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Metabolomics Society News

Metabolomics 2018. . . One of our biggest conferences to date!

The 2018 Metabolomics Conference in Seattle was a rewarding and enjoyable event for nearly 900 attendees from 40 countries that gathered to discuss cutting-edge metabolomics research. The final programme included almost 600 high quality poster and oral presentations, and the latest technological advances were on show from our corporate sponsors. In addition to the science, the social events were a highlight of the conference, with excellent networking events including the conference dinner at the Museum of Pop Culture (MoPop) and dedicated early-career, Metabolomics Association of North America (MANA), and Pacific Rim social networking events. Check out the full abstract listing and photos of all the action!

Photos can be found here:

<http://www.metabolomics2018.org/program/conference-photos>

Workshop slides can be found here:

<http://metabolomicssociety.org/site-map/articles/88-videos/278-2018-conference-workshop-presentations>

Save the Date now for Metabolomics 2019!

The 15th annual conference of the international Metabolomics Society will be held from June 23-27, 2019, in The Hague, The Netherlands. The conference will cover all aspects of metabolomics science, with the incorporation of new and innovative programs.

Keep an eye on <http://metabolomics2019.org> for future updates.



Officer Election

Thank you to everyone who participated in the poll to elect a new Board of Directors! The results will be announced very soon. Keep an eye on your e-mail for the announcement about the Officer Election.

The President, Secretary and Treasurer positions are all open this year, and the officers play a vital role in the Society. You'll be able to vote for officers in September, thank you in advance for your participation!

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MetaboNews is a monthly newsletter published in partnership between The Metabolomics Innovation Centre (TMIC) and Metabolomics Society.



Jules Griffin
Metabolomics Society
President

Board of Directors

Words From the President

One of our major announcements in Seattle this year was the partnership with MDPI and the journal *Metabolites*. As you may know the Society has been without a journal to partner with for two years, so we are very excited to have an official journal of the Society again. I mentioned some of the benefits for the membership we negotiated in the previous *MetaboNews*, but if you missed that then you can now enjoy a 25% reduction on what are already cheap article open access charges and, while we are still waiting on an official impact factor, it should come in at around 3.2 (current citeScore).

We have a number of collaborations planned between the journal and the Society and these should be facilitated by two Associate Editors to be elected from the Board of the Society. Those elections will take place next month, once we have a new board in place following the Society elections (and many thanks to all those that took part in the elections either standing for the board or voting).

While all this has been happening, I have also been in contact with Roy Goodacre, editor in chief of *Metabolomics* and also an Honorary Fellow of the Society. He's announced that *Metabolomics* is now on PubMed. This is excellent news and should promote the journal and its manuscripts to the wider field. It may seem strange announcing this when at the same time the Society is partnering with another journal, but as our founder Rima Kaddurah-Daouk commented at the townhall meeting, the future of the field requires us to make all the journals publishing metabolomics papers a success. So I encourage you to get reading, citing and publishing in both journals to make for a vibrant field. Happy writing!



METABOLOMICS SOCIETY
EARLY-CAREER MEMBERS NETWORK

The Metabolomics Society is an independent non-profit organisation dedicated to promoting the growth, use and understanding of metabolomics in the life sciences.

General Enquiries

info@metabolomicssociety.org

Membership Enquiries

membership@metabolomicssociety.org

Members Corner

Early-Career Members Network (EMN)

EMN Webinar Series – 2018

Our next EMN webinar is presented by Prof. Lars Nielsen from Australian Institute of Biotechnology and Nanotechnology, The University of Queensland (Australia), who will be discussing "Recent advances towards integrating metabolomics in kinetic models of large metabolic networks".

The webinar will be held on Friday 28th September (08:00-09:00 AEST, Australia) / Thursday 27th (22:00 GMT Europe / 15:00 PT, 18:00 ET USA).

Please stay tuned for the registration link. For more details on Nielsen's lab: <https://aibn.uq.edu.au/profile/3111/lars-nielsen>

You can access the recorded videos of the past webinars on the [Metabolomics Society website](#)

METABO INTERVIEW



Dr. Peter Würtz

Scientific Director
Nightingale Health Ltd.
Helsinki, Finland

Short Biography

Dr Peter Würtz is Scientific Director at Nightingale Health, a biomedical company based in Finland that is transforming healthcare and research for chronic diseases through use of its NMR-based biomarker analysis services.

An internationally recognized molecular epidemiologist, with longstanding experience of metabolomics on cardiometabolic diseases in large population studies, Dr Würtz has authored more than 50 peer-reviewed publications, including highly cited studies on the metabolic signatures of cardiovascular risk factors in young adults and the discovery of novel cardiovascular biomarkers.

