



MetaboNews &lt;metabolomics.innovation@gmail.com&gt;

---

**[Test] MetaboNews April Issue**

---

**MetaboNews** <metabolomics.innovation@gmail.com>  
Reply-To: us21-68746d5b55-14ebc60ffa@inbound.mailchimp.com  
To: MetaboNews readers at <metabolomics.innovation@gmail.com>

Wed, Apr 19, 2023 at 12:19 PM

Extend the "clipped email" to view this properly  
[View this issue in your browser](#)

# MetaboNews

## This month in metabolomics

APRIL, 2023

Vol 13, Issue 4

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



---

## In This Issue

[Metabolomics Society News](#)[TMIC 2.0 Launch](#)[MetaboInterview:](#)[Tao Huan](#)

[The Metabolomist Podcast](#)

[Recent Publications](#)

[Events](#)

[Jobs](#)

\*Please click on the hyperlinked Table of Contents to navigate to specific sections\*

## Metabolomics Society News



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

General Enquiries

[info@metabolomicssociety.org](mailto:info@metabolomicssociety.org)

Membership Enquiries

[membership@metabolomicssociety.org](mailto:membership@metabolomicssociety.org)

## Conference Corner



**[Metabolomics 2023 –Niagara Falls, Canada, June 18-22](#)**

Registration is open, take advantage of the lower registration rate before it increases on May 22. Members of the Society will receive additional savings – make sure you renew your membership prior to registering.

### **REGISTRATION**

We are still accepting Poster Abstracts through May 16, but don't delay! The sooner you submit your abstract, the sooner you can receive your acceptance e-mail. Metabolomics 2023 will also have the virtual poster gallery again this year, so posters will have extra exposure before and after the conference. Submit your abstract soon!

### **SUBMIT ABSTRACT**

Keep an eye on the website over the next 2 weeks, as the agenda will be updated to include all oral talks and sessions. We are thrilled with the quality of work that was submitted, it's sure to be an engaging and interesting conference!

In the meantime, you can sign up for Workshops, and soon you'll be able to reserve your seat for a Sponsor Lunch Presentation, hosted by our Platinum sponsors. It's free to attend, you can take your lunch with you to the presentation, but you need to sign-up in advance to reserve your spot. We'll notify you once sign-up is available, through the registration portal.

Take a moment to review the MANY lovely features of Niagara Falls, and perhaps you'll be able to spend some time exploring before or after the conference. The website has loads of suggestions [here](#). We look forward to seeing you in beautiful Niagara Falls!

---

## **Members' Corner**

### **Board of Directors**

Dear Society Members,

As many of you know as a Board of Directors, we meet online every month to discuss Metabolomics Society business. During this meeting, we discuss progress on our Society's conference, as well as reporting on any affiliate activities, and we keep an interested eye and ear on the many task groups that help support our society. More on these later.

These meetings are held monthly and with directors across the globe in many different time zones (in fact the largest delta is 12 hours), thus we take turns in who must get up extra early in the morning, or dial in late, well after normal bedtime hours. This April the

meeting fell on Easter Monday (a few days before I wrote this blog). As many countries celebrate and give their employees the day off (some call this a Bank Holiday), we, therefore, took the correct decision to not meet 'face-to-face' online but rather to discuss things off-line. This is in line with our commitment to Diversity, Equity, and Inclusivity, and if you are interested you can learn more about this [here](#) where our DEI strategy is to facilitate the Society's mission to foster and sustain a diverse, equitable, and inclusive metabolomics community.


In all events, this Easter meeting would have been a quiet one as the conference in Niagara Falls is coming together very well and we are looking forward to meeting you at this international event. The main point of business is to agree on our excellent award winners. Fabien Jourdan is head of the Nomination & Election Committee and he has done a fantastic job in coordinating this. He will be giving us the opportunity to decide online the final line up so that the BoD can unanimously agree on our prize winners. You'll learn the outcome in June, and at this stage I'd like to thank Fabien for his hard work in coordinating this.

I said at the start of this that I'd come back to our international affiliates and Society task groups. As is normal practice, we shall be meeting with our affiliates in Niagara Falls and so it will be a nice opportunity to discuss shared activities and see how we can help each other going forward. If you represent a group that is not yet an affiliate, please talk to the BoD in June.


For the task groups, we hope to discuss progress either directly or via a report to see how these important activities are progressing and how again we may be able to mutually help one another. We have many different task groups: these are at the heart of the Society. These TGs include both members from the BoD and perhaps more importantly experts with highly desirable skills that can help drive these. Visit the Metabolomics Society site to see tabs for our [current scientific task groups](#). If you are interested in being involved, please get in touch with the task group leader or have a chat with the BoD in Niagara Falls.

For those that celebrate it, the BoD wish you a very Happy Easter season, and if you don't then we wish you all the very best.

**Roy Goodacre, University of Liverpool, UK**  
**President, Metabolomics Society**

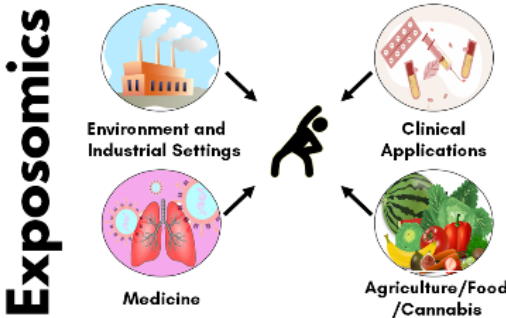


CanMetCon  
Canadian Metabolomics Conference



TMIC  
The Metabolomics Innovation Centre

# Plenary Speakers



**Exposomics**


Environment and Industrial Settings

Clinical Applications


Medicine

Agriculture/Food/Cannabis


Visit us: [www.canmetcon.com](http://www.canmetcon.com)



