

In This *Issue*

Metabolomics Society News

Spotlight Article

The Metabolomist

Recent Publications

Conferences & Events

Jobs

Offered

Wanted

The MetaboNews Team

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

Metabolomics Society News

Board of Directors

[Board of Directors Election – Voting Now Open!](#)

All members of the Metabolomics Society are welcomed and encouraged to participate in the 2022 Board of Directors election. Voting is open now through August 29, 2022, at 11:59 pm USA CT.

There are twelve (12) open positions on the Board this year, a large number of open seats, making your vote(s) very important. We'll also be electing three (3) new Officers in September. You can find a list of the nominees as well as their biographies and statements of interest on the [election page](#).

HOW TO VOTE:

- You must be a current member of the Society.
- If you have not signed up for membership in 2022, sign up here: [2022 Membership](#).
- If you are currently a member, proceed directly to the [election poll](#) and enter your membership credentials.

This is a crucial election year—you can place up to twelve (12) votes since there are twelve (12) open positions. You're encouraged to review the nominee biographies and submit as many votes as you see fit. Your voice counts! Please contribute to shaping the future of our Society by voting and playing an active role.

Best,
Fabien Jourdan (Chair of Nominations Committee and Secretary)
Jessica Lasky-Su (President)

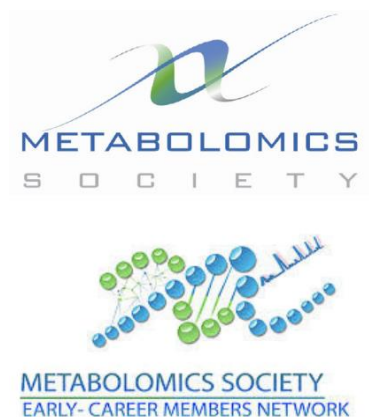
Contact info@metabolomicsociety.org with questions.

Members' Corner

Early-career Members Network (EMN)

EMN Expert Opinion

Expert Opinion is back! In this edition, the EMN presents Dr. Ruey Leng Loo, who is working on the metabolome-wide association study (MWAS) for cardiovascular disease. Read more about her [here](#).



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

Task Groups' Corner

Precision Medicine and Pharmacometabolomics Task Group

On July 6th, 2022, the task group in association with the Metabolic Profiling Forum operated an online workshop titled 'Dried blood spot collection and analysis to study mammalian metabolism: past, present, future'. In this workshop we disseminated current knowledge and insights and discussed future applications to both educate the community on the use of dried blood spots and drive forward future applications. There were nine speakers as listed below.

1. Lauren Petrick (Icahn School of Medicine at Mount Sinai, USA)
2. Isabel Ten-Doménech (Health Research Institute La Fe, Spain)
3. Konstantinos Petritis (Centers for Disease Control and Prevention, USA)
4. Abhishek Jain (Yale University, USA)
5. Filip Ottosson (Statens Serum Institut, Denmark)
6. Katja B. Prestø Elgstøen (Oslo University Hospital, Norway)
7. Albert Koulman (University of Cambridge, UK)
8. Aleš Kvasnička (Palacký University Olomouc, Czech Republic)
9. Lauren Bishop (University of California, Davis, USA)

The workshop was recorded and is available to all at the link below:

<https://www.dropbox.com/sh/vsuqttt6072i1s1/AAAK22WLLXfBDSsSDETMW22Ha?dl=0>

The workshop was organized by Prof. Warwick Dunn (University of Liverpool, UK), Dr. Yuan Li (University of North Carolina, USA), and Dr. Alison Woodward (University of Nottingham, UK).

International Affiliates' Corner

Metabolomics Association of North America (MANA)

Visit <https://metabolomicsna.org>

The MANA NMR Interest Group has recently published

an open-access review article entitled "NMR and Metabolomics—A Roadmap for the Future" in the journal *Metabolites*. The paper is available [here](#).



