METABOLOMICS
NIAGARA FALLS, CANADA
JUNE 18-22 2023

Career Night Job Fair
Companies and Institutions

Australian National Phenome Centre

Focus/Mission: As an international centre of expertise in metabolic phenotyping, the ANPC provides an important platform for research across the full spectrum of health, food and the environment.

Website: https://www.murdoch.edu.au/research/anpc

Positions:
Applications are invited for (6) PhD Studentships across the Metabolic Health research theme, in the Health Futures Institute at Murdoch University.

The PhD studentships will be based in the Australian National Phenome Centre (ANPC) and the Centre for Computational and Systems Medicine (CCSM) under world leading research scientists. The ANPC is exceptionally well-equipped with state-of-the-art analytical platforms dedicated to metabolic analysis for phenotyping human health and disease. CCSM has a world class facility for data analysis dedicated to molecular epidemiology, stratified medicine and real-time diagnostics.

By integrating clinical, dietary, microbiota/microbiome, gene expression and metabolite data, we identify mechanisms through which all components of the microbiota and their functions influence human health and identify biochemical pathways contributing to healthy aging.
These projects will be associated with multiple funding streams including the Australian Research Council, Industrial partners and Charities.

Applications are invited for PhD projects exploring one of the following themes:

- Characterising the metabolic signatures associated with cognition and memory in aging populations using a combination of brain imaging and spectroscopic analysis.
- Investigating the role of the gut microbiome in healthy aging using molecular sequencing technologies and identifying metabolites and biochemical pathways associated with the activity of the gut bacterial community.
- Applying advanced mass spectrometry-based profiling technology to define molecular phenotypes associated with aging in multiple diverse human populations.
- Identifying key metabolic processes involved in post-acute Covid-19 syndrome (long Covid) using a combination of 'state-of-the-art' metabolic phenotyping platforms.
- Exploring the role of inflammation in the onset and development of chronic diseases.
- Development of spectroscopic and bioinformatic pipelines for characterising the biochemical composition of human biofluids with a view to generating new technologies for disease diagnosis.

The successful candidates will be expected to have an Honours/Masters level background in biomedical sciences, biochemistry, bioinformatics, or a related field. Previous experience with spectroscopic techniques (NMR and mass spectrometry), bioinfomatics or data science is desirable but not essential. Applicants should

demonstrate previous examples of a willingness to develop inter-disciplinary skills, problem solve, and be self-motivated to complete research to the highest of standards.

These studentships will leverage the world-leading analytical capacity of the Division and advance its informatics and imaging capacity to provide a multi-window view into systems metabolism with respect to human health and disease. Students will join a team of specialists across a wide range of disciplines including analytical spectroscopy and imaging, data science and clinical specialities and will be exposed to a dynamic, multi-disciplinary research environment. Opportunities will also be provided to undertake periods of research in the laboratories of international collaborators and to attend international research conferences.

Concordia University

Focus/Mission: Concordia University is a vibrant research and teaching environment, with state-of-the-art research facilities/centres including new node of The Metabolomics Innovation Centre (TMIC), Canada's leading nationally-funded metabolomics facility. Concordia is located in Montreal, Canada, a diverse and creative city, often ranked as offering one of the best quality of living experiences in North America.

Website: https://www.concordia.ca/

Positions:
TMIC Research Associate - PhD in chemistry, biochemistry or related disciplines, minimum of 2 years of experience in mass spectrometry

Postdoctoral fellow in Lipidomics and microsampling , PhD in chemistry, biochemistry or related disciplines, must be within 0-4 years of obtaining PhD

McMaster University

Focus/Mission: The Britz-McKibbin laboratory at McMaster University (https://britz.mcmaster.ca/) is a member of The Metabolomics Innovation Centre (TMIC) and is focused on developing high throughput methodologies for biomarker discovery in metabolomics using multiplexed capillary electrophoresis-mass spectrometry technology. This PDF position is related to an exciting multidisciplinary project related to the assessment of tobacco smoke, dietary and other environmental smoke exposures on clinical events in a prospective cohort of participants from 14 countries.