Dr. Susan Sumner




Dr. Gary Miller



Dr. Joerg Bohlmann

**4<sup>th</sup> Annual Canadian Metabolomics Conference (CanMetCon)**  
**June 15-16, 2023 - Niagara-on-the-Lake, Ontario, CA**



We are pleased to announce that Dr. Gary Miller (Columbia University Mailman), Dr. Joerg Bohlmann (UBC), and Dr. Susan Sumner (UNC at Chapel Hill) will join us as plenary speakers. In addition to our featured speakers, this conference will host selected speakers from among our registrants, with many talk spots still [available](#). This conference will complement the larger 19th Annual Metabolomics Society Conference, being held in Niagara Falls only a few days later, giving attendees access to two world-class conferences only days apart. For more information about our conference, please visit our website at [canmetcon.com](http://canmetcon.com).

## [Early-career Members Network \(EMN\)](#)

### EMN Webinar Series

The EMN would like to thank once again Prof. Ntakadzeni Edwin Madala and Ms. Babra Moyo for their insightful and brilliant talks on the challenges of isomer differentiation during LC-MS metabolite identification. Stay tuned for announcements sent over email and posted on our social media platforms for the upcoming webinar!

### EMN MetaboART Competition

Images can often be more effective than words in highlighting how research in metabolomics has an impact on global society, universities, and industry. Thus, this year the EMN is enthusiastic to announce the MetaboArt contest for the participants of

Metabolomics 2023 – the 19th annual conference of the Metabolomics Society. This is a great opportunity to showcase your research project through your creativity! You cannot miss it! Send your picture and story to [info.emn@metabolomicssociety.org](mailto:info.emn@metabolomicssociety.org) by the 12<sup>th</sup> of May.

For more details, please visit the following link: [MetaboArt](#)

---

## Education and Training Committee

### **Educating the Researcher: Traceable Sample Management & Processing**

Your samples have been collected and now it's time to plan for data acquisition. What do you need to do to plan your acquisition? What do you need to do with your samples? How do you keep track of everything? Join us for an exploration into the questions that often arise about pre-acquisition sample management and processing. We will discuss this topic from both small-scale and large-scale perspectives in both academic and industry.



**Panelists:** Annie Evans, Maria Monge, Oscar Yanes

**Date:** April 21, 2023

**Time:** 9.00 AM EST / 3.00 PM CET

**Registration link:** [https://zoom.us/webinar/register/WN\\_CBFvUBt3SA-ePIlr0cYaJw](https://zoom.us/webinar/register/WN_CBFvUBt3SA-ePIlr0cYaJw)

---

## **International Affiliates' Corner**

### **Polish Society of Metabolomics**

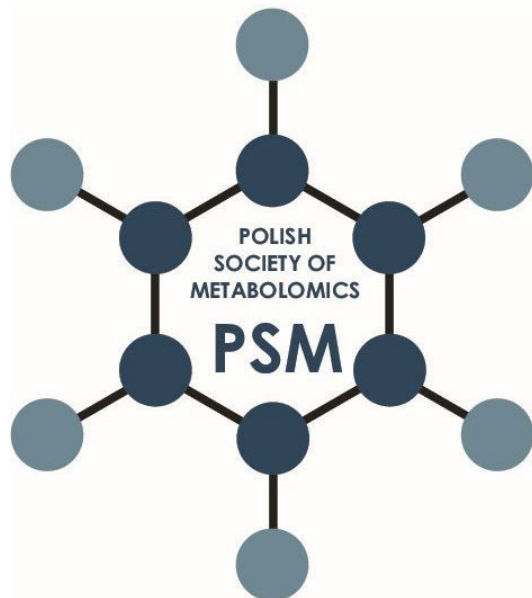


Visit: <https://ptmet.pl/>



The Polish Society of Metabolomics, in collaboration with Bruker, invites you to a webinar entitled **"Expanding the Horizons of 4D-Metabolomics™ and 4D-Lipidomics™"**.

The webinar will be held online on April 27th, 2023 at 2 p.m. (CET). Attendance is free, but registration is required. To register and find more information, please follow the [link](#).



[Back to top](#)

# MetaboNews

**Latest news and insights in metabolomics**



**To advertise with us,  
please contact:**

[metabolomics.innovation@gmail.com](mailto:metabolomics.innovation@gmail.com)

We are excited to announce that we have implemented a new format for our advertisements. However, we would like to inform you that the price is currently subject to review and may change in the near future. We encourage you to get in touch with us as soon as possible in order to freeze the current price and take advantage of this opportunity. Thank you for your continued support and we look forward to working with you.

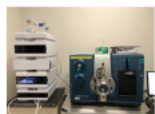
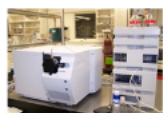
## TMIC 2.0 Launch



### Canada's National Metabolomics Network

**\$40 M in  
equipment**

- **>40 bioinformatics tools**
- **58 targeted assays**
- **7 untargeted assays**
- **Custom services**
- **Lipidomics**
- **Microbiome**
- **Multimomics with AI**