These metabolic profiling analyses of large population studies demonstrate improved prediction of heart disease and type 2 diabetes, along with an enhanced understanding of disease mechanisms and applications for drug development.

He holds a PhD in Physical Chemistry and is past Head of Molecular Epidemiology at the Computational Medicine Research Group, University of Oulu. As Nightingale's Scientific Director, Dr Würtz leads translational research on NMR metabolomics to clinical settings. He is the scientific lead of Nightingale's initiative to profile all 500,000 samples from the UK Biobank.

Interview Q&A

MN How did you get involved in metabolomics?

My PhD involved protein NMR analysis, but I really wanted to do more applied medical research afterwards. As a post-doc, I had a joint position between the Computational Medicine research group at University of Oulu, Finland, and a clinical research group focusing on the Cardiovascular Risk in Young Finns Study. That combination was what really paved the way for my future research into the epidemiological applications of metabolomics. Since then, I've worked together with clinical researchers to understand what the key questions are and where metabolic profiling can provide added-value in the context of existing medical research.

MN What are some of the most exciting aspects of your work in metabolomics?

It's been quite a journey, going from the excitement of using blood NMR metabolomics to profile cohorts of a few thousand individuals, to today where we're setting out to profile the entire UK Biobank of half a million blood volunteer samples. This initiative is really changing the game in terms of what size of studies metabolomics can now be applied to, extending from measuring small case control studies to entire national biobank studies.

MN What key metabolomics initiatives are you pursuing at Nightingale

Nightingale is working towards bringing our metabolic profiling services to widespread use in patient settings.

There are four main pillars that we are pushing in order to realize this immense challenge:

1. We are analysing data from large cohort studies to increase the scientific evidence base to understand how metabolic biomarker data can add value for individual doctors and patients.
2. We work intensively with regulatory approval for diagnostic use of our method to qualify results with the same high criteria used in current clinical chemistry.
3. We are extending our lab operations worldwide to serve the local research and clinical communities.
4. We are now running clinical pilots, working together with clinical investigators to ensure the successful delivery of new biomarkers for patient use.

MN How do you see your work in metabolomics being applied today or in the future?

We are now at the stage where our technology can be used to profile the scale of national biobanks, such as UK Biobank, and all the timepoints of even the largest clinical trials. This provides exciting new opportunities to realize some of the promise of personalized medicine. For example, profiling very large studies, understanding the biomarker disease associations for different patient types and then translating this back into relevance for individual patients.

MN As you see it, what are metabolomics' greatest strengths?

[Nightingale's NMR-based metabolomics](#) provides a combination of existing clinical biomarkers alongside a whole range of emerging biomarkers (such as amino acids and fatty acids) that are nowadays used in public health research. There's a lot of clinical potential in capturing all these biomarkers in one measurement.

MN What improvements, technological or otherwise, need to take place for metabolomics to really take off?

I feel that it is already taking off, but we need to keep working towards qualifying this technology for clinical use. In order to demystify it, we need to have the measurements as robust and as low cost as the methods currently used in primary care settings. There's a recognized need to really advance both NMR spectroscopy and Mass Spec technologies to meet the requirements of high-throughput, low cost and standardization required for clinical use. This is at the core of what Nightingale is working towards achieving.



Metabo Interview | Dr. Peter Würtz

MN What role can metabolomics standards play?

I think it's important to align the biomarker output with what is used in clinical settings. For example, Nightingale has validated its technology against all the requirements for regulatory approval in Europe by receiving CE marking and establishing a certified quality management system (EN ISO 13485:2012).

MN Do you have any other comments that you wish to share about metabolomics?

I'm really excited by the opportunities presented by profiling national biobanks and clinical trials at an unprecedented scale and how this will lead towards refining the evidence for metabolomics' eventual use in patient screening and clinical settings. It's about going beyond the obsession with novelty biomarker discovery, and instead focusing on the added molecular insights and robust applications for screening and clinical decision making.



Recent Publications

Recent Publications

Recently published papers in metabolomics

- [Increasing Compound Identification Rates in Untargeted Lipidomics Research with Liquid Chromatography Drift Time-Ion Mobility Mass Spectrometry.](#)
- [NMR-based Serum Metabolomics of patients with Takayasu arteritis \(TA\) - Relationship with disease activity.](#)
- [A Cloud-Based Metabolite and Chemical Prioritization System for the Biology/ Disease-driven Human Proteome Project.](#)
- [Biomarkers of Individual Foods, and Separation of Diets Using Untargeted LC-MS Based Plasma Metabolomics in a Randomized Controlled Trial.](#)
- [GC/MS in Recent Years Has Defined the Normal and Clinically Disordered Steroidome: Will It Soon Be Surpassed by LC/Tandem MS in This Role?](#)
- [Metabolomics as a tool to evaluate the toxicity of formulations containing amphotericin B, an antileishmanial drug.](#)
- [Use of high-resolution metabolomics for the identification of metabolic signals associated with traffic-related air pollution.](#)
- [Identification of essential hypertension biomarkers in human urine by non-targeted metabolomics based on UPLC-Q-TOF/MS.](#)
- [Optimization of extraction and analytical protocol for mass spectrometry-based metabolomics analysis of hepatotoxicity.](#)
- [Metabolomics for the early detection of cisplatin-induced nephrotoxicity.](#)
- [New enzymatic and mass spectrometric methodology for the selective investigation of gut microbiota-derived metabolites.](#)