Website: https://britz.mcmaster.ca/

Positions:
Seeking a talented postdoctoral research fellow with experience in MS-based metabolomics and bioinformatics as applied to clinical medicine and/or epidemiological studies. Require a PhD in chemistry/biochemistry (or related field to metabolomics) with laboratory experience in method development using liquid chromatography, capillary electrophoresis and high-resolution mass spectrometry together with computational skills in data pre-processing and statistical analysis using R. Candidates with excellent organizational and communication skills are sought after with a passion for scientific integrity, data transparency, QC/QA and trainee mentorship. Start date this Sept. 2023 (up to 2 years, renewable after first year).

Metabolomics and Exposome Laboratory / UNC Chapel Hill Nutrition Research Institute

Focus/Mission: Precision Medicine, Precision Environmental Health, and Precision Nutrition

Website: https://uncnri.org/employment/

Positions:
Lab Manager, Post Doctoral Fellow, and Internships

Metabolon

Focus/Mission: Small molecules, Big insights™. Metabolon's metabolomics services provide unique, real-time fingerprints of biological systems to reveal novel discoveries and realize the promise of precision medicine. We enable scientific discoveries that make a difference! Our company is a global highly cross-functional team spanning across R&D, Operations, Technology, and AI, US and International Sales, Global Marketing, and Administrative.

Website: https://www.metabolon.com/

Positions:

- Sales and Business Development Director – APAC
- Research Publication Intern
- Business Development Executive - Population Health West
- Senior Bioinformatician (Platform)
- Senior Bioinformatician
- Senior Software Developer in Test
- Senior/Principal DevOps Engineer
- Corporate Controller
- Senior Bioinformatics Developer (Platform Developer)
- Senior Bioinformatics Developer (Platform - Visual Focus)
- Senior Cloud Data Engineer
- Medical Lab Scientist 3
- Contracts Review Intern
- Sales and Business Development Director – Nordics
- Medical Lab Scientist 2
- Research Scientist
- Field Metabolomic Scientist
- Sales Operations Manager
- Regional Sales Manager – West
- Inside Sales Associate

Thermo Fisher Scientific

Focus/Mission: Thermo Fisher Scientific is the world leader in serving science. Our mission — to enable our customers to make the world healthier, cleaner and safer — perfectly captures our commitment to corporate social responsibility and sustainable growth.

Website: https://www.thermofisher.com/us/en/home/industrial/mass-spectrometry/metabolomics-lipidomics.html

Positions:
Metabolomics Marketing Paid 12-week Internship summer 2024

The Metabolomics Innovation Centre (TMIC), University of Alberta

Focus/Mission: Metabolomics and lipidomics research and services

Website: https://metabolomicscentre.ca/

Positions:
Postdoc fellow, research staff, and technicians.

Olaris, Inc.

Focus/Mission: Using metabolomics and machine learning, Olaris develops in vitro diagnostics that empower patients, providers, and biopharma to pursue the most effective treatments. We get the right therapy to the right patient at the right time.

Website: www.myolaris.com

Positions:

- Metabolite Scientist - Mass Spectrometry (All Levels)
  M.S. or Ph.D. required, entry level through Senior
- Metabolite Scientist - NMR (All Levels)
  M.S. or Ph.D. required, entry level through Senior
- Data Scientist (All Levels)
  M.S. or Ph.D. preferred but not required, entry level through Senior

Uppsala University / Sweden

Focus/Mission: The Globisch lab is an international research group with focus on the development of new Chemical Biology-based methodologies to improve the analysis of small molecule metabolites in biological samples. These new methodologies are aimed at enhancing the scope of metabolomics-based research. In our multidisciplinary research we work at the interface of Chemistry and Biology with a combination of Organic Chemistry, Chemical Biology techniques, Biochemistry, mass spectrometric analysis of metabolites, and metabolomics.

Website: https://www.kemi.uu.se/bmc/research/analytical-chemistry/research-groups/globisch-group

Positions:
1 postdoctoral position in chemoselective probe-guided metabolomics

Bruker

Focus/Mission: As one of the world's leading analytical instrumentation companies, Bruker covers a broad spectrum of advanced solutions in all fields of research and development. All our systems and instruments are designed to improve the safety of products, accelerate time-to-market and support industries in successfully enhancing quality of life.