**9 Nodes over 6 Universities**

THE UNIVERSITY  
OF BRITISH COLUMBIA

University  
of Victoria

UNIVERSITY  
OF ALBERTA

McGill  
UNIVERSITY

Concordia  
UNIVERSITY

McMaster  
University

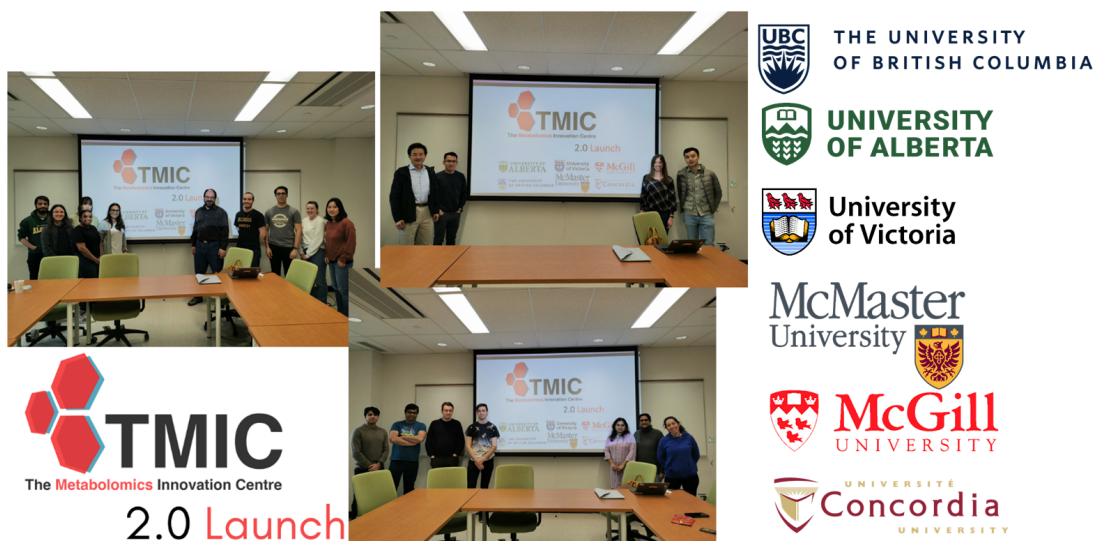
The Metabolomics Innovation Centre (TMIC) has been leading metabolomics research in Canada since its founding in 2011, with a vision to position the country as a global leader in the field. Metabolomics is the study of the small-molecule interactions that determine how living organisms interact with their environment. As Canada's premier metabolomics research

and service network, the Centre boasts over \$40 million worth of cutting-edge analytical equipment, more than 40 highly cited bioinformatics tools, and more than 60 validated metabolomics analyses, with 12 patents and ten spin-off companies to its name.

TMIC's service portfolio has grown significantly in the past five years, generating \$4.5 million in annual revenue by serving clients from diverse industries such as food production, safety, environmental analysis, academia, and government. With the generous support of CFI's Major Science Initiatives program and Genome Canada's Technology Development funding, TMIC is pleased to announce the launch of TMIC 2.0



in April 2023. The new TMIC will feature nine research and service nodes across Canada, and welcome three new Node Leaders, Dajana Vuckovic (Concordia), Tao Huan (UBC), and Jeff Xia (McGill) to its network of the country's top metabolomics experts. The Centre is expanding its technology portfolio, including the development of ISO-compliant assays for human and animal health, techniques to measure metabolites in low cell-count or single-cell settings, and new assays to assess exposure to mycotoxins. These new analytical techniques will be supported by TMIC's world-leading expertise in bioinformatics and database development. TMIC is excited to continue its mission of advancing metabolomics research in Canada and contributing to the health and well-being of all Canadians. Please visit [tmic-canada.com](https://tmic-canada.com) for more detail.



[Back to top](#)

## MetabolInterview

**Tao Huan**

**Associate Professor**

Metabolomics and Systems Biology  
Laboratory  
Faculty of Science  
University of British Columbia

[Research Group](#)

**Node Leader**

The Metabolomics Innovation Centre  
(TMIC)

[Huan Node](#)

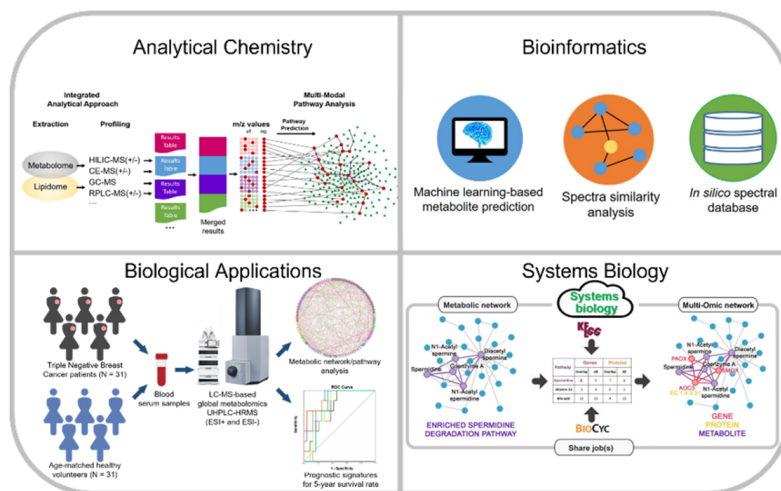
## Biography

Dr. Huan is an Assistant Professor in Analytical and Bioanalytical Chemistry in the Department of Chemistry at the University of British Columbia. He received his Ph.D. in Analytical Chemistry from the University of Alberta under the supervision of Dr. Liang Li on developing chemical isotope labelling liquid chromatography-mass spectrometry-based metabolomics. After graduation, Dr. Huan did postdoctoral work with Dr. Gary Siuzdak at the Scripps Research (La Jolla, CA) to create metabolomics-guided systems biology for an in-depth understanding of disease mechanisms. In July 2018, Dr. Huan was hired as an Assistant Professor in the Department of Chemistry at the University of British Columbia. His research focuses on the synergistic development of analytical chemistry and bioinformatics for mass spectrometry-based metabolomics and exposomics and their applications in biological and environmental research. His lab has developed a suite of analytical and bioinformatic tools to reshape the process of large-scale metabolomics data interpretation for disease biomarker discovery and mechanistic understanding. Dr. Huan is currently a steering committee and faculty member of UBC Social Exposome Cluster. In addition, Dr. Huan is affiliated faculty members in the Graduate Program in Bioinformatics, Genome Science and Technology (GSAT) program, Djavad Mowafaghian Centre for Brain Health, and Cluster for Microplastics, Health and the Environment