The advertisement for ChenomX features a blue background with a blurred image of laboratory glassware. On the left, the ChenomX logo is displayed, consisting of a green circle with a white dot inside, followed by the text 'CHENOMX' in white. Below the logo, a yellow banner contains the website 'www.chenomx.com'. To the right of the logo, the text 'NMR ANALYSIS YOU CAN TRUST' is written in white. In the bottom right corner, there is a screenshot of the ChenomX software interface, which shows a complex NMR spectrum with multiple peaks and a chemical structure of a molecule.



Metabolomics Events



30 Aug - 1 September 2018

The Australian & New Zealand Metabolomics Conference

Venue:

University of Auckland, New Zealand

The essence of any conference lies in community-building. A meaningful conference is a safe, supportive and open environment aimed at fostering growth, awareness and learning – and should be attendee-driven. These key ingredients for ‘reengineering the traditional conference’ are the basis and inspiration behind developing ANZMET as the **first peer-driven scientific conference in Australia**. The conference hosts a blend of traditional presentations, roundtable discussions and peer sessions, providing a flat hierarchy and a rich & rewarding interpersonal process.

Following on from the success of the first ANZMET conference in 2016, and its satellite event/workshop held during the Metabolomics2017 conference in Brisbane, Australia, it is with great pleasure and excitement that we continue to develop the peer-conference model and reach out to the dynamic and supportive people of the Australian & NZ metabolomics community.

The ANZMET conference is designed from conception as a community-owned event and provides a **facilitated networking experience** where:

- (1) Attendees learn on the first day of each others interests, experience, scientific background, collaboration opportunities and other avenues for outreach
(**The Round-table Discussion**)
- (2) An open-forum format for rich discourse on spontaneous peer-selected topics
(**The Peer Session**)
- (3) The delivery of critical updates in the field (**Traditional Presentations**)
- (4) The tailored and vital exposure of young scientists to the wider research community
(**Rapid-fire Postgraduate Presentation Sessions**)

Please visit <http://www.anzmet.org/>.

Metabolomics Events



9-12 September 2018

MOVISS – The Mountain Village Science Series

Venue:

Vorau, Austria

MOVISS – the “Mountain Village Science Series” takes place in Vorau, Austria (Sep 9-12, 2018). MOVISS is different to the usual conferences. It is designed as a small, problem-driven meeting, full of discussions and questions about how to deal with metabolomics data reasonably. In this way, we hope to constructively engage some of the greatest minds collaboratively on solving some of the challenges of the metabolomics and bioinformatics community. Together with hiking tours and social program, MOVISS is planned to be friendly and relaxing meeting for scientists interested in the fields of metabolomics and statistics.

To register and for more information, go to www.MOVISS.eu and follow us on Twitter [@MOVISSmeet](https://twitter.com/MOVISSmeet). We will have a shuttle bus to take people to and from the airport; for details, please see the website.



18-20 September 2018

Benelux Metabolomics Days and Kick-Off ELIXIR Metabolomics Community

Venue:

Rotterdam, The Netherlands

Benelux Metabolomics Days

On September 19 and 20, 2018, NMC will organize for the first time the “Benelux” Metabolomics days in Rotterdam, The Netherlands. It is for the first time that researchers from Belgium, The Netherlands and Luxemburg meet, but of course this meeting will be very interesting and open to all other European researchers performing and applying metabolomics in their research. The entire meeting will be in English. It is our intention to organize annual Benelux meetings, in years that the global metabolomics conferences are not being held in Europe. Visit the conference website for more information and registration!

Kick-off ELIXIR Metabolomics Implementation Study

Recently funding for a European ELIXIR Metabolomics community was acquired, uniting researchers in the UK, France, Belgium, The Netherlands, Germany, Sweden, Spain, Greece, Italy, Switzerland, Estonia and the ELIXIR-hub. ELIXIR is a European research infrastructure, that brings together life science resources from across Europe, which include databases, software tools, training materials, cloud storage, and supercomputers. The goal of the ELIXIR Metabolomics community is to work with experimental scientists and developers to provide the resources, analysis tools, and infrastructure that will help metabolite identification. The community will also establish an infrastructure of services, standards, and datasets to help researchers discover, annotate, and analyse metabolomics data from around Europe. On September 18 (evening) and 19 (morning), the kick-off of this Implementation Study will take place, just prior to the Benelux Metabolomics days.

