Tentative Program

13th International Conference on
Metabolomics and Systems Biology

June 11-12, 2018 | London, UK

eurometabolomics@annualconferences.org
# 13th International Conference on Metabolomics and Systems Biology

**June 11-12, 2018 | London, UK**

## Program at A Glance

### Day 1

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<td>09.00-09.15</td>
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<td>09.15-09.45</td>
<td>Least of 3 Keynote/Plenary Talks</td>
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<td>Keynote/Plenary Talk 1</td>
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**Morning Sessions**

#### Least of 3 Keynote/Plenary Talks

- 09.15-09.45 Keynote/Plenary Talk 1
- 09.45-10.15 Keynote/Plenary Talk 2
- 10.15-10.45 Keynote/Plenary Talk 3

**Coffee/Tea Break 10.45-11.00 (Networking)**

**Lunch Break 12.40-13.30**

**Coffee/Tea Break 15.30-15.45 (Networking)**

**Day 2**

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<tr>
<th>Time</th>
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<td>09.00-10.40</td>
<td>Metabolic Modelling and Synthetic Biology</td>
<td>Clinical and Precision Medicine Metabolomics</td>
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<td>10.55-12.35</td>
<td>Edibilomics and Lipidomics</td>
<td>Plant and Environmental Metabolomics</td>
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<td>13.25-15.05</td>
<td>Analytical Techniques in Metabolomics</td>
<td>Disease-Focused Research in Metabolomics</td>
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**Coffee/Tea Break 10.40-10.55 (Networking)**

**Lunch Break 12.35-13.25**

**Awards & Closing Ceremony**

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**NOTE:** Program Schedule is subject to change with final allotment of the speaker slots
Conference Highlights

- Metabolomics
- Cancer Metabolomics
- Diagnostic Biomarker Metabolomics
- Metabolic Modelling and Synthetic Biology
- Clinical and Precision Medicine Metabolomics
- Metabolomics in Drug Discovery
- Edibilomics
- Lipidomics
- Plant and Environmental Metabolomics
- Transcriptomics and Proteomics
- Systems Biology
- Computational Methodologies
- Analytical Techniques in Metabolomics
- Recent Advancements in Metabolomics and Systems Biology
- Metabolomic Syndrome
- Metabolomic Devices
- Disease-Focused Research in Metabolomics
Glimpses of Metabolomics Conferences
Tourist attractions in London

Big Ben

Buckingham Palace

London Eye

Trafalgar Square

London Eye
London is the capital and most populous city of the United Kingdom. It was founded by the Romans, who named it Londinium. It is one of the world’s leading financial centres and has the fifth-or sixth-largest metropolitan area GDP in the world depending on measurement. London is a world cultural capital. It is the world’s most-visited city as measured by international arrivals and has the world’s largest city airport system measured by passenger traffic. It is the world’s leading investment destination, hosting more international retailers and ultra high-net-worth individuals than any other city. London’s 43 universities form the largest concentration of higher education institutes in Europe, and according to 2014 report it is placed first in the world university rankings. According to the report London also ranks first in the world in software, multimedia development and design, and shares first position in technology readiness.

Tourist Attraction: Tourism is one of London’s prime industries. London is the most visited city in the world by international tourists. It is a leading global city, with strengths in the arts, commerce, education, entertainment, fashion, finance, healthcare, media, professional services, research and development, tourism, and transport all contributing to its prominence. Famous landmarks include Buckingham Palace, the London Eye, Piccadilly Circus, St Paul’s Cathedral, Tower Bridge, Trafalgar Square and The Shard. It is the home to numerous museums, galleries, libraries, sporting events and other cultural institutions, including the British Museum, National, Tate Modern, British Library and 40 West End theatres.

**Conference Venue**

Linda Grace  
Program Director | Euro Metabolomics 2018 Conference Series Ltd  
Kemp House, 152 City Road, London EC1V 2NX, UK  
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E: eurometabolomics@annualconferences.org
Day 1 May 16, 2016

Registrations

Keynote Forum

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

Title: Diet, amino acids profile, and diabetes risk
Lu Qi, Tulane University, USA

Group Photo

Networking and Refreshments Break:
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

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

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

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

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

Title: Slow-MAS NMR Metabolomics
Jian Zhi Hu, Pacific Northwest National Laboratory, USA

Lunch Break

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

Title: Clinical metabolomics for biomarker discovery of malignant pleural effusions (MPE)
Ching-wan Lam, The University of Hong Kong, Hong Kong

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

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

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

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

**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**

**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**

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

**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

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

**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**

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

**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**

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

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

### Networking and Refreshments Break

#### Poster Presentations

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

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

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

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

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

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

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

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

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

Title: Translational Research in Targeting Glucose or Glutamine Dependency in Solid and Hematologic Neoplasms
Ashkan Emadi, University of Maryland School of Medicine, USA

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

Title: Molecular Mechanism for modulation of a multiple transcription factor complex formed on enhancer site upon phosphorylation
Kazuhiro Ogata, Yokohama City University Graduate School of Medicine, Japan

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

Title: Using chlorophyll as gamma absorber generated from uranium coated weapons to protect Iraqi children from cancer
Jaleel Kareem Ahmed, Babylon University, Iraq

Title: Recent advancements in Mendelian genomics and data management at the Yale Center for Genome Analysis
Shrikant Mane, Yale University School of Medicine, USA
**Title:** ERRα induces mitochondrial glutaminase expression guiding anaplerosis upon osteogenic differentiation of mesenchymal stem cells

Min Guan, Chinese Academy of Sciences, China

**Title:** Development and mining of a volatile organic compound database

Md. Altaf-Ul-Amin, Nara Institute of Science and Technology, Japan

**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