## How did you get involved in metabolomics?

I first learned about metabolomics in a course on “Advanced Topics in Biochemistry” when I was an undergraduate student in 2008. I was fascinated by the fact that, by using sensitive analytical tools such as mass spectrometry, it is possible to detect thousands of small molecule metabolites in a biological system. In 2010, I moved to Canada and started my Ph.D. in the Department of Chemistry at the University of Alberta. It has one of the strongest analytical chemistry graduate programs in North America. I followed my passion for metabolomics and completed a Ph.D. (2010-2015) with Dr. Liang Li and then postdoc training (2015-2018) with Dr. Gary Siuzdak at Scripps Research. The academic training paved the way for my independent research career in metabolomics and mass spectrometry.

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



As an analytical chemist, the focus of my research lab is on method development. One of the most important and unique aspects of metabolomics, compared to traditional analytical chemistry, is the large amount of data that can be generated with a complicated high-dimensional data structure. To address this challenge, my lab takes a

synergistic approach to develop both analytical chemistry and bioinformatics solutions for mass spectrometry-based metabolomics. Our lab has created a suite of analytical and bioinformatic tools demonstrated to be critical in addressing the challenges in metabolomics data acquisition, feature extraction, quantitative measurements, statistical analysis, and metabolite annotation. Furthermore, we collaborate with biological and environmental researchers to translate metabolomics into a powerful yet accessible analytical technology for a comprehensive understanding of human health and disease.

## What key metabolomics initiatives are you pursuing at your research centre or institute?

The ability to sensitively detect and quantify a broad range of small molecules in an untargeted manner has made metabolomics an indispensable tool in studying the totality of environmental exposures (i.e., exposomics). At the University of British Columbia, we

established the Social Exposome Cluster, a research excellence cluster, to understand the biological mechanisms by which social and chemical factors get “under the skin” to influence health over a lifetime. The knowledge learned from these studies will then be applied to developing interventions and policies to reduce disparities and optimize the health and well-being of people and populations in Canada and abroad. To align with the goal of the research cluster, my lab has developed analytical pipelines to perform untargeted profiling of the exposures on the surface of the hair and skin. We are in the process of applying the developed metabolomics in a number of large-scale population-wide studies.



### What is happening in Canada in terms of metabolomics?

Canada has always played a pivotal role in metabolomics method development and applications. Canadian scientists have created several well-received metabolomics analytical platforms (e.g., dansylation-based chemical isotope labelling metabolomics) as well as bioinformatics programs (e.g., MetaboAnalyst) and databases (e.g., HMDB, FoodDB, T3DB). Besides fundamental method development, it is also good to see more and more biological and environmental researchers in Canada applying metabolomics to their research questions.

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

My lab has developed many analytical and bioinformatic solutions to improve the performance of metabolomics. For instance, we have created a parallel metabolomics and lipidomics pipeline that allows simultaneous metabolomics and lipidomics analyses of brain tissues of less than 1 milligram. This analytical workflow is currently applied to several studies of brain functions. We also created a suite of bioinformatic tools for metabolomics data processing, quantitative comparison, and metabolite annotation. For example, my lab made the first comprehensive comparison of DDA, DIA, and full-scan-



based metabolomics. We also developed DaDIA, a novel data acquisition strategy that hybridizes the advantages of DDA and DIA. To improve the quality of the extracted metabolic features, we have created several bioinformatic tools to (1) optimize data processing parameters, (2) recognize features with good chromatographic peak shapes using a deep learning model, and (3) determine in-source fragmentation, among others. In addition, we discovered fold-change biases and proposed an adaptive box-cox transformation that prepares metabolomics data for better quantitative analysis. We have also invented various compound annotation strategies, including bottom-up molecular formulation annotation, core structure-based similarity analysis, and biology-driven metabolomics. We envision that these tools will be accepted by the metabolomics community over time to facilitate high-quality metabolomics data processing and interpretation.

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

The greatest strength of metabolomics is its ability to unbiasedly detect hundreds to thousands of chemical signals in a single analysis. Facilitated with state-of-the-art bioinformatic programs, researchers can easily extract chemical information to serve as a hypothesis-generation strategy. As such, metabolomics is now widely used in biological, clinical, environmental, and natural product research, among other applications.

### What do you see as the greatest barriers for metabolomics?



I see two great barriers for metabolomics. One is on the analytical chemistry side, and the other is bioinformatics. From the aspect of analytical chemistry, detecting trace-level metabolites is challenging, especially the high-throughput detection of the heterogenous low-abundant metabolites. As such, single-

cell metabolomics is desired, but we are not there yet due to the limit of sensitivity. Processing metabolomics data is also a nontrivial task. Following genomics and proteomics, metabolomics is the late-comer. Although many existing bioinformatic tools in genomics and proteomics can be potentially used in metabolomics, the unique chemical properties of small molecular chemicals and the data structure of metabolomics data demand researchers to design and develop metabolomics-specific algorithms and

programs. Addressing both the analytical and bioinformatic challenges that exist in metabolomics will allow it to fully take off.

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

I would say that creating artificial intelligence (AI) solutions are critical to the success of metabolomics in the next decade. In particular, due to the large amount of data generated from MS, metabolomics data present unique data processing and interpretation challenges that conventional wet-lab approaches cannot address. Instead, AI solutions exhibit unique advantages in tackling these problems. However, analytical chemists often underestimate the importance of AI in the era of omics. I believe that the incorporation of state-of-the-art AI will really empower metabolomics in addressing biological and environmental questions.