Website: https://www.bruker.com

Positions:
Field application scientist metabolomics:

- Desired experience: Ph.D or experienced BS/MS level with several years' experience with mass spectrometry, HPLC, ESI MS, particularly for small molecule analysis
  Click here for more info

Market Manager metabolomics:

- Desired experience: A minimum of 5 years of related experience with a PhD; or 8 years' experience and a Master's degree in Analytical Chemistry or closely related field with experience in the Metabolomics mass spectrometry market
  Click here for more info

NCATS/NIH

Focus/Mission: Our mission is to derive actionable insights from integrating translational research data and to accelerate translation of findings into the clinic. Our group focuses on the development of novel translation research data analysis methodologies and scientific applications, data analysis pipelines, and analytics.

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

Positions:
Post-doctoral (Ph.D. required) and staff scientist position (at least 2 years post-PhD)

Columbia University

Focus/Mission: Our team is leveraging banked biospecimens from our previously completed randomized, double-blind, placebo-controlled trials and LCMS platforms to measure responses of the human metabolome to well controlled intervention studies related to exposures to folic acid, arsenic and manganese. The resulting metabolomic datasets are complex and high-dimensional, requiring advanced modeling strategies to address questions of interest.

Website: https://www.publichealth.columbia.edu/profile/mary-v-gamble-phd

Positions:
Postdoctoral Research Scientist

Faculty of Pharmaceutical Sciences University of Iceland

Focus/Mission: Clinical Mass Spectrometry. Chemometrics, multivariate data analysis and design of experiments. Metabolomics, lipidomics, targeted proteomics and precision medicine.

Website: https://english.hi.is/staff/margreth

Positions: Come chat with us!

Career Night Roundtable
Discussion Leaders

Career Mentoring

Natasa Giallourou
Metabolon Inc., United States

Dr Giallourou is currently working as a Field Metabolomics Specialist for Metabolon Inc. Prior to joining Metabolon, Natasa was an MSCA Postdoctoral Fellow at biobank.cy. Her research projects involved the integration of metabolomics with other 'omics' data in population-based studies for the identification of biomarkers of complex diseases and improved patient stratification.

She earned her PhD in Nutritional Metabolomics from the University of Reading and subsequently joined the Department of Metabolism Digestion and Reproduction at Imperial College London. Dr Giallourou's research focuses on the use of metabolic phenotyping to tackle global health challenges with a special interest in paediatric nutrition and infections. She has obtained an MSc in Nutrition and Health from Wageningen University and a BSc in Biology from the University of Leeds. Dr Giallourou sits on the Board of Directors of the International Metabolomics Society, where she leads the Diversity, Equity and Inclusion Task Group. She has previously served as the Chair of the Society's Early-career Members Network committee which she now is an advisor to.

Pierre Petriacq
University of Bordeaux/ INRAE/ Bordeaux Metabolome Facility, France

As an associate professor in plant biochemistry, I study how plants adjust their metabolism during developmental processes and in response to a fluctuating environment by making extensive use of metabolomics on a range of plant species, including crops (tomato, maize, wheat, sunflower, Arabidopsis). My current research at INRAE Bordeaux focuses particularly on redox metabolism and its quantitative integration in plant performance (e.g. development, stress responses), and predictive metabolomics for the discovery of metabolic predictors of phenotypic traits. I also head Bordeaux Metabolome, a facility dedicated to plant metabolomics and part of the MetaboHUB research infrastructure in France.

Dr. Jennifer Kirwan
Berlin Institute of Health Metabolomics Platform at Charité University Hospital, Germany

Dr Kirwan started her career as a clinical veterinarian where she became increasingly interested in translational and evidence based medicine before undertaking a PhD in metabolomics. She now heads the Berlin Institute of Health Metabolomics Platform at Charité University Hospital in Berlin, where she focuses on translational health-related metabolomics, especially on its quality management aspects. 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 Central Committee 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.

Career Transitions

Heino Heyman
Metabolon Inc., United States

Heino Heyman is a dedicated professional in the field of Metabolomics, with over a decade of experience. His journey began in 2010 when he started exploring the application of metabolomics in finding active ingredients in natural products and understanding resilient crops. He joined the Integrative Omics team at Pacific Northwest National Lab, WA in 2015, where he contributed to metabolomics research across various areas including human, microbial, plant, and soil metabolomics.