More information: <https://www.elixir-europe.org/communities/metabolomics>

Metabolomics Events



19-21 Sept 2018

Introduction to Metabolomics for the Microbiologist

Venue:

Birmingham Metabolomics Training Centre, School of Biosciences
University of Birmingham, Birmingham, UK

Limited bursaries are now available for PhD students funded by NERC, which make the registration for this course **FREE** to these students.

This three-day course will introduce the attendees in how untargeted metabolomics can be applied to study microbial systems in academic and industrial research. The course will provide an overview of the metabolomics pipeline from experimental design to sample preparation and data acquisition to data analysis/interpretation.

The course will be led by experts in the field of metabolomics and will include lectures, hands-on laboratory sessions in sample preparation and data acquisition and computer workshops focused on data processing and data analysis.

Topics covered:

- Introduction to metabolomics, both targeted and untargeted approaches
- Experimental design and the importance of quality control samples in untargeted metabolomics
- Analytical strategies applied in metabolomics with a focus on mass spectrometry
- Hands-on laboratory sessions focused on sample preparation and to include metabolic quenching and extraction procedures, intracellular and exometabolome samples and polar and non-polar extraction methods
- Hands-on laboratory sessions focused on sample analysis for untargeted metabolomics studies using an Acquity UPLC coupled to a Xevo QToF mass spectrometer
- Hands-on workshop focused on data processing and data analysis
- Hands-on workshop focused on an introduction to metabolite identification
- Question and answer session with the experts

Level:

The course is aimed at individuals with minimal experience of applying metabolomics in their research and no or limited experience of using a liquid chromatography – mass spectrometer. The attendees will leave the course understanding and being able to apply the metabolomics pipeline in their research.

For more information and to register, please visit <https://www.birmingham.ac.uk/facilities/metabolomics-training-centre/courses/introduction-metabolomics-microbiologist.aspx>

Metabolomics Events



27-28 Sep 2018

Introduction to Metabolomics for the Environmental Scientist

Venue:

Birmingham Metabolomics Training Centre, School of Biosciences, University of Birmingham, Birmingham, UK

Bursaries for NERC funded scientists: While this course is open to all researchers with an interest in the environmental sciences, it is a NERC-funded Advanced Training Short Course and hence priority will be given to NERC funded scientists; this includes NERC PhD students (highest priority), NERC PDRA's and Fellows (next highest priority) and principal and co-investigators who currently hold NERC funding.

This 2-day NERC-funded Advanced Training Short Course will provide environmental scientists with an overview of the metabolomics pipeline. The course is intended for environmental scientist with little or no previous experience of metabolomics and who are interested to discover how this relatively new and powerful approach could be integrated into their research. Experts working in the NERC Metabolomics facility-NBAF-Birmingham will teach the course.

Topics covered:

- Introduction to environmental metabolomics with case studies
Experimental design and quality control
- Sample collection and preparation
- Overview of analytical laboratory techniques
(mass spectrometry and NMR spectroscopy)
- Overview of data processing and statistics for metabolomics
- Introduction to metabolite identification

For further information and registration details, please visit <https://www.birmingham.ac.uk/facilities/metabolomics-training-centre/courses/introduction-metabolomics-environmental.aspx> or contact bmtc@contacts.bham.ac.uk

Metabolomics Events



27 Sep 2018

Bioanalysis of Large Molecules using Chromatography - Workshop

Venue:

The Royal Society of Chemistry, Burlington House, Piccadilly, London, W1J 0BA, United Kingdom

The workshop will introduce chromatographic challenges associated with large molecules and bioanalytical troubleshooting for biotherapeutics through a combination of lectures and worked examples.

At the end of the course, participants will be able to approach bioanalytical problem solving in a stepwise and structured way and present investigational strategies to project teams or line-management.

The course will be an opportunity for participants to work through bioanalytical problems related to protein therapeutics in a workshop environment supported by experienced mentors. Attendees will have the opportunity to present their own case studies for discussion.

For further information and registration details, please visit

<http://www.rsc.org/events/detail/33170/bioanalysis-of-large-molecules-using-chromatography-workshop>



Metabolomics Events

SardegnaRicerche **1-5 Oct 2018**

4th Metabolomics Sardinian Summer School: "Nutritional Metabolomics"

Venue:

Polaris Technology Park, Pula, Sardinia, Italy

Course Objectives and Targets

Participants will attend theoretical sessions with lectures by experts, and hands-on data analysis aimed to deepen the theoretical and practical knowledge for using the main tools available to better understand the role of nutrition in health and disease. The School is mainly targeted to researchers at an early stage in their career (but not only), from Biological Sciences, Health Sciences and other different background (including bioinformatics) who are interested in learning about both technical and bioinformatics tools to be applied on Nutritional Metabolomics

Participants will learn about:

- How to design a metabolomics experiment;
- How to measure nutritional and metabolism biomarkers;
- How to find correlations between dietary habits and health.