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

I think metabolomics researchers should embrace open sourcing and data sharing, the keys to flourishing technological advances and speeding up method development. Open-source software makes it possible for researchers to benefit from community efforts that support and improve solutions to the quantitative challenges in metabolomics. For instance, GitHub is one of the most commonly used websites for sharing code and is commonly used in metabolomics. Moreover, data sharing provides convenient access to established data sets. Existing efforts of metabolomics data sharing include MetaboLights (<https://www.ebi.ac.uk/metabolights/>) and MetaboWorkbench (<https://www.metabolomicsworkbench.org/>). These data repositories are excellent resources that facilitate software benchmarking and demonstrations on heterogenous metabolomics data.






Dr. Huan and his lab members at UBC Campus. This year, Dr. Huan will present "Driving Metabolomics Forward with Artificial Intelligence" during the [Canmetcon 2023](#) in coming June.

Dr. Huan and his team presented at the 70th ASMS Conference on Mass Spectrometry and Allied Topics last year in Minneapolis, US.

[Back to top](#)

## The Metabolomist Podcast




**New episode**  
Metabolomics in the clinics & databases

” I think that's been a real theme for our work to try and democratize metabolomics, make it accessible, make it more amenable to people.

-David Wishart

**LISTEN NOW**



### The Metabolomist is back for a second season!

In this podcast, we discuss the trials and tribulations of scientists who work to interpret metabolomic data to extract meaningful biological information.

In our first season, we discussed with experts who use metabolomics in various fields like nutrition and microbiome research where metabolomics proves invaluable to understand mechanisms, the combination of metabolomics with genome-wide association studies in mGWAS to find associations with genetic polymorphisms, and research on diseases both rare and highly prevalent.

Our guests have shared with you how they plan their experiments, how they collaborate with other experts on metabolomics projects, how they share their results, and how they connect the dots to uncover the stories hidden in their datasets. All of these steps take us to data interpretation. All of these steps can be learned and shared.

This season, we'll examine more specifically how metabolomics is and can be used in clinics and in clinical research. Several metabolites are already part of the daily toolset of clinicians. The most notorious one is probably blood glucose level. But the measurement of a broad panel of metabolites can make it possible to answer several questions at once. For example, this can provide support for the diagnosis of multiple diseases from a single dried bloodspot sample, as is done in newborn screening in many countries around the world. Larger panels can also help us study groups of patients with the same disease but different phenotypes or different responses to treatment, to get us closer to the application of precision medicine.

In this season, we'll look at the status of the application of metabolomics in clinical research. We will discuss what the limitations and hurdles are. We will see what metabolomics has to offer, not only for diagnostics, but also for patient stratification, choosing the best treatment for each patient, monitoring patient response to treatment, and more.

Metabolomics is said to be a promising 'omic' for precision medicine, so we'll investigate what the community is currently doing to enable its application in the clinics and how metabolomics will help progress the field.

In this season's first episode, our host Alice Limonciel talks about the place of metabolomics in the clinics with David Wishart, a prominent figure in the metabolomics field. Together, they discuss why quantitative measurements are essential for clinical applications of metabolomics, how databases support the metabolomics field, and why we need to keep developing better tools to support data analysis and interpretation.

Join us in this second season of the Metabolomist podcast to keep listening to the stories whispered by metabolomic data.

To subscribe to the newsletter and be notified by e-mail every time we release a new episode on the first Tuesday of the month, go to <https://themetabolomist.com>

# Recent Publications

## Reviews:

- [Mass spectrometric exploration of phytohormone profiles and signaling networks](#)
- [Probing the polar metabolome by UHPLC-MS](#) (Open access)
- [To metabolomics and beyond: a technological portfolio to investigate cancer metabolism](#) (Open access)

## Articles:

- [Amino Acid Availability Determines Plant Immune Homeostasis in the Rhizosphere Microbiome](#)(Open access)
- [An atlas of genetic scores to predict multi-omic traits](#)
- [An Untargeted Metabolomics Workflow that Scales to Thousands of Samples for Population-Based Studies](#)
- [Development of a predictive algorithm to identify pre-school children at risk for behavior changes associated with sleep-related breathing disorders](#)
- [HEXPredict: In Vivo Exposure Prediction of Human Blood Exposome Using a Random Forest Model and Its Application in Chemical Risk Prioritization](#)
- [Insights into growth-affecting effect of nanomaterials: Using metabolomics and transcriptomics to reveal the molecular mechanisms of cucumber leaves upon exposure to polystyrene nanoplastics \(PSNPs\)](#)
- [Large neutral amino acid levels tune perinatal neuronal excitability and survival](#) (Open access)
- [Machine Learning in Nutrition Research](#) (Open access)
- [Multiomic signatures of body mass index identify heterogeneous health phenotypes and responses to a lifestyle intervention](#)
- [Pharmacometabolomic study of drug response to antihypertensive medications for hypertension marker identification in Han Chinese individuals in Taiwan](#) (Open access)
- [Quantitative analysis of high-throughput biological data](#)
- [Segmented Flow Strategies for Integrating Liquid Chromatography–Mass Spectrometry with Nuclear Magnetic Resonance for Lipidomics](#)
- [Serum Metabolic Profile in Schizophrenia Patients With Antipsychotic-Induced Constipation and Its relationship With Gut Microbiome](#)
- [Validation of Urinary Thiocyanate as a Robust Biomarker of Active Tobacco Smoking in the Prospective Urban and Rural Epidemiological Study](#)

[Back to top](#)

# Metabolomics Events



## Hands-on NMR Spectroscopy for Metabolic Profiling course

**April 24 – 28, 2023**

**Venue: Hammersmith Campus, Imperial College London**

[Learn More Here](#)

This week-long course will describe from both theoretical and practical point of views, how to carry on an NMR based metabolic profiling project. It will cover study design, sample preparation, NMR spectrometer set up, quality control, data analysis, and metabolite identification.