After completing his postdoctoral work, he transitioned to the industry and joined Bruker Scientific as a metabolomics applications specialist. During his time at Bruker, he actively promoted and demonstrated advanced solutions for customers, utilizing high-end ion-mobility mass spectrometry instrumentation to address important metabolomics challenges.

In late 2020, Heino joined Metabolon as a metabolomics application specialist, allowing him to further engage in the field of translational science supported by metabolomics research. His role at Metabolon focuses on contributing to their leading metabolomics service and supporting the valuable insights metabolomics brings to scientific advancements.

Matthew R. Lewis
Bruker Life Sciences Mass Spectrometry, United Kingdom

In the past 20 years, Matthew's career has traversed academic research and teaching, the development of chromatography and mass spectrometry-based core facility capability (Colorado State University), academic lab management (Imperial College London), and the design and operational leadership of one of the earliest large scale phenotyping platforms (UK National Phenome Centre). In 2019, he became the section head of Bioanalytical Chemistry in the Faculty of Medicine at Imperial College London, successfully doubling its publication output year over year. In 2022, motivated by a post-pandemic desire to be closer to family, he transitioned to an industry position with Bruker Life Sciences Mass Spectrometry where he currently directs the development of metabolomics solutions.

Women in Science

Jessica Lasky-Su
Brigham and Women's Hospital and Harvard Medical School, United States

Dr. Lasky-Su has been a leader in applying metabolomics research to epidemiology, covering a range of chronic diseases over the life course, with a focus on respiratory outcomes (e.g. asthma). Much of her work has focused on "integrative metabolomics" - the integration of other omics with using a metabolomic-centric perspective to study complex diseases. With integrative metabolomics as an emerging field, Dr. Lasky's scholarship has contributed broadly, with peer-reviewed publications that focus on a range of disease outcomes (cancers, respiratory, ocular, infections, metabolic, neurodevelopment/mental health) and exposures (air pollutants, PFAS, nutrition, exercise) that may have an impact on health over the life course. Her investigative success is also demonstrated with >225 peer-reviewed publications. To date, she has been invited to give > 40 national and international talks.

Dr. Lasky-Su has recently expanded her focus to study multiomics over the life course in the context of aging using the Mass General Brigham (MGB-Biobank), where she has generated a large, curated biobank cohort with multiomic data. As the most recent past president of the Metabolomics Society – the largest metabolomics society in the world – and the chairman of the NIH's Consortium of Metabolomics Studies (COMETS) consortium – the largest international consortium of prospective metabolomics cohorts – over the past four years, her leadership in this area is unparalleled. She has also spearheaded new efforts, including initiating STROBE-metabolomics to provide reporting guidelines in this area, and the Metabolomic Epidemiology Task Group to define and formalize this emerging field of study. In addition, Dr. Lasky-Su has extensive funding in multiomics; she is the PI/MPI of 4 current NIH R01s in metabolomics, the PI on multiple private grants, and the Consortium PI several R/U NIH grants. Her success is also reflected in the success of her mentees and co-mentees who have received K grants and gone on to have successful research careers, with some achieving a rank as high as Full Professor.

Elizabeth O'Day
Olaris, Inc., United States

Dr. Elizabeth O'Day is the CEO and Founder of Olaris, Inc., a precision medicine company that uses a pioneering metabolomics platform and proprietary machine learning algorithms to fundamentally improve how diseases are diagnosed and treated. Dr. O'Day has over a decade of experience in metabolomics, biochemistry, and precision medicine. She serves on the Steering Committee for Scientific American, the World Economic Forum's Global Biotechnology Council and the Precision Medicine Initiative, the Biological Magnetic Resonance Board, and the Precision Medicine Coalition board. Dr. O'Day was recognized as a "change maker" by the White House in 2016 at the United State of Women Summit, a "Next Generation Leader" in biotechnology by the Massachusetts Life Science Center in 2018, one of 19 Women to Watch by Women & Wealth Magazine in 2019, a Hubweek Change Maker in 2019, as a 40 under 40 awardee in 2020 by Boston Business Journal, and as a Finalist in New England for EY's Entrepreneur of the Year in 2021 and 2022.

