, GCU & Ministry of Science and Technology while 2 Projects are in process sponsored by MoST, PSF and Pakistan Academy of Sciences. He has published more than 321 papers in journals of international repute, with 1768 citations and has been serving as an Editorial Board Member of reputed journals.

CYTOKINE DYSREGULATION IN AGE-DEPENDENT PAINFUL POLYNEUROPATHY IN METABOLIC SYNDROME

Hsinlin Thomas Cheng

Massachusetts General Hospital, USA

BIOGRAPHY:

Hsinlin Thomas Cheng, MD completed his Doctoral Program in Neuroscience at the University of Michigan, USA. He has completed his Residency in the Department of Neurology at Wayne State University, USA before taking on a Clinical Fellowship at the Memorial Sloan Kettering Cancer Center, New York, USA and a Research Fellowship at the Weill Medical College at Cornell University, USA. He is the Director of Headache and Neuropathic Pain Unit, Department of Neurology at Massachusetts General Hospital, USA. He specializes in both Adult Neurology and Pain Medicine. He treats patients suffering from headache to other neuropathic pain syndromes. He returned to the University of Michigan as Assistant Professor in the Department of Neurology. He joined the Department of Neurology at Massachusetts General Hospital in July 2013.

SPEAKER SLOTS AVAILABLE

PPARA AGONIST FENOFIBRATE INHIBITS THE GROWTH OF GASTRIC CANCER CELLS BY REGULATING THE METABOLISM OF TUMOR CELLS AND MITOCHONDRIAL FUNCTION

Fuxiang Zhou

Zhongnan Hospital of Wuhan University

BIOGRAPHY:

Prof. Fuxiang Zhou has completed his Ph.D. from Zhongnan Hospital of Wuhan University and postdoctoral studies from CAL Cancer Center, University of Nice, France. Radiotherapy takes an important role in treatment of various cancers while the main limit for this strategy is radioresistance of cancer cells. He found that mitochondrial single stranded DNA binding protein (mtSSB) might be a novel potential predictive biomarker, or a sensitizing target for radiotherapy. The second research interest is about mitochondrial-nuclear retrograde signaling, which was an experimental research on radiosensitivity of lung cancer cells by mitochondrial-nuclear retrograde signaling to investigate the relationship between significant differences genes of RTG pathway in H1299 ρ0 cells and radiosensitivity and explore the possible intervention targets of radiosensitization. And the third aspect is about mitochondrial DNA and cancer including prognostic value of mitochondrial DNA

SRSPLICING, SPLICING-RATIO BASED SPLICING DETECTION METHOD

Yan Ji

Shanghai Institutes For Biological Sciences

BIOGRAPHY:

Yan Ji has completed his PhD at the age of 28 years from shanghai institutes for biological sciences, CAS. He's an assistant professor and has rich experiences in high-throughput data analysis and translational medicial research. He has published more than 8 papers in reputed journals.

RELATIONSHIP BETWEEN AEROBIC FITNESS AND CARDIO-METABOLIC DISEASE RISK IN SOUTH AFRICAN CHILDREN

V.K. Moselakgomo

University of Limpopo

BIOGRAPHY:

Dr. Violet Kankane Moselakgomo has graduated her PhD from North West University, Potchefstroom Campus as Doctor of Philosophy, with the specialties including Human Movement Sciences, Clinical Technology and Sport Sciences and currently a Postdoc Fellow at University of Limpopo, investigating current trends in the growth and development, issues concerning sexual dimorphism and the mediating role of Physical Activity, Nutrition and Lifestyle and Wellbeing of rural South African children. In addition, she is involved in teaching: Basic Exercise Physiology, Foundations of Human Movement Sciences, Evaluation Techniques in Exercise and Physical Activity, Physical Conditioning and Nutrition for Sports, Exercise, Health and Wellbeing.

SPEAKER SLOTS AVAILABLE

IMMUNOMODULATORY ACTIVITY OF SECONDARY METABOLITES ISOLATED FROM *STREPTOMYCESCALVUS* ON HUMAN PERIPHERAL BLOOD MONONUCLEAR CELLS

Alireza Dehnad

East Azerbaijan Research and Education Center Agricultural and Natural Resources

BIOGRAPHY:

Biotechnology Department, East Azerbaijan Research and Education Center Agricultural and Natural Resources, AREEO, Tabriz- IRAN. Immunology Research Center, Tabriz University of Medical Sciences,

CAUSAL LINK BETWEEN INTRACELLULAR NA ELEVATION AND METABOLIC REMODELING IN HEART FAILURE

Dunja Aksentijevic

Queen Mary University of London & British Heart Foundation Centre of Research Excellence, King's College London, UK