Scottish Metabolomics Network

Visit <https://scottishmetabolomics.net/>

The latest edition of the Scottish Metabolomics Network Newsletter (August 2022) is now available at <https://scottishmetabolomics.net/newsletter>



MANA 2022

September 16-18, 2022 - Edmonton, Alberta, Canada

Plenary Speakers

- Dr. Philip Britz-McKibbin
- Dr. Nadja Cech
- Dr. Russell Jones
- Dr. Yamilé López Hernández
- Dr. Laura-Isobel McCall
- Kathryn McCauley, MPH

[Workshops](#)

[Networking](#)

[Awards](#)

[Events](#)

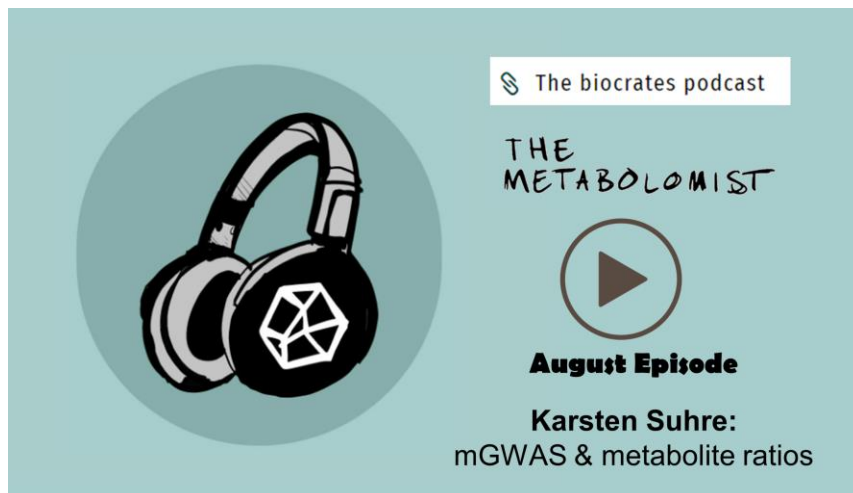
Registration is open!

Visit MANA2022.net for information and registration.

SpOtlight

The Metabolomist

A podcast to connect metabolomics scientists through their stories



Connection: a vital part of metabolomics research

Whether it's connecting ideas or connecting with our fellow scientists, research is about bringing information and people together. We see this in collaborative projects, peer-reviewed articles, and enlightening conversations by the coffee machine.

These exchanges are especially helpful when something's blocking your progress. Hearing how others have handled similar challenges can point you towards a breakthrough of your own, or at least spur you on in the search for a solution. Just knowing you're not alone can be the motivation you need when you've been struggling with a problem for days.

After (or during!) a pandemic that has left us with few chances to ask questions at a conference or approach our science crush at the lunch buffet for the better part of two years, our need for connection is higher than ever.

Open communication in science

As in other scientific fields, there are many aspects of metabolomics research that don't always get discussed in the open. Project planning, sample preparation, data analysis, data interpretation, and application of insights require expertise at the interface of several scientific specialties. If you're new to the field or you don't have that expertise, there may be no obvious way to move from one step to the next.

Even for those of us with experience in metabolomics, we rarely have the joint expertise of an analytical chemist, a biologist, a computer scientist, and a biostatistician, all in one person. Metabolomics is a field that thrives on collaboration and open discussions between experts.

At biocrates, we believe that sharing our experiences is the fastest way for us all to connect the dots in our research and to make the field of metabolomics more transparent and accessible.

Introducing *The Metabolomist* podcast

The Metabolomist is a podcast for metabolomics researchers to connect with like-minded scientists and explore the unspoken issues in metabolomics research.

Whether you're a skilled analytical chemist with little experience in the biological interpretation of results, or a biologist who is wondering what happens to your samples after you ship them to your collaborators for measurement, we help you fill in the gaps.

In each episode, a metabolomics expert – the “metabolomist” – is invited to share experiences and stories about how this work is done. By examining these trials and tribulations in public, the podcast turns the black boxes of metabolomics research into toolboxes available to all, enabling the whole community to perform better metabolomics.

The Metabolomist aims to be a forum where the hard questions are voiced, discussed, and answered. With this podcast, we hope to support the broad and rich metabolomics community to exchange, share, and learn together.

Our first episodes are already online at <https://themetabolomist.com>, with new releases every first Tuesday of the month.

To be informed as soon as a new episode is released, sign up for the podcast newsletter [here](#).

And make sure to share the news about #TheMetabolomist with your colleagues and all metabolomics enthusiasts on your favourite social media platforms.

