

# Career Night Job Fair Companies and Institutions

## **Thermo Fisher Scientific**

**Focus/Mission:** Thermo Scientific is one of the premier brands of Thermo Fisher Scientific, the world leader in serving science. Our mission is to enable our customers to make the world healthier, cleaner and safer.

Website: <u>https://thermofisher.com/metabolomics</u> Positions: Not specified

#### The Metabolomics Innovation Centre (TMIC), University of Alberta

**Focus/Mision:** TMIC Li-node develops new and improved analytical tools for metabolomics as well as lipidomics, and applies them to support a broad research community via research collaborations and services.

Website: https://metabolomicscentre.ca/

**Positions**: Postdoctoral Fellows: candidates obtained PhD within 5 years with strong research skills on mass spectrometry, metabolomics and/or lipidomics.

#### Wageningen University

**Focus/Mission:** Our research vision is to close the gap between what we can see in metabolomics and what we can actually learn from it.

Website: https://vdhooftcompmet.github.io

**Positions**: PhD project on genome/metabolome mining with a focus on driving computational metabolomics tools forward and make them "natural product-ready".

#### Karolinska Institute

**Focus/Mission:** Bioanalysis of small molecules involved in the pathophysiology of obstructive lung disease.

Website: http://www.metabolomics.se

**Positions**: 1) Research assistant to the Core Facility (B.A./B.S. is the minimum requirement, PhD is a merit); 2) Postdoctoral position in metabolic profiling of lipid mediators (PhD required); 3) Postdoctoral position in the molecular phenotyping of asthma (PhD required); 4) Postdoctoral position in metabolomic epidemiology of asthma focused on data analysis (PhD required); 5) Postdoctoral position in precision medicine (PhD required).

#### Metware Biotechnology Inc

**Focus/Mission:** Providing innovative metabolomics services to industry and academic researchers. **Website**: <u>www.metwarebio.com</u>

Positions: Mass spec technician, Business development associate.

#### NCATS/NIH

**Focus/Mission:** Our groups' mission is to produce data-driven decisions and accelerate translation by converting raw numeric data obtained from large-scale experiments into actionable decisions in chemistry and biology. The broader mission of NCATS is to catalyze the generation of innovative methods and technologies that will enhance the development, testing and implementation of diagnostics and therapeutics across a wide range of human diseases and conditions.

Website: https://ncats.nih.gov/preclinical/core/informatics

**Positions**: 1) Post-doctoral fellowship in computational metabolomics and multi-omics. 2) Staff Scientist position in cheminformatics, software development, and data science.

#### **MS-Omics**

**Focus/Mission:** MS-Omics is a contract research organization (CRO) or service provider of metabolomics analysis with customers from universities, biotech and pharma from all around the world.

Website: https://msomics.com

**Positions**: Experience required: PhD Degree

#### Weill Cornell Medicine - the Medical College of Cornell University

Focus/Mission: Metabolism and Metabolomics in health and disease.
Website: Weill Cornell Medicine - the Medical College of Cornell University
Positions: Postdoc, preferably with 1-3 years of LC/MS experience.

#### **Alleviate Diagnostics**

**Focus/Mission:** Alleviate Diagnostics is an early-stage startup, focused on enabling physicians and patients with novel, actionable insights into pain management. Our platform combines proprietary metabolomics information and machine learning to deliver a prescription aid for the doctor and personalized medicine for the patient.

Website: www.alleviatepain.ca

**Positions**: Data scientist - metabolomics, ML engineer - metabolomics.

# **Career Night Roundtable Discussants**

## **Career Transitions**

#### Margrét Thorsteinsdóttir

University of Iceland, Iceland

Dr. Margrét Thorsteinsdóttir is a Professor in Pharmaceutical Analytical Chemistry at the Faculty of Pharmaceutical Sciences, University of Iceland and she is the founder and R&D Director of ArcticMass LTd, Reykjavik, Iceland. Dr. Thorsteinsdóttir received her PhD from Uppsala University, Sweden in 1998. From 2000 to 2009 she was the managing director of Bioanalytical Laboratories at deCODE Genetics, Reykjavik, Iceland. She has extensive experience in development of analytical methods for metabolite profiling



and quantification of clinical biomarkers in various biofluids utilizing chemometrics.