International Networking

Dajana Vuckovic
Concordia University, Canada

Dr. Dajana Vuckovic is an Associate Professor and Concordia University Research Chair in the Department of Chemistry and Biochemistry as well as the Director of the Centre for Biological Applications of Mass Spectrometry at Concordia University, Montreal, Canada. Her research program focuses on the development of new analytical workflows in targeted and untargeted metabolomics in order to improve metabolite coverage and measurement of unstable metabolites such as inflammatory lipid mediators. To date, she has authored 49 publications and 11 book chapters and delivered 48 invited talks. She is an Editorial Board member of Bioanalysis and Analytical and Bioanalytical Chemistry. She also serves as the Secretary for Metabolomics Association of North America (MANA) and as the co-chair of Best Practices Working Group of the Metabolomics Quality Assurance & Quality Control Consortium (mQACC). She is co-chair of Metabolomics 2023, and has served on the scientific organizing committees of MANA 2019 and MANA 2022 conferences.

María Eugenia Monge
CIBION-CONICET, Argentina

Dr. María Eugenia Monge is an Independent Researcher of the National Scientific and Technical Research Council of Argentina (CONICET) and works at the Centro de Investigaciones en Bionanociencias (CIBION). In 2006, she obtained her Ph.D. in analytical and physical 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 in Argentina. She leads the Bioanalytical Mass Spectrometry Group and the Mass Spectrometry facility of CIBION (https://cibion.conicet.gov.ar/mass-spectrometry/?lan=en). Her research group develops MS-based analytical methods using metabolomics and lipidomics approaches with applications in health and the environment. Her group's initial efforts focused on clear cell renal cell carcinoma biomarker discovery and the understanding of disease physiopathology. As well, her team has contributed with pipelines for preprocessing LC-MS data for quality control procedures in untargeted metabolomics workflows. With the workflows and procedures developed in her group, she expanded into several metabolomics collaborations with numerous colleagues from Argentina and from abroad. She is co-author of more than 50 peer-reviewed publications (https://orcid.org/0000-0001-6517-5301). Since 2014, she has coordinated metabolomics courses for South American students, and has participated in strengthening the Latin American scientific community through teaching in Brazil, Colombia, Mexico, and Argentina. Since 2021, she is a founding member of the Latin American Metabolic Profiling Society (LAMPS, www.lamps-network.org), and she has contributed to engage LAMPS as an international affiliate of the Metabolomics Society. Since 2019, she has been a member of the Metabolomics Society, where she serves on the Membership Committee; and she is a member of the metabolomics quality assurance and quality control consortium (mQACC). In 2022, she was awarded the Metabolomics Society Medal, and was elected as a member of the Board of Directors.

Careers in Government

Tracey Schock
National Institute of Standards and Technology, United States

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 agriculture al 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.

Jonathan Mosley, Ph.D.
United States Environmental Protection Agency, United States

Research Chemist

Chemical Processes and Systems Branch (CPSB)

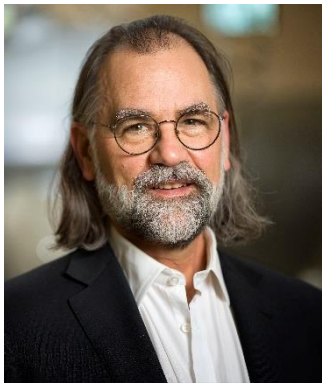
Center for Environmental Measurement & Modeling

Getting Started with Teaching

Cate Winder
University of Liverpool, United Kingdom

Dr Cate Winder is a Senior Research Scientist at the University of Liverpool where she also co-directs the Liverpool Training Centre for Metabolomics. She started working in the field of metabolomics as a post-doctoral researcher in Professor Roy Goodacre's group at the University of Aberystwyth applying metabolomics to study microbial systems and continued working in the field when she moved to the University of Manchester in 2003. In 2014 Cate moved to the University of Birmingham where she worked as Operations Manager of the Phenome Centre Birmingham and Birmingham Metabolomics Training Centre, expanding her metabolomics experience to clinical metabolomics and developing an extensive portfolio of training courses. She led the development of the first Massive Open Online Course (MOOC) – 'Understanding metabolomics in the 21st Century', two Small Private Online courses and eight face-to-face courses delivering a range of courses from introductory to advanced levels. In 2021 Cate moved to the University of Liverpool where she has established the Liverpool Training Centre for Metabolomics delivering a range of training course for scientists working across the clinical and biological sciences, teaches on both undergraduate and postgraduate courses and is a member of the Centre for Metabolomics Research.