BIOGRAPHY:

Dunja Aksentijevic has her expertise in evaluation of cardiac metabolism. She uses her NMR experience to interface in situ NMR spectroscopy (13C, 31P, 23Na, 1H) with physiology techniques in order to study metabolic and metabolomic aspects of cardiac physiology. She has built this experimental approach after years of experience in cardiovascular physiology and energetics at the University of Oxford and King's College London. In a recent collaborative study with colleagues from Cambridge published in Nature, she has helped to define a novel metabolic signature of ischaemic disease – succinate accumulation – and show that it exacerbates ischaemia/reperfusion injury. This was hailed as a major scientific breakthrough by the British Heart Foundation. Dunja's current and future research interests are the intracellular metabolic mechanisms involved in the functional and structural remodelling in heart disease.

EXPLORING THE METABOLIC DIVERSITY IN MAJOR CROPS

Jie Luo

Huazhong Agricultural University, China

BIOGRAPHY:

Dr. Jie Luo is Professor in the National Key Laboratory of Crop Genetic Improvement at Huazhong Agricultural University, Wuhan, China. His research group mainly investigates the genetic and biochemical bases of the metabolic diversity in major crops such as rice and maize, using combined approaches including metabolomics, genomics, genetics, and biochemistry. In addition to these studies, they are working to integrate quantitative metabolomics into broader surveys of physiological and yield associated phenotypes and to characterize the link between metabolism and higher order phenotypes with the potential for metabolome-based crop improvement.

SPEAKER SLOTS AVAILABLE

METABOLIC REPROGRAMMING OF MACROPHAGES EXPOSED TO PSEUDOMONAS AERUGINOSA BIOFILMS

Valerie Copie

Department of Chemistry and Biochemistry, Montana State University

BIOGRAPHY:

Valerie Copié is a Professor of Biochemistry and Director of Montana State University's NMR center. She is also an affiliate faculty of the University of Washington, and is involved in the teaching of human metabolism and medical biochemistry to UW-affiliated WWAMI medical students. She has received extensive experience and training in biological NMR, and has established a research program ranging from protein structural biology to metabolomics. Her research interests focus on understanding how bacterial pathogens manipulate host metabolism to evade host immune defenses, and how such metabolic reprogramming contributes to non-healing, chronic wounds in humans. her lab is also interested in determining the specific metabolic strategies that enable hyperthermophilic microorganisms to grow and thrive in extreme environments including arsenic-contaminated soils.

METABOLIC SYNDROME, OBESITY, AND RENAL PROGRESSION IN CHRONIC KIDNEY DISEASE

Po-Ya Chang

School of Public Health, Taipei Medical University

BIOGRAPHY:

Po-Ya Chang is a postdoctoral at the Taipei Medical University of College of Public Health. She holds a Ph.D. degree in Public Health from the Taipei Medical University. She also a visiting scholar at The University of Tokyo, Japan. Her research areas are epidemiology, public health, and secondary data analysis.

ASSESSMENT OF BASELINE EXPRESSION OF GENES INVOLVED IN THE METABOLIC AND ENERGY GENERATION PATHWAYS IN THE PERIPHERAL BLOOD OF DMARD-NAÏVE RHEUMATOID ARTHRITIS PATIENTS AS AN APPROACH TO PREDICT TREATMENT RESPONSE TO METHOTREXATE

Elena V Tchetina

Nasonova Research Institute of Rheumatology, Russian Federation

BIOGRAPHY:

Elena Tchetina has her expertise in studying molecular mechanisms for the development and progression of rheumatic diseases such as osteoarthritis and rheumatoid arthritis. Her approach is based on gene expression assessment in the peripheral blood and/or articular cartilage of the examined patients. After years of experience in research, she has proposed the involvement of developmental (hypertrophy) mechanisms in cartilage destruction in osteoarthritis. Moreover, her recent studies suggest the importance of energy metabolic disturbances in the development, progression, and treatment response in rheumatic disorders. This original approach opens new pathways for treatment of rheumatic diseases

SPEAKER SLOTS AVAILABLE

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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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250th OMICS International Conference

Scientific Program

4th International Conference and Exhibition on

Metabolomics & Systems Biology

April 27-29, 2015 Philadelphia, USA



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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**

Bookmark your dates

5th International Conference and Exhibition on

Metabolomics & Systems Biology

May 30-June 01, 2016 Osaka, Japan

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Day 1 March 24, 2014

08:00-09:00 Registrations

Texas E

OMICS Group Conferences
Accelerating Scientific Discovery

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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