Main Topics

- NMR and MS in Foodomics and Nutrition
- Ion Mobility techniques in lipids analysis.
- Statistics, Data fusion and Data integration
- Metabolomics, Microbiome and Nutrition
- Metabolomics: beyond biomarkers and towards mechanisms
- New challenges in Human Nutrition
- Lipidomics in Nutrition

Daily lectures and hands-on sections, plus poster and oral presentations from participants

Applications

The course is funded by the Regional Sardinian government and registration will be free of charge for all attendees. Selection will be based on CV and a letter stating the motivations for attending the course and future research plans of candidates. A letter of reference from the current supervisor must also be attached to the application. Registration includes course material, lunches and coffee breaks (not accommodation expenses). For selected participants contribution or reimbursement will be considered.

Organizing Committee

- Atzori Luigi, Università Cagliari, Cagliari, Italy (latzori@unica.it)
- Caboni PierLuigi, University of Cagliari, Italy (caboni@unica.it)
- Griffin Jules, University of Cambridge, Cambridge, UK (jlg40@cam.ac.uk)
- Pieroni Enrico, CRS4, Pula, Italy (ep@crs4.it)

Summer School Secretariat: nutrimet2018@gmail.com

For detailed information about the Summer School in Sardinia, visit:

[Nutritional Metabolomics School 2018](#)

Metabolomics Events



8-12 Oct 2018

Workflow4Experimenters 2018 Course:

Analyze your LCMS, GCMS and NMR data with Galaxy and the Workflow4Metabolomics online platform

Venue:

Paris, France

During this “Bring Your Own Data” one-week course at the center of Paris (France), you will use Galaxy and the Workflow4Metabolomics online platform (W4M) to analyze your own LC-MS, GC-MS, or NMR data set. Morning sessions will be dedicated to methodology and tools. Afternoon sessions will be devoted to tutoring on your data.

Invited speakers: Christoph Steinbeck (Friedrich Schiller University - Jena) and Julien Bocard (University of Geneva)

Organization: Infrastructures for bioinformatics (ELIXIR-FR, IFB) and metabolomics (MetaboHUB).

Registrations: <http://workflow4metabolomics.org>

Contact: contact@workflow4metabolomics.org



8 Oct - 2 Nov 2018

Metabolomics Data Processing and Data Analysis

Venue: Online

This online course will explore the tools and approaches that are used to process and analyse metabolomics data, we will investigate the challenges that are typically encountered in the analysis of metabolomics data and provide solutions to overcome these problems. The course will be delivered using a combination of short videos, articles, discussions, and online workshops with step-by-step instructions and test data sets. We will provide quizzes, polls and peer review exercises each week, so that you can review your learning throughout the course.

Course Syllabus:

- An introduction to metabolomics
- An overview of the untargeted metabolomics workflow
- The influence of experimental design and data acquisition on data analysis and data quality
- Processing of NMR data

Metabolomics Events

- Processing direct infusion mass spectrometry data
- Processing liquid chromatography-mass spectrometry data
- Reporting standards and data repositories
- Data analysis, detecting outliers and drift, and pre-treatment methods
- Univariate data analysis
- Multivariate data analysis (including unsupervised and supervised approaches)
- The importance of statistical validation of results
- Computational approaches for metabolite identification and translation of results into biological knowledge
- What are the future challenges for data processing and analysis in metabolomics

Level:

The course would be ideally suited to MSc/PhD students or scientists who are in the early stages of analysing metabolomics data. No previous knowledge of the data processing and statistical analysis approaches is assumed, but a basic understanding of the metabolome, and the analytical techniques applied in the metabolomics field would be beneficial. A pre-course recommended reading list will be provided.