Her current research interest includes studies of lipid metabolism in cancer cells and profiling plasma derived biomarkers for early detection of BRCA-related breast cancer. She is responsible for implementation of clinical mass spectrometry for support of diagnostics and therapeutic drug monitoring in collaboration with ArcticMass and the Landspitali University Hospital, Reykjavik, Iceland with major focus on quantitative targeted proteomics for clinical diagnosis. She is a principal investigator of the Icelandic Research Rannis projects, profiling metabolites for breast cancer diagnosis and search for novel biomarkers for early breast cancer diagnosis by metabolomics. Dr. Thorsteinsdóttir is a principal investigator for the Marine Biotechnology ERA-net project CYNOBESITY and the Horizon 2020 project MossTech, with the main task to isolate, identify and structurally characterize bioactive compounds from cyanobacteria, Icelandic mosses and liverworts. She is one of the founders of Females in Mass Spectrometry (FeMS), she is a vice-leader of the working group clinical significance and applications of (epi)lipidomics in the pan-European network, EpiLipidNET and vice-chair of the Nordic Metabolomics Society.

#### Amani Said

Founder of Success Beyond The Lab

Dr. Amani Said is the founder of Success Beyond The Lab, a company that is on a mission to empower 10 million scientists within the next 10 years in launching dream careers while making an impact in our society.

Her curiosity and passion for understanding life led her to pursue a Ph.D. in Developmental Biology at the Max-Planck Institute in Dresden, Germany. Having dealt with burn-out and mental health challenges in her career led her to discover the field of personal development. Travelling all across the globe she learned from the best coaches and



trainers in the field of personal growth. This helped her to uncover her potential and develop a growth mindset to create a dream career and life for herself. Applying these same tools she has coached and trained over a thousand scientists in career & personal development.

Based on the struggles and challenges scientists are facing in their careers, she has designed a unique online career coaching program specifically to support PhD candidates, postdocs and early career scientists to overcome many of these obstacles.

As a result of taking the program, scientists create a strong professional identity, by gaining clarity about their vision, values, skills, goals and which career path to pursue while developing a growth mindset.

"Your Career is like a never-ending experiment, be Curious, Explore and Enjoy the Re-Search" - Amani Said

## Women in science

#### Maria Garcia-Altares Pérez

Universitat Rovira i Virgili, Tarragona, Spain

María García-Altares is a PhD in Analytical Chemistry from Universitat Rovira i Virgili, Tarragona with a long track record of international collaborations as an independent researcher. She has received several competitive grants to carry out her research, including an EU Marie Skłodowska-Curie IF. She has applied her broad expertise in Mass Spectrometry to characterize chemical mediators that define biological systems, like the interactions among microbes in the environment and the relationships among



cells and tissues in our body. Her current projects aim to develop novel methods for sample preparation, acquisition, and data analysis by Mass Spectrometry Imaging to investigate complex biochemical processes in biomedicine, ecology, and the environment.

#### Maria Fedorova

University Hospital and Faculty of Medicine Carl Gustav Carus of TU Dresden, Germany

Maria Fedorova studied Biochemistry at Saint-Petersburg State University, Russia and obtained her PhD at Faculty of Chemistry and Mineralogy, Leipzig University, Germany. She worked as a group leader at the Institute of Bioanalytical Chemistry, Faculty of Chemistry and Mineralogy, at the University of Leipzig. In August 2021 Maria group moved to the Center for Membrane Biochemistry and Lipid Research, TU Dresden. Her research is focused on development and implementation of lipidomics and bioinformatics



solutions to address complexity and plasticity of lipid metabolism in variety of biological systems. In particular, Maria aims for a deeper understanding of pathophysiology of metabolic and inflammatory disorders, including obesity, insulin resistance, type II diabetes and cardiovascular disorders.

## International networking

#### Julia Kuligowski

Neonatal Research Group, Health Research Institute La Fe, Valencia, Spain

Dr. Kuligowski studied Biotechnical Processes at the University of Applied Sciences Wr. Neustadt (Austria) before she moved to the University of Valencia (Spain) for her PhD focused on the development of the on-line coupling of liquid chromatography to infrared spectroscopy. She first started to get in touch with metabolomics in 2012 when she started her post-doctoral career at the Neonatal Research Unit located at the Health Research Institute La Fe in Valencia (Spain).



Since then, she has been involved in a diverse array of metabolomics applications for which Dr. Kuligowski also has been able to attract funding from different national and international agencies and funding bodies.