The host Metabolomist – Alice Limonciel

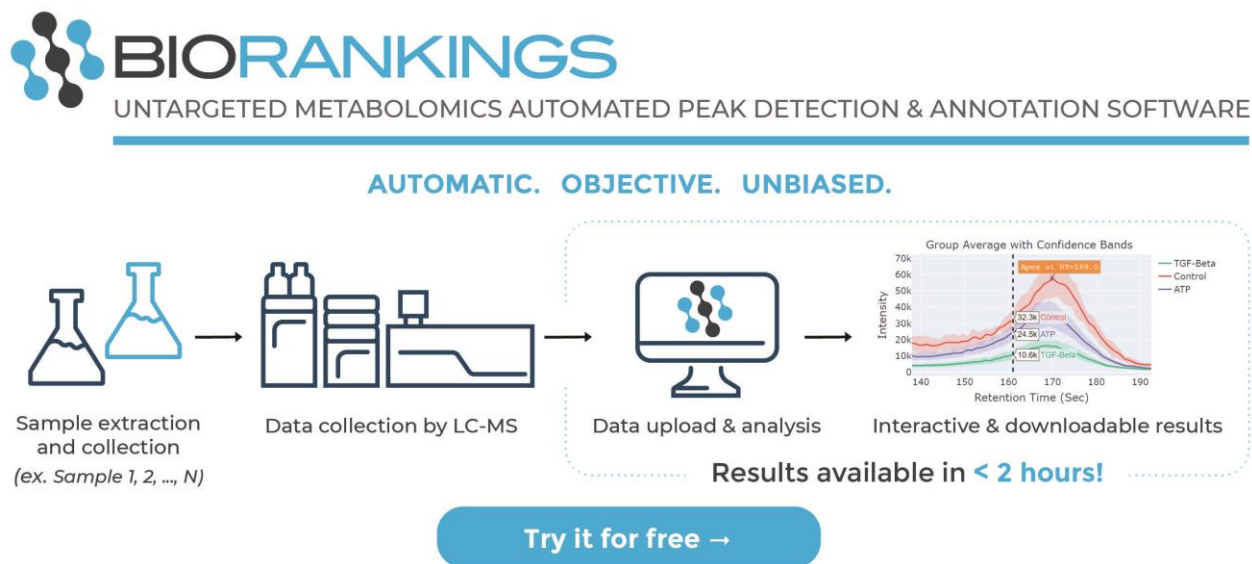
Connecting ideas to improve our understanding of biology; that's what data interpretation is about. In the episodes of this podcast I host, I put each metabolomist's story in the

spotlight to expand our metabolomics interpretation toolbox. My background is in molecular toxicology, with a strong focus on omics analysis and integration. Today, I use these skills to tell the stories that twinkle in the depths of metabolomic datasets.

My (current) favourite metabolite – ADMA

For a long time, ADMA was considered a uremic toxin, a waste product that is only marginally cleared by the kidneys. What is very interesting about it is that ADMA is a potent inhibitor of nitric oxide synthase (NOS), an enzyme that uses arginine as a substrate to produce nitric oxide (NO), a small molecule with many functions from vascular tone regulation to platelet aggregation and immune response.

ADMA is my favourite metabolite at the moment because I see it as the underdog, the waste product that can mess up the entire machine by winning the competition for NOS. It is found in the blood at increased levels in several pathologies, including depression and cardiovascular disease. And it might just become the next drug target to tackle depression!



Who is BioRankings?

A team of expert statisticians that bring decades of experience analyzing data and developing software in diverse subject areas.

Learn more at biorankings.com

Questions?

