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The MetaboNews Team

The Metabolomics Innovation Centre

metabolomics.innovation@gmail.com

<http://www.metabonews.ca/archive.html>



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

Metabolomics Society News

Conference Corner



Metabolomics 2023 –Niagara Falls, Canada

The 19th Annual Conference of the Metabolomics Society will be held in downtown Niagara Falls, Canada, at the Niagara Falls Convention Centre from June 18-22, 2023. As one of North America's most popular family vacation destinations, home to important historical sites, charming villages, and award-winning wineries, Niagara Falls and the surrounding Niagara region offer an ideal location to host this conference with convenient access to airports in Toronto, Hamilton (Ontario), and Buffalo (New York).

Planning for the meeting is well underway with our plenary speakers already confirmed. The conference will cover several major scientific themes ranging from recent technology advances in metabolomics; computational metabolomics, statistics, and bioinformatics; metabolomic applications in health and disease; as well as metabolomic studies of plants, food, environment, and microbes. A special theme for this conference will focus on metabolomics in mental health, drug addiction, and medicinal cannabis, while also featuring a session on exciting metabolomics research in the pharmaceutical and biotechnology industries.

The scientific program will include outstanding invited speakers, three parallel scientific sessions, engaging workshops, interactive poster sessions, sponsored lunches, and networking events taking place in a state-of-the-art meeting facility within walking distance to the majestic Horseshoe Falls. We look forward to welcoming you in Niagara Falls next summer!

Registrations and call for abstracts for the conference will open in early January 2023. For more information and regular updates please visit <https://www.metabolomics2023.org/>



Executive Corner

Board of Directors

Dear Society Members,

We had our Board of Directors' (BODs) meeting for the Metabolomics Society last month and this was the first one I had the honour of chairing. I must admit to having been a little nervous as I have big boots to fill and wish to serve our Society well. It was also a little odd holding the meeting while at a conference and so I 'dialled in' from my hotel room in Copenhagen. I was in Denmark for Food Analytics Conference 2022, a meeting on analytical technologies for food quality and sustainable food production. This was held in the ceremonial hall of the University of Copenhagen, a beautiful ornate meeting room and the same venue that the 2nd Nordic Metabolomics Conference used in a couple of months earlier in September.

During our BoD meeting we had many discussions about the operations of the Society. As you may know, we have important committees that help run the Society and for those interested, you can find details of them here:

<https://metabolomicssociety.org/board-committees/society-committees/>
[spoiler alert: please note these are being updated, as discussed below...]

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

Membership Enquiries

membership@metabolomicssociety.org

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SCAN ME

There is an expectation that all BoD members serve on some of these committees, and we spent some time discussing these and their membership, and where appropriate decided on new committee leads. Of note is the Website & Communications Committee which was previously chaired by Ralf Weber and we are grateful to Ralf for taking a big lead in the revamp of our Society pages last year. This committee will now be chaired by Warwick Dunn and if you have any thoughts on our website, then please contact Rick. Michael Witting is now leading our Publications Committee and we shall be having discussions on our affiliation with a journal/publisher. This was discussed at the Town Hall meeting in Valencia where we captured the opinions from our membership; again, if you have any views, then please share them with Michael.

In other news, we unanimously voted to continue our consultancy agreement with SnapIT. SnapIT has helped the Society for many years and a lot of what they do is in the background and so our members never see this, and so perhaps don't appreciate how vital they are to running our Society. Leslie and her team, amongst many other things, scope for our future Annual Metabolomics Society meetings and do (virtual) site visits and help us with many of the non-scientific aspects that are important for a meeting to run smoothly. SnapIT looks after our website and also helps organize our BOD meetings – this is no mean feat with members from Australia, North America, and Europe trying to be online at the same time (some people inevitably lose some sleep!). Leslie and her team are brilliant, and we are very pleased to have them help us for the coming year.

Finally, whatever your religion and/or beliefs, I hope you have a nice Christmas and have time to rest, recuperate, and reflect on 2022, as well as contemplate what 2023 may bring. For our field, it has been another amazing year and it's very exciting to read and hear about the new application areas of our metabolomics science. I will be reflecting on these and the excellent conference we had in Valencia and we thank Natasa, Toni, and their team for a memorable meeting. Like

Janus looking forward, I hope to be reading more exciting science and to be helping the Society in 2023, as do all the Board. I also anticipate another fun time scientifically and socially in Niagara Falls in June (<https://www.metabolomics2023.org>) and look forward to seeing some of you then – remember those dates: 18-22 June!