Dr. Kuligowski participated in studies assessing metabolomic changes in a newborn piglet model of hypoxia and reoxygenation with the aim of identifying hypoxia-induced alterations in central nervous tissue and biofluids. Currently, Dr. Kuligowski oversees the metabolomics and biomarker determinations in a national and an international multicenter clinical trial enrolling newborns with moderate and severe hypoxic-ischemic encephalopathy with the aim of validating the results from the animal model and combining metabolomics approaches with transcriptomics analysis and the results of long-term neurodevelopmental follow-up.

In parallel, Dr. Kuligowski pursues a research line focused on nutrition of the preterm infant and the study of the composition of human milk. Dr. Kuligowski could show that despite heat treatment, pasteurized DHM equally protected preterm infants from suffering from oxidative stress as compared to preterm infants receiving OMM. While the protection from oxidative stress was maintained, differences in the urinary metabolomic fingerprints between infants receiving DHM vs. OMM were observed. Using integrative data analysis methods, Dr. Kuligowski and her team were able to identify differences in the composition of human milk as well as the gut-microbiota as potential sources for the observed differences. Currently she is leading a H2020 funded clinical study focused on the effect of maternal nutrition on the composition of human milk, as well as the impact of compositional changes on the preterm infant. Within this research line, Dr. Kuligowski has also recently started to develop a lipidomics workflow for studying the composition of extracellular vesicles extracted from human milk.

Dr. Kuligowski's interest in metabolomics and her commitment to this field is further reflected in her participation in the Early-career Members Network (EMN) of the Metabolomics Society (2017-2019). Her interest in promoting the importance of quality assurance and quality control (QA/QC) further drove her to affiliate to the mQACC consortium, an NIH-lead initiative focused on the promotion of QA/QC in metabolomics. She also participated in the International Organization Committee of the Metabolomics 2019 and 2022 conferences. Dr. Brunius investigates how diet associates to health outcomes via metabolic regulation, in a complex multitude of exposures, including microbiota, pollutants and lifestyle. He also develops approaches for precision nutrition, i.e., healthy food tailored for individual requirements. For this purpose, he aims at discovering metabotypes, i.e., groups of individuals with similar metabolic regulation in relation to diet, and to understand what determines such metabotypes. His research relies on machine learning and Omics data from both cohorts and

intervention. A major research direction lies in developing and applying molecular epidemiological approaches for linking multiple exposures to multiple health outcomes via molecular mediators.

#### **Carl Brunius**

#### Chalmers University of Technology, Sweden

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## **Careers in Government**

#### Tracey B. Schock

National Institute of Standards and Technology in Charleston, South Carolina, the USA

Tracey is a Research Chemist at the National Institute of Standards and Technology in Charleston, South Carolina, USA. She began her government career as a postdoctoral fellow (2008) where she was first exposed to metabolomics research. Tracey is currently the NMR facility manager and a leading metabolomics scientist in the Chemical Sciences Division. Her work involves 1) application of metabolomics to environmental and agricultural sciences, 2) focus on metabolomics measurement and data quality and 3) developing reference materials to facilitate confidence in study results and conclusions, and data harmonization.



## **Careers in Academia**

#### Matej Oresic

Örebro University, Örebro, Sweden; University of Turku, Turku, Finland

Matej Orešič holds a PhD in biophysics from Cornell University (1999; Ithaca, NY, USA). He is professor of medicine, with specialization in systems medicine at Örebro University (Sweden) and a group leader in systems medicine at the University of Turku (Finland). Prof. Orešič's main research areas include exposomics and metabolomics applications in biomedical research and systems medicine. He is particularly interested in the identification of environmental exposures (exposome) and



disease processes associated with different metabolic phenotypes and the underlying mechanisms linking these processes with the development of specific disorders or their co-morbidities. Prof. Orešič also initiated the popular MZmine open-source project, which led to the development and release of popular software for metabolomics data processing. As of 2016, he was made a Lifetime Honorary Fellow of the Metabolomics Society. Prof. Orešič currently serves as member of the Board of Directors of the Metabolomics Society and is one of the founders of the Nordic Metabolomics Society, previously serving as its chair of the board. In 2019, he co-chaired the 1st Gordon Research Conference on 'Metabolomics and Human Health' (Ventura, CA, USA).