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



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Recent Publications

Recently published papers in metabolomics

- [Advancement of omics techniques for chemical profile analysis and authentication of milk](#) (Review)
- [CeO₂ nanoparticles induce pulmonary fibrosis via activating S1P pathway as revealed by metabolomics](#)
- [Circulating metabolites and molecular lipid species are associated with future cardiovascular morbidity and mortality in type 1 diabetes](#) (Open access)
- [Host-microbiota interaction-mediated resistance to inflammatory bowel disease in pigs](#) (Open access)
- [Integrated analysis of plasma and urine reveals unique metabolomic profiles in idiopathic inflammatory myopathies subtypes](#) (Open access)
- [Integrated metabolomics revealed the fibromyalgia-alleviation effect of Mo₂C nanozyme through regulated homeostasis of oxidative stress and energy metabolism](#)
- [Integrative proteomics and metabolomics approach to elucidate metabolic dysfunction induced by silica nanoparticles in hepatocytes](#)
- [Metabolomics based inferences to unravel phenolic compound diversity in cereals and its implications for human gut health](#) (Open access)
- [Molecular response of *Anoxybacillus* sp. PDR2 under azo dye stress: An integrated analysis of proteomics and metabolomics](#)
- [Neonatal metabolome of caesarean section and risk of childhood asthma](#)
- [Nuclear magnetic resonance spectroscopy in extra virgin olive oil authentication](#) (Review, Open access)
- [TidyMass an object-oriented reproducible analysis framework for LC-MS data](#) (Open access)
- [Toxicity of different forms of antimony to rice plants: Photosynthetic electron transfer, gas exchange, photosynthetic efficiency, and carbon assimilation combined with metabolome analysis](#)
- [What are we imaging? Software tools and experimental strategies for annotation and identification of small molecules in mass spectrometry imaging](#) (Review, Open access)



Metabolomics Events

May 29-June 2, 2022

19th International GCxGC Symposium

Venue: Online

[Learn More Here](#)

Overview

While we had planned to host the meeting in beautiful Canmore, Alberta, Canada, we are now moving to a fully virtual event. The technical program includes the 2022 John B. Phillips and Scientific Achievement Award Lectures, 3.5 full days of live talks, posters and discussion sessions, and opportunities to contribute virtual talks and posters.

Update: We held the conference already but you can still access the conference platform until **September 2**. Registration is open whether or not you attended the meeting.

September 6-9, 2022

The 2nd Nordic Metabolomics Conference (2022)

Venue: Copenhagen, Denmark

[Learn More Here](#)

Overview

The conference aims to highlight and discuss the latest metabolomics research in the Nordic countries and abroad, and we are proud to present an outstanding scientific program. The meeting will start with a session dedicated to early-career scientists, followed by an opening keynote lecture and a welcome reception at Copenhagen Town Hall. We have invited outstanding speakers from Europe including the Nordic countries. The meeting will also host a panel debate and a session dedicated to our sponsors. The majority of talks will be based on submitted abstracts. The registration deadline is **August 31**.

September 8-9, 2022

Bits & Bites #7: Identification of unknown compounds in untargeted metabolomics using freely available software

Venue: Online

[Learn More Here](#)

Overview

This 10-part short course series will feature in-depth topics in untargeted metabolomics such as Bayesian statistics, a deeper look into MS-DIAL, fundamental courses in mass spectrometry, lipidomics, 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 \$150 USD per Bite.

The 7th course is “Identification of unknown compounds in untargeted metabolomics using freely available software”, taught by Dr. Arpana Vaniya. Compound identification is known as the bottleneck in metabolomics. However, there are many approaches one may consider while tackling this challenge (e.g., mass spectral library search, *in silico* fragmentation tools, database searching). This short course will provide an overview of the current status of compound identification in metabolomics. Participants will learn how to use freely available *in silico* fragmentation tools MS-FINDER and SIRIUS+CSI:FingerID, and apply those skills to some unknown challenges.

In session 2, participants will continue learning additional tools and compound identification approaches. In this short course, participants will learn how to use web-based tools such as MetFrag and CFM-ID and learn how to use MassBank of North America in NIST MS Search. Participants will get a chance to practise on unknown challenges.

Take the Lead in Metabolomics with Agilent

Solutions-focused portfolio to enhance your
metabolomics research

[Learn more](#)



September 9-10, 2022

2022 World Endocrine & Obesity Conference

Venue: Online (no longer hybrid)

[Learn More Here](#)

Overview

The 2022 World Endocrine & Obesity Conference (2022WEOC) in collaboration with Thyroid Federation International is scheduled for September 9-10, 2022. Their focus is to bring together leading experts, researchers, and clinicians to exchange and share their experiences of various treatment procedures on endocrine care and obesity.

September 16-18, 2022

4th Annual MANA Conference

Venue: Edmonton, Alberta, Canada

[Learn More Here](#)

Overview

The 4th Annual Conference of the Metabolomics Association of North America (MANA) will be hosted by the University of Alberta and The Metabolomics Innovation Centre (TMIC), and the organizers have developed an engaging program. Check out the website for program information, speakers, events, registration, awards, and more.