For further information and to register, please visit <https://www.birmingham.ac.uk/facilities/metabolomics-training-centre/courses/Metabolomics-Data-Processing-and-Data-Analysis.aspx>



22 Oct 2018

Introduction to Metabolomics for the Clinical Scientist

Venue:

Birmingham Metabolomics Training Centre, School of Biosciences
University of Birmingham, Birmingham, UK

This 1-day course in partnership with the Phenome Centre Birmingham will provide clinicians with an overview of the metabolomics pipeline, highlighting the benefits of the technique to the medical field. The course will provide an:

- Introduction to experimental design and sample collection
- An overview of both the analytical and computational methods applied in the field
- Case studies and panel discussions with the experts

For further information and registrations details, please visit <http://www.birmingham.ac.uk/facilities/metabolomics-training-centre/courses/introduction-metabolomics.aspx> or contact bmtc@contacts.bham.ac.uk

Metabolomics Events



11-13 Nov 2018

Lipidomics Forum

Venue:

Dortmund, Germany

The fourth Lipidomics Forum is being hosted between the 11th and 13th of November 2018 at ISAS in Dortmund, which is a joint effort with the Research Center Borstel. This symposium is an annual series of conferences on lipid biology and lipidomics to provide a platform for international acknowledged scientists, students, and young researchers to interact.

Specifically, we will encourage students to participate by poster presentations and short talks allowing them to receive advice from experts in the field. Therefore, this symposium series will not only cover current research highlights but also offer tutorials on selected methodical topics. We are convinced to have created a stimulating and scientifically attractive fourth edition of the Lipidomics Forum especially for you.

For this year, the German society for mass spectrometry ([DGMS](#)) offers travel grants for Ph.D. students (200€ within North Rhine-Westphalia, otherwise 250€), at most three grants per work group.

For further information and registrations details, please visit:

<https://lipidomics-forum.isas.de/index.php>



Metabolomics Events



15-30 Nov 2018

The 3rd International Electronic Conference on Metabolomics

Venue:
Online

The 3rd International Electronic Conference on Metabolomics will be held online (<https://sciforum.net/conference/iecm-3>) from **15–30 November 2018**, enabling you to present your latest research to the scientific community and to have the opportunity to participate in fruitful exchanges of information with academic and industrial groups from all over the world. It is absolutely **FREE of charge** to participate as an author or a visitor; all you need to do is register on the home page. After the conference, the authors are also welcome to submit an extended version of the proceeding papers to the [Special Issue](#) of Journal *Metabolites* with a **20% discount** off the Article Processing Charge.

Main Topics

- Advanced Metabolomics and Data Analysis Approaches
- Identification of Unknowns
- Precision Nutrition and Food Specific Profiles
- Microbiota and Metabolomics
- Pathway Mapping and Fluxomics

Key Dates

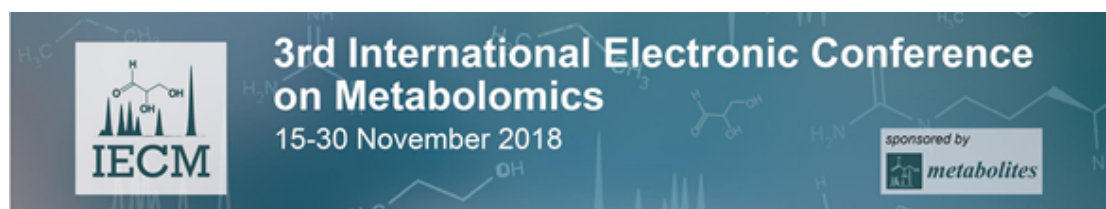
25 September, 2018 Deadline for Abstracts

This year, as a sponsor, *Metabolites* would like to award the best presentation as selected by an evaluation committee. The winner will be offered publication of the extended full manuscript free of charge in the Special Issue of *Metabolites* together with a Certificate.

We look forward to receiving your contributions.

For more information and to register, please visit:

<https://sciforum.net/conference/iecm-3> and follow us on Twitter [@MetabolitesMDPI](#).



Metabolomics Events



19-21 Nov 2018

Metabolomics with the Q Exactive

Venue:

Birmingham Metabolomics Training Centre, School of Biosciences
University of Birmingham, Birmingham, UK

This 3-day course will introduce you to using the Q Exactive mass spectrometer in your metabolomics investigations. The course is aimed at students and researchers with minimal previous experience of applying LC-MS in metabolomics. The course will be led by experts in the field and include lectures, laboratory sessions and computer workshops to provide:

- An introduction to metabolomics and using the Q Exactive mass spectrometer in your studies
- Polar and non-polar sample preparation for profiling and targeted studies
- Data acquisition for profiling and targeted studies
- Data processing and data analysis
- Introduction to metabolite identification

The course will finish with a question and answer session with a panel of experts.

For further information and registrations details, please visit <http://www.birmingham.ac.uk/facilities/metabolomics-training-centre/courses/introduction-metabolomics.aspx> or contact bmtc@contacts.bham.ac.uk



22-23 Nov 2018

Metabolite identification with the Q Exactive and LTQ Orbitrap

Venue:

Birmingham Metabolomics Training Centre, School of Biosciences, University of Birmingham, Birmingham, UK

Limited bursaries are now available for PhD students funded by NERC, which make the registration for this course **FREE** to these students.