Art Edison
University of Georgia, United States



Art Edison is a Georgia Research Alliance Eminent Scholar and Professor of Biochemistry at the University of Georgia. He is also a member of the Complex Carbohydrate Research Center and Institute of Bioinformatics at UGA. His undergraduate degree was in Chemistry from the University of Utah where he worked with David Grant and Bill Epstein to use NMR to characterize monoterpenes from sagebrush. He received his Ph.D. in biophysics from the University of Wisconsin-Madison, where he developed and applied NMR experimental and theoretical methods for protein structural studies under the supervision of John Markley and Frank Weinhold. He was a Jane Coffin Childs postdoctoral fellow with Tony Stretton at UW-Madison and studied neuropeptides in the parasitic nematode Ascaris suum. He joined the faculty at the University of Florida and the National High Magnetic Field Laboratory in 1996. He advanced from Assistant to Full Professor in the UF Department of Biochemistry & Molecular Biology. He was the founding PI and Director of the NIH-funded Southeast Center for Integrated Metabolomics, and his research focuses on the role of small molecules in biology and disease. In 2015, Edison moved to the University of Georgia where he directs the CCRC NMR facility, which supports research in both metabolomics and structural biology. Edison's research group collaborates on several metabolomics projects from microbes to humans. Most recently, Art and colleagues at the University of Connecticut and the University of Wisconsin-Madison have been funded by the NSF to establish the Network for Advanced NMR (NAN) to improve access to NMR resources for non-NMR experts. NAN will include ultra-high field 1.1 GHz NMR instruments at both UGA and UW-Madison and networked data portal and infrastructure through UConn.

Art is particularly indebted to all his scientific mentors, who inspired and guided him in his scientific career. They especially helped to establish a deep sense of responsibility to help mentor the new generation of scientists who are beginning their careers.

Careers in Industry

Susan Bird
Thermo Fisher Scientific, United States

As Sr. Manager, Susan works to establish the Metabolomics vertical market strategy and lead both, the scientific applications and vertical marketing programs. This includes initiatives to expand and strengthen strategic relationships and guide product development to meet the emerging needs of our Metabolomics customers. Susan came from the Thermo commercial team where she was an instrument sales representative in the Boston and Cambridge area of Massachusetts. Prior to Thermo, she trained as a post-doc and Instructor of medicine at Brigham and Women's Hospital and Harvard Medical School where she developed non-targeted and targeted lipid profiling methods, applied to epidemiology cohorts. This work used primarily LC-MS with Orbitrap detection and provided key contributions to the emerging field of lipidomics.

Paul Baker
SCIEX, United States

Paul Baker received his PhD in Biochemistry from Wake Forest University School of Medicine, where he began his training in lipids with the study of the metabolism and signaling actions of ether-linked lipid mediators under the guidance of Robert Wykle. He did his post-doctoral work with Bruce Freeman at the University of Alabama at Birmingham where he helped lead the discovery of a novel class of anti-inflammatory lipid mediators—nitrated lipids. He continued to work on nitrated lipids as an assistant professor at the University of Pittsburgh School of Medicine until June of 2011, when he joined SCIEX. As a senior applications manager and the global lead scientist for Lipidomics, he pioneered the use of differential Ion mobility spectrometry in the study of lipids. This work led to the invention of the Lipidyzer, a lipid analyzer for plasma and to the development of Electron Capture Dissociation as a novel means for complete lipid characterization. In May of 2018, Paul joined Avanti Polar Lipids as the Analytical Services Director, where he focused on developing new analytical and internal standard strategies for lipid analysis. Paul rejoined SCIEX in 2020, where he is now a senior staff scientist for metabolomics and lipidomics in the global strategic technical marketing group.