September 29-30, 2022

Swiss Metabolomics Society Meeting 2022

Venue: Lausanne, Switzerland

[Learn More Here](#)

Overview

The Swiss Metabolomics Society Meeting 2022 will take place on September 29th in Lausanne! A great line-up of speakers will talk about the latest advancements in metabolome annotation and data interpretation in a biologically relevant context and the application of metabolic phenotyping in clinical research (from patient stratification to treatment strategies). The Meeting will be followed by an After-Meeting School “From data to biologically relevant information” on September 30th. The number of participants is limited. Although the oral abstract submission deadline has passed, the poster abstract submission deadline is **August 26** and the registration deadline is **September 2**.

September 30, 2022

[Request for Information: Soliciting ideas for new NIH Common Fund programs](#)

[Venue: Online](#)

[Learn More Here](#)

Overview

The NIH Common Fund is soliciting ideas for potential new scientific programs that may be supported in the fiscal year 2025 or beyond. The Common Fund supports bold scientific programs that catalyze discovery across all biomedical and behavioral research. These programs create a space where investigators and multiple NIH Institutes and Centers collaborate on innovative research expected to address high-priority challenges for the NIH as a whole and make a broader impact in the scientific community. Responses are due **September 30**.

October 11, 2022

[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), we will have two speakers 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 our SODA website so that we collect relevant information on these software/data presented.

October 12, 2022

Pan-cohort studies – The future of population health

Venue: Boston, USA; Munich, Germany; Sendai, Japan; Hybrid

[Learn More Here](#)

Overview

It is our vision to connect scientists globally to tackle the challenges modern medicine faces. Huge sample sets lie dormant and need to find the means to be explored. The Omics era with vast computational means opens new perspectives on data and on insights to be gained from datasets. Integration of different technologies makes collaboration more necessary.

With the second edition of this cohort event, we are looking forward to expanding into the physical spaces and stretching the scope beyond metabolomics. Our intention is to connect science globally, with an event that will take place in three cities: Sendai (Japan), Munich (Germany), and Boston (USA). You will have the opportunity to attend in person or join online with a 22-hour livestream event.

We have invited outstanding speakers from around the world, coming from epidemiology, pharmaceutical, technological, research, and education fields. biocrates offers a platform to connect scientists and their ideas globally with an agenda focused on Biobanks, Technology, Multi-omics and Pan-cohort studies in precision medicine.

Fulfilling our mission to make metabolomics accessible, the event is offered free of charge with prior registration. Don't miss out on this unique opportunity.

October 14, 2022

4th MANA Fall Symposium

Venue: Online

[Learn More Here](#)

Overview

The 4th Fall Symposium of the Metabolomics Association of North America is entitled “We are what we eat: Metabolomics leading the way for nutrition research”.

October 20-21, 2022

7th Gateway Symposium

Venue: Online

[Learn More Here](#)

Overview

The 7th Gateway Symposium at the University of Kentucky is entitled “NMR in Metabolism: New methods & applications”.

October 24-28, 2022

EMBO Practical Course on Metabolomics Bioinformatics for Life Scientists

Wageningen University and Research, Netherlands

[Learn More Here](#)

Overview

This course will provide an overview of key issues that affect metabolomics studies, handling datasets and procedures for the analysis of metabolomics data using bioinformatics tools. It will be delivered using a mixture of lectures, computer-based practical sessions, and interactive discussions. The course will provide a platform for discussion of the key questions and challenges in the field of metabolomics, from study design to metabolite identification. Applications are due **September 1**.

October 25-27, 2022

2nd International Diabesity and Metabolic Surgery Summit

Venue: Tel Aviv, Israel

[Learn More Here](#)

Overview

The focus of IDMSS 2022 will be the relationship between obesity and type 2 diabetes and their associated complications and the beneficial results obtainable from metabolic/bariatric surgery. The Summit will bring together many of the world's experts in the fields of metabolic surgery and medicine. The range and scope of the program are a must for all clinicians caring for patients suffering from metabolic diseases. The early-bird registration deadline is **September 1**.