This 2-day course will provide a hands-on approach to teach the latest techniques and tools available to perform metabolite identification. We will apply these tools on the Q Exactive and LTQ Orbitrap mass spectrometry family. The course is targeted towards students and researchers who are actively applying metabolomics.

The course will be led by experts in the field and include significant hands-on experience using both the Q Exactive and LTQ Orbitrap instruments to perform:

- Data dependent acquisition
- Data independent acquisition
- MS/MS and MSⁿ data acquisition

The course will finish with a session on the tips and tricks from the experts and an opportunity to ask questions.

For further information and registration details, please visit <http://www.birmingham.ac.uk/facilities/metabolomics-training-centre/courses/metabolite-identification.aspx> or contact bmtc@contacts.bham.ac.uk

Metabolomics Events

Imperial College
London

27-21 Nov 2018

Hands-on Data Analysis for Metabolic Profiling

Venue:

Imperial College London, Exhibition Road, London, United Kingdom

This 4 day course provides a comprehensive overview of data analysis for metabolic profiling studies with data acquired from NMR spectroscopy and Liquid Chromatography-Mass Spectrometry. It combines lectures and tutorial sessions to ensure a thorough understanding of the theory and practical applications.

Earlybird: £900 (valid until 15 October 2018)

Standard: £1100

Registration: Register using [this link](#)

For further information and registration details, please visit <http://www.imperial.ac.uk/imperial-international-phenome-training-centre/courses/hands-on-data-analysis-for-metabolic-profiling/>

Imperial College
London

3-7 Dec 2018

Hands-on LC-MS for Metabolic Profiling

Venue:

Imperial College London, Exhibition Road, London, United Kingdom

This week-long course aims to cover how to perform a metabolic profiling experiment, from start to finish. It will cover study design, sample preparation, the use of mass spectrometry for global profiling and targeted methodologies and data analysis.

Earlybird: £1750 (valid until 22 October 2018)

Standard: £1950

Registration: Register using [this link](#)

For further information and registration details, please visit <http://www.imperial.ac.uk/imperial-international-phenome-training-centre/courses/hands-on-lc-ms-for-metabolic-profiling/>



Metabolomics Events

Imperial College
London

3-7 Dec 2018

Hands-on NMR Spectroscopy for Metabolic Profiling

Venue:

Imperial College London, Exhibition Road, London, United Kingdom

This week long course aims to cover how to perform a metabolic profiling experiment, from start to finish. It will cover study design, sample preparation, NMR spectrometer set up for global profiling, 2-dimensional NMR experiments and spectral data analysis.

Earlybird: £1750

Standard: £1950

Registration: Register using [this link](#)

For further information and registration details, please visit <http://www.imperial.ac.uk/imperial-international-phenome-training-centre/courses/hands-on-nmr-spectroscopy-for-metabolic-profiling/>

MetaboMeeting
2018 17-19 December
University of Nottingham, UK

17-19 Dec 2018

Metabomeeting 2018

Venue:

University of Nottingham, United Kingdom

Welcome to MetaboMeeting 2018. The Metabolic Profiling Forum is delighted to announce the 11th Metabomeeting which is to be held at the University of Nottingham in the UK on the 17th-19th December 2018.

The meeting will bring together research scientists and practitioners from all areas of application and development of metabolic profiling, covering a wide range of experience from early career scientists to experts from throughout the international metabolomics field.

MetaboMeeting 2018 continues to highlight the work of its attendees through both oral platform presentation and poster sessions.

Oral presentation and poster abstract submission 30 September 2018

For further information and registration details, please visit:

http://thempf.org/mpf_cms3/index.php

Metabolomics Events



Jan 31 - June 30 2019

Research Hotel Application

Venue:

The Metabolomics Innovation Centre. Edmonton, Canada

Application deadline is Sept. 30 2018

The Metabolomics Innovation Centre (TMIC) at the University of Alberta, in Edmonton, Alberta, Canada offers hands-on training opportunities in metabolomics and bioinformatics to qualified scientists. To apply, [please complete the application here](#).

For more information, contact dchamot@ualberta.ca.



3-8 Feb 2019

Understanding Human Diseases Through Metabolomics: Interactions Among the Genome, Proteome, Gut Microbiome and Nutrition (Gordon Conference Series on Metabolomics and Human Health)

Venue:

Four Points Sheraton / Holiday Inn Express
1050 Schooner Drive
Ventura, CA, USA

Application Information

Applications for this meeting must be submitted by January 6, 2019. Please apply early, as some meetings become oversubscribed (full) before this deadline. If the meeting is oversubscribed, it will be stated here. Note: Applications for oversubscribed meetings will only be considered by the conference chair if more seats become available due to cancellations.