#### Maria Eugenia Monge

Bioanalytical Mass Spectrometry Group and the Mass Spectrometry facility of CIBION, Argentina

Dr. María Eugenia Monge is an Independent Researcher of CONICET, the National Scientific and Technical Research Council of Argentina. In 2006, she obtained her PhD in chemistry from the University of Buenos Aires. Between 2007 and 2014, she held postdoctoral positions in Italy, France, and the USA. In 2014, she was recruited by CONICET to set-up a new laboratory in a new research center (CIBION; https://cibion.conicet.gov.ar/), to start a research group in a scientific area that was new in Argentina. She leads the



Bioanalytical Mass Spectrometry Group and the Mass Spectrometry facility of CIBION. Her research group develops MS-based analytical methods using untargeted metabolomics/lipidomics approaches with applications in health and the environment. One of the goals of Dr. Monge's group is to develop alternative analytical strategies to improve the performance of existing diagnosis and prognosis methods that are currently implemented in the clinics. In addition, her group develops open tools for preprocessing LC-MS data for quality control procedures in untargeted metabolomics workflows. She has coordinated hands-on metabolomics courses for South American students and has participated in promoting awareness of metabolomics with the hope of strengthening the Latin American community, teaching courses in Argentina, Brazil, Mexico, and Colombia. She is a founding member of the Latin American Metabolic Profiling Society (LAMPS, https://lamps-network.org/). Since 2019, she has been a member of the Metabolomics Quality Assurance and Quality Control Consortium (mQACC, https://epi.grants.cancer.gov/Consortia/mQACC/), and a member of the Metabolomics Society, where she serves at the Metabolomics Society Membership Committee to contribute to design and implement strategies for increasing the representation of the South American community

in the Society. She also served as guest editor for the journal Metabolites, and she is an editorial board member of GigaByte.

## **Careers in Industry**

### Liang Li

Professor Liang Li, University of Alberta, Edmonton, Alberta T6G 2G2, Canada

Dr. Li obtained his BSc in Chemistry from Zhejiang University in 1983 and his PhD from the University of Michigan, Ann Arbor, Michigan and joined the University of Alberta in July 1989, where he is Professor of Chemistry and Adjunct Professor of Biochemistry. He is a Co-Director of the Metabolomics Innovation Centre (TMIC) of Canada. He is an elected fellow of the Royal Society of Canada (Academy of Science). Dr. Li was Tier 1 Canada Research Chair in Analytical Chemistry from 2005 to 2019. He served as Director, Alberta Cancer Board Proteomics Resource Laboratory, from 2000 to 2005. He was Chair of Analytical Chemistry Division at the University of Alberta from 2007 to 2019. He was a Co-PI of

the Human Metabolome Database (HMDB) Project; his laboratory generated the HMDB MS/MS spectral library of the endogenous human metabolites which has been widely used by the metabolomics community. His laboratory is a pioneer in developing the high-performance chemical isotope labeling liquid chromatography mass spectrometry (HP-CIL LC-MS) platform for quantitative and comprehensive metabolome profiling of bio-systems. Dr. Li has received a number of national and international awards and honors. He is an editor of Analytica Chimica Acta, an international journal on analytical chemistry, since 2005. He is also a member of the editorial advisory board in a number of scientific journals. More information about Dr. Li can be found on his group's website: https://spaces.facsci.ualberta.ca/liweb/.

## Paul Humphrey

EMEA Senior Regional Marketing Manager – LSMS, Omics and ClinTox, the UK

Paul has a degree in Analytical Chemistry and a PhD in Secondary Ion Mass Spectrometry from the University Of Manchester.

He previously managed a contract analysis laboratory before moving into a career in the scientific manufacturing industry. Initially an application chemist and product manager he moved into international scientific marketing when he joined Thermo Fisher Scientific in 1997. Since then he has worked in a variety of roles within factory, field marketing and sales office organisations. He has travelled and been responsible for business in EMA, AMER and APAC regions.

He lives in the UK and when not working he enjoys travelling, photography, cookery and scuba-diving.

## Obtaining a postdoctoral fellowship Giorgia La Barbera





### Department of Nutrition, Exercise and Sports, University of Copenhagen, Denmark

Giorgia La Barbera is currently an Assistant Professor at the Department of Nutrition, Exercise and Sports at the University of Copenhagen. She obtained her PhD in Analytical Chemistry in 2017 at the University of Rome La Sapienza where she worked on analytical method developments for Proteomics, Lipidomics and Metabolomics until 2019. Since 2019 she is working on a project funded by the Marie Curie Individual Fellowship grant in the new field of DNA adductomics.