November 2-4, 2022

IV LAMPS Meeting

Venue: Cartagena, Colombia

[Learn More Here](#)

Overview

We are delighted to invite you to the IV LAMPS meeting, which will be held in Cartagena, Colombia, on November 2-4, 2022, at the Universidad de los Andes - Sede Caribe located in the Serena del Mar urban development, 12 km from the historic centre of Cartagena. This is the first time that the LAMPS meeting will be held in Colombia and our first face-to-face meeting after two years of postponing our meeting due to the COVID-19 pandemic. Poster abstracts will be accepted until **September 30**. The early-bird registration deadline closes **August 31**.

November 7-11, 2022

14th Annual Course on Isotope Tracers in Metabolic Research

Venue: Nashville, Tennessee, USA

[Learn More Here](#)

Overview

The 14th Annual Isotope Tracers Course in Metabolic Research: Principles and Practice of Kinetic Analysis course registration is now open! The in-person course this year will take place in Nashville, TN, USA, from November 7–11, 2022. Registration deadline is **October 14** or until the course is full. We highly recommend registering for the course early. The course tends to reach capacity before the registration deadline. Scholarships are available for students and postdoctoral fellows. Submit by **September 23** to be considered.

March 12-17, 2023

Gordon Research Conference: Metabolomics and Human Health

Venue: Barga, Lucca, Italy

[Learn More Here](#)

Overview

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. Applications for this meeting must be submitted by **February 12, 2023**. Please apply early, as it may become oversubscribed (full) before this deadline.

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.

Jobs Offered

Job Title	Employer	Location	Posted	Closes	Source
Postdoc in Metabolomics/ Exposomics	University of Vienna	Vienna, Austria	4-Aug-2022	Until filled	University of Vienna
Operations Manager (TMIC-The Metabolomics Innovation Centre)	University of Alberta	Edmonton, Alberta, Canada	2-Aug-2022	Until filled	University of Alberta
Research Director – In vitro Diagnostics	Metabolomic Technologies Inc.	Edmonton, Alberta, Canada	20-Jun-2022	Until filled	MetaboNews Jobs
Postdoctoral Position in Metabolomics and Proteomics	Brigham and Women's Hospital	Boston, Massachusetts, USA	17-Jun-2022	Until filled	Brigham and Women's Hospital
Postdoctoral Research Fellow in Metabolomics (Diabetes)	Lund University	Lund, Sweden	15-Jun-2022	Until filled	MetaboNews Jobs
Post-Doctoral Researcher in Computational Metabolomics	Institute of Molecular Systems Biology, ETH Zurich	Zürich, Switzerland	14- Jun-2022	Until filled	ETH Zurich
Senior Research Associate in Mass Spectrometry	Chan Zuckerberg Biohub	Stanford, California, USA	27-May-2022	Until filled	CZ Biohub
Postdoctoral Research Fellow (Exometabolomics)	North Carolina State University	Raleigh, North Carolina, USA	13-May-2022	Until filled	North Carolina State University
Senior Associate Researcher in Mass Spectrometry	Icahn School of Medicine at Mount Sinai	New York City, New York, USA	6-May-2022	Until filled	Icahn School of Medicine at Mount Sinai
Postdoctoral Research Fellow (LC-MS and Data Science for Metabolomics)	University of Alberta	Edmonton, Alberta, Canada	4-May-2022	Until filled	University of Alberta

Jobs Offered

Job Title	Employer	Location	Posted	Closes	Source
Assistant Professor in Metabolomics of Adaptive Responses	University of California, Riverside	Riverside, California, USA	15-Apr-2022	Until filled	University of California, Riverside
Research Technician (Mass Spectrometry)	University of Alberta	Edmonton, Alberta, Canada	5-Apr-2022	Until filled	University of Alberta
Postdoc in Mass Spectrometry	University of Alberta	Edmonton, Alberta, Canada	1-Mar-2022	Until filled	University of Alberta
Postdoctoral Research Associate (Sumner Lab)	University of North Carolina at Chapel Hill	Kannapolis, North Carolina, USA	12-Jan-2022	Until filled	University of North Carolina Careers
Various Positions	Various	Various (within North America)	Various	Various	Metabolomics Association of North America

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 the MetaboNews team at metabolomics.innovation@gmail.com. Upon review, a limited number of job submissions will be selected for publication in the Jobs Wanted section.