All the very best, and I wish you, your family and friends a peaceful and prosperous 2023.

Roy Goodacre, University of Liverpool, UK

International Affiliates' Corner

Latin American Metabolic Profiling Society (LAMPS)

Visit: <https://jwist.github.io/lamps/>

The 4th LAMPS Conference was held November 2-4, 2022, at the Universidad de Los Andes - Sede Caribe, in Cartagena, Colombia, and was a great success! We were thrilled to meet our colleagues again in person after 4 years. The conference was primarily organized by the LAMPS founding members and received 118 attendees from 15 different countries including Argentina, Australia, Brazil, Canada, Colombia, Costa Rica, France, Germany, Hong Kong, Mexico, Peru, Spain, UK, USA, and Uruguay. The conference's program (<https://live.eventtia.com/en/lamps-meeting-Colombia/home/>) featured instructional workshops; plenary, keynote and short talks; sponsor seminars; and a poster session with 51 contributions. Many thanks to the travel grant sponsors including the Metabolomics Society, who supported oral presentations of PhD students from Colombia, Argentina, and Brazil. We awarded 2 awards (best poster and oral presentation) and travel grants. Congratulations to the LAMPS 2022 awardees! We are very grateful to the plenary and keynote speakers who supported our community with their attendance. Looking forward to meeting with our community again in 2024 in Uruguay.

[Metabolomics Association of North America \(MANA\)](#)

Visit <https://metabolomicsna.org>

The MANA Board of Directors election has been completed, and we would like to congratulate the following new and returning board members:

- **Ewy Mathé** – US NIH National Center for Advancing Translational Sciences
- **Ian Lewis** – University of Calgary
- **Facundo Fernandez** – Georgia Institute of Technology

We are excited to work together with new (Ian and Facundo) and returning (Ewy) directors to build upon the great efforts to promote the growth and development of metabolomics, and we look forward to great things over the coming months. We would also like to thank all members who voted in the election.

The Board also expresses its appreciation for the outstanding contributions of outgoing Board members whose terms on the Board will end at the end of the year: Oliver Fiehn and Robert Powers, whose efforts have been vital to many MANA events, programs, and interest groups. We appreciate their continued involvement in leading MANA efforts as the organization moves forward.



Metabolomics and Human Health *Gordon Research Conference*

Examining the Intersection Between
Systemic and Cellular Metabolism
and Lifestyle Factors to Understand
Health and Disease

March 12-17, 2023

Venue: Barga, Lucca, Italy

Chairs: Steven S. Gross
Lorraine Brennan

Vice Chairs: Susan Jenkins Sumner
Warwick Dunn

The Metabolomics and Human Health Gordon Research Conference (March 2023) will highlight state-of-the-art metabolomics technologies and how such technologies can be used to study human health. Places are limited and filling up, so we encourage early submission to avoid disappointment.

To apply, click [here](#).



*Wishing You a Wonderful Holiday Season
and a Happy New Year!*

As the holiday season approaches, we would like to take a moment to extend our warmest greetings and sincerest gratitude for our readers' continued support.

This past year has been filled with great opportunities for our team: we interviewed 15 wonderful researchers in various stages of their metabolomics career and published 3 articles about new resources, initiatives, or general updates related to metabolomics. The field of metabolomics has continued to thrive and make important contributions to scientific research and understanding. From advances in the understanding of human health and disease, to the study of plant and animal metabolism, to solving environmental issues, the impact of metabolomics continues to be seen across a wide range of scientific disciplines.

As we look ahead to the new year, we are excited to see what new discoveries and breakthroughs it will bring. We are also grateful for the dedicated scientists, researchers, and students who work tirelessly to advance our understanding of metabolism and its role in our bodies and in the world around us.

So as we celebrate the holiday season, we would like to express our heartfelt appreciation to all of our readers and hope this season brings joy, health, and success for the coming year. Here's to a bright and exciting future for metabolomics research!