#### Mingxun Wang

#### Department of Computer Science and Engineering at the University of California Riverside, the USA

Dr. Wang received his BS summa cum laude in computer engineering at the University of Illinois Urbana Champaign. He earned his PhD with Prof. Nuno Bandeira in Computer Science at the University of California San Diego. Dr. Wang then turned to chemistry and pharmaceutical sciences in his postdoctoral studies with Prof. Pieter C. Dorrestein in the Skaggs School of Pharmacy and Pharmaceutical Sciences at the University of California San Diego. Dr. Wang is currently an assistant professor in the Department of Computer Science and Engineering at the University of California Riverside. Dr. Wang is keenly interested in how computational approaches in analyzing mass spectrometry data can gain insight into the



chemical world around us. Dr. Wang's work has created computational tools that enable global visualization of unknown chemistry that makes it possible to rapidly discover new compounds. These approaches have further been scaled to enable repository scale analysis across all public metabolomics and natural products data. Dr. Wang has led the development of computational tools and infrastructure that resulted in the GNPS ecosystem – a web analysis and knowledge curation infrastructure that became the de facto standard tool for the natural products, metabolomics, and chemical ecology research communities. His computational tools are used by over 5,000 chemists and biologists from around the world each month. Dr. Wang co-founded Ometa Labs in 2017 that commercialized the computational tools he developed during his PhD and postdoctoral studies. Dr. Wang's research interests lie in bioinformatics, computational mass spectrometry, and analytical chemistry.

## Setting up and managing your first lab

Jennifer Kirwan

#### Berlin Institute of Health (BIH), Germany

Dr Kirwan started her career as a clinical veterinarian where she became increasingly interested in how research translated into changes in clinical practice and evidence based medicine. After completing her PhD at the University of Liverpool, she moved to the University of Birmingham, UK and from there to the Max Delbrück Center of Molecular Medicine, Germany. She is part of the Berlin Institute of Health (BIH) Initiative to improve translational research and now heads the BIH Metabolomics Platform in Berlin, the third pillar of the internationally renowned Charite hospital. This has enabled her to focus on health related metabolomics and



mass spectrometry research and she is particularly interested in the gut-brain-heart health triad and how the microbiome influences health. She is a founding member of the German Metabolomics Society, a board member of the international Metabolomics quality assurance and quality control consortium (MQACC) and is an active member of the Precision Medicine and Pharmacogenomics working group of the International Metabolomics Society.

#### Facundo Fernandez

Georgia Institute of Technology, Atlanta, Georgia, the USA

Prof. Facundo M. Fernández received his MSc in Chemistry from the College of Exact and Natural Sciences, Buenos Aires University in 1995 and his PhD in Analytical Chemistry from the same University, in 1999. In August 2000, he joined the research group of Prof. Richard N. Zare in the Department of Chemistry at Stanford University. His work focused on several aspects of Hadamard transform time-of-flight mass spectrometry with an emphasis on capillary-format separation methods. In 2002, he joined the group of Prof. Vicki Wysocki in the Department of Chemistry at the University of Arizona



to develop surface-induced dissociation for gas-phase peptide ion studies. In 2004 he joined the School of Chemistry and Biochemistry at the Georgia Institute of Technology where he currently holds the position of Vasser-Woolley Professor in Bioanalytical Chemistry and Associate Chair for Research and Graduate Training. He is the author of 19+ peer-reviewed publications and numerous invited presentations at national and international conferences in the field of mass spectrometry, metabolomics and analytical chemistry. He is also the academic director for the mass spectrometry cores at Georgia Tech where he oversees a portfolio of 9+ instruments from most major vendors, together with the instruments in his research group. He has received several awards, including the NSF CAREER award, the CETL/BP Teaching award, the Ron A. Hites best paper award from the American Society for Mass Spectrometry, and the Beynon award from Rapid Communications in Mass Spectrometry, among others. He serves on the editorial board of The Analyst and as an Associate editor for the Journal of the American Society for Mass Spectrometry and Frontiers in Chemistry. His current research interests include the field of metabolomics and the development of new ionization, imaging, machine learning and ion mobility spectrometry tools for probing composition and structure in complex molecular mixtures.

#### Grant writing

Michael Witting Helmholtz Zentrum München, Germany Dr. Michael Witting studied Applied Chemistry with a functional direction into biochemistry at the Georg-Simon-Ohm University of Applied Science, Nuremberg, Germany and obtained his PhD in 2013 from the Technical University of Munich. He is a current member of the Metabolomics Society Board of Directors and since 1st of January 2021 he is heading the metabolomics section of the Metabolomics and Proteomics Core at the Helmholtz Zentrum München. His main research interests are LC-MS based metabolomics method development and application, as well as metabolite identification improvement by retention time prediction and application of biological networks.