Setting Up and Managing Your First Lab

Justin van der Hooft
Wageningen University & Research, the Netherlands

Justin J.J. van der Hooft is an Assistant Professor in Computational Metabolomics in the Bioinformatics Group at Wageningen University, the Netherlands, and an author of over 80 peer-reviewed articles in the metabolomics field. He obtained his MSc (2007) in Molecular Sciences (Wageningen University, NL) and his PhD (2012) at the Biochemistry and Bioscience groups in Wageningen (Wageningen University & Research, NL). Justin is very fascinated by the ingenuity of nature in creating marvelous chemical structures and their diverse roles in ecosystems that include inter-kingdom communication and this a main driver of his research. After a postdoctoral period in Glasgow, UK, studying both analytical and computational aspects of metabolite structure annotation, he returned to Wageningen in 2017 to work on linking metabolome and genome mining workflows. Since he started his own group in 2020, his team has continued to develop computational metabolomics methodologies to decompose the mass spectral data of complex metabolite mixtures into structure and substructure information. By linking genome and metabolome mining, his team studies plant, food, and microbiome-associated metabolites to find novel bioactive metabolites and infer their source and function. Since 2022, he is also affiliated with the University of Johannesburg, South Africa, as a visiting professor. Interested? Find out more and meet the team here: https://vdhooftcompmet.github.io.

Craig Wheelock
Karolinska Institute, Sweden

Craig Wheelock is Head of the Unit of Integrative Metabolomics in the Institute of Environmental Medicine at the Karolinska Institute (KI), where he serves as director of the Integrative Molecular Phenotyping Laboratory and the small molecule mass spectrometry core facility (KI-SMMS). He is also a Distinguished Visiting Professor of Metabolomics at Gunma University, Japan. Following pre- and post-doctoral work on lipid mediators at the University of California Davis, he conducted post-doctoral studies at the KEGG laboratory in Kyoto University. In 2006, he was awarded a Marie Curie Fellowship to relocate to the KI. Research in his group focuses on molecular phenotyping of respiratory disease, with a particular interest in investigating the role of lipid mediators. The overarching aim is to identify personalized molecular profiles that can be associated with an individual's lifestyle, environmental exposure and susceptibility to asthma. He was a Board Member of the International Metabolomics Society from 2016-2020, a founding Board Member of the Nordic Metabolomics Society from 2017-2021, and currently serves on the Metabolomic Epidemiology Task Group as well as on the European Respiratory Society Advocacy Council as the Director of Scientific Relations with the EU. When not balancing his time between Sweden and Japan, he enjoys teaching his kids to kayak and SUP paddling with his dog.

Grant Writing

Robert Powers
University of Nebraska-Lincoln, United States

Dr. Robert Powers is a Charles Bessey Professor of Chemistry at the University of Nebraska-Lincoln, Director of the Systems Biology core facility within the Nebraska Center for Integrated Biomolecular Communication and is on the scientific advisory board for Olaris Therapeutics, Inc and Nexomics Biosciences, Inc. Dr. Powers received his BA from Rutgers University, a Ph.D. in chemistry from Purdue University, and was an IRTA postdoctoral fellow at NIH. Prior to UNL, Dr. Powers was the Associate Director for the Protein NMR group at the pharmaceutical company, Wyeth. Dr. Powers is the founding Editor-in-Chief of Current Metabolomics, was a board member of the Metabolomics Association of North America, a member of the Metabolomics Quality Assurance & Quality Control Consortium, is on the Editorial Board of Nature Scientific Reports and 6 other journals, is an AAAS fellow, and recipient of the ACS Outreach Volunteer of the Year and an ACS Chemistry Ambassador. He has written over 195 peer-reviewed manuscripts, 7 book chapters, is an inventor on 10 patents, and has given over 180 invited lectures.

Lorraine Brennan
UCD, Ireland

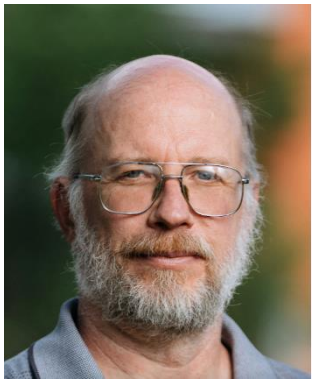
Lorraine Brennan a full professor and a PI in the UCD Institute of Food & Health and Conway institute. She is the College of Health and Agricultural Sciences Vice Principal for Research, Innovation and Impact. She leads a research group at the forefront of the application of metabolomics in nutrition research and the development of Personalized nutrition. She is an ERC awardee and is currently involved in three European Consortiums- MUSAE, PlantIntake and Promed-cog.
She served as Director of the European Nutrigenomics Organization for 5 years and led a number of important initiatives such as the development of an Early Career Network and expansion of membership of the organization. She is a member of the National Academies of Science Engineering and Medicine Standing Committee on Evidence Synthesis and Communications in Diet and Chronic Disease Relationships – advising the US NIH and USDA on future research areas of priority. She was a member of the Food2030 Expert group to advise the European Commission with the development of FOOD2030 and exploring and formulating possible future R&I policy recommendations and actions and assessing their potential impacts. Professor Brennan was co-author of the Policy Document “Recipe for change : an agenda for a climate-smart and sustainable food system for a healthy Europe: report of the FOOD 2030 expert group”.