Recent Publications

Recently published papers in metabolomics

- Review: [Advances in experimental and computational methodologies for the study of microbial-surface interactions at different omics levels](#) (Open access)
- Review: [Integrative Multi-Omics Research in Cerebral Palsy: Current Progress and Future Prospects](#)
- Review: [Metabolomic and Lipidomic Profiling of Gliomas—A New Direction in Personalized Therapies](#) (Open access)
- [Antcin A, a phytosterol regulates SARS-CoV-2 spike protein-mediated metabolic alteration in THP-1 cells explored by the ¹H-NMR-based metabolomics approach](#)
- [Combining metabolomics and machine learning models as a tool to distinguish non-classic 21-hydroxylase deficiency from polycystic ovary syndrome without adrenocorticotrophic hormone testing](#)
- [Expanding the Scope of Targeted Metabolomics by One-pot Microscale Synthesis and Tailored Metabolite Profiling: Investigation of Bile Acid-Amino Acid Conjugates](#) (Open access)
- [Gut microbiome, cognitive function and brain structure: a multi-omics integration analysis](#) (Open access)
- [¹H NMR as a simple methodology for differentiating barn and free-range chicken eggs](#)
- [iDMET: network-based approach for integrating differential analysis of cancer metabolomics](#) (Open access)
- [Integrated Exposomics/Metabolomics for Rapid Exposure and Effect Analyses](#) (Open access)
- [Metabolomic analysis of secondary metabolites from Caribbean crab gills using comprehensive two-dimensional gas chromatography - time-of-flight mass spectrometry—New inputs for a better understanding of symbiotic associations in crustaceans](#) (Open access)
- [Multi-omics signatures of the human early life exposome](#) (Open access)
- [Polystyrene microplastic ingestion induces the damage in digestive gland of *Amphioctopus fangsiao* at the physiological, inflammatory, metabolome and transcriptomic levels](#)
- [The gut microbiota metabolite glycochenodeoxycholate activates TFR-ACSL4-mediated ferroptosis to promote the development of environmental toxin-linked MAFLD](#)
- [The Thing Metabolome Repository family \(XMRs\): comparable untargeted metabolome databases for analyzing sample-specific unknown metabolites](#) (Open access)
- [Untargeted metabolomic analysis of Chinese red wines for geographical origin traceability by UPLC-QTOF-MS coupled with chemometrics](#)



Metabolomics Events

FEATURED EVENT



March 12-17, 2023

Metabolomics and Human Health Gordon Research Conference

Examining the Intersection Between Systemic and Cellular Metabolism and Lifestyle Factors to Understand Health and Disease

Venue: Barga, Lucca, Italy

[Learn More Here](#)

Overview

Chairs: Steven S. Gross and Lorraine Brennan

Vice Chairs: Susan Jenkins Sumner and Warwick Dunn

The Metabolomics and Human Health Gordon Research Conference (March 2023) will highlight state-of-the-art metabolomics technologies and how such technologies can be used to study human health. Places are limited and filling up, so we encourage early submission to avoid disappointment.

To apply click [here](#).

January 11, 2023

West Coast Metabolomics Centre: Online Guest Lecture Seminar

Venue: Online

[Learn More Here](#)

Overview

Tao Huan, PhD, will be presenting on “Addressing Big Data Challenges in Mass Spectrometry-based Metabolomics”. Register [here](#). Watch prior seminars on the [WCMC YouTube Channel](#).

January 26, 2023

Bits & Bites # 01: Fundamentals of Lipidomics

Venue: Online

[Learn More Here](#)

Overview

This 9-part short course series will feature in-depth topics in untargeted metabolomics such as a deeper look into MS-DIAL, mass spectrometry for metabolomics, lipidomics, GNPS, MetaboAnalyst, and so many others. Each short course can be taken individually or you can select multiple *Bites*. Participants will gain a deeper insight into current software, methods, and pitfalls. Each session starts promptly at 9 a.m. (Pacific Time) and will take approx. 4 hours. The courses will be conducted in a highly interactive manner, with the use of freely available software and databases. The tuition is \$175 USD per *Bite*, except for #5. The tuition for #5 is \$350 USD as it will take approx. 8 hours.

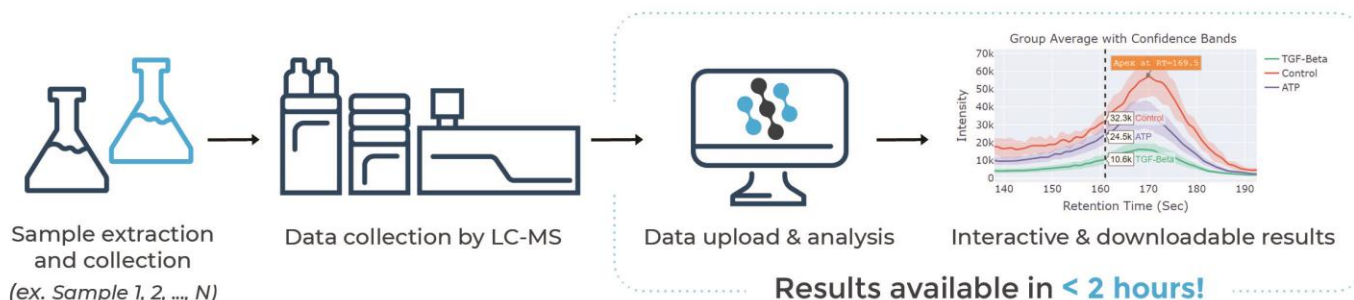
This 1st course (for 2023) is taught by Dr. Tong Shen from UC Davis, and no prior knowledge or software is required. In this short course, topics related to lipids and systems-level scale analysis of lipids (lipidomics) will be covered:

- introduction to lipids, classification, and functions;



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Questions?