#### Oliver Fiehn

University of California Davis, West Coast Metabolomics Center, the USA

Prof. Oliver Fiehn has pioneered developments and applications in metabolomics with over 400 publications to date, starting in 1998 as postdoctoral scholar and from 2000 onwards as group leader at the Max-Planck Institute for Molecular Plant Physiology in Potsdam, Germany. Since 2004 he is Professor at the UC Davis Genome Center, overseeing his research laboratory and the satellite core service laboratory in metabolomics research. Since 2012, he is Director of the UC Davis West Coast Metabolomics Center, supervising 40 staff operating 19 mass spectrometers. To focus on large cohort studies and translational metabolomics, he has added the ThermoFisher Center of Excellence in Clinical Metabolomics at the UC Davis clinical campus in Sacramento, CA.



The West Coast Metabolomics Center provides the most extensive and most in-depth analysis of metabolites available today, with a focus on informatics approaches to process and interpret LC-MS/MS data. Beside NIH research projects like Dietary Biomarkers as well as Longevity Consortium and Acute to Chronic Pain, his laboratory builds software and databases such as MassBank.us that that hosts over 690,000 public metabolite mass spectra, in addition to MS-DIAL data processing software and the BinVestigate public frontend to more than 2,800 GC-TOF MS metabolomic studies. He co-founded the Metabolomics Society in 2005 and served on its board until 2015. In 2017 he co-founded the Metabolomics Association of North America (MANA) for which he organizes a range of workshops and conferences. In further public outreach, the West Coast Metabolomics Center holds monthly public webinars, has a YouTube channel, a newsletter, hosts the MANA website including its job board, organizes three metabolomics professional courses per year and invites international scholars to research visits.

## How to publish

**Roy Goodacre** 

#### Molecular and Integrative Biology, University of Liverpool, the UK

Roy Goodacre FRSC FLSW is Chair in Biological Chemistry at the University of Liverpool. He runs a multidisciplinary Metabolomics and Raman spectroscopy research group in the Institute of Systems, Molecular and Integrative Biology (ISMIB), and co-leads ISMIB's Centre for Metabolomics Research.

Roy is the founder and current Editor-in-Chief of Metabolomics (2005-) and an EAB member for Analyst (2014-), Journal of Analytical and Applied Pyrolysis (1997-), and Spectrochimica Acta A: Molecular and Biomolecular Spectroscopy (2016-). He also helped establish the Metabolomics Society (Director: 2005-15, 2020-21) and since 2008 is a



Director of the Metabolic Profiling Forum. Goodacre has two international patents, published >450 peer-reviewed research articles and edited two books on metabolomics.

#### Horst Joachim Schirra

Director, NMR Facility, School of Environment and Science & Griffith Institute for Drug Design, Griffith University, Brisbane, Australia

A/Prof Schirra is a leader of NMR-based metabolomics in Australia. He studied Chemistry at the Johann-Wolfgang-Goethe-University in Frankfurt, Germany, and received his PhD in Biochemistry from the Swiss Federal Institute of Technology (ETH) Zurich (Switzerland). In 1999, he joined the

University of Queensland, where he was awarded an ARC Postdoctoral Fellowship and a prestigious Queensland Smart State Fellowship. In 2009, A/Prof Schirra became Lecturer in the School of Chemistry and Molecular Biosciences at UQ, and in 2012 he joined UQ's Centre for Advanced Imaging, where he founded the UQ facility for NMR-based metabolomics in 2016, which he led until 2021. In 2021, A/Prof Schirra joined Griffith University's School of Environment and Science and the Griffith Institute for Drug Discovery, where he is Director of the NMR Facility and leads a multidisciplinary research program in Metabolic Systems Biology.

A/Prof Schirra's main field of research is Metabolic Systems Biology. He uses NMR-based metabolomics to investigate the basic principles of



metabolic regulation and the role they play in fundamental biological processes, environmental change, and in the development of disease. His research has a further focus on agriculture and food. In addition, he is co-leader of the international research consortium WormJam, which joins leading C. elegans systems biology researchers world-wide. His research aims to integrate metabolomics with other –omics methods and metabolic simulations.

A/Prof Schirra is a Board Member of the Australian and New Zealand Society for Magnetic Resonance, and committee member of the Australian and New Zealand Metabolomics Society. He was a Director of the Metabolomics Society 2017-2021, and co-chair of the International Conference of the Metabolomics Society in 2017, 2020 and 2021. He is editorial board member of the journal Metabolites, and regional editor of Current Metabolomics.