Each day focuses on one of the aspects of metabolic profiling and it also includes a case study to help you think of pros and cons of potential projects and aspects to consider when applying for funding.

For more information and to register, click [here](#).

## Bits & Bites # 03: Mass Spectrometry Imaging 101: Sample Preparation \*New course\*

**April 27, 2023**

**Venue: Online**

[Learn More Here](#)

This 9-part short course series will feature in-depth topics in untargeted metabolomics. Each short course can be taken individually or you can select multiple Bites. You will gain a deeper insight into current software, methods, and pitfalls. Each session starts promptly at 9 a.m. (Pacific Time) and will take approximately 4 hours. The courses will be conducted in highly interactive manner, with use of freely available software and databases. The tuition is \$175.

This 3rd course is taught by Dr. Elizabeth Neumann from UC Davis, and no prior knowledge or software is required. Short description of the course: Have you ever looked at some mass spectrometry images and thought: "That is so cool! Can I do that?" Yes. Yes, you can! In this short course, we will cover the basics of sample preparation for mass spectrometry imaging analysis. We will start from the tissue and move all the way through the start of the data acquisition. This short course will include a mixture of video, PowerPoint content, and group discussion. By the end of the course, every researcher will have enough knowledge to start their own mass spectrometry imaging journey.

## **Bits & Bites # 04: Using MS-DIAL to generate accurate comprehensive LC-MS/MS metabolomics datasets**

**May 25, 2023**

**Venue: Online**

[Learn More Here](#)

This 4th course is taught by Dr. Jacob Folz from ETH Zurich, and participants required to have MS-DIAL for Windows and basic understanding of LC-MS and understanding of how MS/MS spectra are used in metabolite identification.

Short description of the course: Back by popular demand, this short course will focus on how to perform fine-tuned curation of processed LC-MS/MS data generated through MS-DIAL including compound identification, data quality analysis, and unknown feature reduction. Data from rat blood plasma analyzed using LC-MS/MS with MS/MS data collected in a data-dependent manner will be used to generate an example dataset, but the methods and techniques are applicable to many different sample types.

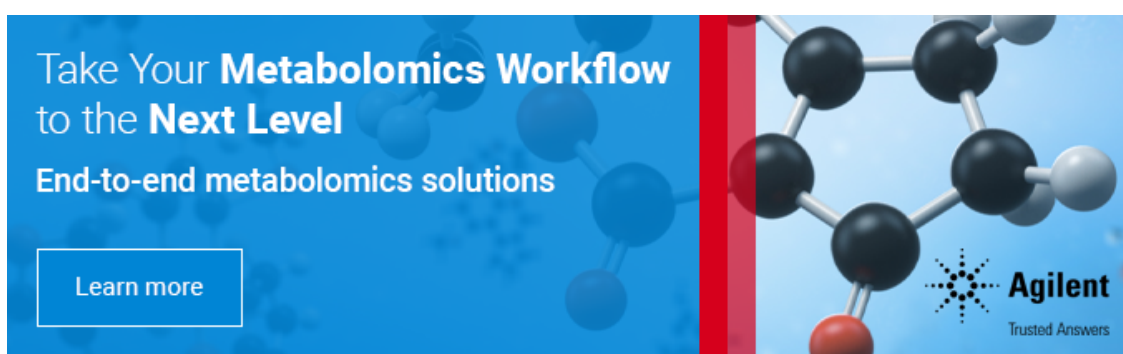
## **20th International GC×GC Symposium**

**May 28 – June 1, 2023**

**Venue: Canmore, Alberta, Canada**

[Learn More Here](#)

The symposium brings together researchers, industry experts, and vendors to share knowledge and advancements in the field of GC×GC. Registration is open until **May 12** and check for more updates on the symposium website. The scientific program will showcase two GC×GC courses, the GC×GC Awards, and a ton of technical content that covers all of the most recent and cutting-edge developments in GC×GC. Two GC×GC short courses: Introductory GC×GC and Advanced topics in GC×GC run in parallel for about 4 hours. The Introductory Course is intended for those with limited experience with GC×GC or who have never used this technique but are interested in learning more. The Advanced Course is designed for people who are already familiar with GC×GC but want to take their analyses to the next level.



## 71st ASMS Conference on Mass Spectrometry and Allied Topics

**June 4 – 8, 2023**

**Venue: George R. Brown Convention Center (GRB) | Houston, Texas**

[Learn More Here](#)

Advance registration deadline for the conference and short courses – **April 30, 2023**

All short course registration closes – **May 24, 2023** (may close earlier if capacity limit is met)

Closing event ticket sales – **June 5, 2023**

## MANA SODAMeet

**June 13, 2023**

**Venue: Online**



[Learn More Here](#)

The goal of SODA is to provide a community-driven resource of actively-maintained software, test datasets used for software benchmarking, and results produced by software. SODAMeets is a platform where data generators and computational scientists can share their use of software/data. During SODAMeets (every 2 months), two speakers will present on software or data they would like to share with the community, emphasizing how these software/data are used. Speakers will be requested to fill out a form on our SODA website so that we collect relevant information on these software/data presented.