Do you have questions about your metabolomics data? Let's talk!



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- mass spectrometry-based lipidomics, separation techniques, and perspectives on other novel technologies;
- case studies of lipidomics applications;
- entire experimental pipeline—study design, sample extraction, analysis, data processing, identification, statistical methods, and visualization/interpretation resources;
- quality control and standardization.

Participants will gain a high-level overview of lipidomics in order to determine suitable strategies for their own research.

January 27-28, 2023

IX Metabolomics Circle Meeting

Venue: Wrocław, Lower Silesian, Poland

[Learn More Here](#)

Overview

The Polish Metabolomics Society (Polskie Towarzystwo Metabolomiczne) is inviting participants to the 9th Metabolomics Circle Meeting, which will be organized by Professor Piotr Młynarz from the Wrocław University of Science and Technology. Information about abstract submission and registration will soon be posted on the webpage.

February 14, 2023

MANA SODAMeet

Venue: Online

[Learn More Here](#)

Overview

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.

March 28-31, 2023

[EMBL-EBI course | Introduction to Metabolomics Analysis](#)

Venue: Hinxton, Cambridgeshire, United Kingdom

[Learn More Here](#)

Overview

The European Bioinformatics Institute (EMBL-EBI) is organizing an on-site course at the EMBL-EBI Wellcome Genome Campus in Hinxton. This course will provide an introduction to metabolomics through lectures and hands-on sessions, using publicly available data, software, and tools. It is an open application with a selection for 26 seats. Please submit all required documents for the application process by **January 4, 2023**.

June 18-22, 2023

[19th Annual Conference of the Metabolomics Society](#)

Venue: Niagara Falls, Ontario, Canada

[Learn More Here](#)

Overview

Save the date! Visit the website for updates over the coming weeks.

- Jan. 2023: Abstract submission opens
- Mar. 6, 2023: Oral abstract deadline
- May 16, 2023: Poster abstract deadline

Check the website for topics and requirements.

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Metabolomics Jobs

If you have a job to post, please email the MetaboNews team at 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	Deadline	Source
PhD Student for project "Metabolic pathway in glacial habitats" (Free Univ of Berlin)	Helmholtz Centre Potsdam - German Research Centre for Geosciences (GFZ)	Potsdam, Germany	Jan. 06, 2023	Helmholtz Centre Potsdam
Research Technician in Mass Spectrometry	The Wishart Lab and the Wishart Node of TMIC, University of Alberta	Edmonton, Alberta, Canada	Until filled	University of Alberta
Assistant Professor in Mass Spec and/or Metabolomics	Michigan State University	East Lansing, Michigan, USA	Oct. 27, 2024	Michigan State University
Senior Scientist	Metabolomic Technologies Inc.	Edmonton, Alberta, Canada	Until filled	MetaboNews Jobs
Postdoctoral Fellows (Metabolomics, Proteomics, and Informatics - Microbial Infections)	University of Calgary	Calgary, Alberta, Canada	Until filled	Lewis Research Group
Research Specialist, Emory Integrated Metabolomics and Lipidomics Core	Emory University	Atlanta, Georgia, USA	Until filled	Emory University
Postdoctoral Fellow in Food Safety/Non-Targeted Analysis	US FDA's Center for Food Safety and Applied Nutrition (CFSAN)	College Park, Maryland, USA	Until filled	Metabolomics Association of North America
Research Support Specialist	Proteomics Resource Center at The Rockefeller University	New York City, New York, USA	Until filled	The Rockefeller University
Postdoctoral Position in Metabolomics and Proteomics Data and Development of Cardiovascular Disease in Women	Brigham and Women's Hospital	Boston, Massachusetts, USA	Until filled	Brigham and Women's Hospital
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	Until filled	University of Alberta
Assistant Professor in Metabolomics of Adaptive Responses	University of California, Riverside	Riverside, California, USA	Until filled	University of California, Riverside
Various Positions	Various	Various (within North America)	Various	Metabolomics Association of North America