

250<sup>th</sup> OMICS International Conference

# Scientific Program

4<sup>th</sup> International Conference and Exhibition on

# Metabolomics & Systems Biology

April 27-29, 2015 Philadelphia, USA



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**OMICS International Conferences**

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## Independence Room-A



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09:30-10:00

## Opening Ceremony

## Keynote Forum

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

## Group Photo

Networking &amp; 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	<b>Using stable isotope resolved metabolomics to characterize glycolytic inhibition and to decode synthetic lethality in cancer</b> Stefan Kempa, BIMS, Germany
11:30-11:50	<b>Metabolomic approaches in cancer epidemiology</b> Mukesh Verma, NIH, USA
11:50-12:10	<b>Non-, or minimally invasive intact biological objects using slow magic angle spinning</b> Jian Zhi Hu, Pacific Northwest National Laboratory, USA
12:10-12:30	<b>Targeting cancer metabolism to overcome treatment resistance in HER2-positive breast cancer</b> Paola A Marignani, Dalhousie University, Canada
12:30-12:50	<b>Evaluating the association of heme and heme metabolites with lung cancer energetics and progression</b> Li Zhang, The University of Texas at Dallas, USA
12:50-13:10	<b>Non-invasive biomarker candidates of interstitial cystitis</b> 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	<b>Metal Element on Non-alcoholic Fatty Liver Disease (NAFLD)</b> Yongyu Zhang, Shanghai University of Traditional Chinese Medicine, China
14:30-14:50	<b>Dynamic pattern and terminal switch of lipid metabolomics in HBV tumorigenesis</b> Ih-Jen Su, National Health Research Institutes, Taiwan
14:50-15:10	<b>BRMS1L suppresses breast cancer metastasis by inducing epigenetic silence of FZD10</b> Chang Gong, Sun Yat-Sen University, China

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

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

## Panel Discussion

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

### 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 **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 **Integrated metabolite and RNA biomarker signatures of the late phase asthmatic response**  
**Scott J Tebbutt**, University of British Columbia, Canada
- 11:10-11:30 **Mass spectrometry based metabolic profiles of brain cancer**  
**Khalid Al-Qahtani**, University of Oxford, UK
- 11:30-11:50 **Use of electricity to direct microbial metabolite production**  
**John M Pisciotta**, West Chester University, USA
- 11:50-12:10 **Lipid metabolism in cancer**  
**Deliang Guo**, The Ohio State University, USA
- 12:10-12:30 **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 **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 **In silico identification of gene targets for bioethanol production from lignocellulosic hydrolysates using E. coli**  
**Shireesh Srivastava**, ICGEB, India
- 15:50-16:10 **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 **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 **Assessment of reproductive hormones and gynaecomastia in male CML patients with imatinib therapy**  
**Veena Singh Ghalaut**, PGIMS ROHTAK, India
- 17:10-17:30 **Tryptase – new diagnostic and prognostic marker for AML AND CML**  
**P S Ghalaut**, PGIMS Rohtak, India
- 17:30-17:50 **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

## 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 Total lipid extraction for lipidomics made easy – the BUME method

Lars Lofgren, AstraZeneca R&amp;D, Sweden

09:50-10:10 Relevance of Machine Learning Approach in Analysing Metabolomic Data to gain insights on Comorbidity issues in COPD &amp; 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 Application of metabolomics for toxicity assessment of solid waste re-utilization

Sam F Y Li, National University of Singapore, Singapore

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

Young Researchers Forum

11:00-11:20 Dissecting the distinct functions of mitochondria

Inmaculada Martinez-Reyes, Northwestern University, USA

11:20-11:40 Quantifying metabolic fluxes in cancer and stem cells

Christin Zasada, BIMS, Germany

11:40-12:00 De-differentiation: A critical malignant phenotype in glioblastoma

Narinderbir Singh, Deakin University, Australia

Panel Discussion

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

## Bookmark your dates

5<sup>th</sup> International Conference and Exhibition on

## Metabolomics &amp; Systems Biology

May 30-June 01, 2016 Osaka, Japan

Website: [www.metabolomicsconference.com](http://www.metabolomicsconference.com)

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