## 4th Annual Canadian Metabolomics Conference (CanMetCon)

**June 15 – 16, 2023**

**Venue: Prince of Wales Hotel | Niagara-on-the-lake, Ontario, Canada**

[Learn More Here](#)

Just before the 19th Annual Conference of the Metabolomics Society, The Metabolomics Innovation Centre is organizing a conference where leading scientists in metabolomics will share their knowledge and updates. This year's conference will focus on scientific themes in "Exposomics", advancing the understanding of exposures in Medicine, Agriculture/Food/ Cannabis, Environment/Industrial Settings, and Clinical Applications. Dr. Gary Miller (Columbia University Mailman), Dr. Joerg Bohlmann (UBC), and Dr. Susan Sumner (UNC at Chapel Hill) will join CanMetCon 2023 as plenary speakers. Dr. Shawn Whitehead (University of Western Ontario), Dr. Jacques Corbeil (Université Laval), Dr. Karl Jobst (Memorial University of Newfoundland), and Dr. Gerald Batist (McGill University) will each deliver a featured lecture on one of the four topics listed above. TMIC's nine node leaders will also present their latest research in metabolomics technologies and exposomics. In addition to our featured speakers, this conference will host selected speakers from among our registrants, with many talk spots still available.

Registration fee for students is \$150 CAD, and \$250 CAD for all others. All fees are in \$CAD and are subject to applicable taxes and fees.

- Open: Abstract submission for both oral and poster

The program is now available on the [website](#). Check for more updates.

## 19th Annual Conference of the Metabolomics Society

**June 18 – 22, 2023**

**Venue: Niagara Falls, Ontario, Canada**[Learn More Here](#)

19th Annual International Conference of the Metabolomics Society will be held on June 18-22, 2023 in downtown Niagara Falls, Canada, at the Niagara Falls Convention Centre. The conference will cover the major scientific themes of: Technology Advances; Computational Metabolomics, Statistics, and Bioinformatics; Metabolomics in Health and Disease; and Metabolomics of Plants, Food, Environment and Microbes. A special theme for this conference will focus on Mental Health, Drug Addiction and Medicinal Cannabis. The scientific program will include plenary and keynote talks, three parallel scientific sessions, interactive poster sessions, sponsor lunches, other networking events and a specially-organized parallel session to promote metabolomics research in industry. To enrich the experience, the conference will offer a welcome reception, vibrant early-career events, a conference dinner and other engaging social activities.

- May 16, 2023: Poster abstract deadline

Check the [website](#) for topics and requirements.

## Introduction to Nutritional Metabolomics

**June 26 – 30, 2023****Venue: Department of Nutrition Exercise and Sports, University of Copenhagen, Denmark**[Learn More Here](#)

The course will provide a general overview of LC-MS-based untargeted metabolomics from study design to results and will be exemplified by its specific application in nutrition. It will be delivered using a mixture of lectures, hands-on data preparation and analysis, computer-based practical sessions, and discussions. Visits to wet labs and instructions on human sample preparation procedures are included but there is no practical lab work.

## International Summer Sessions in Metabolomics

**August 21 - September 1, 2023****Venue: Online**[Learn More Here](#)

During the summer sessions, participants will engage in both theoretical and practical aspects of metabolomics applications. Utilizing example data sets for training and discussions, attendees will work in small teams to explore various solutions to metabolomic challenges. The course content encompasses study design, sample preparation and compound identification, various metabolomics methodologies, data processing and interpretation, as well as statistical analysis

and data visualization techniques. Additionally, the curriculum covers pathway and network analysis. This course welcomes beginners and advanced users.

## Early Career Members (ECM) Virtual Job Fair

**September 7, 2023**

**Venue: Online**

[Learn More Here](#)

Are you seeking new lab members or exploring new career opportunities? If so, consider attending the Metabolomics Society of North America (MANA) ECM Virtual Job Fair! This event is for employers, recruiters, and job seekers alike, providing a platform to connect with potential candidates or employers from diverse sectors such as academia, industry, or government/nonprofit organizations. Through the virtual Zoom setup, organizers facilitate effortless interactions between employers and prospective candidates, helping you make valuable connections for your career or organization.

## 5th Annual Metabolomics Society of North America (MANA) Conference

**October 23 – 27, 2023**

**Venue: Columbia, MO, USA**

[Learn More Here](#)

The 2023 conference will be held October 23-27, 2023 on the campus of the University of Missouri in Columbia, MO. Professor Lloyd Sumner will chair the meeting and is developing an exciting program that will appeal to many interests in metabolomics. This year, MANA is excited to partner with the International Lipidomics Society (ILS), and the 2023 conference will have dedicated sessions for lipidomics, and an evening workshop with the ILS. Check out the conference website for program updates.

## 14th European Nutrition Conference (ENC) FENS 2023

**November 17 – 25, 2023**

**Venue: Belgrade, Serbia**

[Learn More Here](#)

The 14th European Nutrition Conference will be held in Belgrade, the capital city of Serbia. The theme of the conference is “Food, Nutrition, and Health: Translating science into practice”. Around this theme, the conference will deliver a high-quality program, featuring international speakers across plenary sessions and symposia. Other features of the program will be discussions and debates, industry symposia, panel sessions, and networking opportunities including several specifically catering to early career researchers.

- April 30, 2023: Abstract submission deadline
- July 10, 2023: Early bird registration deadline

---

## NIST SRM1950 Customer Feedback Survey

Dear Colleagues,

The National Institute of Standards and Technology (NIST) is conducting a survey about [SRM1950](#) to gather feedback directly from existing and potential users on their experiences and needs to better design SRM products in the future.