How to Publish

Roy Goodacre
University of Liverpool, United Kingdom

Roy Goodacre is Professor of Biological Chemistry at the University of Liverpool, co-director of the Centre for Metabolomics Research and currently President of the Metabolomics Society as well as Editor-in-Chief of Metabolomics. He helped to develop and establish long-term metabolomics which allows fusion of GC-MS and LC-MS data. These approaches have been used by his team and collaborators to profile health populations and investigate the frailty phenotype during the ageing process. Trained as a microbiologist in Bristol, UK, he is still fascinated with the microbial world. Thus, in parallel, in order to understand metabolic flux on a single cell level for bacterial community analysis, his group are currently developing high spatial resolution photothermal infrared and Raman-based imaging methods which can be used to generate chemical images of microbial cells.

David Wishart
University Of Alberta, Canada



Dr. David Wishart (PhD Yale, 1991) is a Distinguished University Professor in the Departments of Biological Sciences and Computing Science at the University of Alberta. He is the Scientific Co-Director for The Metabolomics Innovation Centre and a Fellow of the Royal Society of Canada.

He also holds adjunct appointments with the Faculty of Pharmaceutical Sciences and with the Department of Pathology and Laboratory Medicine. He has been with the University of Alberta since 1995. Dr. Wishart's research interests are very wide ranging, covering metabolomics, analytical chemistry, food chemistry, natural product chemistry, molecular biology, protein chemistry and neuroscience. He has developed a number of widely techniques based on NMR spectroscopy, mass spectrometry, liquid chromatography and gas chromatography to characterize the structures of both small and large molecules. As part of this effort, Dr. Wishart has led the "Human Metabolome Project" (HMP), a multi-university, multi-investigator project that is cataloguing all the known chemicals in human tissues and biofluids. Using a variety of analytical chemistry techniques along with text mining and machine learning, Dr. Wishart and his colleagues have identified or found evidence for more than 250,000 metabolites in the human body. This information has been archived on a freely accessible web-resource called the Human Metabolome Database (HMDB). More recently, Dr. Wishart's efforts have focused on using the same methods developed for the HMDB to help characterize the chemical constituents in various foods (through a database called FooDB) and food-associated biomarkers. His lab has also been using machine learning and artificial intelligence techniques to help create other useful chemistry databases and software tools to help with the characterization and identification of metabolites, drugs, pesticides and natural products. Over the course of his career Dr. Wishart has published more than 500 research papers in high profile journals on a wide variety of subject areas. These papers have been cited > 100,000 times.

Obtaining a Postdoctoral Fellowship

Pierre-Hugues Stefanuto
Liège University, Belgium

Pierre-Hugues Stefanuto is lead scientist and lecturer at Liège University in Belgium. His main research interest is the development of analytical solutions based on chromatography and mass spectrometry technology. He has developed a strong expertise in multidimensional methods to increase resolution power. He is interested in the development of statistical models for method optimization and data handling. He is working on the development on multimodal solutions of untargeted screening of small molecules.

Driving Research Goal: Development of multi-omics screening to tackle analytical challenges at the molecular level.

Jinni Yan
Kids Neuroscience Centre, Sydney Children's Hospitals Network, Australia

Jinni is a postdoctoral research fellow at the Sydney Children's Hospitals Network with expertise in metabolomics, bioinformatics and clinical interpretation of biomarkers. Her research is extensively involved in translational metabolomics and biomarker discovery for a range of paediatric neurological diseases. She works closely with the paediatric neurology and pathology departments to integrate research within healthcare.