Conference Description

Metabolomics is the comprehensive study of the metabolome, the repertoire of biochemicals present in cells, tissues, and body fluids. The study of metabolism at the global or “-omics” level is a rapidly growing field that has the potential to have a profound impact upon medical practice. At the center of metabolomics, is the concept that a person’s metabolic state provides a close representation of that individual’s overall health status. This metabolic state reflects what has been encoded by the genome, and modified by diet, environmental factors, the gut microbiome among other influences. The metabolic profile provides a quantifiable readout of biochemical state from normal physiology to diverse pathophysiologies in a manner that is often not obvious from gene expression analyses. In this Gordon Conference series, we highlight state of the art metabolomics technologies and their applications to the study of human health and disease.

We will cover most recent developments in the field covering applications of metabolomics for deeper understanding of disease mechanisms, disease heterogeneity and disease progression; variation in treatment outcomes and enablement of precision medicine approaches; connections between metabolome, proteome and genome and atlases being created; effects of exposome, diet and gut microbiome on human metabolome and health. We will highlight large consortia initiatives which enable epidemiology and clinical studies, functional genomics, nutrigenomics, pharmaceutical applications including toxicology studies, systems pharmacology, environmental exposures effects on health (exposome) and beyond. We invite established as well as early career members to attend this meeting from academia industry and regulatory agencies.

For further information, please visit:

<https://www.grc.org/metabolomics-and-human-health-conference/2019/>

Metabolomics Events



13-15 May 2019

Challenges in Analysis of Complex Natural Mixtures Faraday Discussion

Venue:

John McIntyre Conference Centre, University of Edinburgh, 18 Holyrood Park Road, Edinburgh, EH16 5AY, United Kingdom

Structure determination of molecules contained within unresolved complex mixtures represents an unsolved question that continues to challenge physical and analytical chemistry. Most naturally occurring systems can be characterised as complex mixtures. These can be broadly divided according to the molecular sizes of their constituents, into mixtures of small or large molecules. The focus of this Faraday Discussion will be on the former, while the latter such as biomacromolecules, industrial polymers, or solid matrices are outside of its scope as such. Nevertheless, the processes that are used in analysing the data originating from these studies may be of interest.

Examples of small molecule mixtures include:

- Environmental matrices such as soil, dissolved organic matter, organic molecules contained in atmospheric aerosol particles, or crude oil
- Biofluids
- Man-made mixtures of small molecules such as food, beverages or plant extracts

These systems are generally classed as “complex mixtures” or “unresolved complex mixtures (UCM)”, emphasising our current inability to separate their individual components.

The techniques best positioned to tackle such mixtures experimentally include mass spectrometry, chromatography, NMR spectroscopy, or new alternative techniques, including combinations of the above methods. For the most part, people who work on the analysis of complex mixtures are driving the progress in exploiting new methodologies and their creative combinations.

For further information and registration details, please visit <http://www.rsc.org/events/detail/29574/challenges-in-analysis-of-complex-natural-mixtures-faraday-discussion>

Metabolomics Jobs & Collaborations

If you have a job you would like posted, please email Ian Forsythe (metabolomics.innovation@gmail.com).

Jobs Offered

Job Title	Employer	Location	Posted	Closes	Source
Various Positions			19-Jun-18		Metabolomics Society Jobs
Postdoctoral Researcher Position	UCSF	San Francisco, USA	01-Mar-18	Until filled	Metabolomics Society Jobs
Senior Scientific Officer (Lipidomics/ Metabolomics)	Nanyang Technological University	Singapore	12-Feb-18	Until filled	Metabolomics Society Jobs
Postdoc Position in Cheminformatics and Computational Metabolomics	Friedrich-Schiller-University	Jena, Germany	09-Feb-18		Friedrich-Schiller-University
Ph.D. Position on Mass Spectrometry-Based Analysis of Metabolites	University of Basel	Basel, Switzerland	31-Jan-18	Until filled	Metabolomics Society Jobs
Various Positions			08-Aug-18		Metabolomics Association of North America
Postdoctoral Fellow in Metabolomics and Exposomics	Icahn School of Medicine at Mount Sinai	New York, USA	26-Jan-18	Until filled	Metabolomics Society Jobs
Senior Research Assistant in Metabolomics	Icahn School of Medicine at Mount Sinai	New York, USA	24-Jan-18	Until filled	Metabolomics Society Jobs

Metabolomics Jobs |

Jobs Wanted

This section is intended for very highly qualified individuals (e.g., lab managers, professors, directors, executives with extensive experience) who are seeking employment in metabolomics.

We encourage these individuals to submit their position requests to Ian Forsythe (metabolomics.innovation@gmail.com). Upon review, a limited number of job submissions will be selected for publication in the Jobs Wanted section.