SRM1950 Metabolites in Frozen Human Plasma was first made available in 2011 and has been widely used by researchers and scientists in the metabolomic and lipidomic communities and beyond. NIST will be renewing SRM1950 and/or developing new reference materials in the coming years, a process that typically takes 5-7 years. The survey results will help NIST devise future reference material formulations to fulfill your needs and continue to support the clinical chemistry, metabolomic and lipidomic communities. Feedback from SRM1950 customers and the clinical chemistry, metabolomic and lipidomic communities are important to this endeavor.

We hope you will play a part in SRM1950's succession and encourage colleagues and other scientists to participate as well. We appreciate your assistance and your time. Please take the survey and share the survey widely. This survey takes approximately 10 minutes.

If you are a purchasing official or reseller/distributor of NIST SRM1950, please help forward this survey to your group members or customers.

The survey will be open until Wednesday, May 17, 2023, and can be accessed by using the direct link below (or copy-and-paste the link in a web browser):

LINK to survey: [https://usability.gov1.qualtrics.com/jfe/form/SV\\_25hVWSW2sOr16bc](https://usability.gov1.qualtrics.com/jfe/form/SV_25hVWSW2sOr16bc)

If you have any questions regarding the survey, please don't hesitate to email the survey point of contact, Yee-Yin Choong ([yee-yin.choong@nist.gov](mailto:yee-yin.choong@nist.gov)).



[Back to top](#)

## Metabolomics Jobs

### Metabolomics Jobs

If you have a job to post, please email the MetaboNews team at [metabolomics.innovation@gmail.com](mailto:metabolomics.innovation@gmail.com)

We may remove a listing after 6 months if we do not receive a confirmation that it is still necessary. However, if you would like us to repost it, please contact us.

Job Title	Employer	Location	Source
Operations Assistant	NovaMT and TMIC Li Node at the University of Alberta	Edmonton, AB, Canada	Dr. Liang Li (please contact <a href="mailto:liang.li@ualberta.ca">liang.li@ualberta.ca</a> )
Postdoctoral Research Associate-Sumner Lab	Nutrition Research Institute	Kannapolis, North Carolina, US	<a href="#">The University of North Carolina</a>
Research Associate (Computational)	Leibniz Institute of Plant Biochemistry	Helle, Germany	<a href="#">Leibniz Institute of Plant Biochemistry</a>

## Metabolomics)

Postdoctoral Research Associate - Pharmaceutical Sciences	St. Jude Children's Research Hospital	Memphis, Tennessee, USA	<a href="#">Metabolomics Association of North America</a>
Postdoctoral Position in Big Data Analytics for Metabolomics and Exposomics	Du-Lab Research, North Caroline at Charlotte	Charlotte, North Carolina, USA	<a href="#">Du-Lab</a> (please contact <a href="mailto:xiuxia.du@uncc.edu">xiuxia.du@uncc.edu</a> )
Doctoral Candidates	HUMAN – Harmonising and Unifying Blood Metabolomics Analysis Networks	Europe	<a href="#">HUMAN Doctoral Network</a>
Senior Research Associate - Small Molecule and Metabolomics	Corteva	Des Moines, Iowa, USA	<a href="#">Metabolomics Association of North America</a>
Research Technician in Mass Spectrometry	The Wishart Lab and the Wishart Node of TMIC, University of Alberta	Edmonton, Alberta, Canada	<a href="#">University of Alberta</a>
Assistant Professor in Mass Spec and/or Metabolomics	Michigan State University	East Lansing, Michigan, USA	<a href="#">Michigan State University</a>
Postdoctoral Research Fellow	Cincinnati Children's Hospital Medical Center	Cincinnati, OH, USA	<a href="#">ASMS Careers</a> or contact Xueheng Zhao ( <a href="mailto:xueheng.zhao@cchmc.org">xueheng.zhao@cchmc.org</a> )
Postdoctoral position in Microbial Ecology/Metabolomics	The Moran and Edison labs at the University of Georgia	Athens, GA, USA	<a href="#">Center for Chemical Currencies of a Microbial Planet</a>
Mass spectrometry specialist	University of Miami	Miami, FL, USA	<a href="#">Metabolomics Association of North America</a>



Staff Scientist - Raman spectroscopy	Neuro-Oncology Branch, National Cancer Institute, National Institutes of Health	Bethesda, MD, USA	<a href="#">National Cancer Institute</a>
Postdoctoral Research Fellow (LC-MS and Data Science for Metabolomics)	The Li Lab and the Li Node of TMIC, University of Alberta	Edmonton, Alberta, Canada	<a href="#">University of Alberta</a>
Various Positions	Various	Various (within North America)	<a href="#">Metabolomics Association of North America</a>

## MetaboNews Feedback Form

As you noticed, we change to a new format starting this April 2023 issue. We hope to provide enough useful content to keep you interested and informed and appreciate your comments and feedback on how we can make this newsletter better. Please fill out this quick survey and let us know your thoughts (your answers will be anonymous). It will only take less than one minute with only two mandatory questions

[Fill Out Your Survey Here](#)

If you have any questions, don't hesitate to contact us at [metabolomics.innovation@gmail.com](mailto:metabolomics.innovation@gmail.com)

[Back to top](#)



---

Copyright © 2023|MetaboNews|, All rights reserved.

Our mailing address is:

[metabolomics.innovation@gmail.com](mailto:metabolomics.innovation@gmail.com)

Check the archive of prior postings to the list [here](#)

Want to change how you receive these emails?

You can [update your preferences](#) or [unsubscribe from this list](#).

---

This email was sent to [metabolomics.innovation@gmail.com](mailto:metabolomics.innovation@gmail.com)

*why did I get this?*   [unsubscribe from this list](#)   [update subscription preferences](#)

The Metabolomics Innovation Centre · 116 St & 85 Ave, Edmonton, AB T6G 2R3 · Edmonton, Ab t6g 2r3 · Canada